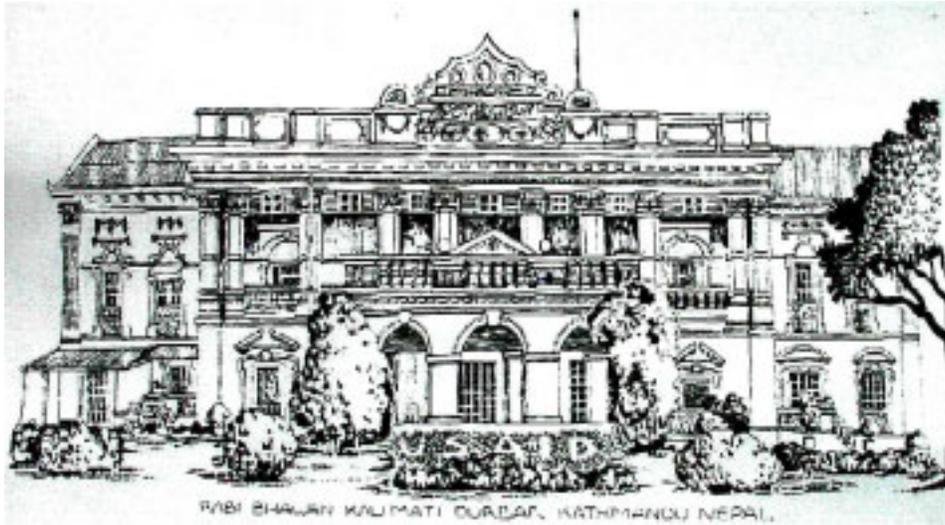


Half-a-Century of Development

The History of U.S. Assistance to Nepal

1951 – 2001



Joel M. Isaacson

Christa A. Skerry

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Published by the United States Agency for International Development (USAID) in Kathmandu, Nepal, 2001.

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Printed by Multi Graphics Press, Pvt. Ltd.,
P.O. Box 7957,
Kathmandu, Nepal

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Ambassador's Statement

America is proud to have been Nepal's partner and companion in development for half a century. Over the decades, the nature of America's cooperation has reflected Nepal's evolving priorities and new opportunities, as each successive barrier to development has been overcome.

In the earliest years of our partnership, we focused on providing Nepal's citizens with basic infrastructure, and ridding the once-uninhabitable Terai of malaria, so that it is now the breadbasket of the nation and home to nearly half the people. In the following decades we turned our joint efforts to education and saw literacy rates progress from two to forty percent; to health, where by the mid-1990s, we witnessed a drop in infant mortality from 225 to 79 per thousand births; and to agriculture where improved varieties, technologies, and extension services resulted in vastly increased yields and diversity of crops.

Entering the twenty-first century, we are proud of the developmental successes to date, and we welcome the opportunity to continue working with Nepal to address the opportunities and challenges that lie ahead.

Ralph Frank

*Ambassador of the United States of America to
the Kingdom of Nepal*

FOREWORD

Enjoying a partnership of 50 years with the Government of Nepal (GON), USAID looks back on a rich experience spanning decades of changes, challenges, and wonderful accomplishments. No one could ask for a more exciting involvement nor a more productive relationship with Nepal, ranging from constructing bridges, roads, and airfields to eradicating malaria in the Terai and reaping rewarding results from health, agriculture, environment, adult literacy, micro-finance, and hydropower investments. Today the Terai is home to more than half of Nepal's 23 million citizens and produces more than 65 percent of the nation's foodgrains. Yet when we arrived in 1951, the Terai was plagued by malaria and therefore one of the most fertile areas in Nepal was inhabitable and non-productive. One out of every four Nepalese suffered from malaria. After malaria eradication, people moved from the more crowded areas in the hills to the newly opened areas in the Terai and a new chapter in Nepal's history began.

USAID worked with the GON to establish the first literacy program, the first distance learning program, and supported every level of education. Given the 2 percent literacy rate, the enrollment rate of less than 1 percent, and female enrollment at only 4 percent of total primary students, the leaders of Nepal saw education as a top priority. From 8,000 students in primary school in 1952 to 3.5 million today, Nepal has moved ahead with great speed, despite the enormous challenges associated with a country of remote, isolated villages, many of which are several days walk from the nearest road. To link the country together, large efforts were undertaken with USAID support to build hundreds of bridges, roads, airfields, telephone and radio networks, and even a 45 km aerial which used local electricity in lieu of expensive imported diesel. When pollution became a problem in Kathmandu, USAID worked with the private sector to introduce the first fleet of 10 electric vehicles in 1993. Today over 600 of these clean-running, three-wheelers operate in the Capital, providing new employment and a cleaner environment.

Health programs have been designed with the very close and active participation of the GON. In 1951, one out of every 5 children born did not live to celebrate its first birthday. Those who lived faced a life expectancy of only 28 years. The very successful Female Community Health Volunteers program was created and for two decades, this dedicated cadre of 50,000 unpaid, semi-literate village volunteers has made enormous contributions to millions of villagers. Life

expectancy has doubled and infant mortality has dramatically dropped. New projects in HIV/AIDS and other infectious diseases are being implemented to meet the challenges of the 21st century. Nepal's vitamin A program has been held up to the world as a model for all. This is a program which uses a 2 cent capsule twice a year to save on average 26,000 children who would otherwise have died. The USAID-GON pneumonia program is also world class. More than 40,000 children a year die in Nepal from pneumonia, an easily preventable death. Antibiotics, placed in the hands of the village health volunteers, have saved thousands of lives endangered by pneumonia. Women die younger than men in Nepal – the only country in the world with such a statistic. Every two hours a woman in Nepal dies from pregnancy-related causes. Today Nepal has an impressive national system of health professionals addressing maternal mortality issues.

Agriculture is the main livelihood for the majority of Nepalis. Yet they live on a small arable land base – less than one fifth of the total area. High yielding crop varieties, fertilizers, and market linkages have increased the food supplies, the quality of diets, and the incomes of hundreds of thousands of villagers. Privatized forests and local irrigation organizations have evolved to find a better life for themselves and their children. School fees, immunization costs, family planning payments, rehabilitation of schools, drinking water systems, foot bridges, and other essentials in the daily lives of Nepalis have been financed from the profits realized in the community forest and irrigation efforts. Their resource base has been vastly improved in quality and village employment has increased, preempting some of the seasonal migration to India for the poorest segment of society. The reduced seasonal migration is related to reduced transmission routes of HIV/AIDS, as well as increased enrollment of children who otherwise had to work in the fields while their fathers trudged to India for temporary, low status employment.

Harnessing Nepal's vast hydropower potential, second only in the world to Brazil, has been a top priority in the USAID-GON partnership. Six thousand rivers carry valuable untapped rushing waters to Nepal's neighbors. Converting some of this wasted energy into electricity will change the lives of millions of Nepalis, allowing their children to read and study at night by electric light bulbs, reducing indoor disease-causing pollution, reducing the labor burden on women carrying heavy loads of wood, and opening the door for new businesses. Nepal's rich biodiversity will also be saved as trees are spared and electricity substituted. Working hand in hand with GON, we look forward to the day when more than a mere 18 percent of the population can enjoy the benefits of electricity.

This is a beautiful country with beautiful people! I hope that this book, authored by Christa Skerry, Kerry Moran, Kay Calavan, and Joel Isaacson, will document that beauty and the richness of the USAID-Government of Nepal partnership.

Joanne Hale
Director of the USAID Mission to Nepal
September 2001

Editor's Note

This history builds on an earlier publication, "Four Decades of Development: The History of U.S. Assistance to Nepal 1951 -1991", by Christa A. Skerry, Kerry Moran, and Kay M. Calavan; published by the USAID Mission to Nepal, in 1991.

The text of the chapters on the 1950s through the 1970s, that appear in this book is virtually unchanged from the 1991 publication. Editing of the original chapter on the 1980s has been very limited: where events in the early 1990s were referred to in the future tense, they have been changed to past tense. Some of the original illustrations, throughout the book, have been re-drawn and enhanced, to take advantage of improvements in desktop publishing software in the past decade. The chapter on the 1990s (except for 3 pages in the introductory section) is new.

Acknowledgements

I wish to thank the FSN staff at USAID/Nepal, without whose help this history would have been impossible to write. Most especially I wish to thank Dr. Bijnan Acharya, Mr. Bishnu P. Adhikari, Mr. Sribindu Bajracharya, Mr. Santosh Gyawali, Ms. Sharada Jnawali, Mr. Rabi Pratap K.C., Ms. Urmila Kashyap, Ms. Anita Mahat, Mr. Devendra N. Suwal, Mr. Tri Ratna Tuladhar, and Mr. Ningma T. Yolmo.

Ms. Joanne Hale, Director and Mr. Joseph C. Williams, Program Officer at USAID/Nepal guided and supported this work from beginning to end.

*Joel M. Isaacson, Editor / Co-author
September 2001*

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INTRODUCTION

Since 1951, when Nepal opened its borders to the modern world, foreign aid has played a crucial role in financing its economic development. USAID (originally known as the U.S. Operations Mission or USOM) became the first bilateral donor when the Point IV Agreement for Technical Cooperation was signed on January 23, 1951. Named after the fourth point in President Truman's 1949 Inaugural Address, the Point IV Program represented an expression of U.S. concern with the need for material progress in underdeveloped countries, as a humanitarian end in itself, "and because such progress furthers the advance of human freedom, the secure growth of democratic ways of life, the expansion of mutually beneficial commerce and the development of international understanding and good will".

In November 1961, during the Kennedy Administration, the Foreign Assistance Act of 1961 created the authority under which President Kennedy, by Executive order, established the Agency for International Development (AID), reflecting the U.S. government's increasing emphasis on the use of development assistance to fuel economic growth in developing countries. Today, AID provides assistance to more than 70 countries around the world.

USAID's Program in Nepal

The history of AID assistance is one of continuity in types of programs implemented, but with significant changes in justifications, strategies, and target groups.

*-Background Materials on Foreign Assistance,
U.S. House of Representatives, February, 1989*

USAID's strategies have evolved over the years in response to expanded knowledge about development and Nepal's development needs. In conjunction with other donors, USAID has sought to apply consistent economic assistance strategies to Nepal's development – a decided challenge, as Nepal has experienced many dramatic changes.

When U.S. assistance began in Nepal in 1951, Americans and Nepalese alike believed only a few years would be required to set the country firmly on the road to economic modernization. In the next decade, donors began to grasp the complex problems involved in changing a subsistence economy into a modern one. During the 1960s, USAID increased its capital investments in the hope of accelerating economic growth, and focused on institution-building to provide the fiscal and administrative infrastructure needed to carry out effective development programs.

In the 1970s, this approach was modified by the New Directions mandate that AID should directly benefit the rural poor by including them in the development process. In the 1980s, USAID pursued a rigorous policy reform agenda to stimulate economic growth as the "engine" for development, focusing on macroeconomic policy reform and strengthening the private sector.

The restoration of multi-party democracy, in 1991, opened the way for USAID to strengthen and promote good governance, to bring development to the grassroots level through NGOs, and to encourage the growth of a private sector-led, market-driven economy.

As the first donor to Nepal and the biggest financial contributor until 1965, USAID has a special role among donors. Though in real terms annual bilateral assistance levels have been reduced, the U.S. continues to be a major contributor to economic progress. U.S. bilateral contributions through 2001 total \$647.6 million. In addition, the U.S. contributions to multilateral agencies providing assistance to Nepal have totaled \$690 million and humanitarian assistance \$36 million.

During its half century of assistance to Nepal's development, USAID has made outstanding contributions in women's empowerment, democracy, agriculture, forestry, rural development, health, family planning, education and training, transportation and communications, and the private sector. In all sectors, USAID has emphasized strengthening Nepalese institutions, public and private, centrally and at the local level, to improve Nepal's capacity to carry out development schemes on its own.

Kathmandu
September 2001

The 1950s

USOM AND NEPAL: THE DEVELOPMENT EXPERIMENT

On January 23, 1951, the United States, under the authority of President Truman's Point IV Program, became the first donor to sign an Agreement for Technical Cooperation with Nepal. Though diplomatic relations between the two countries were established in 1947, since an embassy had yet to be established in Kathmandu, the agreement was signed in New Delhi. The United States Operation Mission (USOM), which had responsibility for implementing the Point IV Program, thus became the first permanent U.S. presence in Nepal. The first resident ambassador, Henry E. Stebbins, arrived in Kathmandu in 1959.

The Point IV Program sought to support the people of developing countries in their efforts to acquire the knowledge and resources essential to development, and to build the economic, political, and social institutions which would improve the quality of their lives. One of the principles advocated by the Point IV Program was that economic and political stability were interdependent. While the Point IV program was originally initiated in developing countries in response to the post-World War II political dynamics of the Cold War, specific country programs such as that in Nepal focused primarily on providing technical assistance to facilitate economic development.

Political Environment in the Early 1950s

As the Point IV agreement was being signed in New Delhi, the Rana oligarchy was entering its final days following a century of autocratic rule. The Shah dynasty, which had defined Nepal's borders in 1769, returned to power with the assistance of a sympathetic Indian government, which had only recently gained its own independence. King Tribhuvan, having fled to India in late 1950, returned to a triumphant welcome in Kathmandu on February 16, 1951. Recognizing the need for external economic assistance and political support, the new government led by King Tribhuvan quickly endorsed the technical assistance agreement with the U.S.

Shortly after, King Tribhuvan promulgated the Interim Government of Nepal Act, which was intended to lead to the development of a representative form of government. In the few years before his death in 1955, the King encouraged development of democratic processes in government and administration. The stated goal was the election of a constituent assembly to determine the most appropriate form of representative government for Nepal. Between 1951 and

1955, however, Nepal was subjected to a rapid succession of governments and political instability that was to characterize the entire decade. When King Tribhuvan died suddenly in 1955, Nepal still lacked a representative government and a constitution.

Development Constraints

The legacy of the Rana regime was a static, highly centralized government administration whose functions were primarily confined to maintaining law and order and collecting taxes; a subsistence economy overwhelmingly dependent on agriculture and controlled by large landowners preoccupied with maintaining the status quo; and a near-total lack of physical infrastructure, including roads, telecommunications, hospitals, and schools; there were very few development-oriented activities. In 1951, there were very few skilled personnel capable of formulating and directing policies appropriate for Nepal's new identity, and a lack of administrative machinery capable of translating King Tribhuvan's political vision into economic and social reality. Approximately 98 percent of Nepal's eight million people were illiterate, with only 300 college graduates in the entire country.

In addition to these considerable constraints, Nepal's rugged topography emphasized regional and cultural differences and hampered the development of a sense of national identity. Finally, comprehensive data with which to identify and assess Nepal's actual needs was practically non-existent. The highly centralized government administration was ill equipped to realistically consider the demographics and needs of its rural majority, making it virtually impossible to plan comprehensive development efforts.

Despite these problems, and the absence of a steady and adequate revenue base to finance government operations and development activities, the first USOM team of technical experts believed only a few years of concentrated technical assistance were needed to set the development process in motion. In retrospect, it is obvious that the complexity and seriousness of the country's development constraints were not completely understood. In its early planning, USOM overestimated the Nepali desire and motivation for change, while underestimating traditional religious, cultural, and political conservatism, and the rigidity of existing institutions.

Both Nepal's approach to its own development and the U.S. approach to assisting the process were of necessity experimental. The Marshall Plan model had limited relevance to Nepal's needs: Nepal's development problems were not

a matter of reconstruction, but of formulating the basic structure of a pre-industrial economy.

Shaping a Program:

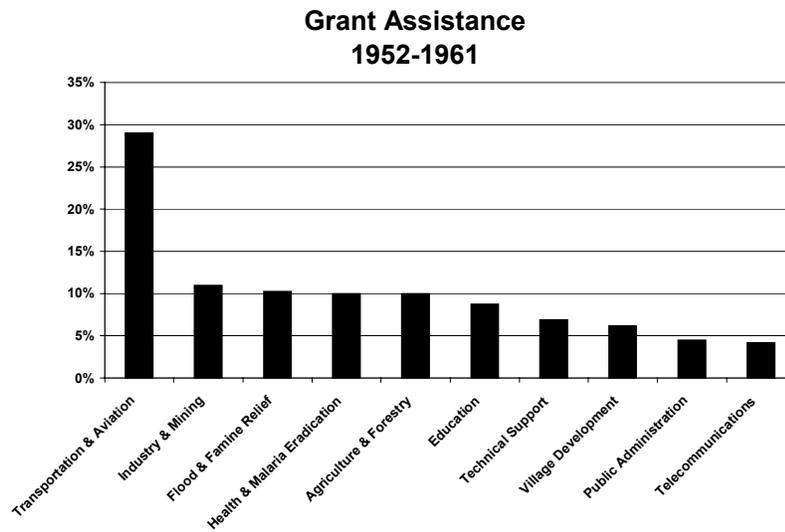
The “Missing Pieces” Approach

In January 1952, Paul Rose, the first director of USOM, arrived in Nepal as the leader of a six-man U.S. team. Rose spent his first six weeks in Nepal investigating conditions in the Kathmandu and Pokhara valleys. He concluded that Nepal’s “people were aching for a change” (Rose, 1958). The guidelines of the Point IV Program determined that the vehicle for development would be technical assistance, delivered by U.S. advisors in the form of short-term, high-yield projects. Rose called it the “missing pieces” approach: the U.S. would provide the technical skills and to a more limited extent, the capital investments, and Nepal would quickly advance.

USOM originally envisioned an economic assistance program of limited duration. The Point IV approach advocated technical assistance, or the “direct transfer of knowledge,” as a catalyst, with support provided in the form of technical advisors and equipment. This approach assumed that once U.S. technicians had demonstrated specific skills, the population would be willing and able to use this knowledge to develop themselves. It further assumed that U.S. models would be appropriate for Nepal, and that the Nepalese were ready and eager to embrace innovation. U.S. optimism in this regard was by no means discouraged by the very real constraints of Nepal’s development environment. Eugene Mihaly in 1965 noted in his case study, *Foreign Aid and Politics in Nepal*, that “Rose took at face value HMG’s commitment to rapid economic development” and shaped his strategies accordingly.

Rose’s suggested goals reflected his confidence in USOM’s ability to quickly address Nepal’s development needs. In his own words, he “decided to do what seemed possible to help the central government to formulate and implement national programs that would enable people who wanted to help themselves to get the kind of assistance they needed to do a good job” (Mihaly, 1965). More specifically, Rose targeted increased food production, elimination of disease, schools for all, roads, and land reform as some of USOM’s basic program goals. He identified formulation of a development plan and training of Nepalese as the most immediate way to achieve these goals. Rose’s assessment culminated in the Village Development Program, which encompassed projects in agriculture, health and education.

USOM projects were intended to have a nationwide impact, though using a limited number of U.S. technical advisors and only small capital inputs in the form of equipment. Most team members, including Rose, had worked as county agriculture extension agents in the U.S., and thus brought a focus on rural works and agriculture to the initial USOM program. They adopted an action-oriented approach toward development projects. Though the Point IV model turned out to be overly ambitious in the context of Nepal, in that it assumed dramatic returns with limited inputs, the first USOM team members cannot be faulted for their determination or zeal. They contributed to one of USOM's more remarkable achievements during this first decade – a small but extensive field presence. Working in the most primitive conditions, technical specialists in agriculture, health, education, and transportation and communications were able to provide valuable information needed for a comprehensive development plan for Nepal.



Reflecting the experimental nature of the Nepal program, USOM supported a wide array of projects in the 1950s, including organized efforts in community development (the Village Development Program), education, malaria eradication, and opening up the previously unsettled Rapti Valley as a model development project. In addition, there were many other more specifically focused activities in health, transportation, communications, agriculture and industrial and capital development. Though characterized primarily by technical assistance, USOM's program was supplemented by funding from the U.S. Development Loan Fund, established in 1957 to provide capital needed for long-term development. In addition, Nepal received several million dollars in disaster relief assistance for severe flooding in 1954 and the drought of 1956.

U.S.-HMG Relations:

The Cooperative Services Program

One of Rose's earliest goals was to establish a reliable system of U.S.-HMG (His Majesty's Government of Nepal) cooperation. Since, the USOM program operated within the framework of the Nepalese government, projects were frequently paralyzed by political turmoil within HMG. Between 1951 and 1954 Nepal had four different governments, the advent of each accompanied by purges in the top ranks of the civil service. As those responsible for decision-making were mostly employees with uncertain tenures, little actual decision-making took place.

HMG policies changed as frequently as government personnel, and political instability made it virtually impossible to develop consistent policies ensuring adequate development resources. HMG was rarely able to meet its financial commitments to USOM projects, and the resulting administrative turmoil caused delays in project design and implementation. Political instability and the lack of technically skilled manpower in the civil service meant that USOM advisors were forced to make and implement project decisions with minimal consultation with HMG. As Hugh Wood (University of Oregon educator under contract to USOM, 1954 to 1958) pointed out in 1987, "the existing administrative system of the Nepal government was not geared for economic development activities."

By 1954, it was apparent to Rose that USOM's project administration needed to be changed. One impetus for his decision to develop a new approach to project administration was the fact that the U.S. Congress held field missions accountable for action and results in their programs. Such accountability was difficult to achieve given the Nepalese administrative and political environment, and the Point IV program guidelines which limited USOM advisors to giving technical advice. Rose's solution was to establish the Cooperative Services Program, a joint project

administration mechanism which had been developed and successfully implemented by USOMs in South America.

The Cooperative Services Agreement signed in 1954 resulted in the formation of a development cooperative with a status distinct from both HMG and USOM. Project funds were placed in a special bank account, requiring the signatures of both U.S. and Nepalese co-directors. USOM contributed 60 percent of funds, and HMG 40 percent. U.S. advisors and their HMG counterparts in effect became “employees of the cooperative”; thus, project activities were somewhat insulated from political turmoil. One direct benefit of the Cooperative Services Agreement was that HMG administration was extended into rural areas, and became directly accountable for its administrative and financial contributions.

The joint program in Nepal lasted until 1958, when the U.S. Congress, reacting to worldwide criticism that U.S. technicians were interfering in the political affairs of their host countries, ordered its termination. Congress ignored Rose’s arguments for continuing the joint program, noting that advisors were “technicians, not politicians” (Wood, 1987).

In 1958, Rose left Nepal. Under the new director, Russell Drake, U.S. technicians were reassigned from their shared offices in HMG Secretariat to the distant USOM offices in Kalimati Durbar, still used by USAID. By the end of the decade, USOM-HMG relations had become more formal, consultative rather than cooperative.

Under Drake, USOM shifted its program emphasis from direct administration of projects to developing and relying on government institutions capable of carrying out larger programs on their own. This was partly a result of the termination of the Cooperative Services Program, but also because the relatively few U.S. advisors could not adequately administer the number and variety of projects that USOM was carrying out by the end of the decade. In addition, institution-building was seen as a means to encourage democracy on a national scale.

Development Planning

When Nepal embarked upon its unprecedented course of economic development in 1951, it lacked a clear plan and the administrative capacity to carry out a comprehensive development effort. In 1952, HMG produced its first regular budget, though no formal body yet existed to design a comprehensive development plan. Not until the mid-1950s was there general recognition of the need for overall planning. The earliest comprehensive planning exercise was carried out by the USOM-financed National Education Planning Commission constituted in 1953.

In 1955 King Mahendra established the Ministry of Planning and Development, charged with coordinating planning and development activities for HMG. Under King Mahendra's strong central authority, HMG centralized the planning and administration of development activities. In 1956, the Ministry published Nepal's First Five-Year Plan. At the time the plan was formulated, "most of the prerequisites for comprehensive planning were lacking" including "statistics and the agencies for gathering them, manpower information, needs and goals, and coordination and control, of planning by HMG rather than by donors" (Wood, 1987).

HMG's priorities at the time mirrored those of the donors, as it was forced to rely on their data collection and field activities for planning information. As the primary donor to Nepal, USAID strongly influenced early HMG development priorities in the First Plan. Early HMG investments were focused primarily on development of basic infrastructure and provision of limited basic government services in the Kathmandu Valley and in the Terai. Though the First Five-Year Plan was intended to encompass development of the entire country, actual improvements were limited to areas accessible by road or with obvious potential for high agricultural productivity. Though HMG expenditures during the plan period increased at a constant rate, revenues did not keep pace, resulting in an increasing deficit throughout the decade.

Models, for Development

By the time Program Economist William Thweatt joined USOM / Nepal in 1959, the new field of development economics was clearly influencing program goals. Capital assistance projects focusing on industrial development, transportation and communications had become new USOM priorities, replacing the emphasis on technical assistance advocated by early Point IV principles. Eight years of experience had demonstrated that technical assistance alone was not enough for Nepal. Some USOM technicians believed the program should favor a combination of technical and financial assistance through many small-scale projects, while others, Thweatt chief among them, advocated an input-output model which maintained that the rate of economic growth was entirely determined by the magnitude of investment, and which favored capital projects.

Thweatt's 1959 assessment of USOM's program called for an increase in program funds in order to make an appreciable impact. He was the first to advocate expansion of USOM's program using U.S.-owned PL 480 Indian rupees to finance development activities in Nepal. Sales of surplus U.S. agricultural commodities to India during the 1950s generated massive quantities of Indian

rupees; a portion of these funds were eventually made available in the next decade for local cost support for USOM projects in Nepal, HMG budget support, and financing of USOM operations.

Political Changes and Institutional Development

Political events at the end of the decade overtook economic development concerns. In an attempt to quell the constant political turmoil, King Mahendra in 1958 announced plans to form a partyless government and to appoint a commission to draft a new constitution. The King's moves, however, were interpreted as an attempt to consolidate central rule for the monarchy. Mass protests forced him to nominate an interim legislature and form an electoral commission to prepare for multi-party parliamentary elections.

In February 1959, the King promulgated a new constitution which abrogated the Interim Government of Nepal Act of 1951, and provided for a bicameral parliament. Nepal's first general elections were held between February and April of 1959, and the Nepali Congress Party was victorious. Because the Nepali Congress came to power with a two-thirds majority, the U.S. assumed the new government would be able to put an end to the political and administrative uncertainty which had disrupted USOM's development program during the decade.

Following the 1959 election, USOM focused on institution building and the delivery of government services as the means to ensure political stability and support for the new government. A 1959 USOM Summary report pointed out that:

The need to expand these services to every district, every area, every village, is essential to the successful establishment of a democratic way of life Only as a government shows a satisfactory response to the felt needs of its people can a democratic government exist.

USOM's program goals were outlined in 1959 in a "Three-Point Blueprint for Action," which described the economic means to achieve desirable political ends. The plan called for construction of transportation and communications facilities, expansion of government services in education, health, and administration, and increased agricultural and industrial production in order to finance the first two objectives.

Throughout the 1950s, the U.S. had become increasingly involved in attempts to create sound administrative structures. Early and generally unsuccessful attempts at improving administration had been carried out by *ad hoc* committees

staffed primarily by U.S. advisors. Ironically, the foreign aid-supported expansion of government administration had not improved the delivery of government services; in fact, administrative efficiency had dropped. As expansion of the civil service was not accompanied by a concurrent increase in government revenues, it created an increasingly unwieldy and unsustainable system.

Human Resource Development AS A Development Strategy

Human resource development, particularly training in U.S. universities, was a development strategy unique to the U.S. in the 1950s, and was in fact mandated under the Point IV program as a vehicle for the “direct transfer of knowledge.” With only a limited number of U.S. technicians to administer its projects, USOM needed to train Nepalese to help achieve its program goals.

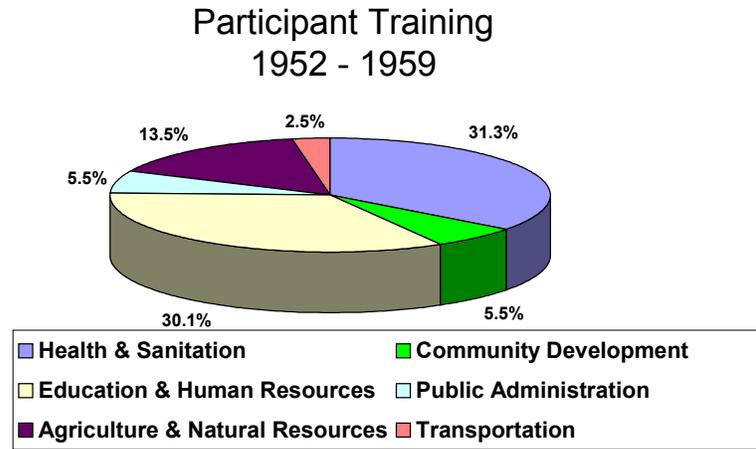
USOM’s approach to human resource development identified two groups of trainees. The first was targeted for training in specific, practical skills which could be applied immediately in rural areas, while the second group included program planners and managers responsible for implementing and institutionalizing development programs and lacking in technical skills. USOM’s earliest training programs operated as project components. Such in-service training was effective in that it made trained manpower immediately available to projects. It was also relatively inexpensive to organize; many people could be quickly trained with limited classroom space and materials.

As the need for more highly skilled technical manpower became obvious, USOM developed a participant training program to send Nepalese to U.S. universities for specialized training. Nepal did not have its own university system at the time. The high concentration of participants in agriculture, health, and education reflects USOM’s program emphasis during the decade. Between 1952 and 1959, USOM trained 164 Nepali participants in U.S. universities.

With USOM’s 1955 program expansion, participant training became increasingly important as a means of achieving the goal of a nationwide impact. Early participants were HMG employees deputed to various USOM development projects. Most returned from their training to work directly on project implementation. Some became co-directors under the Cooperative

Services Program. Many eventually assumed influential positions in government, while others made important advances in the private sector. Unfortunately, constant changes in the civil service undermined much of this early specialized training, as recipients were fired or shifted into positions unsuitable for their training. Nonetheless, HMG in principle supported USOM's human resource development approach by targeting human resource development as a priority in its First Five-Year Plan.

After the Cooperative Services Program was terminated in 1958, participant training was reoriented from project-oriented training toward training Nepalese to develop and operate government institutions and effective development programs. USOM's belief in human resource development as a strategic economic investment is evidenced in the first issue of "USOM's Economic Data Papers," published in 1959. An article entitled "The Best Investment: People" advocated investment in human resources rather than industrial development. Through its training programs, USOM essentially helped to build the capacity for development into HMG administration.



Foreign Assistance: the U.S, India, and China

The principal donors to Nepal during the 1950s were the U.S., India, and China. Several months after the U.S. signed its technical assistance agreement in 1951, India became a donor and quickly assumed a prominent role in Nepal’s development. Whereas the U.S. concentrated mainly on technical assistance to strengthen Nepal’s ability to carry out its own development programs, India focused on infrastructural development projects using Indian technicians. China became a donor in 1956, providing cash and commodities, but no technical assistance. Unlike the U.S. and India, China did not have a resident Mission. India occupied a unique position as a donor, due to religious and cultural similarities, the long, open Indo-Nepal border, and Nepal’s dependence on the Indian economy. Chinese assistance balanced India’s overwhelming presence, while the U.S. was seen as a buffer.

Nepal welcomed foreign assistance only partly for economic reasons: political considerations were also a motivating factor. King Mahendra actively cultivated

diplomatic relations and encouraged donors to participate in Nepal's development. The King's rule was distinguished by his diplomatic efforts to forge an identity for Nepal in the modern world distinct from its powerful southern neighbor. Skillfully courting world attention to witness Nepal's independence, King Mahendra succeeded in gaining admittance to the United Nations in 1955. Through his diplomacy the King achieved a balance of power between neighboring China and India, as well as a balance between an increasing number of donors.

Economic assistance became increasingly complex as the number of donors increased. King Mahendra wanted donors to rely more on Nepal's direction in targeting development priorities and less on their own agendas, in an effort to achieve consistency in development activities. However, Nepal's lack of finance and technical manpower forced development policies to be largely reactive, despite efforts at planning.

Evolution of USOM's Program

While USOM's original intent was to develop a program of limited duration, by the end of the decade it was contemplating a longer commitment. Eight years of development efforts in Nepal had convinced the U.S. that a longer term and more substantial commitment was required to effect real change. Despite nearly a decade of U.S. assistance, Rose noted that "the foundations have not been established adequately for any substantial economic growth in Nepal" (1958).

Unfortunately, the development environment did not stabilize under the new, democratically elected government as the U.S. had hoped. During the latter half of 1959, renewed political agitation, work stoppages, and an increasing budget deficit made it difficult for HMG to meet its financial commitments. The Nepali Congress government appealed to the U.S. for \$15 million in immediate assistance, maintaining the new government was likely to collapse without such aid.

USOM responded to HMG's request by forwarding a modified request to Washington asking for the equivalent of \$7.5 million in U.S.-owned PL 480 Indian rupees, reasoning that the government could not effectively administer a larger sum. In April, 1960, in a surprise move during King Mahendra's state visit to Washington, President Eisenhower announced that the U.S. would provide the full \$15 million. Given that the U.S. obligations for the entire previous decade totaled approximately \$12 million, this was an incredible sum, dramatically altering the scope of USOM's involvement during the 1960s.

USOM's Achievements

During the 1950s, USOM trained numerous Nepalese through its in-service and participant training programs; instituted a nationwide anti-malaria program; organized the first extension system in Nepal for rural development; laid an institutional base for agricultural research; assisted HMG to plan and implement a national system of basic education; brought Kathmandu its first modern telephone exchange; and undertook one of the earliest surveys of Nepal's mineral resources. Achievements were many and diverse, though their scattered nature made their overall immediate impact on Nepal's rate of economic development difficult to determine.

As Mihaly summarized Nepal's development achievements for the decade: "Nepal now had greater financial commitments, but the reforms which might have yielded greater revenues to meet them had not been made." To institute reform, there must first be a foundation upon which to effect change, as well as reliable statistics with which to assess the potential resource base — human, physical and financial — to determine appropriate reform measures. In 1951, Nepal had neither the foundation nor the statistics. By the end of the decade, however, USOM and other donors were increasingly addressing Nepal's lack of physical and administrative infrastructure. Recognizing the need for data collection and analysis to make realistic projections concerning development needs, USOM began publishing "Economic Data Papers" in 1959, as a means to circulate statistics and encourage analysis leading to better planning of economic development activities.

Throughout the decade, HMG experimented with new systems such as land reform, compulsory savings, program budgeting, and personnel management, but with little effect. No one had genuinely assessed the receptivity of the general population and traditional economic, social and administrative institutions to change. The U.S., likewise, took the government's commitment to rapid economic development at face value without evaluating its capacity to facilitate and sustain change, and without comprehending traditional barriers to change. As a consequence, USOM's program targets were unrealistically optimistic. Only through a sustained field presence and a process of trial and error was USOM able to gradually orient its program to address real needs.

Prior to 1951, Nepal had no experience with economic development. USOM's attempt to assist Nepal's development was hindered by the fact that the U.S. had had only limited contact with the country before 1951, and was compounded by USOM's limited experience in assisting the development of pre-industrialized economies. Neither HMG nor the U.S. adequately comprehended the scale or

scope of the effort needed to modernize Nepal. However, USOM and HMG established the foundations of a working relationship for future cooperation, and began constructing the basic physical and administrative infrastructure upon which to base further development.

Life in Kathmandu

The first members of the USOM mission found life in Kathmandu challenging in unexpected ways. In *Nepal Diary* (1987), University of Oregon contractor Hugh Wood recalls the details of daily life in the 1950s.

Simply reaching Kathmandu was a major accomplishment in itself. The Wood family tried for over a week to fly from Patna to Kathmandu during the 1954 monsoon, the alternative being a four-day journey by bus, truck, train and foot. For eight successive days they packed up and went to the airport; on four of these days they flew within a vertical mile above Kathmandu, but were unable to land in the sea of clouds. The newly opened Kathmandu airport had no radio service at the time, and the pilot could communicate only with Patna, which had no idea of the depth of the cloud cover in the Kathmandu Valley.

At the time of the Woods' arrival, USOM offices and residential quarters were located at Kalimati Durbar, a sprawling, white-stucco former Rana palace a few kilometers Southwest of downtown Kathmandu. Completed in 1941, the palace was built by Prime Minister Juddha Shumsher Rana for his son, General Rabi Shumshere Rana. USOM moved into the compound upon the first team's arrival in 1952. Residential quarters were originally in the building which is now the Hotel Management and Tourism Training Center.

As new families arrived, more apartments were carved out of the palace's huge rooms and fitted out with housewares shipped from India or the U.S., Wood wrote that "human servants replaced electric servants"; household staff were abundant, but electrical appliances non-existent or nearly useless, given the erratic electrical supply.

Kerosene was used for cooking, heating and lighting – expensive, but supplied by USOM. Kathmandu's electricity supply was so meager that bulbs were dim until late at night, when the demand had tapered off. Water for bathing had to be heated on the stove. Dr. Wood fashioned a water heater out

of an Indian Army surplus soup kettle set over a kerosene heater; a neighbor one-upped him by contriving a solar water heater on the south wall of his apartment.

Procuring food and supplies was a difficult matter, demanding much time. Supplies in the Kathmandu bazaar were quite limited, and practically everything had to be imported from abroad. In a letter to a newcomer, Helen Wood listed over 300 household items to bring. "It is an all-day job keeping house... we cook and bake and keep house much like out grandmothers and great-grandmothers did," she wrote. Many food items were shipped from India or the U.S., as the locally available fare was limited to eggs, chicken, goat meat and rice. The only fresh produce was potatoes and turnips, and occasionally a bunch of bananas brought in from India. Later, as families moved out of the USOM compound into their own quarters, they planted vegetable gardens, which provided welcome additions to their diets.

Families ordered their supplies in cases from abroad, stocking several months' worth in their apartments. Shipping supplies in through India entailed its own difficulties, which worsened over time. One USOM family received its goods shipment 22 months after their arrival, and only two months before their departure. They were spared the trouble of shipping it back as nearly everything had been ruined over the course of two monsoons.

Wood and other residents of the period recall the significance of "mail call" – difficult to understand today until one realizes it was the only means of communication with the outside world. International telephone service was not established until 1960, and cable service was slow and unreliable. Mail was vital for both personal and professional communications, and the day the mail flight landed, after days or weeks of cloudy weather, was always a happy occasion.

In contrast to these shortages, social life was abundant, increasing as USOM's staff grew larger. A constant flow of guests created a non-stop round of receptions and parties. Though tourists were not admitted to Nepal at the time, visas could easily be obtained for friends of residents. Wood noted this tended to substantially increase the number of one's friends. He estimated he and his wife attended 8 to 10 parties, teas, luncheons, and dinners per week: informal bridge games among compound neighbors; formal receptions for guests; formal affairs hosted by the British or Indian Embassies; and – most formal of all – Nepalese functions held at Singha Durbar. The great

meeting halls with their crystal chandeliers, marble floors, huge mirrors, and gilded fixtures, provided a splendid setting. "I used my tuxedo more in the Nepal years than in all of the other years of my life," Wood noted.

Beneath the glamour lay some practical problems. The unheated buildings were freezing in the winter, and women wore long woolen underwear beneath their evening dresses, with wool socks over their nylon stockings. Local etiquette demanded that one arrive properly late, but before the guest of honor, and stay until the guest of honor had departed. On one occasion, a formal buffet hosted by the Roses and scheduled for 9 p.m., the Nepali guest of honor did not arrive until 11 p.m. The guests dined at 11:30, but the main guest, waiting for a friend, declined. He waited several hours in vain, ate a cold meal, alone, around 2 a.m., and finally departed at 4 a.m. "The rest of us (both Americans and Nepalis) vacated the reception hall in five minutes flat!" Wood recalled.

exciting aspects of life peculiar to Nepal included regular earthquake tremors and frequent meetings with mountaineering expeditions and explorers. As there were only three hotels in Kathmandu, the early years found mountaineers seeking food and lodging at embassies or USOM. Weekends meant exploring the Valley, hiking, picnicking, or "lazing around." The Woods would start out early Saturday morning with water and food, drive their Jeep to the end of a road, then onto the trail or across fallow fields. "We always carried shovels and occasionally a little widening would clear the way for another mile," Wood remembers.

By 1956, hotelier Boris Lissanovitch had established an International Club at the Royal Hotel, and USOM had opened its own American Club, used mainly by support personnel. Tennis courts had been installed in several of the compounds, and some Americans borrowed horses from the military for weekend riding excursions. The number of parties and official and unofficial guests continued to increase.

Through 1957, American families with children either taught them at home or sent them to a missionary-run boarding school in Mussoori, 300 miles away in India. Wood and Paul Rose were involved in early efforts to develop a local school for American children (the origins of Lincoln School). Both resigned from the board over the issue of admitting Nepali students: they were the only two members to support this.

Outside the Valley, transportation was practically non-existent. Pokhara had a "landing pasture" which spared technicians the week-long walk from

Kathmandu. Incoming planes simply buzzed people and livestock off the field as they came in for a landing. USOM established development center headquarters in many of the larger outlying villages to facilitate field trips. As more airstrips were built in rural areas, field trips became easier. Walking remained the major means of transport, as it does to this day.

Field trips for education workers included 20 to 50 porters carrying supplies, books and cash to remote districts. Money was sent from Kathmandu at regular intervals to pay salaries and funds. Since paper money was not yet accepted in rural regions, coins were carried in 60 pound chests – up to ten at a time, totaling up to Rs.20,000 (\$2,800). In over 50 trips, the money was never lost or stolen, though once a rope bridge collapsed, smashing one money chest. Two porters remained at the river for several days until every last rupee had been collected. On another occasion, with salaries for Western Nepal long overdue and the monsoon approaching, a Nepali staff member from Kathmandu volunteered to deliver the funds. Dressed as a porter to remove suspicion about the value of his load, he carried the money in a wicker *doko* and completed the trip without incident.



AGRICULTURAL DEVELOPMENT

The importance of increasing Nepal's agricultural productivity was obvious to early donors, who found 92 to 96 percent of Nepal's population working in farming. Most were subsistence farmers; there were few agricultural markets and scarcely any roads. The 1961 census found six towns with 10,000 or more people and ten towns with between 5,000-10,000 inhabitants. Most of the population lived in the 24,500 villages of fewer than 500 residents. Because of its rugged terrain, only one-third of Nepal's surface area is arable. The first agricultural census in 1962 estimated that only 1.8 million hectares (about 12 percent of total area) were under cultivation.

In the 1950s, the huge, heavily forested tracts of the Terai and Inner Terai held great agricultural promise, but endemic malaria kept out all but the hardest settlers. The majority of Nepal's population lived in the Hills. Increasing population and the fragmentation of family farms through traditional inheritance systems meant that a family of seven in the Kathmandu Valley farmed only 0.4 to 0.6 hectares (FAO, 1954). Farms in the Terai were generally larger, ranging from two to four hectares. A few influential landowners had large tax-exempt land grants in the Terai of 20 to 1,000 hectares, with larger holdings concentrated in the Western Terai. Estimates in the 1960s were that two-thirds of Nepal's cultivated land was owned by landlords; three-fourths of the farm population in the Eastern Terai owned no land at all (Agriculture in Nepal, USAID, 1964). The proportion of owner-operated land in the Hills was much higher, but land remained scarce and was generally less productive. Due to this, an estimated 87 percent of men in the Pokhara area emigrated for seasonal employment in India or the Terai, or joined the Indian and British armies ("USOM Market Survey report of Pokhara", 1958).

Early Agricultural Context

In 1924 HMG established a small Department of Agriculture, with a demonstration farm at Singha Durbar in Kathmandu and a fruit nursery at Godavari in the southern part of the Valley. Land was purchased near Parwanipur in the Terai in the 1940s to develop an agricultural experiment farm, but infrastructure was not put in place until the following decade, with USOM assistance. Early USOM workers found a critical shortage of trained personnel in agriculture, with only

three or four India-trained agriculturists available to work in agricultural development when Paul Rose and his team arrived in 1951.

Under the Ranas, HMG paid little attention to areas beyond the Kathmandu Valley except to extract taxes and exert social and political control. There was no information on population, settlement patterns, or farmer production systems, and no government planning unit interested in such data. Similarly, there was no research system to bring in and adapt new agricultural technologies; no extension system to transfer them to farmers; and no input supply systems for irrigation, fertilizer, agrochemicals, seeds, or agricultural credit.

Swiss and FAO agricultural survey teams cooperated with Point IV staff in the early 1950s in analyzing Nepali agriculture. Field trips to Pokhara and locations in the Kathmandu Valley revealed that “anything approaching modern practices are yet to be adopted”, “field work is done with crude hand tools”, and “commercial fertilizers are not used” (Bowers, 1953). Grain cultivation, mainly paddy with some corn, barley, millet, and wheat, was the predominant cropping system, with improved varieties unavailable. Wheat was grown only in a few places in and around the Kathmandu Valley, invariably without improved cultivation practices and characterized by low yields and frequent occurrence of rust diseases. The few trained Nepali agriculturists advocated improving wheat productivity to provide a winter crop: Double cropping was rare, due to lack of water and prevailing tenure systems which provided few incentives to increase production. The relatively large populations of cattle, sheep, and goats and poultry were poorly fed, diseased, and unproductive.

Early 1950s: USOM Initiates Agricultural Assistance

The first Point IV technical assistance team was heavily weighted toward agricultural expertise, with five agriculturists in addition to Chief Agriculturist Paul Rose (who soon became the Mission’s first director). All six were former U.S. agricultural extension agents, and all embraced the Point IV view that U.S. technicians and trained Nepali counterparts had only to provide the ‘know-how and show-how’, and Nepali farmers would respond favorably.

The early Point IV program outlined ambitious goals: increased food production, sufficient irrigation to sustain three annual crops, land ownership to the tiller, and establishment of an agricultural credit system. A major barrier from the outset, was the official Point IV development philosophy limiting technical assistance and funding. The Nepali government was expected to provide the bulk of resources for development of nationwide agricultural research and extension

programs. Another major problem was the lack of skilled Nepali managers and technicians to staff programs.

The first and biggest agriculturally oriented project was the Village Development Program (VDP) introduced in 1952 as a vehicle for extension of new agricultural crops and varieties and improved cultivation methods. It later became a multipurpose village extension program, and is discussed in the next section on Rural Development.

In 1953, USOM collaborated in a Plant Introduction Project with FAO. USOM technicians brought in more than 500 new varieties of crops for tests and field adaptation trials, first conducted at the Kathmandu Valley sites of Rabi Bhawan, Singha Durbar, and Balaju. Beginning in 1954 experimentation expanded to the Terai site of Parwanipur and to Nagarkot, perched on the rim of the Kathmandu Valley, which roughly duplicated conditions in the Hills. Technicians were optimistic that better varieties would increase agricultural production by at least 20 percent. They planned to multiply successful varieties and distribute seeds through the Village Development extension system.

In late 1953, USOM decided to help develop an agricultural research center at the Parwanipur Farm in the Terai. HMG lacked resources to develop the site, and had rented the land out to local farmers. USOM recruited a U.S. technician to begin developing several agricultural research farms, and purchased equipment to expand research facilities in Kathmandu.

Other agricultural development activities initiated at this time reflected the interests and expertise of USOM staff. A livestock specialist worked on improved feeding and management of cattle herds, importation of the improved Sindi cattle breed from Pakistan, castration of unhealthy scrub bulls, and disease control. Poultry improvement activities included import of Rhode Island Red breeding stock; introduction of artificial incubation, incubators, and brooders; and disease control. An agricultural entomologist started training and demonstrations for plant disease and insect identification, and plant protection programs. Some agrochemicals and sprayers for disease and insect control were made available at Village Development Centers for demonstrations by field workers and use by farmers; however, these programs had a low impact on farmers, for as Rose later noted, imported agrochemicals and tools were too expensive for widespread adoption. Another activity, initiated by an agricultural tools specialist, emphasized farm tools improvement. Imported and locally adapted tools were tested and manufactured by trained artisans. In his 1953 report, Rose optimistically noted: "Some of these are becoming popular with villagers. As soon as demand is

evident, they will be stocked in the village supply points.” In all these projects, USOM technicians took on the logistical burden of purchasing and transporting needed supplies and equipment into Nepal and out to Village Development Centers. HMG officials recruited trainees to be trained as fieldworkers by the Village Development Schools. Salaries and operating expenses were jointly supported by HMG and USOM.



Demonstration of improved bullock-drawn plow, designed and produced by the Farm Implements Development Center in Birgunj.

Early in 1953, USOM began signing agreements on irrigation projects desired by HMG. The goal was to increase year-round water in selected areas in order to produce three crops a year. The projects included ten tubewells near Simra (to irrigate 2,000 hectares); two gravity flow canal projects on the Tilawe River in Bara District and the Sirsia River in Parsa District (to irrigate 8,800 hectares); surveys to prepare plans for construction of four systems in the Chitwan Valley (with the potential of irrigating 42,000 hectares); and the importation of 120 portable diesel pumps to lift water from rivers at five Village Development Centers.

Problems Encountered in Early Agricultural Projects

The USOM Monthly Progress Report of December 1955 provides a concise overview of implementation problems in the early years, some of which continue to plague development workers. Projects were at a standstill because the entire government was focused on the imminent coronation of Crown Prince Mahendra. The government was being reorganized once again, with newly-appointed officials responsible for newly-defined duties. Donors were waiting for the release of the First Five-Year Plan to see where their projects fit into the overall scheme. Consequently, HMG financing of joint projects was sluggish.

USOM plans for developing the Parwanipur Agricultural Research Farm were proceeding slowly due to lack of irrigation facilities and insufficient Nepali and U.S. technicians. On a more optimistic note, the Progress report mentions that some unproved paddy varieties were showing potential for increasing production in Nepal. However, pessimism quickly reappeared: the project to develop the Joint Agricultural Cooperative Service (intended to implement USOM agricultural projects) was far behind schedule.

USOM agricultural technicians were involved in three types of work: research and demonstrations in and around Kathmandu, teaching Agricultural Specialists and Village Development Workers at Village Development Training Schools in Kathmandu and Parwanipur, and assisting with agricultural extension activities in the six Village Development Service Centers. The 1955 Progress Report, listed a total of \$125,250 in completed technical assistance for agriculture projects, and modest annual payments of about \$25,000 into the Agricultural Cooperative Service joint account. There were spending delays because of difficulties in obtaining Department of Agriculture approval for establishment of the Joint Agricultural Cooperative Service.

In irrigation, the river-based irrigation projects on the Sirsia and Tilawe had not been completed on time, resulting in flood damage to the partially completed barrages. Major repairs were necessary before the rated capacity of 8,000 hectares could be irrigated. A new project was being surveyed on the Sarda River. A few individual farm and small area community projects were completed. The tubewells project was continuing on an exploratory basis with ten wells planned for the Simra-Jitpur area. Of four completed wells, two were providing adequate water for irrigation. Progress on these irrigation projects was being delayed by a government investigation into unofficial reports of possible improprieties, and delays in obtaining cement, iron, and coal necessary for construction. These would not be available until the beginning of the monsoon, which would delay construction for

several more months. The surprisingly modest amount of funds obligated for irrigation activities from 1954 to 1956 was \$73,344.

Disappointing Efforts:

Land Reform & the First 5-Year Plan

By 1957, HMG had passed reform laws requiring registration of land and establishing a rent ceiling of 50 percent of the crop produced. However, these laws were not vigorously enforced. In a report written after leaving Nepal (*Sharing Our Programs*; 1958), Paul Rose mentioned that during his six years in Nepal the U.S. had made several offers to assist HMG in implementing land reform, land credit reform, and administrative reform, but the government had rejected U.S. assistance in these highly sensitive areas due to strong opposition by landowners and high-level administrators.

Donors expected the Five-Year Plans initiated in 1956 to focus development efforts and thus strengthen their impact. However, the First Plan was a rough-and-ready document, due in part to an utter lack of statistical data. Its overly ambitious objectives implied that 70 percent of development funding would have to come from foreign sources. But the main problem was that the Plan did not actually determine budget allocations. Final figures were the result of fierce competition at ministry, party, and personal levels for control of funds and jobs.

Late 1950s: Expanded Agricultural Support

After 1955, the USOM program in Nepal expanded rapidly, due in part to an extra \$4 million in disaster-relief funds added by the U.S. Congress after floods in 1954 and drought in 1956. The majority of these funds supported agricultural and other activities in the Rapti Valley Development Project. The U.S. also expanded agricultural investments to meet needs expressed in the First Plan. New projects included establishment of an agricultural implements workshop; development of fish farms at Janakpur, Godavari, Pokhara, and Kathmandu; and establishment of a farm to grow medicinal herbs for export.

The General Agriculture Project was initiated in 1957 to work more systematically with the Department of Agriculture in developing agricultural research and extension services separate from the multipurpose Village Development Service. This project would become more focused and draw greater support from both U.S. and Nepali agriculturalists in the 1960s, as it evolved into the Food Grain Technology Project. Initially it included plant introduction and testing, seed and plant material multiplication, control of plant diseases and

insects, development of improved agricultural practices, livestock and poultry improvement, and agricultural extension.

From 1956 to 1960, the Department of Agriculture (under the Ministry of Agriculture) took shape with strong USOM support and some assistance from the FAO and India. HMG also contributed substantial support during the 1950s while its financial reserves held out. Sections developed initially were Agronomy, Horticulture, Livestock and Dairies, Veterinary Services, Agricultural Engineering, Plant Pathology, Entomology, and Fisheries. A Soils Lab was started in 1956, while a School of Agriculture was established in 1957 to train technical staff for agricultural extension. An Agricultural Extension Service, and an Agricultural Economics Section to carry out market surveys, were started in 1959. Each of these units received technical assistance, training, and operational funding from USOM. In addition, three agricultural stations were developed in Kathmandu, the Rapti Valley, and Parwanipur, and demonstration farms were initiated for grain crops, horticultural crops, and livestock. In the late 1950s, the number of USOM's American agricultural technicians doubled to ten, including two specialists supervising stations and farms.

Problems in Later Agricultural Projects

U.S. projects were frequently "paralyzed by the power struggles" in Kathmandu politics, and hindered by the scarcity of Nepali technicians and administrators. U.S. technicians had to take an active role in training and implementation, but there were not enough advisors to run the greatly expanded programs in agricultural research and extension. The goals of the new USOM agricultural projects were too ambitious for the limited assistance allowed by the Point IV philosophy (Mihaly, 1965).

In the agricultural program, many unrealistic assumptions were made by U.S. technicians who often spent only one or two years in-country, such as plans to provide portable diesel irrigation pumps to Village Centers for farmer use, or distribution of radios to villages to help farmers keep abreast of improved methods of production. A photo in the 1954 Mission Report shows a U.S. advisor demonstrating a petrol-driven plough to trainees in the Village Development Training School, an example of an "improved farming practice". With fuel, spare parts, batteries and basic technical expertise all unavailable to Nepali farmers at the time, these were wasted efforts. Mihaly noted that at the time of his research in Nepal in 1963, the radios, petrol-driven ploughs, and irrigation pumps were not being used in villages.

Mihaly described the Plant Introduction Project as “a broad attack on a thin front.” Over 1,000 different varieties of seeds had been evaluated in test plots supervised by hastily-trained Nepali employees. He reported in an evaluation summary of this project by USOM in 1959 (“Report on Agricultural Situation for Beirut Meeting”, 1959):

It was found that while there had apparently been an enormous amount of activity, tangible measurable accomplishments were difficult to pinpoint. It would appear that too much was attempted with too little and yet, it was virgin territory and a ‘crash’ program no doubt seemed justified...as it turned out, record keeping was poor and inadequate and accidents of one sort or another befell many of the tests, so that as a consequence the selection of superior varieties was based more on general observation rather than on statistical documentation Despite these shortcomings, interest in agricultural development was stimulated and considerable practical experience gained.

Commenting on the final statement, Mihaly raises the important question of “who was stimulated, and who gained experience?” He notes that the U.S. technicians generally returned home after two years or less, while their Nepali counterparts frequently either lost their jobs or were transferred during the politically and administratively unstable 1950s.

Unable to provide enough technical advisors to manage projects under its significantly expanded agricultural program in the late 1950s, USOM took the obvious steps of helping to establish government agricultural institutions capable of carrying out these activities and training technical personnel abroad. However, these early efforts in institution building were slow to bear fruit. Dr. Clarence Gray, Chief of USOM’s Agriculture Division, stated in his 1961 end-of-tour report that only “limited progress” had been made in this sector. He attributed most of the lack of success to managerial problems:

Unrealistic plans ... poor organization of the Department of Agriculture ... inefficient administration and fiscal procedures ... ineffective project supervision by the host government ... [and] low morale of host government personnel .

A 1961 USOM review critical of its agricultural sector portfolio emphasized, the “confusion, frustration, lowered efficiency and, consequently, a less than satisfactory, rate of progress” in agricultural extension. The document also noted the Ministry of Agriculture’s sluggish utilization of the limited amounts of U.S. assistance provided. In 1956, only \$22,000 of the budgeted \$125,000 was spent; in

1957, only \$80,000 of \$160,000; in 1958, \$98,500 of \$124,000, and in 1959 \$94,000 of \$155,500. Difficulties in decision making and approval of expenditures were exacerbated when the Joint Cooperative Services were terminated in 1958 and U.S. co-directors could no longer approve spending.

A second budget issue was that USOM funds were paying for recurrent costs of new HMG employees hired to implement research and extension programs under USOM projects. In its effort to quickly establish a broad agricultural research and extension capacity in HMG, USOM supported expansion costs and encountered for the first time the inability of HMG to sustain its agricultural programs.

Rapti Valley Development: A Lost Opportunity

The Point IV team began discussing the possibility of developing the then uninhabited Rapti Valley soon after their arrival. Among the largest of the exceptionally fertile valleys of the Inner Terai, it was considered by HMG to be ideal for a major land reclamation and development effort. In his 1953 report Paul Rose noted that this coming year's assistance program would support aerial, topographical, and soil surveys of the Rapti Valley, to be carried out by an American soil scientist and two survey teams from India. The surveys were also a training program to develop Nepali skills. Funds for major investment in the Rapti Valley were unavailable until \$2 million in food aid was appropriated for flood relief in 1955. Because the Rapti area had been flooded, a large portion of the funds was programmed into the Rapti Valley Development Project, beginning with an 87 kilometer road built in 1955. By that time, a concentrated effort led by WHO, and supplemented by USOM, had successfully controlled the Valley's endemic malaria.

USOM staff decided to make a model project showcasing the development approaches they had been pushing: equitable land distribution, local participation in self-help projects, improved farming methods, malaria eradication and improved health services, road and market development necessary for a cash economy, and cooperative societies for agricultural inputs and marketing. Thus, Nepal's first "integrated rural development project" was initiated, though the term had not yet been popularized.

Heavy-duty tractors with large disk plows performed the initial landbreaking of 11,500 hectares. While a resettlement component was intended to help the valley's settlers adopt new agricultural practices. Services were delivered through the Village Development Service and other USOM programs: Rapti Valley farmers were organized into cooperatives with USOM providing loan funds.

USOM supported a soil survey and establishment of a model soil classification lab; there was also a model agricultural farm and experiment station.

Initially the project was under the relatively tight control of the joint Rapti Valley Cooperative Service, administered by USOM and HMG co-directors. When this organization was dissolved on orders from Washington in mid-1958, its functions were dispersed to various ministries, which meant USOM and HMG project managers effectively lost control of the project. As a result, some Kathmandu politicians were able to acquire large tracts of land and ignore project conditions requiring use of improved technology. Many of the new small landholders quickly became indebted and were forced to sell, becoming tenants again. Traditional cultivation methods were quickly re-adopted, and the model effort to a large extent failed, mainly because the area was settled too rapidly and without effective enforcement.

The Impact of USOM Agricultural Assistance

The Rapti Valley Development Project, which USOM had touted as its most prestigious and substantial effort, did not provide the optimal development payoffs expected. It did open 11,500 hectares of Terai land for cultivation, but for a \$2 million effort it proved disappointing.

In *Foreign Aid and Politics in Nepal*, Mihaly argued that by the end of the 1950s, there was no evidence that U.S. agricultural projects had contributed to increased agricultural yields, increased productivity, or higher per capita income. In fact, he maintained, U.S. projects expanded HMG's recurrent costs for salaries and service programs, making Nepal dependent on external financing to meet this enlarged budget. Beyond opening up the productive Rapti Valley, U.S. agricultural assistance created no new major revenue-producing activities.

What Nepal gained from USOM agricultural projects during the 1950s was, first and foremost, basic training in technical and management skills involving agricultural research and extension. In each section of the Department of Agriculture, one or two key people received out-of-country training, as well as on-the-job training from a resident U.S. advisor. Approximately 100 Subject Matter Specialists were trained in-country at the Agricultural School in agronomy, animal husbandry, and agricultural engineering. By the end of the decade, 60 of these trainees had been assigned to field duty in 19 Village Development Centers, supervising Village Development Workers.

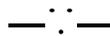
USOM efforts had laid an institutional base for agricultural research in most subject areas. Eight sections had been initiated in the DOA and a rudimentary field farm network was established, including experimental stations in Kathmandu,

Parwanipur, and the Rapti Valley area; three cereal seed multiplication farms totaling 80 hectares; seven horticultural farms for production of vegetable seeds and fruit propagation; a livestock farm in Kathmandu; the Chitlang sheep breeding farm; and a small poultry breeding farm and hatchery at Birgunj. A soil laboratory was being established in Kathmandu and a soil survey in the Rapti Valley had been completed. Equipment and supplies for a plant protection laboratory had been collected and awaited a building.

An incipient agricultural extension system had been developed, initially through the Village Development Program. By the end of the decade this work was being shifted to a separate Agricultural Extension Service in the Ministry of Agriculture. An Agricultural School was training Subject Matter Specialists for the extension system and would soon begin training Junior Technical Assistants (JTA) to work as village-level extension agents. Most of these institutional development activities were not sustainable without continuing USOM support in the form of training, technical assistance, and funding.

In terms of increased production, income, and knowledge and adoption of improved cultivation techniques, Nepali farmers had gained very little from the U.S. sectoral investment of roughly \$3.4 million. The few direct impacts on farmers reported in the 1959 Country Economic Program Report included adoption of *Japonica* improved rice varieties in a few areas of the Kathmandu Valley, multiplication of 11,700 kilograms of improved rice seed and 8,700 kilograms of improved wheat seed; production and distribution of improved vegetable seeds and fruit saplings; and limited distribution of improved stock hatchery eggs and baby chicks. Irrigated acreage was slightly increased through early irrigation schemes and tubewells. Through the Village Development Program, USOM had supported the formation of 52 farmer cooperative societies in the Rapti Valley and other areas of the Terai, which were intended to obtain agricultural inputs and market produce for their members. In 1959 a Cooperatives Act was promulgated, and USOM provided loan funds for the Department of Cooperatives to lend to Rapti Valley farmers.

A key conclusion in USOM's 1959 assessment of its assistance program was that national agricultural production had to be substantially increased to finance HMG investments in roads, communication, and increased government services to villagers. The next decade would require concentrated efforts to effect significant impacts at the farm level.



RURAL DEVELOPMENT: THE VILLAGE DEVELOPMENT SERVICE

Rural Extension: A New Concept

From the beginning, the Point IV team believed that if assistance programs were to be successful, a structure had to be developed to extend program benefits to Nepal's many villages. Without this, little could be accomplished outside the Kathmandu Valley. In the early 1950s there was minimal government organization at the local level, and no dialogue between villagers and the national government. District governors were responsible only for tax collection and police protection. There were no extension or rural development programs, and few trained personnel capable of carrying them out. Nepal was a blank slate in terms of rural development, a situation which created both constraints and opportunities.

In a series of evening meetings at Paul Rose's home, Rose and Chief Agriculturist Harold Dusenberry discussed strategies for rural development with the Prime Minister, the Director of the Department of Agriculture and other HMG department heads. Point IV technicians were familiar with the relatively successful village development program in India, and believed HMG could develop a similar program for Nepal with U.S. assistance. Dusenberry (1958) describes the rural development institution conceived by USOM:

This was to be an organization known as the Village Development Service, established to contact village people, to find out their needs, and then to get assistance from various departments which would channel programs through this service.

The goal was to establish a nationwide system which would distribute increased services to villages, while providing a channel of communications through which people could express their wants to the government. A fundamental assumption was that rural Nepalis were willing and able to learn new technology, and that they would use this knowledge to develop themselves.

In his justification for the Village Development Project, Rose emphasized the "bumpy transition from autocracy to democracy" that was making HMG an unstable partner. He noted that "if the masses of Nepal's people are to be expected

to assume their role in the new democracy there must be a widespread change of attitude about the responsibilities of the individuals and the villages in national life.” The Point IV team was convinced that U.S. and other donor assistance could help Nepal attain this goal “within a reasonable period of time”, thus moving it toward a stable democratic government.

Idealistic and hardworking, the early Point IV team hoped to overcome the technological backwardness and poor living conditions they had seen on field trips to rural areas. With the U.S. foreign aid program still in its early years, they were relatively free to innovate and make mistakes. The Washington Point IV office was not yet pushing its own programs, and did not yet require myriad reports tying up fieldworkers’ time. The team members’ laudable action orientation was hampered to an extent by their somewhat simplistic notions of rural development. Most of their world views had been shaped by service in the U.S. as county extension agents and Department of Agriculture administrators; thus they (like the entire Point IV program) tended to underestimate the challenge of bringing change to rural Nepal.

The original project specified that 4,000 Village Development Workers (Gram Sevak) were to be trained over a five-year period. In line with Point IV policy, the U.S. was to provide limited assistance in the form of technical advisors and commodities or equipment to be used by them. HMG would provide personnel, administration, buildings, and program funds. It quickly became apparent that the project would require substantial U.S. assistance for local costs. In 1952 and 1953, \$215,000 was budgeted for program equipment and supplies for agricultural and irrigation activities, with village development as a relatively minor component. By 1954, \$151,000 was budgeted for village development activities alone. The budget for 1960 provided \$60,000 for commodity support and \$400,000 in PL 480 Indian rupees to cover local costs for the Village Development Project.

Co-Managers or Advisors?

The Village Development Project was initiated under the Department of Agriculture; however, after a few months, it was decided this prestigious project should be transferred to the Ministry of Planning and Development. Gradually the project began to function as a multipurpose extension organization, fielding Village Development Workers (VDW) through which HMG departments could extend technical services at the local level.

In 1955, a joint Village Development Service (VDS) fund and administrative agency, separate from USOM and the Ministry of Planning and Development, was established as an offshoot of the Cooperative Services Agreement. This

arrangement allowed the VDS to develop as a separate organization, less directly influenced — and disrupted — by the political turmoil characterizing HMG in the 1950s. One benefit of the joint administrative design was the on-the-job training provided to its staff, which learned new jobs and management styles by working with American counterparts.

After three years of modest inputs, USOM significantly expanded the Village Development Program, increasing funding, technical staff, and field activities. More resources were necessary to create a nationwide program; however, the U.S. technical staff was still not large enough to directly administer the project, and USOM was forced to shift to building up the VDS as the HMG institution responsible for carrying out the expanded program.

In May 1958, following Washington's directive to shut down the cooperative agencies and pull USOM back from direct management of funds and programs, the Village Development Service was transferred back to the Ministry of Planning and Development and reorganized as the Village Development Service Department. With the experienced C. B. Pande remaining at the helm, the new department and the project experienced substantial continuity, but progress was less than it had been under the joint cooperative service.

Training Village Development Workers

A Training School for Village Development Workers (VDW) was opened in Kathmandu in July 1952 as Nepal's first development project. Village Development Workers were to have a basic knowledge of agricultural practices, and to operate as "contact men" channeling assistance programs to villages. Three young Nepali agriculturists trained in India were assigned to run the school, and initially all Point IV team members participated in training, as there were not enough trained Nepali instructors.

This was a period of trial and error. No one was certain of what type of young men to recruit or, how much training was needed. Fifty trainees were enrolled in the first four-month course, selected by the Nepali Director of Agriculture and his staff from young men who responded to radio and newspaper advertisements, and requests relayed through district governors. This first group was chosen mainly on the basis of literacy, rare in Nepal at the time. Mihaly reports that this first group of students was largely unsatisfactory, as most were born and raised in Kathmandu and "had little understanding of the problems of the farmer and little comprehension of the technical questions of agriculture." Few remained in village development, especially after experiencing the "incomprehensible, uncomfortable, and hostile environment" of many rural areas. The training program later tried to

recruit educated young men willing to work with their hands and able to adapt to a rural setting — a combination of qualities difficult to find.

Class size was doubled and training was extended to six, and eventually 12, months. VDWs were trained in community motivation and self-help programs, receiving basic technical information on agriculture, health, malaria control, sanitation, and literacy. Many had limited scholastic skills and needed additional training in reading, writing and arithmetic. In April 1953 classes were initiated for Village Improvement Specialists, who would support the VDWs in such fields as livestock, entomology and plant protection, irrigation, sanitation, school construction, and extension methods.

Training School faculty and program managers for the Village Development Service were trained in the U.S. and third countries. The quality of in-country instruction gradually improved as more U.S. trained specialists returned to work in the Training Schools. The Village Development Project competed with USOM's education and agricultural projects to obtain the services of the limited number of returned agricultural graduates (about 20 in the 1950s). Early plans to open two more schools and work rapidly toward training the 4,000 personnel needed to staff a nationwide program were delayed a few years by political interruptions and HMG administrative inactivity. The second school, in Parwanipur (near Birgunj), was established in May 1955, and the third in Nepalganj in October 1956. The Nepalganj school was closed in 1958 as the Indian Aid Mission planned to convert it to a Rural Institute to fit the Indian training model. In a collaborative effort, the Ford Foundation had started a Women's School in Kathmandu for Women Village Development Workers (Gram Sevika) in 1954, with classes beginning in 1956. USOM recruited an American home economics advisor who worked with the program from 1956 to 1960. The process of establishing schools, training teachers, and recruiting and training field workers was much slower than anticipated. By the end of 1958 only 613 of the 4,000 workers the program planned to have had been trained.

In-country training was perceived as an interim strategy to supply trained workers for the Village Development Service until Nepali colleges could be developed to turn out sufficient graduates. However, in 1958 the Indian Aid Mission (IAM) convinced HMG to adopt an intermediate step: the Rural Institute, based on rural development work in India. This would be a permanent training institution for rural service, located away from Kathmandu. With the Indian Aid Mission becoming more active in the village development sector, there were plans to develop at least two Rural Institutes. USOM-supported Training Schools were

to continue until the bulk of the Village Development Workers had been trained, at which point the Rural Institutes could handle subsequent training.

Establishing A Field Network

In February 1953 Village Development Centers were established in Kathmandu, Biratnagar, Pokhara, Hetauda, and Butwal. As Village Development Worker trainees graduated, they were assigned to village areas around these five centers. More centers were opened over the next few years: Ilam in 1954, Rapti Valley and Nepalganj in 1956, and Gaur and Janakpur in 1957. By 1957, the older centers had an average of seven administrative staff, five specialists, and 25 VDWs.

Village Development Centers (later called Blocks after the Indian model) were the primary operational unit of community development, each serving about 100 villages and 60-80,000 people. Originally they were staffed by U.S. technician-managers and contracted Nepali co-managers, who supervised technical staff from various departments, and the generalist VDWs and Women VDWs.

Each VDW was to serve as “stimulator, catalyst, and spark plug” for ten to twelve villages or about 500 families, although it is doubtful coverage was ever this large. At the village level, VDWs organized Village Improvement Committees of local leaders and Four-Leaf Youth Clubs for young men. They performed agricultural and health demonstrations and helped villagers organize self-help activities in the villages, passing on requests for budgetary or technical support to the District Development Officer or Program Specialists. At a slightly higher level, Village Improvement Specialists in agriculture, health, irrigation, education, and rural works channeled programs through VDWs and local village committees.

VDWs and local committees also constituted the field network for distributing large quantities of U.S. food aid and agricultural supplies following the 1954 floods and the 1956 drought. During 1957/58, a small subsidy program was initiated to provide cash and material contributions to match the work and contributions of the villagers in self-help projects, thus initiating donor-supported local public work schemes in Nepal.

The centers also were used as resources by other USOM-supported field programs, operating as outstations with sleeping quarters and a cook at each. In a 1990 interview, Dr. Hugh Wood, director of the Teacher Training and Related Activities Project, and *de facto* chief of education for USOM, recalled visiting these centers during field trips to explore the interest of surrounding villages in new schools and teacher training. He relied on VDWs to organize interviews with various village groups and to supervise school construction activities.

After the release of the First Plan, centers were managed by Nepali District Development Officers appointed by HMG, with U.S. advisors covering multiple blocks in the areas assigned to USOM. A particularly important unit was the District Development Committee chaired by the district governor, with authority to provide grants (from funds allotted from Kathmandu) to local self-help projects for small public works.

The First Five-Year Plan outlined an ambitious plan to expand the Village Development Program nationwide. Implementation began in 1958 with the joint support of USOM, the Indian Aid Mission, and HMG. The goal was to transform the Village Development Program into a nationwide integrated rural development system coordinated by the Ministry of Development and Planning. The Ministry soon found itself dealing with multiple donors who could not agree, and technical ministries with limited resources and their own agendas for establishing service extension programs. Despite these problems, by the decade's end 19 Village Development Centers had been established.

Indian Assistance to Rural Development

In 1956, the Indian Aid Mission (IAM) decided to assist the Village Development Service, citing India's success in developing a similar system. In a speech to the Rotary Club in Kathmandu (cited in Mihaly), IAM Mission Director D.R. Kohli stated that:

Nepal also in some ways, finds this [Indian] assistance more suited to its needs and circumstances than the know-how and experience of countries with much higher standards of living, because the methods of these countries are not as suitable for Nepal's present stage of development.

Nepal accepted the IAM offer because of political pressures and the fact that India was willing to provide substantial assistance. For a couple of years joint USOM-IAM assistance was discussed, however, India and the U.S. mainly competed for spheres of influence and selection of the most appropriate community development model. India concentrated its efforts in Terai districts and the key valleys of Kathmandu, Pokhara, and Palungtar, hoping to "increase friendliness towards India in strategically vital areas" (Mihaly).

In 1959, the IAM granted \$5.9 million for village development, most slated for construction. USOM joined with the IAM and HMG in 1958 in an elaborate and ambitious joint plan to expand the Village Development Program from 16 to 68 blocks. However, USOM officials apparently resented the Indian domination of the field resulting from its larger investment. They also felt the Indian emphasis on "bricks and mortar" instead of development of human resources was inappropriate.

In addition, Mission support for the Village Development Project dwindled, as new technical officers assigned higher priority to projects of counterpart technical ministries.

Late in the 1950s, USOM decided to phase out village development assistance over a three-year period and turn the sector over to India. However, USOM never notified HMG of this intention, and in fact actually increased its village development budget because of an unexpected influx of PL 480 Indian rupees. In spite of this final surge, USOM expected the Indians to assume full responsibility for the sector in the coming decade. However, Nepali dissatisfaction with India's patronizing attitudes (in 1962 it asked India to withdraw from the Village Development Project), combined with critical internal political developments, would draw the U.S. back to support the next rural development program in the 1960s.

Implementation Problems in the VDP

A number of unanticipated implementation problems undercut the Village Development Project. First was the extreme administrative instability of HMG. Eight changes of government in the decade resulted in shifts in the program's counterpart ministries, endless changes in ministry and program leadership, and long periods of HMG administrative inactivity. A USOM Monthly Progress Report in December 1955 noted there was little or no activity in the project at the time, because of a preoccupation with the coming coronation of Crown Prince Mahendra, a lengthy visit outside the country by the Crown Prince and his chief advisor, and a shutdown of project activity until the first Five-Year Plan was written. As VDP Co-director Floyd Dowell reported:

Conditions in general with the program have remained practically at a standstill — everything seemed to be waiting the return of His Majesty and his Chief Advisor It is generally understood there must be a Director and Co-Director appointed from HMG with specific assignment of responsibility for the Village Development Program before program action can be resumed. In the waiting period the service is suffering considerably. The two training schools are empty and idle. The 300 field employees are without guidance and direction, the payroll cannot be covered, and the morale of the program is suffering seriously.

Another blow came when the Joint Cooperative Service agreement was ordered rescinded, dissolving the cooperative service. U.S. technicians working as co-directors in the service could work somewhat independently of HMG

slowdowns; but when they were shifted to advisor positions, they had less control and ability to maintain momentum.

The program was also hampered by a severe underestimation of the effort required to build a nationwide rural development system. It was difficult to recruit and train adequately skilled Nepali administrators and technicians to staff the program, and particularly difficult to develop VDWs, who needed a broad-based set of skills and motivations, including a willingness (rare among educated Nepalis) to work in rural areas. Longer training courses were required than were ever expected, and transporting staff, visiting Kathmandu supervisors, and supplies to the centers was extremely difficult.

The Point IV Mission made some fundamentally flawed assumptions in planning the Village Development Project. The idea that all that villagers needed to change was the technical knowledge and organizational assistance provided by a VDW ignored the complex of constraints affecting villagers' decision-making, and the need for other incentives, particularly grants-in-aid and technical supervision for self-help projects. Mihaly argues that USOM created a broad project intended to have nationwide impacts, but provided insufficient resources to achieve this. In addition, the project expanded government services to the point where they could not be sustained by indigenous revenues alone, but depended (in the 1950s) on a Chinese grant and increasing USOM and Indian support.

What Was Accomplished?

The Village Development Project was never fully evaluated. A long-delayed study in 1981 by the Himalayan Studies Centre interviewed villagers about project impacts, but by that time there were problems of attribution, as schools, roads, wells, agricultural extension efforts, and other activities had been carried out for 30 years. Project advisors did track outputs through 1958, and HMG calculated outputs (probably target-based statistics) at the end of the First Plan.

**Selected Achievements of Nepal's
Village Development Program 1953 to 1961**

	Progress to 1958*	Progress to 1961**
VDP Workers/Specialists	613	860
VDP Centers/ Blocks	12	55
Villages covered	1,641(5.7% of villages)	38,000
Population covered	717,026	2,200,000
Local Improvement Committees or Cooperative Societies	505	13,700
4-Leaf Youth Clubs	138	n/a
Primary Schools	270	n/a
Improved Crop Varieties	217 (180 ha.)	n/a
Improved Steel Plow	127 location (1,392 ha.)	n/a
Canals constructed or repaired	145 locations (352 km.)	1,078 km.
Land irrigated by these canals	7,388 ha.	n/a
Roads or trails constructed or repaired	708 km. (fair weather roads)	2,349 km.
Bridges or culverts constructed or repaired	330 locations	870 locations
Tubewells installed	478	1,870

* USOM/Nepal summed up achievements of the VDP under their support in a report by Dusenberry in 1958.

** Reported in Himalayan Studies Centre Evaluation (1981), and taken from an HMG report, *Progress of the First Five-Year Plan (1963)*, included USOM and Indian Aid Mission supported programs. Generally, HMG statistics were based on program targets rather than on actual monitoring of outputs.

Early targets were certainly over-ambitious; by 1962 the Village Development Service had 1,400 trained staff, compared to the 4,000 projected. There were 25 Blocks or Centers supported by USAID and the IAM, compared to the 68 expected. Mainly it was the older USAID-supported Centers which had significant programs. It is clear that around the 15 primary VDP Centers, there was significant

mobilization of voluntary efforts. However, there was no measurement of adoption rates for new technology, or impact of activities on variables like economic growth, productivity, or household income.

The 1981 evaluation made the critical point that VDP activities were organized mainly by landed village elites and mainly benefited these elites. As Mihaly pointed out, the project could have had a much greater impact if the introduction of rural extension work had included basic reforms in village power structures.

The Village Development Project created a cadre of skilled development workers who accumulated significant field experience in rural Nepal. Their introduction of the very concept of development-oriented government services to these formerly isolated regions represented a major step forward. An observer on the scene in the early 1960s characterized progress made by the Village Development Service in this way:

Indeed, as a non-taxing, non-repressive, non-punitive manifestation of the national government (the first such manifestation ever seen in large areas of the country), the Village Development Service has been modestly successful. The impact of the Village Development Worker upon the rural people has been much greater than is generally recognized. Ten years ago no one in the village had ever considered that their government had any interest in their development and welfare. Through Village Development they first learned that their government 'cared' Not only have the concepts of self-help and community cooperation been introduced; more important, a large number of rural people have become receptive to the idea of change. Thus ... a sound foundation has been laid in many areas

—Cool, 1962



HEALTH

The Starting Point

Simply assessing the general state of health in Nepal in 1951 is rendered difficult by the near-absolute lack of statistics. A USOM document written in 1958 noted: “Reliable health statistics do not exist. This makes the assessment of health conditions and their exact nature and scope very difficult to relate to the specific problem of resource development and utilization” (1962 Capital Assistance Program). The document went on to paint a grim picture of Nepal’s overall health status:

It is estimated that fifty percent of the population lives in highly malarious areas. Surveys seem to verify that the infection rate for malaria runs as high as 100 percent in some villages. Tuberculosis, smallpox, typhoid, cholera, dysentery, syphilis, kala-azar, filariasis, leprosy, maternal and infant tetanus, hookworm, tapeworm, amoebiasis and other intestinal parasites, kidney stones, rheumatic fever, goiter and other deficiency diseases are debilitating a large segment of the population.

Infant mortality, always a revealing indicator of a population’s overall health status, was 255 per 1,000 in 1951. One-third to one-half of children died before reaching adulthood, and this high figure contributed to Nepal’s exceptionally low life expectancy rate — 28 years, according to a 1952 estimate.

The synergistic relationship between health and development meant that the negative impact spread across all sectors. Disease and malnutrition lowered economic productivity, sapping energy that could be better used in farming, road-building, studying, teaching. Low school enrollment and resulting low literacy rates, high fertility rates, reduced agricultural productivity — all these result from poor health, and contribute to it as well. A reasonable level of health care services can thus be considered an economic necessity as well as a fundamental human need.

In 1951, the main provider of Western allopathic medicine beyond a few dozen private doctors was Nepal’s Department of Health Services, established in 1933. It managed several modest hospitals with a total of 600 beds, half of these in the Kathmandu Valley. A few district headquarters had public hospitals, some as small as five beds. Public services were limited to a handful of doctors dispensing simple drugs in compounded form. No injections were available; likewise, there

were no nurses or paramedical workers, no health posts, and no service delivery system for the rural population.

Those Nepalis who could afford to went to India for medical treatment. Most relied on traditional remedies delivered by family members or on religious rituals performed by indigenous practitioners, *dhami-jhankri*. These shamanistic healers are still widely consulted today, but four decades ago they were the only providers of rural medical care. Their treatments include worship, sacrifices, herbal remedies, and ritual exorcism.

Nepal's health sector needed everything: manpower, supplies, institutions, physical infrastructure and an effective service delivery system reaching a widely scattered rural population. Formal health service development began with the organization of the Ministry of Health in 1956. Emphasis in the 1950s was on expanding hospital-based curative services and training a basic corps of health workers necessary to expand service delivery. USOM and WHO were the major sectoral donors through this decade, though India, China, and the USSR also contributed. USOM's role as the major bilateral health donor in Nepal was consistent with the prominent role it played in improving health in developing countries around the world.

Early Efforts in Public Health

The Rapti Valley Development Project showcased USOM efforts in public health service development. Beginning in 1957, medical services were introduced with the establishment of two clinics in Hetauda and Bharatpur. These first operated in modest thatched-roof buildings, later replaced by "modern" cement-block structures. Speaking at the December 1963 inauguration of the Sri Mahendra Adaraha Chikitsalaya in Bharatpur, Dr. Edward F. Crippen, chief of USOM's Public Health Division, noted:

The Rapti Valley Health Program has been ... a demonstration area that has trained people and shown to communities what can be done by the Malaria Eradication Program, sanitation and public health nursing programs, and better understanding of disease through health education.

The largest health project during this period was the \$1.1 million Assistance to Public Health Services, the first of many efforts to develop a nationwide delivery system for basic health services. Started in 1952 as Local Health Services, the project provided technical advisors, participant training, commodities (including hospital equipment and drugs) and local currency support for hospitals, health centers and clinics throughout Nepal. USOM supported the establishment of a Bureau of Local Health Services to work within the Ministry of Health. An

organizational plan for a national health service was developed with the input of HMG and various donor agencies, but implementing it within the narrow time frame of the original project proved impossible. Efforts continued through the following decade, as inputs were re-channeled through the Public Health Administration project.

Training was a crucial element in developing a public health service. Through the Nurses' and Other Paramedical Workers' Training Project, USOM provided operational cost assistance and technical advice for the country's first Nurse Training School, opened in 1956 in Kathmandu. Enrolling students for the first class was difficult, as both nursing and the concept of professional women were foreign to Nepal. Enrollment was eventually stabilized, and the first class of 12 nurses graduated in 1959. In 1958 a Nurses' Training Center was established in Hetauda (later moved to Bharatpur in the Rapti Valley) to train Assistant Nurse Midwives for work in rural areas. The Auxiliary Health Workers' School was also started in Kathmandu in the early 1960s.

USOM provided operational cost support and technical advice to all three of these institutions. Along with WHO, USOM provided participant training abroad for faculty members and nursing students. Public health (and later, family planning) was a major category in participant training through the 1950s and 1960s, second only to agriculture. By 1971, 246 returned participant trainees were working in health, most in government agencies.

Malaria: Eradication & the Beginnings of Control

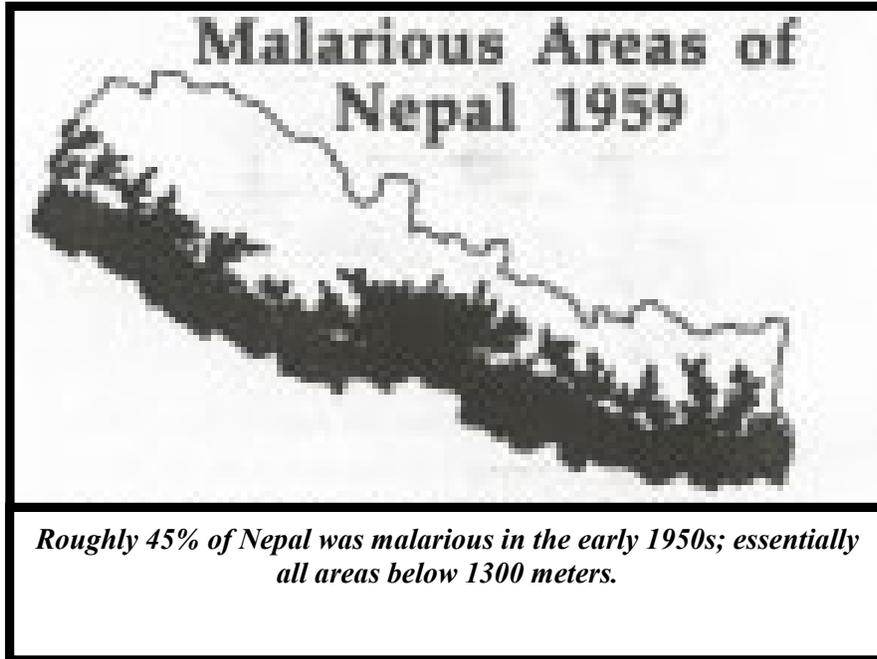
Malaria was Nepal's most serious public health problem of the period, afflicting roughly 25 percent of the population. Cases numbered over two million per year, with a 10 percent mortality rate that took an especially high toll among young children. Malaria also had a substantial indirect effect in increasing the mortality rate of other diseases.

Endemic malaria threatened the roughly 50 percent of Nepal's population living below 1,300 meters altitude. The southern border region was only moderately infested, while the mid-Terai had a somewhat higher infestation rate. The highest incidence occurred in the Inner Terai and the "forest fringe" areas between the Terai and the Hills. Some of Nepal's most potentially productive agricultural land lay virtually untouched due to the virulence of the disease in this region. The few scattered settlements existing here had an Annual Parasite Incidence (API) of 80 to 90 percent, among the highest rates in the world.

Malaria control was an economic issue as well as a humanitarian one. The disease kept some of the country's most fertile fields and richest forest resources

undeveloped, and exacted a high toll in inhabited areas as well. Malaria was basically a rural disease, striking low-income areas vital to national food production. The peak transmission season coincided with planting and harvesting. When epidemics struck, crops were often left to rot in the fields for lack of healthy workers. The chronic, recurring bouts of fever sapped energy that could be turned toward economic development and production. Finally, there were political considerations: Nepal's total lack of health services was beginning to create a small undercurrent of popular dissatisfaction. Gurkha soldiers were returning from abroad with stories of the outside world, where modern medicine could cure many illnesses.

USOM's anti-malaria program began in November 1952, with the creation of a malaria control office staffed by a part-time advisor and two Nepali technicians. Fieldwork began the same year with a USOM /HMG spot survey of malaria in the Kathmandu Valley and the insecticide spraying of 800 houses in Balaju. In August 1954 a joint HMG/ USOM project, the Insect-Borne Disease Control Bureau (IBDCB) was initiated as a broad attempt to control all insect-borne diseases, with a particular emphasis on malaria. The following year the fledgling organization was assigned responsibility for anti-malaria operations nationwide (the Rapti Valley was assigned to WHO as a pilot project), USOM provided the IBDCP with funding, insecticides and technical advisors, who arrived in 1955.



Both USOM and HMG were anxious to rapidly implement nationwide malaria control, which promised substantial political benefits. Feasible malaria control technologies had been demonstrated in other countries, and USOM believed nationwide control could be rapidly achieved in Nepal (full-scale eradication did not become the goal for several more years). The original anti-malaria project was scheduled for completion in 1961.

As in other projects, USOM underestimated the resources and time required for an effective nationwide effort. The IBDCB faced major challenges: rugged terrain, minimal human resource support, and a near-complete lack of epidemiological research defining the problem. Malaria control was starting from scratch in Nepal, but USOM provided limited financial and human inputs. Two advisors were assigned to the planned nationwide malaria program, only one of whom was on duty at any given time.



Mule train loaded with insecticide for malaria control, 1956.

When malariologist Dr. George J. Burton arrived in 1955, he found the IBDCB lab equipped with four microscopes, a few test tubes and some slides. His first act was to purchase enough equipment to give the Bureau “the most extensive and best-equipped laboratory in Nepal” (Burton, 1957). The original team of advisors intended first to perform a thorough epidemiological survey, necessary to plan an effective, efficient program. Their plans ran aground when USOM and HMG pressured the IBDCB to immediately expand the spraying operations begun in 1954. Short-term political objectives won out over long-term needs, and the spraying program was pushed ahead.

Advisors were also hampered by their poorly defined status. While the co-op system gave U.S. co-directors wide latitude for financial and administrative action in Kathmandu, the scope of USOM’s field technicians remained restricted. The dearth of trained Nepalese experts, probably the program’s severest constraint, left a vacuum of power which technicians for political reasons were unable to fill. Confronted by tremendous needs and working with an understaffed, underfunded organization, malaria control advisors were frustrated by their inability to do more.

USOM’s chief public health advisor, Dr. Raymond Stannard, wrote in his final report in 1958:

Since there are not even nationals in sufficient numbers who are qualified or can be spared to do this training a greater responsibility of necessity falls upon USOM technicians. It is well enough to say we are only advisors ... but if we are to meet the most obvious needs in Nepal, we must have technicians in sufficient numbers to actually organize and give part of the actual instruction.

During its first year the IBDCB managed to spray 70,000 houses, providing protection to over 335,000 people. The following year it was extended to over half of the country's malarial areas. But, as Burton pointed out in his 1957 report, "a spraying program alone does not constitute a malaria control program." Untrained personnel provided inadequate coverage, leading to outbreaks in areas that had been haphazardly sprayed and a consequent loss of credibility for the program. All of the areas sprayed by the IBDCB eventually had to be resprayed.

Stannard's final report contrasted the USOM approach with that of the WHO anti-malaria program. Six WHO technicians had spent three years in the relatively small area of the Rapti Valley, supervising malaria control efforts and training Nepalese staff. While their project was successful, it could not have moved any faster than it did; even after three years it required continued technical supervision. WHO's slow, cautious approach proved more successful than the ambitious USOM project, which underestimated the resources demanded by Nepal. It was WHO's Malaria Control Pilot Demonstration Project, rather than the USOM-assisted IBDCB, which proved the feasibility of malaria control.

In December 1958 the Nepal Malaria Eradication Organization (NMEO) was founded as an amalgamation of the IBDCB and the WHO project. USOM, WHO and HMG committed to eradicating malaria within eight years, a deadline which was to be extended several times and eventually dropped altogether in favor of control. Malariologist Burton, in his 1957 report, discussed the possibility of eradication:

It stands to reason that anything is possible if conditions are right ... (but) we cannot talk about eradication before we are first capable of achieving control.

Poor supervision, program inefficiencies, and a shortage of competent personnel had so far hampered the attainment of malaria control, but the new joint effort promised a focused, directed approach with a far higher level of support. USOM bore the major portion of costs, committing \$3.35 million to the original \$4.27 million budget, including the cost of all insecticides and spraying equipment and a team of advisors. WHO supplied field technicians, while HMG provided

assistants and trainees. The creation of NMEO provided the long-term commitment of money and manpower needed for effective malaria control. The first five years of in-field experimentation had, at the very least, provided the practical experience necessary to achieve the rapid and significant successes which were to occur in the next decade.



DEVELOPING A NATIONAL SYSTEM OF EDUCATION

Education is the greatest force for building up a country — economically, socially and culturally. The challenges have to be accepted by the educators, who are the real builders of a nation.

—Aryal, 1970

Historical Perspective

Prior to 1951 in Nepal, education was treated as an active threat rather than as a potential asset. During more than a century of authoritarian Rana rule, education was restricted as part of the general policy of isolationism. Traditional forms of education (generally religious) were virtually extinguished, and new institutions were discouraged, except for a limited number of schools to educate the children of Kathmandu's elite. Nepal's rugged topography and incredible linguistic diversity assisted Rana efforts to keep the population isolated and uninformed. A few Terai dwellers were determined and wealthy enough to import teachers and teaching methods from India, but the vast majority of Nepalese had no access to any kind of formal education. Not until King Tribhuvan regained power in 1951 was education recognized as a right of the people, and the development of a comprehensive system of education considered.

Amid the dramatic changes of the early 1950s, Nepal recognized education as essential to the spread of "a common language and a sense of national identity," and to providing "basic literacy and the skills and attitudes needed to forge a modern unified nation" (Seller, *et al.*, 1981). The country faced a formidable challenge, however. Despite minor developments in education under the Ranas, in 1951 there were only 300 college graduates in all of Nepal, most of whom graduated from Indian schools. Only two percent of the population was literate, and less than one percent of school-age children were enrolled in school; there were fewer than twenty trained teachers in the whole country. Among the many constraints to development at the time, the most serious was the shortage of educated men and women, and the lack of indigenous educational institutions.

Beginning Educational Development

Nepal's education sector faced an unusual situation in 1951: there were few administrative policies or practices relating directly to education, and thus few bureaucratic obstacles to developing a modern national educational system. A rudimentary administrative body, the Directorate of Education, had been among the Ranas' few contributions to planned education, but it was inadequately equipped to meet the tremendous demand for basic education which surfaced in the early 1950s. As a consequence, the Ministry of Education was formed in 1951 to address the educational needs of the country as a whole, through development of uniform policies and standards. In 1952 a nationwide inspection system was established to administer and supervise schools.

The near-total lack of education infrastructure dictated that quantitative growth would be of primary concern in the 1950s. Building and equipping schools was considered relatively simple and inexpensive. Ensuring educational quality posed a more serious challenge, as there were few trained teachers, no teacher-training institutions, and no administrative system to establish educational standards. Nepal decided early on that universal and planned educational development was vital to fulfilling the educational needs of students and the manpower requirements of the country.

USOM played a major role in facilitating education development in Nepal, particularly through extensive assistance to primary school development. For well over a decade, USOM/USAID financial assistance accounted for approximately 70 percent of all funds allocated for education development in Nepal. The U.S. remained the largest and most influential donor in the education sector until 1972, leaving an indelible imprint on the educational system.

Planning a System of Education

The National Education Planning Commission (NEPC) was formed in 1953 and charged with developing a national educational system. USOM provided significant financial and advisory support to the commission with additional help from the Ford Foundation and other donors. The Commission began its work by collecting the first comprehensive educational data in Nepal. This was done by distributing 12,000 questionnaires through a field network created under USOM's Village Development Program. This nationwide survey encouraged popular participation in designing a system of education, and allowed planning to be tailored to actual, rather than perceived needs.

The NEPC's report, published in 1956, formed the basis for the first five-year education plan released the same year, and served as a blueprint for comprehensive education development until the National Education System Plan was introduced in 1971. It recommended establishment of a nationwide system of tax-supported free public education from the primary through the post-graduate level. Tax and land reforms were targeted as prerequisites to financing education on a national scale. Though government resources were to be budgeted for education development, the commission felt financial support should come largely from local resources to ensure participation and support at the village level.

Adult literacy was another priority, considered critical to the development and survival of democracy. Though the choice of Nepali as the medium of instruction was controversial, given Nepal's diverse ethnic composition, the commission insisted on this point in order to promote national unity. By developing a national system of education the commission hoped to contribute to increased productivity raise the standard of living, and improve citizenship along democratic lines. The urgent need for skilled workers to carry out Nepal's development, coupled with the rising demand for education, forced HMG to implement some of the commission's recommendations before the report was even published.

U.S. Assistance to Education Administration

When USOM began assisting education in 1953, no uniform policies directed the course of education development. While HMG had established rudimentary administrative structures, political turmoil and a shortage of skilled manpower prevented administrators from implementing a consistent policy. USOM recognized the need to aid development of Nepalese educational institutions in order to improve and develop supervisory and administrative practices, to assist policy development, and to effectively coordinate and administer education programs.

Nearly every USOM project in education was at least partly concerned with establishing an administrative structure to direct the education system. USOM's earliest efforts to bolster administrative capacity were directed at strengthening the Ministry of Education and the Inspectorate of Schools through in-service training and provision of equipment. Between 1959 and 1961, USOM's contributions included developing a corps of district level education inspectors, upgrading Ministry of Education staff officers, and constructing zonal education offices. In addition, USOM sponsored training in the U.S. and India for Nepalese educators.

Though HMG had established a Board of Education in the early 1950s to determine education policy, the National Education Planning Commission

constituted in 1953 made the Board's existence irrelevant. However, the commission was dissolved in 1956 following publication of its plan for educational development, and no replacement body was formed to assume responsibility for implementation. The Ministry of Education, which should have filled the leadership vacuum, was too vulnerable to the political turmoil of the 1950s to be effective.

Cooperative Services for Education Development

Throughout the 1950s, Nepal's constantly changing governments slowed the pace of development, though the political flux tended to lead more to inaction than to active opposition. Acquiring legal status for the newly formed College of Education, for instance, was repeatedly postponed because no government was in power long enough to sign the necessary documents. Though the political situation did not hinder education expansion, it often had an adverse effect on policy development. There was a constant orientation problem with new governments, and at times there was no Education Minister or Secretary to make policy decisions. The Cooperative Services for Education Development helped fill the leadership void, providing guidance for implementation of education programs throughout the country.

The Cooperative Services for Education Development was an adjunct of the 1954 agreement establishing funds for the joint administration of USOM projects. This system provided a degree of insulation from political turmoil. Under it, political instability was usually manifested by HMG's 40 percent contribution to the Joint Fund being delayed or not made at all; bills accumulated, payrolls were not met, and the procurement of supplies and equipment was held up. USOM's input covered the cost of development and distribution of textbooks and other educational materials and equipment, and construction of schools and administrative offices, while HMG provided money for teachers' salaries.

USOM's education projects, which achieved high-profile gains, relied heavily on Nepalese counterparts and staff in designing and implementing appropriate activities. HMG counterparts were provided with state-of-the-art equipment, training, and financial assistance to encourage innovation. USOM's support for innovative ideas was in sharp contrast to traditional HMG administration, a static and hierarchical structure which actively discouraged innovation. At times, USOM's development-oriented projects were stymied by bureaucratic inactivity; partially a result of political turmoil, but also a consequence of disparities in the attention and credit given to those employed under USOM's projects, compared to civil servants. In fact, USOM's projects could not have succeeded without the

cooperation of civil servants in the Ministry of Education, who provided a degree of consistency when political turmoil would otherwise have sidelined education activities.

Development in the education sector outpaced overall development in Nepal. Rapid and dramatic gains were made in education because of the National Education Planning Commission's comprehensive development plan, and competent and dedicated Nepalese counterparts (most notably Troilokya Nath Upraity, who was one of the first Nepalese participant trainees, a co-director of the University of Oregon project team, and the first dean of the College of Education). It was the only development sector capable of using its full budget allocations during the 1950s. Education activities were able to absorb unobligated funds from other sectors as well.

USOM's Education Projects

No matter who you talk to in Nepal, everyone agrees that the most important thing AID has ever done here is its work in the education sector.

– USAID Program Officer and former Peace Corps Volunteer

USOM's education activities began a year before the National Education Planning Commission was constituted in 1953, and several years before a comprehensive plan for education development was conceived. Because of the lack of statistics for accurately assessing educational needs, early projects in the education sector were largely *ad hoc*. Later, USOM's education projects adopted a more systems-oriented approach as a national plan for education development emerged.

USOM's main educational objective was to establish a basic education system in order to provide a permanent means of meeting Nepal's need for educated and trained citizens. In a general sense, upgrading the educational level of the general populace was considered fundamental to progress in development and democracy. On a more specific level, the country desperately needed skilled administrators and technicians. USOM's in-service and participant training programs helped alleviate some of the most urgent requirements. USOM's education activities began in 1952, as a sub-component of the Village Development Program, and were limited to construction of physical infrastructure and some in-service training. By the following year, coinciding with HMG's targeting of education as a developmental priority, USOM accorded its education activities separate project status. The broadbased Educational Activities Project began in March 1953 as a collection of *ad hoc* activities aimed at providing Nepalese with the skills to actively participate

in a democratic society. Project activities included teacher salary support for existing schools, construction of new primary and secondary schools, nonformal education programs in adult literacy, radio education for adults, informal radio programs in agriculture and health, and education materials development.

A second project, Teacher Training and Related Activities (1954-58), was a more systematic effort, focusing on planning a comprehensive system of education, teacher training through in-service training and institutional development, and training Nepalese education administrators. Since no members of the first USOM team were educators, USOM contracted the services of education specialists from the University of Oregon to administer the project's technical activities.

Activities under these projects were for the most part complementary, the major difference being the manner in which they were conceptualized and implemented. The Educational Activities Project was conceived by the first Point IV team as a single component of an integrated package also covering health and agriculture. Activities were thus aimed at satisfying short-term quantitative goals, and implemented without consideration for their potential usefulness to the education system as a whole. The Teacher Training and Related Activities Project was conceived by education specialists from the University of Oregon, and embodied a planned approach to educational development. Because USOM did not have a permanent education advisor on its staff until 1956, both projects were administered by Hugh B. Wood, chief of the University of Oregon team, who acted as *de facto* Chief of Education for USOM.



Mission Director Paul Rose and Minister for Education Dilli Raman Regmi, signing the agreement for the Teacher Training and Related Activities Project (also shown Hugh Wood, Education Advisor (ISOM, and T. N. Upraity, Deputy Secretary for Education), June 26, 1954.

Following the arrival of USOM's first education advisor in 1956, a conflict over administration of USOM's two education projects erupted which at times brought implementation to a standstill. The dispute concerned the inherent disparity between the Mission's direct-hire employees serving the interests of Washington, and its contracted employees presumably serving the interests of their parent organization, the University of Oregon. USOM's direct-hire education advisors questioned the ability of contract employees to carry out education activities in line with the Mission's overall development policy. The dispute was resolved in 1958 when, despite earlier plans, Mission Director Russell Drake chose not to renew the University of Oregon's contract. Aside from political infighting, he felt that education activities should be scaled back to let other development sectors catch up. The two education projects were subsequently combined under a single project, Education Development.

As a result, USOM's advisory services were curtailed, though financial support continued at its previous levels. Administered by non-specialists who had other USOM duties, the education program became less effective and involved. Compounding this, the termination of the University of Oregon contract coincided

with the dissolution of the Cooperative Services Agreement in education. Long-term effects, however, were less negative: participant trainees assumed leadership of the program, and by 1959 Nepal's education program had blossomed into a full-scale systematic approach to education development.

Primary Education: Developing a National System

In 1951, Nepal had 321 primary schools, enrolling less than one percent of primary school-age children (between 6 and 11 years). USOM's earliest primary education activities centered on infrastructure development as the simplest and most efficient means of providing universal access to education, financing the construction of 200 primary school classrooms. Though quantitative gains were the primary objective, the need for teachers and curriculum development was also recognized. In all of its education activities, USOM sought to encourage local participation in education development, in accordance with the NEPC plan to improve the quality of local schools by directly involving communities. Villagers were required to provide school buildings, and local teachers were trained as staff.

One of the greatest challenges to the systematic development of education in Nepal was establishing and maintaining universal education standards. In 1951, six different methods of instruction were being used in primary schools: one based on the Gandhian system of education; another following the British model of instruction; others developed for religious instruction and the study of Sanskrit, or combining elements of various instructional philosophies. Efforts to standardize primary education were hindered by the lack of sufficient instructional materials and adequately trained teachers, and further complicated by the use of the vernacular as the medium of instruction in different regions of Nepal. HMG's articulated standards included requiring Nepali as the medium of instruction, using standardized textbooks, and providing primary teachers with basic teacher training.

Backed by extensive USOM financial and technical support, HMG provided operating expenses and teacher training to entice existing schools into compliance with its standards. Schools which refused to comply lost government sanction to operate, though this did not prevent existing schools from operating and new schools from opening without government sanction. By mid-1957, 316 new primary schools were operating with 570 teachers. By the end of 1957, USOM and HMG had agreed to add 220 additional trained primary teachers to the Joint Fund payroll to serve as substitutes for teachers being trained under the College of Education's new in-service training program.

Attempts to standardize education met with minimal success, largely because HMG had insufficient administrative personnel to supervise and evaluate school

performance. In addition, USOM's efforts to develop primary education were impeded by the lack of consistent HMG policies, which made it difficult to determine targets for the number of schools to be opened or the number of teachers to be trained. Because administrative structures outside the Kathmandu Valley were virtually non-existent, primary education development suffered from a lack of adequate field supervision and administration. To alleviate the problem, in 1957 USOM assisted HMG in establishing an advisory system, providing in-service training for local officials and constructing district and zonal education offices. In 1958, HMG approved a plan to make District Inspectors of Schools responsible for all new primary schools. This move, which included shifting control of records and funds from Village Development Centers to District Education Inspectors, was among Nepal's earliest experiments with decentralized administration.

Financing Primary Education

Supported by USOM, HMG provided free textbooks and other instructional materials for the primary level. Because Nepal was comprised of cash-poor rural communities, primary teachers' salaries were financed as well, though payment was complicated by transportation difficulties, by the lack of a decentralized administration to make payments on behalf of the central government, and by HMG's inability to contribute to the Joint Fund on schedule. However, Nepal's dependence on foreign assistance to finance primary education was considered unacceptable for a modern nation.

In an effort to make primary education self-sufficient, USOM and HMG worked out an agreement under the Cooperative Services for Education Development to transfer responsibility for financing teachers' salaries to local communities. It was decided that the Joint Fund would pay 100 percent of new teachers' salaries in their first year of teaching, 75 percent in the second, and 25 percent in the third, at which time the local community would assume complete responsibility for financing teachers' salaries. This plan was based on the National Education Planning Commission's recommendation to support public education with local contributions.

Unfortunately, the experiment failed because of the lack of local authorities to collect and disburse revenues, and because USOM and HMG failed to comprehend the limited economic resources of local communities. By the third year, when teachers were working for one-fourth of their salaries, HMG realized that in order to support a universal, free system of primary education, it would have to assume 100 percent of the costs for teachers' salaries, a policy which it maintains to this day.

Achievements in Primary Education

Considering the massive political, administrative, economic, and geographic constraints Nepal faced, USOM's efforts in the 1950s to assist development of a comprehensive, free, and universal system of education were remarkably successful. By the end of the decade, a new curriculum for primary schools had been adopted by the Department of Education; 500 classrooms and three model elementary schools had been established (the figures do not account for the schools springing into existence seemingly daily under thatched roofs and in the open air); 200 new schools had received financial aid for the purchase of equipment; 1,500 new classrooms had been provided with trained teachers; and 20 new primary level textbooks had been published.

As USOM was the only donor involved in primary education development at the time, U.S. technicians and their Nepalese counterparts can take full credit for the educational achievements of the decade. Unfortunately, though coordinated efforts were able to meet quantitative goals, quality primary education remained elusive. The growing number of schools outstripped HMG's ability to produce trained teachers and instructional materials for standardized primary education. Both HMG and USOM took consolation in the belief that educational quality would improve automatically as villages experienced general development. In the latter half of the 1950s, USOM began focusing on institutional development to ensure a nationwide impact in educational improvement.

Secondary Education: Multipurpose High Schools

The National Education Planning Commission's 1956 report suggested secondary-level vocational education, popular in the U.S. at the time, as the best way to involve the population in national development. Since few secondary schools existed, changing the secondary-level curriculum presented few obstacles beyond financial and manpower constraints. USOM helped develop a program to supplement the standard curriculum with agricultural and other vocational courses.

Though USOM concentrated primarily on primary education throughout the decade, the need for a secondary education program became increasingly clear as the number of primary-level graduates grew. USOM responded to a limited extent by establishing several experimental secondary schools and providing some in-service teacher training. The first Multipurpose High School was opened in 1959 in Pokhara, and others soon followed. The type of vocational courses offered at a given school depended upon the needs of the local community, though agriculture was an obvious choice.

Though vocational education had been identified as a viable means of providing local populations with necessary development skills, its use on a national scale was not seriously considered until the late 1960s. This was due to a lack of financial resources, trained teachers and appropriate instructional materials. During the latter half of the 1950s, some secondary-level teacher training was provided at the College of Education and other colleges, but it focused on subject matter rather than teaching methodology. Twelve secondary school teachers graduated from the College of Education by 1960, and 45 high school teachers attended a one-year course to improve their English teaching.

University Development

USOM involvement with higher education, originally limited to the College of Education and its teacher training extension activities, expanded to include development of a national university system as the demand for indigenous institutions increased. In 1952, there were two colleges in Nepal. By 1954 the number had grown to 14, with a total of 915 students and 86 teachers. Prior to 1951, existing colleges accredited their degrees through Indian universities. In 1959, Tribhuvan University was established, and all existing colleges were incorporated under it.

The National Education Planning Commission had recommended development of a national university to provide technical training to meet Nepal's skilled human resource requirements. Planning for a national university was participated in by USOM, India, the Ford Foundation, Britain, and the United Nations. The original plan for a unified system of higher education developed by the University of Oregon team was based on the U.S. model of autonomous universities. India, however, was disturbed by USOM's heavy influence in education, especially in politically sensitive higher education. The University Commission was sympathetic to Indian complaints, and discarded this proposal in favor of the Indian model of central accreditation. USOM's role in the development of a national university was consequently greatly diminished.

The University Commission did accept an American architect on a one-year assignment to design nine university buildings. HMG also accepted a U.S. grant for the construction of the new College of Education and the Laboratory School, to be located on the Tribhuvan University campus at Kirtipur. In addition, USOM assisted with the establishment of T.U.'s Central Library (a total of 15,000 books were given to the Central Library and to the College of Education), and the University Press. USOM later contributed to development of Amrit Science

Campus through a teacher training program and provision of buildings and equipment.

Teacher Education

USOM originally intended to treat educational development as a sub-component of a comprehensive multi-sectoral program. As it became increasingly involved in the education sector it became obvious that USOM's construction-oriented efforts, rather than alleviating the demand for access to basic education, were complicating an already desperate situation. Nepal required not just physical facilities, but trained teachers to staff its schools, and a cadre of educators and educational administrators to train teachers in-country. To meet the country's educational manpower requirements, USAID focused a high percentage of its efforts on in-service and participant training for education administrators and primary and secondary school teachers.

Teacher Training: Institutional Development

Teacher education has been the single largest sub-sector of U.S. education assistance to Nepal, receiving increased emphasis as the number of primary and secondary schools grew. Most activities were carried out under the Teacher Training and Related Activities Project run by the University of Oregon contract team. USOM's first efforts were directed at training institutes for primary and secondary school teachers. They quickly expanded to include training for administrators and educators to operate these institutes, and staff other educational institutions.

The National Education Planning Commission had urged immediate establishment of short-term training courses for teachers. In response, the first Teacher Training Center was opened in 1954 at Tahachal in Kathmandu under joint USOM/HMG auspices. This teacher training facility was based on the normal school method of teacher education for rural populations which originated in the U.S., and replaced the Basic Teacher Training Institute established in 1949, which was patterned on the Gandhian philosophy of "appropriate" rural education. The first group of primary-level trainees was placed in Kathmandu.

Though it was a sound beginning, Nepal needed a large-scale, permanent training capability. The College of Education was planned to become the leading teacher training institute in Nepal. In 1955, under the University of Oregon contract, eight scholarships were provided for Nepalese trainers from the Teacher Training Center to study various aspects of education and administration in the U.S. The participants were to return to serve as administrators at the new

institution. While at the University of Oregon, the group developed plans for the College of Education, including designing syllabuses, textbooks, and other materials.

PARTICIPANT TRAINING AND EDUCATION DEVELOPMENT

Of the 44 Nepalese trained by USOM between 1951 and 1955, 41 percent were trained in the field of education. Between 1956 and 1961 this dropped to 25.3 percent of all trainees, but the total number trained in education contributed significantly to the establishment and institutionalization of teacher training in Nepal. Participants were trained in the U.S., most at the University of Oregon, in various aspects of educational administration. Many returned to work on USOM's education projects, while others operated Nepal's fledgling educational institutions.

The impact of such training on Nepal's educational development is perhaps best discussed by letting the trainees comment for themselves. The following quotes are excerpted from a March 1990 evaluation report of USAID's participant training program over forty years:

Teacher training was a new concept for Nepalese educators in the 1950s. Participant training gave them an opportunity to understand it [education] and its different dimensions. Knowledge of techniques of teaching and learning helped teachers very much. Participant training familiarized the faculty at the Institute of Education with the U.S. system of education and the emerging concepts of teacher education. It helped the dissemination of new ideas and techniques in the country.

— a trainee and prominent educator

Participant trainees in the Institute of Education significantly contributed to the growth and development of teacher education, although the nature and extent of individual contributions varied. As a dean of the Institute of

Education, I introduced many innovative programs such as On-the-Spot Primary Teachers Training Program, Remote Area Teachers Training Program, and a one-year M.Ed program. These programs are most relevant to the needs and economy of the country.

– a trainee and former Dean of the Institute of Education

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Hugh wood and family with the first group of Nepalese participant trainees in education, returning to Nepal, June 1956.

The College of Education opened within six weeks of the group's return to Nepal in 1956. It included departments covering all aspects of education and a publications division. From the beginning, it was administered solely by Nepalese. The college was the first degree-granting institution in Nepal, providing courses

leading to the B.Ed, and later, post-graduate courses leading to the M.Ed., as well as extension courses and field services for the training of rural teachers. Involved in all aspects of education through its various departments, it was an early and successful example of U.S. involvement in institutional development in Nepal. Department staff were responsible for infusing Nepal's education sector with innovative approaches to education and administration. USOM provided training for the administrators, operations support, equipment and instructional materials.

The College of Education trained 96 teachers in its earliest programs, including 75 normal school instructors, and provided in-service training for 100 school administrators. Another 150 students were enrolled in its secondary school teacher training program. The number of primary level trainees, however, was still insufficient to supply Nepal's rural areas, where schools were either staffed by untrained teachers or lacking teachers altogether.

Normal Schools: Rural Teacher Training

Training teachers who would remain in the villages was the most significant aspect of the whole program of the development of education in Nepal.

– Hugh B. Wood, 1987

To meet the demands for qualified teachers in rural areas, mobile normal school teams were established to train villagers as teachers. These training teams were taught by the staff of the College of Education, and were composed of teachers representing reading, math, social science, and science. Each team included a professional trainer to provide instruction in teaching adult literacy classes. As an added incentive, those trained to teach adult literacy were given a 15 rupee bonus for every class taught (25 percent of their monthly salary). The normal school teams also taught teacher trainees how to set up a library, make blackboards and devise substitutes for chalk.

Mobile normal school teams worked in all of Nepal's district headquarters (then numbering 32). They taught anyone who was interested, but gave preference to those who were literate or had previous education. Their objective was to train teachers to return to their villages and set up schools. USOM provided each newly trained teacher with a box filled with a year's supply of expendable classroom materials to get the schools underway. By 1961, nearly 4,000 primary teachers had been trained at 25 Normal School Centers, an average of 700 teachers per year. This in-the-field training method proved to be an economic means of training rural teachers in Nepal. Unfortunately, because of HMG's inability to absorb the newly trained teachers, in 1958 targets were reduced to training 105 new teachers per

year, as opposed to the National Education Planning Commission's recommended target of 1,000 per year.

Demonstration (Laboratory) Schools

Under the College of Education, an experimental demonstration school was set up in 1956 to introduce innovative administrative and teaching methods to college students and the normal school teams. This Laboratory School was operated by members of the first group to study at the University of Oregon. An outstanding example of their innovation was the attempt to address the needs of handicapped students. Though there was no provision for special education under USOM projects, several blind students were integrated into the school's regular program. Another innovation was devised by a former participant trainee who developed an intelligence test for students based on Nepalese culture. A second demonstration school set up in Pokhara in 1959 included a laboratory school, dormitory, and teachers' quarters.

Achievements in Teacher Training

During 1958, USOM financed an intensive evaluation of all teacher training activities, including programs under the College of Education, the Normal Schools, and the Laboratory Schools. The evaluation team, comprised of Americans and Nepalese, concluded that USOM/HMG joint efforts to develop a corps of trained teachers for the country had been successful, particularly the participant training program, as evidenced by the high percentage of returnees working in USOM education projects or in government administration. By December 1958, all education institutions established with USOM assistance — the College of Education, Bureau of Publications, Bureau of Research, three Laboratory Schools, and the Normal Schools — were operated by returned participant trainees. USOM not only successfully trained Nepalese to carry out its education program in Nepal, it also helped to create a corps of skilled administrators to initiate and carry out larger education development programs for HMG.

Nonformal Education

Adult Literacy

USOM targeted adult literacy in 1953, as a means to provide the adult population with the skills to participate in a democracy. In 1953, USOM contracted with Dr. Frank Laubach of the World Literacy Foundation to prepare basic materials for

adult literacy instruction, work which produced some of the first Devanagari alphabet charts. Dr. Laubach also helped produce the four-part Manohar Basic Series of basic literacy materials, which was used extensively in adult literacy classes throughout the country.

USOM's adult education efforts increased in scope under the Educational Activities project, begun in 1954. Literacy training was carried out by normal school teams and through more formal programs operated by the Ministry of Education. At the end of four years, 35,000 adults had been trained to read and write and 200,000 copies of adult education materials, in eight titles, had been published and distributed. Between 1958 and 1961, the adult literacy program was greatly expanded, enrolling 10,000-12,000 adults annually.

The chief obstacle to adult literacy classes was the distribution of instructional materials, hindered by a lack of basic transportation infrastructure and insufficient manpower. These difficulties were surmounted in part by using mobile normal school teams to distribute materials.

Adult literacy materials were developed primarily by educators at the Bureau of Publications, under the College of Education. The college's Adult Literacy Division was headed by a returned participant trainee who had specialized in literacy development and instruction at the University of Oregon. The division was responsible for training normal school teams to teach literacy to adults in rural areas. This man was at the forefront of national literacy program development, and provided substantial advisory assistance to the USOM/HMG adult literacy programs.

The Ministry of Education and the Bureau of Publications collaborated in publishing instructional materials, including two supplemental readers, several posters, and a bi-monthly literacy magazine which was well received in Nepal. The magazine was provided free of cost to literacy classes throughout the country, to libraries (under the project, 150 libraries were established in schools throughout the country), and to government departments and other agencies. Field evaluations showed that the newly literate benefited from the publications. The Ministry of Education and the Bureau of Publications also collaborated in producing a series of specially illustrated pamphlets designed to sustain the reading abilities of the newly literate. The series included such titles as "All About Tuberculosis", "All About Cholera and Typhoid", "Basic Food Groups", and "All About Elections"—which described voting procedures, democratic principles and citizens' roles in the 1959 election. Between 1954 and 1961, 900,000 copies of nine booklets, plus

graphs, posters, and literacy certificates, were produced under the Educational Activities project.

By 1960, the national literacy rate had risen from two percent in 1951 to 8.9 percent. Despite the relative success of adult literacy programs, the programs were not institutionalized due to limited financial and manpower resources and HMG's *ad hoc* approach to development. Continued USOM support was required to maintain established program levels.

Radio Education

USOM's earliest forays into the realm of nonformal education focused on adult education through radio programming. Radio waves had the power to overcome transport and manpower constraints, providing a fast and cost-effective means to reach a large adult audience.

The intent to educate rural adult populations through radio programming was commendably innovative and practical, given Nepal's unforgiving topography. The extent of Nepal's ability to broadcast, however, was extremely limited in the 1950s, and few Nepalis owned radios or had access to them. USOM's efforts to promote radio education led to the establishment of a modest recording studio which began operating at the College of Education in June 1958. Radio scripts were written and programs planned at the college as well.

USOM began limited experiments in radio education by purchasing 100 radio sets and providing technicians to prepare a special radio program. To facilitate broadcasting of its educational programs on health, agriculture, and current events, USOM also provided assistance to Nepal's fledgling radio station, Radio Nepal, in the form of buildings and equipment.

Unfortunately, the program faced unexpected resistance from the initially enthusiastic HMG, which was reluctant to distribute multi-channel radios because they were able to pick up Indian stations. Access to these Hindi-language stations was thought to conflict with the attempt to impose Nepali as the national language. After nearly two years of discussion, permission to distribute the radios was finally granted. Many were then found to be inoperable as a result of poor storage facilities, and a high percentage were cannibalized to provide parts to restore the remainder to working condition. Eventually, during the latter half of 1958, Radio Nepal began broadcasting two half-hour programs per week: an informational program for primary school children, and an informational program for new literates. These radio education information programs were well received, and continued to be broadcast during the next decade.

Education Materials Development

USOM provided financial and advisory assistance for developing, publishing, and distributing instructional materials in Nepal, hoping to strengthen the indigenous capacity to develop materials appropriate to educational and developmental goals. In 1956, USOM assisted with the establishment of the Bureau of Publications under the College of Education. Assistance was intended to help Nepal build the institutional capacity to produce education materials appropriate for Nepal. The Bureau's first publications included teacher education materials and a series of textbooks for the five primary grades. Sample materials were brought from the U.S. by the first group of participant trainees.

At the time the Bureau was established, the *Gorkhapatra*, Nepal's national newspaper, housed the only printing facilities in Nepal. Initially, instructional materials were printed in Bombay, but the responsibility was soon transferred to Nepal in hopes of building a local publishing capability. While this slowed production (local firms were not equipped to handle the required volume), it reduced the amount of time needed to communicate with and transport materials from India.

USOM contributed tremendously to available reading materials through development of textbooks and instructional materials, adult literacy materials, and special publications such as pamphlets and a literacy magazine. USOM's assistance to education materials development during the decade laid the foundation for expanded involvement in the 1960s.

Assessing USOM's Impact

USOM's comprehensive approach to the development of Nepal's education sector produced commendable results. Despite tremendous constraints, including constant political turmoil throughout the decade, USOM helped build a substantial foundation upon which to base future education development. While most growth during the decade was quantitative, by 1959 the framework existed upon which to continue developing qualitatively.

USOM's most significant achievement, according to Troilokya Nath Upraity, was that "USOM gave the country, through education, and particularly through teacher training, the concept of modern education, and then helped spread this concept to a national system reaching all over Nepal."



TRANSPORTATION AND COMMUNICATIONS

The Nepalese Context

In 1951 Nepal was, in a modern sense, one of the least developed countries in the world; operating almost entirely on human and animal power. Beyond the Mercedes of the ruling Ranas and the festival carts of the Kathmandu Valley, wheels were scarcely known in mountainous Nepal. The first oxcart arrived in Pokhara in 1953 — by air.

Transport in the Hills and Mountains was (and still is) largely on foot. Goods are moved by porters and pack animals along the country's 15,000-20,000 kilometers of narrow, frequently steep trails. The Nepalese are an exceptionally mobile people, and by some estimates, two million people walk these trails every year on one- to two-month trading trips.

Before 1950, a visit to Kathmandu required nearly four days of travel by railway, motor car, and foot from India. The journey was an adventure in itself. Former Mission Director Carter Ide recalled: "Ambassador Bowles, Ambassador to India and Nepal, told me he had to ride a horse up to Kathmandu, dust off his top hat and tails, and then ride back to the Terai, with days of sore bones to commemorate the event."

The opening of a regular Kathmandu-Patna air service in 1950 shortened the journey to 50 minutes, but few Nepalis could afford to fly. The country's internal transportation infrastructure was limited to 376 kilometers of rough track in the Kathmandu Valley and the Terai. Ironically, the rugged terrain of the Hills made villages 50 kilometers from Kathmandu more isolated and difficult to reach than the Indian border. Nepal may appear small on a world map, but its interior is unexpectedly vast. An early USOM pamphlet pointed out that although the U.S. is 70 times larger than Nepal in area, "from a transportation point of view, Nepal is 20 times the size of the United States. In the U.S., any point can be reached within 24 hours; in Nepal, to reach the furthest point takes three weeks."

Political and Economic Factors

Nepal's lack of transportation seriously constrained national integration and economic growth, and both USOM and HMG viewed a minimal level of physical infrastructure as essential. HMG was motivated by a desire to increase internal security and political unity, while USOM looked principally at the potential economic benefits of improved transport. A minimal network of road and air transport could reduce the isolation of economically vital areas and expand inter-regional trade, as well as simplify the logistic difficulties of delivering inputs necessary to development.

Transportation was also essential in knitting diverse regions together into a single nation. In the early 1950s, many locations in Nepal were virtually unreachable from Kathmandu. Travelers found it far easier to journey on Indian railroads and roads to a point roughly south of their intended destination, then cross the border and walk northwards.

Propelled by these motives, transportation development (primarily road construction) became a top priority for both USOM and HMG, beginning in the latter half of the 1950s as funding levels increased. The sector averaged 35 to 40 percent of total public development expenditures in Nepal's first four economic Development Plans (covering 1956 to 1974). U.S. assistance was similarly high. Transportation led all USOM/USAID sectoral expenditures between 1951 and 1971, with \$30 million expended.

As it had in other sectors, USOM originally assumed that ambitious goals — in this case, a rudimentary transport network — could be rapidly developed with only technical assistance and funding. This reliance on the catalytic effects of knowledge and applied technology was misplaced: Nepal's rugged topography defied U.S. "know-how". Even in the flat Terai, new roads were threatened by the tremendous monsoon rains; pushing them through the Hills, much less the Mountains, was an entirely different matter. Steep slopes, frequent landslides and heavy seasonal rains posed major engineering challenges. Road-building in Nepal demands high expenditures and constant, sophisticated maintenance. These realities discouraged the achievement of USOM's optimistic early goals in the sector.

Early Projects

The RTO

USOM's first road-building effort was the 87-kilometer link between Bharatpur and Hetauda, part of the Rapti Development Program, constructed with flood relief funds and completed in 1959. In January 1958 the Regional Transport Organization was formed under a tripartite agreement between the U.S., India and Nepal. The tripartite structure was suggested by USOM when funds became available through its Asian Economic Development Fund, a regional fund created to finance projects assisting two or more countries.

The RTO's goals were to stimulate trade and improve communications necessary for political and administrative integration, by developing a national road system. The first goal was the construction of 1,441 kilometers of roads in five years. This estimate was remarkably optimistic in view of Nepal's topography and the organization's ensuing administrative difficulties. It was, in fact, little more than an educated guess made by Mission Director Paul Rose in order to utilize the suddenly obtained funding. USOM financed the major share of operations, contributing \$5 million in engineers, heavy equipment and local currency support (India contributed \$1.76 million; Nepal, \$466,700.)

Organizational complexities plagued operations from the beginning. The Office of Chief Engineers charged with planning, organizing, and supervising project activities proved ineffective. U.S. and Indian engineers used different design and administration procedures, and the Nepali engineer who was supposed to coordinate efforts was unable to control the resulting competition. The project was conceptually flawed from the beginning by the assumption, shared by USOM and India, that Nepal was ready to administer a highly complex and sensitive organization.

The RTO soon fragmented into components, as the U.S. and India went their separate ways. USOM's major contribution under the project was beginning the widening and paving of the existing 60-kilometer track from Raxaul to Amlekhganj, which joined the Indian-constructed Tribhuvan Rajpath to Kathmandu. Previously, the narrow, rutted track was transformed into a sea of mud during the monsoon; upgrading it provided relatively easy land access from India to Kathmandu for the first time.



By 1959, the RTO's goals had been reduced to 28% of the originally proposed road length. Even these proved impossible to implement.

The RTO's over-ambitious goals were cut to 28 percent of the original proposed mileage in 1959. The revision included construction of the Kathmandu-Trisuli highway, and roads from Pokhara to Butwal and from Kathmandu to Janakpur. Even these reduced goals proved impossible to achieve, however, and the project was terminated in June 1962, six months ahead of schedule. Despite combined expenditures of \$7.5 million, the RTO's accomplishments were negligible. It had completed about 640 kilometers of roadwork (grading, paving, or graveling), the majority of it resulting in two-foot wide track. None of the roads connected major centers. To make things worse, \$1 million in heavy construction equipment left to Nepal's public works department was soon being used in the construction of the Chinese-built Kathmandu-Kodari road — a project USOM had no desire to support.

The Hetauda-Kathmandu Ropeway

An innovative project suited to Nepal's mountainous terrain was the Hetauda-Kathmandu ropeway, started in 1959. The 45-kilometer aerial cableway was built to carry freight from the developing industrial town of Hetauda, at the edge of the Terai, to Kathmandu. By directly traversing two high ridges, it cut off two-thirds of the distance required to haul freight by road.

The ropeway was intended to provide a dependable, economic, all-weather means of supplying essential items (primarily food) to the Kathmandu Valley. It would prove particularly advantageous in the monsoon, when landslides frequently block road access to Kathmandu. By utilizing local electricity rather than imported diesel fuel, the ropeway was designed to save precious foreign exchange and reduce the cost of hauling goods by truck over the steep, winding Tribhuvan Rajpath.

This project replaced and extended a 22-kilometer mono-cable ropeway which had been operating from the Terai town of Dhursing into the Kathmandu Valley since 1927. The new system's capacity was 25 tons per hour, three times that of the earlier one. USOM contributed \$4 million and hired Riblet Tramways of Spokane, Washington for the installation. The project was the most technically advanced enterprise ever attempted in Nepal at the time and it demanded incredible effort. It was supported by 280 steel towers, which were fabricated in the U.S., shipped to India, carried in pieces to sites and assembled on the spot. Tremendous lengths of steel cable were hauled into position by long lines of porters maneuvering down narrow, steep, mountain trails.



Steel cable being carried into position during assembly of the Hetauda-Kathmandu Ropeway.

Construction proceeded without major difficulties until a test run was made in 1962. When the cableway was operating, all the lights in Kathmandu dimmed. The capital's power supply was insufficient for the scheme. The power shortage and a number of technical and administrative difficulties slowed the completion of the project.

The ropeway was completed in April 1964 and was turned over to HMG for operation by the Nepal Transport Corp. Actual use (17,000 to 37,000 tons annually between 1966 and 1970) was disappointing compared to the ropeway's capacity of 50,000 tons per year. Ropeway traffic constituted about 15 percent of northbound freight along the Kathmandu-Raxaul corridor, the remainder being hauled in by truck. While the northbound lines were used to import foodstuffs and construction materials into the Kathmandu Valley, the southbound route remained virtually unused because of the small volume of surpluses produced in the Kathmandu Valley. The ropeway received its greatest use as an alternative to the Tribhuvan Rajpath, before the completion of the Bharatpur-Kathmandu road in 1981. Today it remains operational but is underutilized, despite its potential energy-saving benefits.

Communications

Expanding and improving Nepal's practically non-existent communications network was as vital as transportation development to the nation's economy, security, and political unity. The Nepal-India Telecommunications project started in 1959 was a tripartite agreement between India, Nepal and the U.S., and like the RTO, partially sponsored by the Asian Economic Development Fund. USOM contributed \$2.9 million to the project, which provided Kathmandu with a 1,000-line telephone system (including the country's first automatic exchange) housed in the Central Telephone Exchange Building. International telephone and telegraph facilities were routed through New Delhi and Calcutta via radio circuitry. The Government of India's principle role was supplying housing facilities for the USOM-provided transceivers.

An internal radio communications network was established under the project to link outlying towns to the capital. Seven area stations were built, each with five to nine satellites, for a total of 57 radio communications stations across the country. A remote control receiver and building were erected in Kathmandu, and over 100 operators and maintenance personnel were trained.

Other USOM activities in communications included support for HMG's Department of Publicity and Broadcasting, including provision of a Communications Media specialist, participant training, commodities, equipment,

and local currency support. USOM also supported Radio Nepal during its formative years with assistance in construction of a studio.



INDUSTRIAL AND CAPITAL DEVELOPMENT

An Historical Perspective

Nepal under Rana rule was essentially a huge private monopoly. No significant attempts were made to modernize economic institutions, improve production technology, or organize new industries. Industrial development was in fact discouraged as a threat to the feudal socio-economic structure.

A limited degree of modernization did occur as the British pushed India's rail network up to Nepal's southern border at the turn of the century. The Terai economy was gradually monetized as surplus grain and timber were sold in newly accessible Indian markets. Apart from the Terai and the Kathmandu Valley, very little of the national economy was monetized in 1951. Most Nepalis lived at a subsistence level, bartering surplus production in order to obtain the little they didn't produce themselves.

Geography as well as history has defined and restricted Nepal's economy. Transportation problems have handicapped growth and blocked access to natural resources, while the open southern border has allowed India to economically dominate Nepal. USOM relied heavily on transportation development to foster industrial and economic growth during the 1950s. Most significant was the opening of the Indian-built Tribhuvan Rajpath in 1956, which linked Kathmandu with India and eased export and import logistics. USOM's projects in malaria control and Rapti Valley rural development also encouraged the opening of the Terai, supporting increased agricultural production and the formation of industrial towns like Hetauda.

USOM's economic policy in the 1950s maintained that an increase in overall output, aided by elimination of policies restricting free markets, would naturally

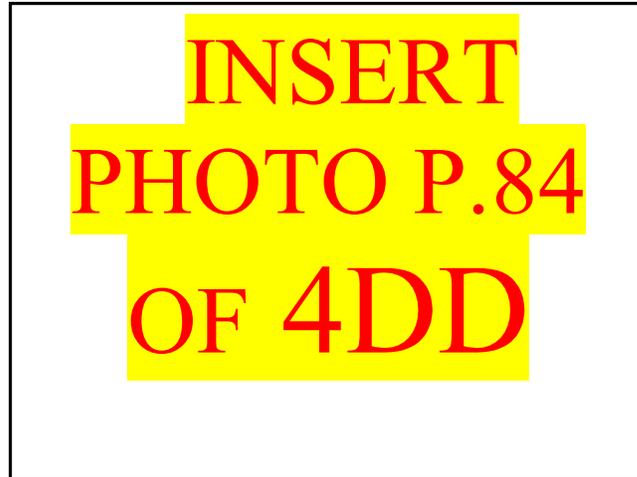
lead to broad-based development. The Point IV program held that technical know-how, combined with relatively small amounts of economic assistance, would catalyze economic and social development. Capital-intensive industrial production based in urban centers was considered the universally most effective means of maximizing economic development. These theories ignored Nepal's harsh realities — a low rate of urbanization, an unskilled population, and a largely non-monetized economy based on subsistence agriculture. Economic assumptions inspired and reaffirmed by the Marshall Plan's success in Europe had little relevance in Nepal.

While USOM's industrial and capital development projects were often moderately successful, they were not enough to stimulate and reshape the entire national economy. Inconsistent government policies were a major constraint. In this kind of climate, no project (nor array of projects) could hope for more than limited success.

Early Projects

The significant role of industrial and capital development in USOM's program is reflected in high assistance levels. The sector expended \$25.7 million between 1951 and 1971, second only to transportation. Efforts spanned an extremely varied range of activities, with 15 different projects completed or ongoing by 1971. The bulk of the impetus came in the late 1950s and peaked in the early 1960s.

Cottage and Small Industries and Craftsmen Training (1958-1964) trained young artisans and craftsmen in the basic industrial skills needed to establish small industries. Management training and small loans were provided to Nepali entrepreneurs to set up cottage and village industries and businesses. USOM contributed commodities and local currency assistance for operational support and loans, while the Ford Foundation, which had been involved in efforts since 1954, contributed technical and financial assistance. The Ford Foundation's original goal had been to revive Nepalese crafts for export and sale to tourists. Tourism was however nearly nonexistent at the time; less than 2,000 tourists visited Nepal in 1957. By the time USOM began assistance, the cottage industry program had shifted to an emphasis on more practical mechanical skills: traditional carpentry and shoe-making, and modern skills such as electronics and machinery repair.



Through its Cottage and Small Industries and Craftsman Training Project (1958-1964), USOM trained artisans and craftsmen in the basic industrial skills needed to establish small industries.

By the late 1950s, HMG was beginning to realize the potentially great economic benefits of tourism, and requested USOM to assist in formulating the first official tourism development plans. A contract technician was provided under the Tourism Project to assist in establishing a tourist bureau and to train local personnel to carry on tourism work. USOM financed the development, printing and distribution of brochures and advertising material promoting tourism, and partially supported the construction of tourist information centers in Pokhara, Kakani, Daman, Bhaktapur and Nagarkot.

Resource Surveys and Development

Nepal's natural resources were largely unexplored, making surveys vital to economic development. HMG was particularly anxious to explore the nation's mineral resources, and requested assistance from the Point IV program. An agreement was signed in 1954 for the Mineral Resources Development Project, providing equipment and technical assistance to establish the Bureau of Mines. USOM sponsored construction of the Minerals Laboratory Building, equipping it with modern instruments for mineral resource evaluation. About a dozen Nepali engineers and technicians received training in the U.S. under this project.

By 1958, preliminary exploration had delineated several zones of mineralization, and detailed follow-up surveys had discovered some ore deposits of commercial value. Exploitation of these resources was severely hampered by Nepal's rugged terrain. As of 1958, the project's major contribution was considered the discovery that mineral resources were far more widespread than previously believed. Little progress was made in actually developing these finds.

The Mineral Resources Development Project was too slow-moving to survive the budget cuts of 1962. The original goal of a nationwide mineral resource reconnaissance was dropped in the 1962 program redirection, and project support was terminated the following year. Funding was reprogrammed into development of the Balaju Industrial District, which promised to show quicker evidence of tangible accomplishments in the field of industrial development.

The Medicinal Plants Project, begun in 1955, contributed nearly \$500,000 to support the Department of Medicinal Plants (under the Ministry of Forests) in expanding investigation, production and collection of indigenous medicinal plants, to build foreign exchange income. The industry was expected to produce \$3 million in annual exports by 1969. In a 1956 paper, a British botanist had proposed development of a medicinal plants industry in Nepal, and the British government subsequently provided botanical and pharmaceutical training for HMG staff, plus equipment for a research lab. USOM's low level of assistance was raised with the 1961 influx of PL 480 Indian rupees. USOM assisted preliminary work for the 72-hectare Royal Botanical Gardens established in 1962 in Godavari in the southern Kathmandu Valley. While the site is now a popular picnic ground, the original purposes were collecting indigenous plants, introducing foreign specimens and pioneering technical innovations in plant propagation. These continue to be carried out.

The NIDC

Nepali businessmen and investors of the early 1950s had no access to long-term industrial financing or technical / management consultative services. Nearly all investments were tied up in land during this period. Beginning in 1956, USOM supported the Industrial Development Corporation (IDC) in its efforts to disseminate information and technical services. The project began as the Project for Small Industries Development, evolved into the Nepal-American Industries Cooperative Services, then became the IDC.

The IDC's efforts to reach prospective entrepreneurs had mixed results. Information was of limited value if capital support was not available. The need for a comprehensive program combining capital and technical support was recognized

in HMG's First Plan. In 1959, with USOM support, the IDC was converted into the National Industrial Development Corporation (NIDC). Designed according to the standard development bank model, successful in other developing countries, the NIDC was to provide loan capital to private investors for industrial establishment and expansion; to provide consultant services, management training and promotion, and to advise HMG on industrial policy.

USOM provided technical consultants, local currency and commodity support, operational support, and sponsored extensive participant training for NIDC staff, Ministry of Industry and Commerce officials, and selected private industrial personnel. This final element was crucial in transforming the NIDC from a concept into an effective operating institution. Training took place in-house, through various groups of advisors, and also in the U.S. Ramesh Dhungel, a former NIDC employee who subsequently became head of the Economic Services Center, commented on the impact of that training in a 1990 interview:

The U.S. has a different style than HMG ... that style is still visible today at the NIDC because of the significance of that early training. Staff discussions are freer and their participation level is high. The impact is so deep-rooted that even though there are no longer any senior level staff who underwent USAID-sponsored training, the habit and style still remains.

By 1964, 60 percent of the technical staff had received training and the NIDC was an operating entity. Services included feasibility studies on potentially profitable industries, assistance from trained analysts in establishing sound ventures, and financing in the form of loans and equity shares. The NIDC's promotion and productivity center conducted frequent courses and seminars.

The NIDC played a major role in policy formation and implementation, acting as the government's industrial policy advisory body and formulating the industrial components of the Five-Year Plans. USAID retained a role in policy formation, with a representative (sometimes the USAID Director) regularly attending board meetings. A steady increase of interest in the private sector and the emphasis placed upon it in the Third Plan indicate the success of the NIDC's efforts to establish sound industrial financing and improve the general investment climate.

USAID supplied half the institution's operating budget through 1968, contributing a total of \$8.2 million. Its policy was to strengthen the private sector as a whole by extending services through the NIDC, rather than to support individual enterprises. By 1971 the NIDC had assisted the establishment or expansion of over 100 enterprises, ranging from producers of jute products, sugar,

matches, and cooking oil, to bus services and hotels. By 1987 it was offering nearly Rs140 million in loans, contributing to project development and providing a needed stimulus for industrial growth.

The NIDC remained Nepal's primary capital institution until the advent of commercial banking in the mid-1980s. Quantifying its role in Nepal's industrial development is difficult, as its impact extends beyond mere investment figures. Even greater has been the fundamental shift in attitudes encouraged by the institution. Forty years ago, the concept of industry was nearly unknown in Nepal. The NIDC's role in propagating awareness of industry and explaining its importance is significant. By providing services, advice, and capital to small industries, it filled a fundamental need in industrial development.



The 1960s

USAID AND INSTITUTION BUILDING

USAID's program during the 1960s emphasized institution building programs at the national level. The expectation was that by providing Nepal with strong Government institutions, through human resource development and democracy strengthening programs, the framework for sustainable economic progress would be established.

Funding Surge

At the beginning of the decade, under the acting directorship of William Tate, USAID's modest program plan combined the Point IV technical assistance model with an emphasis on institution building. The program was characterized by consolidation of projects begun in the previous decade, and included only a few new initiatives. The plan, however, was never implemented, because President Eisenhower's unexpected \$15 million pledge to King Mahendra in April 1960 radically altered the magnitude of U.S. involvement in Nepal's development.

The most immediate impact of the larger program was the need to radically modify the modest program that had been envisioned by Acting Director Tate and his staff. A completely new program had to be designed to accommodate the enormous increase. The \$15 million, intended to assist the newly elected Nepali Congress government to consolidate democracy, represented a 300 percent increase over the previously planned program level. Under Tate's direction, USAID scrambled to obligate the funds, expanding existing projects and developing new ones. According to Mihaly, "the only characteristic that these projects had in common was the U.S. commitment to pay all, or nearly all, costs."

Because Tate believed the total amount had to be obligated within the few weeks remaining before the beginning of the new fiscal year, a hodgepodge of activities was created with little consideration for their potential overall impact, or for HMG's ability to sustain such efforts after U.S. financial support ended. As a result, Tate dramatically expanded existing sectoral programs to increase U.S. involvement in institution building, large-scale infrastructure investment, participant training, and technology transfer.

Only after the total grant amount had been obligated for the 1960/61 fiscal year, was it learned that Washington had intended for the new money to be spent over a two-year period. Tate and his deputy were recalled to Washington, and funds were largely frozen until the new director, John Roach, arrived in late 1960. His arrival unfortunately coincided with the fall of the Nepali Congress government, which effectively dissolved the democratic government that Washington's \$15 million had been intended to support. Release of these funds

was postponed once again while the U.S. and other donors waited to see what form the new government would take.

Nepalese Politics: The Panchayat System & National Development

On December 15, 1960, King Mahendra dissolved the cabinet, arresting Congress Party leaders and suspending the constitution except for articles relating to the declared state of national emergency. Claiming the Nepali Congress government had proven unable to maintain order and provide national leadership, the King formed a new Council of Ministers, and in a January 1961 proclamation banned political parties and introduced a new system of “basic democracy”. The Panchayat Constitution, based on a tiered system of village, city, district, and zonal panchayats or councils, was promulgated the following year.

The King maintained his takeover was in the interests of national development. Hugh Wood quoted the King as saying in a personal interview in 1962 that he “took action to prevent a political disaster”, and also because “there had been no advance towards economic development in eighteen months”.

In an effort to restore what he believed would be political and economic stability, King Mahendra approved the Panchayat Act of 1962. It was intended to create a decentralized power structure providing all citizens with access to economic decision-making and the benefits of development. King Mahendra’s vision of democracy was based on decentralization. The central government would be responsible for developing policy and financial planning, while communities would be responsible for implementation at the local level. The concept was idealistic, as Nepalis largely lacked the skills to participate in implementing the development plans of the central government (for instance, literacy was only 8.9 percent in 1960).

USAID believed that successful implementation of the Panchayat system could create the basic socioeconomic and political links necessary to integrate the country, and could provide an administrative network to carry out nationwide development. The U.S. viewed the Panchayat system as a possible vehicle for mobilizing and developing Nepal’s human resources, a vital step in achieving attitudinal changes necessary for initiating and sustaining economic, social, and democratic political development.

USAID’s mushrooming program, as well as its participation in the development of the Panchayat system, meant an increasing commitment to working with and through HMG’s administrative apparatus. Between 1961 and 1965, 60 to 70 percent of USAID assistance was spent financing recurring costs in various ministries. In addition to working through the central administration,

USAID tried to work directly with local panchayats to provide the skills necessary for decision-making.

Nepal's Planning for Development

In 1960, in an effort to consolidate the decision-making process, King Mahendra reconstituted the National Planning Commission, assigning it responsibility for planning and overseeing implementation of development projects, including allocating funds (such as foreign aid) and manpower. Nepal's Second and Third Plans focused on the development of a national administrative and physical infrastructure, including transportation and communications facilities and exploring the potential for the development of hydropower. Though economic development was highlighted, restrictive policies and a general atmosphere of uncertainty discouraged private and foreign investment. The plans emphasized exploring the production potential of the Terai, large areas of which were being opened by malaria control efforts. While improvements in government administration and delivery of health and education services were spread nationwide, development activities focused on the more easily accessible Kathmandu Valley and the Terai. Despite the new authority of the National Planning Commission, plan projections were unrealistic: HMG lacked the administrative ability, and financial resources and the commitment to implement the plans.

Other Donors

In the early 1960s, Hugh Wood surveyed bilateral donors in Nepal on their priorities in granting assistance. His question: "If all other donor countries agreed, would your country be willing to make your contribution in cash and allow the Nepalese Ministry of Planning to apply it to their master plan in accordance with their priorities?" Except for China, the response was resoundingly negative. The reasons given were fairly standard, according to Wood: "Foreign aid provides an outlet for products of our industry We think we know best what kind of aid we can give Our government (our people) would not support such a program This would reduce the need for our technicians and management."

By the beginning of the 1960s, Nepal had established diplomatic relations with 30 countries, nine of which became donors. King Mahendra courted increasing numbers of donors in an effort to reduce Nepal's dependence on any one country. Increased levels of foreign aid, however, did little to encourage Nepal to implement the reforms necessary to finance and administer its own development schemes. The national development arena was complicated by ideologically opposed donors working side by side, motivated by conflicting political and

economic theories. The presence of multilateral aid agencies further complicated the situation.

Programming U.S. Assistance

Changing Assistance Models

In 1961, legislation was enacted creating the Agency for International Development (AID), which replaced the International Cooperation Agency, USOM's parent organization. One of AID's first tasks was to prioritize its development goals in terms of facilitating economic growth. Wood summarized the era's prevailing theory: economic development was to assist the developing country:

to achieve, as quickly as possible, the take-off point: which according to economists was the point of no return, the point after which growth would continue unimpeded on its own initiative. To achieve this point, inertia must be overcome, projects must be initiated, growth and expansion must become the order of the day.

Wood indicates that USAID's technical advisors eagerly adopted new economic concepts, as they had found the old Point IV maxim of limited technical and financial assistance overly restrictive and inappropriate for low income countries. Acceptance of "the new line" in economic growth was further accelerated by the return of Nepali participant trainees who had been exposed to the new economics while studying in the U.S.

Economists increasingly influenced USAID's program goals during the decade. USAID Program Economist William Thweatt advocated a radical program expansion funded by PL 480 Indian rupees, believing that increased capital investments would trigger increased economic productivity, and eventually lead to overall economic growth. President Eisenhower's \$15 million grant to Nepal in 1960 provided an additional resource to test this theory.

FOOD FOR PEACE: PUBLIC LAW 480

In 1954, as the U.S. was expanding economic assistance to developing countries throughout the world, the Agricultural Trade Development and Assistance Act (Public Law 480) was adopted to promote economic development through agricultural trade. The preamble to the Act states that it is the policy of the United States:

to expand international trade; to develop and expand export markets for United States agricultural commodities; to use the abundant

agricultural productivity of the U.S. to combat hunger and malnutrition and to encourage economic development in the developing countries, with particular emphasis on assistance to those countries that are determined to improve their own agricultural production.

During the 1950s, sales of surplus U.S. agricultural commodities to India generated massive quantities of Indian rupees. While most was used to finance local development projects in India, USAID's Indian program could not absorb the entire amount. Beginning in 1955, when India allowed \$2 million in excess rupees to be used for emergency flood relief in Nepal, the impetus grew to channel surplus PL480 rupees into the Nepal program.

Through the 1960s, Indian currency generated through PL480 sales in India was used to purchase Nepali rupees to finance USAID's local operating expenses and to provide local cost support for USAID projects; to cover costs for Nepalese participants studying in Indian institutions; to purchase equipment from India; and to cover transshipment costs of development commodities. In addition, the PL480 Indian rupees helped HMG to meet its local currency obligations to other donor-assisted projects.

In the short-term, the proliferation of Indian rupees allowed HMG to increase its domestic resources and preserve valuable foreign exchange. Through joint programming, the U.S. was able to influence the use of the PL480 rupees. Unfortunately, HMG's increasing reliance on U.S.-donated Indian rupees to meet both regular and development expenditures delayed necessary tax, monetary and trade reforms, and led HMG to depend on U.S. assistance for its recurrent budgetary expenditures. USAID not only paid for its own new projects, it financed the operations of a majority of Nepalese ministries.

PL480 Indian rupees funded a major expansion of USAID's program in the early 1960s. Of \$136 million in U.S. assistance commitments between 1951 and 1972, over 50 percent was in the form of U.S.-owned Indian rupees. The increased capital input did not have the intended effect on economic productivity, as Nepal's subsistence economy did not encourage such efforts, and much of the funding was aimed at non-productive activities such as administrative and other recurrent costs.

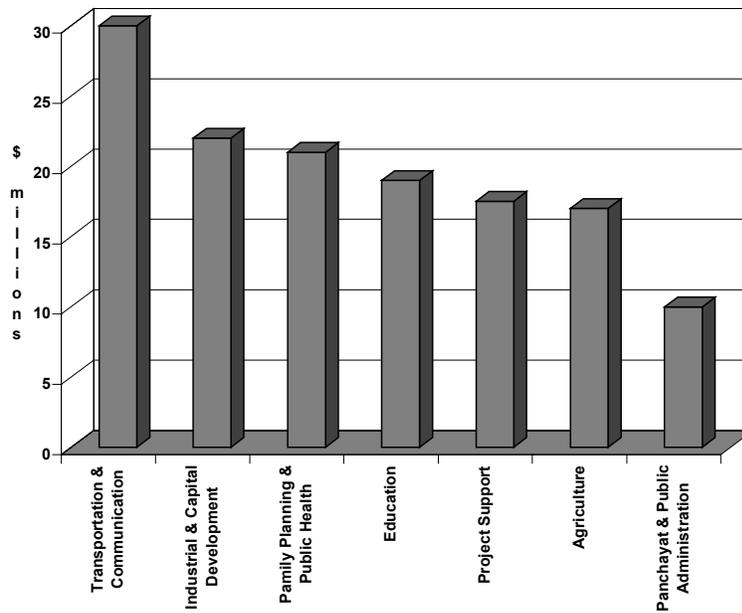
In 1969, when USAID began reducing annual program levels and staff in line with AID's worldwide retrenchment, USAID/Nepal's program began reverting to dollar financing, and local currency support was greatly reduced.

Washington mandated an increase in dollar financing and a reduction in local currency support in an effort to centrally control the programming of funds: Indian rupees, which were not appropriated by the U.S. Congress, were not subject to programming under AID's functional account categories.

Ranking USAID Priorities

Between 1952 and 1967, U.S. assistance to Nepal totaled approximately \$100 million. Only \$5 million was in the form of loans, most meant to increase the capacity of the Nepal Industrial Development Corporation to provide loans for private enterprise development.

Grant Assistance 1952-1972



To ensure country programming represented local priorities, AID/Washington created special functional account categories which USAID adopted in 1962. The new parameters included Government Administration (encompassing activities in general public administration, agriculture, health, and education), Education and Training, Transportation, and Special Activities (infrastructure projects, pilot studies, and surveys).

The names and relative importance of these accounts changed as economic assistance strategies evolved over the decade. For USAID, this meant periodic recategorization of its activities. In 1962, Government Administration and Education and Training were top priorities. By 1964, USAID was focusing on more directly productive activities as the means to achieve rapid economic development, and hence accorded Rural Development (including development of panchayats, agriculture, transportation and malaria eradication) top priority.

Program Administration

By 1962, USAID was staffed by more than 50 U.S. technicians and administrators, many of whom were implementing projects (a job now done primarily by contractors) as compared to an average of eight in the previous decade. The personnel increase consumed program funds, resulting in a decrease in the amount of funds actually spent on projects. This met with criticism from Nepalese, who would have preferred the money spent in other ways (Wood 1987).

To improve project design and implementation, USAID increasingly relied on sector assessments, pilot studies, and the “hands-on” field presence of Peace Corps Volunteers. PCVs played a vital role in assessing local communities’ receptivity to project activities, and in identifying potential implementation problems. Toward the end of the decade, when a worldwide reduction in USAID staff was mandated by Washington, USAID / Nepal turned increasingly to PCVs, contractors, and former participant trainees to implement its programs.

U.S. Assistance to Nepalese Administrative Reform

Public Administration

Nepal is a classic example of a traditional society with most of the predominantly rural populace illiterate; conditioned to stern authority exercised by the socioeconomic elite; exercising little control over their own destiny and existing at near subsistence level. To this rather bleak situation must be added other complexities such as the variety of ethno-linguistic groupings, poor communications, isolation, lack of transportation facilities and relatively weak and unsophisticated systems

of administration ... modernization then is dependent upon rapid and dramatic changes in the institutions, values and attitudes.

—USAID Capital Assistance Program Document, September 1965

Believing that economic growth was unlikely to be achieved until government administration improved, starting in 1962 USAID made its assistance contingent upon HMG acceptance of an administrative reform program. USAID's comprehensive support for development of public administration included: 1) improved planning and administration of economic development activities; 2) assuming construction costs and operating expenses for HMG ministries, departments, government organizations, local administrative offices, post offices, schools, and libraries; 3) support for implementation of the Panchayat system to encourage decentralized administration; and 4) training technical and clerical staff. While most assistance was directed at the central government, some was intended to enhance decentralization to the local level to improve implementation and maintenance of development projects.

USAID contributed directly to administrative reform through the General Public Administration Project (eventually renamed Management Improvement and Training), which aimed to assist HMG in the “development and implementation of an administrative system at all levels of government which can function effectively within the framework of economic, social, and cultural changes taking place in Nepal.” The project sought to turn a static civil service into an efficient agent of modernization. Over the decade, the project grew to encompass sub-components in statistics development, government budgeting and accounting, and revenue administration, and sought to improve administrative practices in the agriculture, public health, and education sectors. The U.N. complemented USAID by providing technical advisors for many of these activities.

Development of Nepal's Planning Capacity

As a result of increasing demands for reliable data with which to measure economic progress and accurately plan development activities, USAID undertook through its Statistics Development Project to develop a “competent, efficient, governmental statistics organization to collect, compile and disseminate” statistical data. Initially, USAID assisted with population, agriculture, and industrial censuses; conducted family budget and price surveys; collected import/ export data; and helped to publish the monthly *Nepal Statistical Bulletin*, and an annual *Statistical Handbook*. Later assistance included construction of an office for the Central Bureau of Statistics, and the donation of an offset duplicator press and an IBM computer (Nepal's first) to help create a central statistical data base. In 1965, USAID helped HMG draw up a five-year statistics development plan with which to carry out data collection activities on its own.

HMG's lack of a reliable budgeting system was addressed by USAID's Budgeting and Accounting Systems Development Project, which resulted in the introduction of a double-entry accounting system. This was accompanied by publication of the "Manual of Accounting" and extensive in-service training for civil servants in Kathmandu and at district and local levels.

In 1968, a related project was developed to improve the revenue collection system. Government revenues the preceding year had been less than half of projected expenditures. The government operated at a deficit, and remained heavily dependent on foreign aid to finance its operations. The U.S., with its huge influx of PL 480 Indian rupees, and other donors, were partly responsible for this dependency. Since foreign aid was so readily available without conditions, it is not surprising that HMG did not undertake necessary administrative and economic reforms.

Institution Building

Some of the more visible and successful examples of USAID assistance to institutional development in the 1960s included programs designed to strengthen the Department of Public Administration, which established standard administrative procedures and training for civil servants; the Central Bureau of Statistics, charged with gathering and compiling data to support improved economic planning; the Central Training Department established within the Ministry of Economic Planning to improve evaluation and implementation of development projects; and the Department of Panchayat Training and Development, developed to encourage local leadership at the grassroots level. USAID assisted with the establishment of many other institutions in the Kathmandu Valley and in rural areas to train technicians and administrators in agriculture, health, and education. USAID also contributed to institutional development outside Kathmandu by constructing zonal, district, and local administrative offices and by training the staff to operate them.

PARTICIPANT TRAINING AND INSTITUTIONAL DEVELOPMENT

A premium is placed on correct adherence to procedures and the avoidance of error rather than on dynamic and risk-taking decision-making in new situations. Where jobs are few, and government service is the principal employment of educated persons and there is little competition for manpower from the private sector, there is an understandable preoccupation with job

security which results in conformity rather than in experimentation and bold innovation.

– USAID Development Assistance Report, 1968

The U.S. emphasized human resource development in the 1950s as a means to implement projects and provide the government with competent administrators. In the early 1960s, it remained a priority, especially in terms of the civil service. Various projects supported in-service (and some pre-service) training programs that effectively introduced new procedures into the workplace, assisting in developing HMG's capacity to train new civil servants and to improve the skills of tenured civil servants. In-service training was considered the easiest and most cost-effective method of training large numbers of civil servants, and was seen as the most rapid and reliable means of improving government operations. Though most in-service training involved the public sector, several small programs aimed at providing practical skills training for craftsmen, as well as instruction in small-scale industrial development to assist with establishment of cottage industries.

While in-service training aimed at middle-level civil servants, USAID's Management Improvement and Training Project targeted the decision-makers responsible for establishing and implementing policy. It was thought that these participants could infuse the traditional administrative system with the vitality and skills needed to introduce innovation and effect major changes. Between 1960 and 1969, USAID trained 1,298 participants, as compared with 164 in the previous decade.

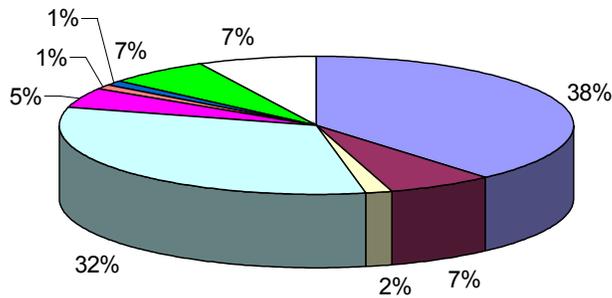
In 1960, the U.S. signed an agreement with India allowing USAID to use a portion of U.S.-owned Indian currency to train Nepalese in Indian institutions (43 percent of all participants were trained in India between 1952 and 1990). This greatly increased the numbers of participants by reducing the cost and logistical problems of sending them to the U.S. An important advantage was that Indian training was often more appropriate to Nepal.

By 1967, USAID had shifted its institutional development focus from direct financing of government institutions to supporting increased participant training. This was considered a more cost-effective means of instituting administrative reform and speeding up modernization. USAID ensured that participants' new knowledge was actually applied by training employees on the condition that they would receive an HMG position in their field of study upon return.

The participant training program focused almost exclusively on the public sector and the educated elite and included few women. Eighty percent

of all participants were from the Kathmandu Valley (the English language requirement prevented most rural applicants from being accepted), and as a result, returning participants swelled the already over-crowded ranks of the civil service in Kathmandu. Most preferred to remain jobless rather than be posted to rural areas. Nepalese economic, administrative and social traditions were in large part responsible for these limitations. Though USAID's training program during the decade did not significantly alter the nature of Nepal's traditional administrative structure, it played a significant role in alleviating some of Nepal's skilled manpower constraints.

Participant Training 1960 — 1969



- Agriculture, Forestry, & Natural Resources
- Health / Family Planning
- Education & Human Resources
- Public Admin. Management & Planning
- Energy, Engineering, Industry & Mining
- Communication & Transportation
- Women's Empowerment
- Democracy
- Miscellaneous

AGRICULTURAL DEVELOPMENT

Decade Beginning: Assessments and a Changing Context

In the early 1960s, USAID and other donors took a hard look at the previous decade of assistance and began to rethink development strategies. What impacts had a total of \$3.4 million in U.S. agricultural assistance in the 1950s had on agricultural production and economic growth? Was there a more effective agricultural strategy to support Nepal's development needs?

Adoption of new crops or varieties from plant introduction centers had been limited. One assessment (1961 Program Budget) stated: "A great deal has been attempted, but the results to date have not been proportional to the amount of activity and effort." This assessment concluded there had been slow and generally unsatisfactory progress in crop disease control, horticulture and livestock improvement. USAID concluded progress had been slow because of scarcity of trained personnel, poor administrative organization, and lack of continuity in administrative personnel and field technicians. The few agriculture experiment stations and farms had limited facilities and equipment, poor staffing, and unreliable programs.

In 1961 Harry B. Price, a U.N. financial adviser to HMG, concluded that the economy had not changed appreciably since 1951. He found that technical innovations introduced through foreign aid programs had continued as experiments or demonstrations without being adopted by Nepali farmers. John Hitchcock (n.d.), an anthropologist working in the Hills south of Pokhara, found "little technical change", although there was greater monetization of the local economy, with Indian goods being purchased with remittances received from local men working in India. An AID agricultural assessment in 1964 (*Agriculture in Nepal, 1964*) described conditions similar to those at the beginning of the Point IV Program in 1951.

Ford Foundation agrarian reform specialist Wolf Ladejinsky attributed the lack of agricultural progress to HMG's failure to implement land and tenancy reform. He argued that tenants would be unable to take advantage of improved agricultural technology as long as their landlords perceived innovation as a threat to their elite positions. USAID agricultural advisors, however, felt farmers were not receiving the message as there was a lack of trained extension personnel.

They felt the Village Development Service provided inadequate agricultural extension services, as it had other rural works responsibilities.

HMG Removes Key Managers

The extensive purge of civil servants following the establishment of direct rule by King Mahendra resulted in a loss of the top administrators in agriculture, among other sectors. Many of these were skilled program managers, extensively trained by USOM. Mihaly, a close observer of the after-effects of this event, noted that the “elementary administrative competency which had been painstakingly created” was destroyed. Civil servants were once again reminded that bold actions led to political vulnerability, and inaction was the safest course.

Increased Funding for Agriculture

The \$15 million grant unexpectedly approved by President Eisenhower in 1960 led to a dramatic surge in USAID’s agricultural activity. The original agricultural agreement for 1961 had provided \$90,000 in new funds to support the General Agriculture Project, with small-scale activities in agronomy, horticulture, plant protection, and agricultural extension. With announcement of the \$15 million grant, agricultural assistance was boosted to \$1.5 million, mainly by expanding construction activities for research stations, and supporting DOA recurrent costs, establishment of an Agricultural Development Center, a “Grow More Food Campaign”, an irrigation project, and a fisheries project. The final revision signed in late June 1961 provided \$921,574, dropping the irrigation project and reducing construction to six agricultural stations and three horticulture stations.

The U.S., was spending 83 percent of its agriculture funds on recurrent costs of the Ministry of Agriculture. Mihaly makes the point that this inflated U.S. assistance significantly expanded government operations and personnel at a time when HMG had a limited income to financially sustain such operations.

Reformulation of AID Programming Priorities

When AID/Washington redefined its programming priorities in 1962, agriculture *per se* was dropped as a programming focus. Activities were dispersed into cross-sectoral categories of training, government administration, and development of financial institutions, thus precluding a unified attack on agricultural problems. In addition, agricultural research fell out of favor as a disenchanted AID/Washington began to rethink its strategy. AID argued that agricultural research investments in Nepal were not worthwhile, because the Second Plan did not view agricultural research as a development priority, and HMG performance in land and administrative reform had been disappointing, thus limiting the usefulness of research.

Early 1960s: U.S. Agricultural Assistance Program

At the decade's beginning, USAID made a conscious judgement as to factors it felt it could not effectively influence with project assistance and those it could. At this point it was hesitant to directly address structural constraints requiring fundamental HMG reforms. These included reform of feudal land tenure systems, increasing farmer ownership of land, reducing absentee landlordism, organizing commercial and cooperative agencies to provide farm inputs and credit, and enacting effective water rights laws.

Conditions USAID felt it could effectively address included increased training of agricultural specialists, improvement of Department of Agriculture administrative organization (particularly delegation of authority); training and support for new agricultural extension workers; and encouraging donors and HMG to select projects based on their potential contribution to economic growth.

Reduced Assistance for Agricultural Research

Up until 1963, USAID continued modest support for agricultural experiment stations, hoping to start programs for testing new varieties and expanding seed multiplication. The extraordinary \$15 million allocation for 1961 through 1963 resulted in a substantial but brief surge in agricultural station construction. Following an AID initiative in 1963, USAID pruned away several agricultural research projects begun in the 1950s in order to support a new set of program priorities. Terminated projects included crop improvement, livestock and poultry improvement, fisheries development, plant protection, soil survey, and a planned agricultural development center. It was argued that previous U.S. support had created sufficient competence in technical agricultural sections of the DOA to backstop agricultural extension and support agricultural development in general. However, the following comment about the livestock program indicates nagging doubts in USAID about the sustainability of such programs without USAID support:

The U.S. contribution to the activity represents practically the entire budgetary resources (of the livestock program). With the termination of U.S. financial support, it is problematical as to whether HMG can find the resources within its own means or obtain financing from some other foreign aid source... [the] activity may have to be curtailed or eliminated.
 –1963 Field Proposed Program

Support for Agricultural Extension

In line with AID's programmatic shift in the early 1960s from agricultural research to agricultural extension, USAID began assisting the Ministry of Agriculture in creating an effective Agricultural Extension Service. In the late 1950s, some

USAID extension advisors had optimistically maintained that with U.S. assistance, Nepal could build an agricultural extension service by 1962. They considerably underestimated the difficulties involved in achieving this goal.

USAID, the sole donor supporting this program, provided the extension service with five U.S. advisors, support for salaries and operational costs, and participant training in the U.S. and Philippines for DOA administrators. Other participants who had received U.S.-funded B.Sc. training in Indian agricultural colleges were assigned as zonal extension supervisors, district agricultural development officers, and instructors in the Agricultural Extension Training Center. The USAID project established this Center to “break the major bottleneck” caused by a shortage of trained agricultural specialists. The Center trained Junior Technical Assistants (JTA) to act as farm-level extension agents in districts.

Support for Agricultural Systems Management

USAID supported several agricultural activities under AID’s Government Management and Institutional Development priority, including participant training in agricultural fields to strengthen management of the DOA central office and agricultural stations and farms; local currency, training, and technical assistance to improve data collection and analysis skills for planning agricultural programs; and establishment of a small Agricultural Economics Section in the DOA. USAID also supported the first National Agricultural Census in 1962 and 1963, and assisted with compilation and analysis of census data by the Central Bureau of Statistics. Although there were a number of problems with this census, it was the first major effort to collect national agricultural statistics.

AID Skepticism About Land Reform Plans

Early in the decade, USAID joined with other donors to push HMG to seriously address the issues of land and tenancy reform. Led by Ford Foundation land reform consultant Wolf Ladejinsky, donors prodded HMG to approve the Agricultural Reorganization Act (ARA) in 1963. Following the model of his successful land reform work in Japan during the U.S. Occupation, Ladejinsky helped design a land and tenure reform strategy for Nepal that was incorporated

into the ARA program. One aim of the program was to provide critical incentives to Nepali farmers to increase production. The ARA program also included a complex plan for compulsory farmer savings and reinvestment in local industry and infrastructure. The Ford Foundation’s Economic Advisory Group provided guidance to the Ministry of Economic Planning and the new Department of Land Reform for implementing the ARA program in selected districts.

Although USAID had joined in pressing for a land reform program, it doubted the potential effectiveness of the ARA program. An AID agricultural assessment team (Agriculture in Nepal, 1964) pointed out serious implementation problems in the Nepal context, including inadequate records of ownership, cultivation rights, and crop yields necessary for determining land redistribution, tenant rights to land, and rental rates. Team members were skeptical about HMG capacity to manage the program:

To sum up, the directives prepared for carrying out the ARA on an experimental basis lack realism. The numerous measures ... appear to be beyond the financial and technical capacity of the country. The diversity of steps proposed endangers the achievement of the real objective of the ARA, namely control of rental rates, protection of tenancy rights, splitting up large holdings and redistribution of land. The [team] ... considers it advisable to ... apply simple methods which are adequate to the present conditions in the country The Government will need to take a determined stand to overcome any resistance on the part of the landowners Any administrative machinery for the implementation of the ARA is still missing.

USAID limited its support to providing technical advisors and funding for a cadastral survey, which covered 20 Terai districts with a total of 1.9 million hectares of agricultural land. It provided a data base for a land revenue and administration system and land reform measures.

Agricultural Credit Activities

Skeptical of the ARA land reform effort, USAID turned to development of agricultural credit institutions as an alternative strategy “to break the cycle of feudal land tenancy and debt repayment problems of Nepali farmers”. In the early 1960s USAID supported the Department of Cooperatives’ efforts to organize village cooperatives. By July 1963, Rs3.5 million in loans had been extended to 870 cooperatives with 21,000 members. Most of the loans went to Rapti Valley cooperatives supported by the USAID resettlement scheme.

USAID supported the establishment of the Cooperative Bank in 1963, and from 1964 to 1970 provided an agricultural credit advisor and loan capital of \$1 million in local currency. However, USAID felt that the bank’s priorities — financing ARA reforms and providing credit to small-scale cooperative societies — reflected political pressures and prevented the bank from operating on sound economic grounds. USAID also provided an advisor and funded foreign and in-country training and some operational costs for the Department of Cooperatives. Given Nepal’s lack of experience in managing agricultural credit systems, USAID

cautioned that staff and funds should be concentrated in a few districts promising the best results.

Mid-Decade: Refocusing the Agriculture Program

Rural Development Division

In 1964, USAID created a new Rural Development Division, covering all project activities requiring active participation of rural residents. Projects included Panchayat Development, Agricultural Extension and Training, Cadastral Survey, and Agricultural Credit and Cooperatives. Limited agricultural technology activities continued under the Public Administration umbrella until they were shifted to this division in the latter half of the 1960s. A strong effort was made at this time to pull HMG agencies responsible for rural development programs away from their strong Kathmandu orientation. Using the new USAID helicopter and STOL aircraft, some senior and mid-level Nepali officials were willing to visit remote areas with the rural development staff.

Strong Criticism

A series of events between 1964 and 1966 helped push agricultural development back to top priority for USAID and HMG. First was strong criticism of USAID's agricultural program by an assessment team sent out by AID in 1964 to review the sector in preparation for HMG's Third Plan and USAID's response (Agriculture in Nepal, 1964). They found the Extension Service approaching its numerical targets for the Second Plan, with eight zonal and 55 district offices in place, and 100 JTAs, 15 youth workers, and 10 home economic specialists in the field. Little impact could be seen on farm production, however. The team concluded:

The promotion of higher standards of technical knowledge and operational capability of the existing staff appears more important than extending... to additional [geographic] areas. Moreover ... the activities of the Extension Service, might well be concentrated on a few major projects offering optimum results at the present stage for increasing agricultural output

The assessment team believed the lack of technical substance in the extension program was related to ineffective early technical programs and serious recent cutbacks in agricultural research, as well as a simplistic extension model "in which farmers were being exhorted to work harder and to do better almost exclusively within the framework of their existing technology."

The AID team also investigated the DOA research system, then staffed by about 70 agricultural graduates in headquarters in Kathmandu and 40 working in the field network. (The Government of India had funded B.Sc. degree training in

India for the Nepali agriculturalists). The team commented that “Most of the staff are very young and lack experience both in organization and in the operation of projects.” It noted the network of field stations in the Terai and Kathmandu, Pokhara, and Rapti valleys had inadequate staff, facilities, and equipment. Because agricultural research in Nepal was “still at its beginning”, the team recommended:

...the number of research projects should be restricted and concentrated on those projects which offer the best possibilities for quickly increasing agricultural output. Nepal can take advantage of results of research work undertaken in other countries under comparable conditions and avoid needless duplication.

Further weaknesses were revealed in the 30 villages where the extension program had carried out a special “Grow More” activity, with demonstrations and distribution of improved seeds, tools and vegetable and fruit seedlings. The program had created “an almost insatiable demand for improved seed and plant materials” among farmers, but with no increase in seed and seedling production and supply systems to meet this demand.

The general consensus of insufficient progress was apparent again the following year, when the AID Mission disagreed with a departing extension advisor’s conclusion that “it appears Nepal is ready for ‘take off’ with an extension program that will make a real impact on production”. The Mission Director wrote:

[The advisor]...has painted a somewhat overly rosy picture of this activity. In very general terms USAID does not consider this project to have been a success We have not managed to adapt the agricultural extension techniques so successful in some parts of the United States to local conditions

This growing sense of dissatisfaction with USAID’s agricultural program combined with several factors in the mid-1960s to generate a new approach.

Mid-Decade Drought

The devastating drought of 1964/65 in India and adjoining countries underscored the need for a revised agricultural development program in Nepal. Its impact led USAID and Nepali planners to define a key development problem in Nepal: recurring food deficits in unfavorable agricultural years. This problem was consistently exacerbated by simultaneous food deficits in India causing a high demand for Terai grains, resulting in reduced supplies in Nepal and sharp price increases. This realization influenced HMG’s Third Plan, as funding for agriculture moved up from seventh to third place.

In 1965/66 USAID made increases in production of cereal crops — rice, corn, and wheat — a primary investment goal. A secondary goal was establishment of an improved grain distribution and storage system to provide surplus Terai grains

to chronically food-deficit Hill areas. This “compelling need for increased agricultural production to feed a growing population and to provide an economic base for overall development” provided USAID a rationale for resurrecting the General Agriculture Project, now renamed the Food Grain Production Project.

New Model, New Varieties

A third key event affecting USAID’s agricultural strategy was publication in 1964 of *Transforming Traditional Agriculture*, by T.W. Schultz. The book provided a new model for improving agricultural productivity in traditional systems such as Nepal’s. Its key conclusion was that farmers were rational, and would adopt new technologies and produce more when provided with necessary inputs such as affordable credit, improved seed, fertilizer, tools and water on the one hand and accessible, profitable markets and storage for surplus production on the other. Earlier agricultural development models had tended to minimize the rationality and complexity of farmers’ decision-making, including their adoption of new technologies.

A fourth factor, which came on the scene at mid-decade, gave further impetus to new investments in the agricultural sector. By 1965 / 66, the remarkable production potential of new High Yielding Variety (HYV) cereals was beginning to be realized at international research centers in India, Mexico, and the Philippines. Agricultural development specialists began to refashion agricultural assistance programs to capitalize on new HYV technology and to apply Schultz’s more comprehensive model.

Late 1960s:

USAID/HMG Cereal Grain Campaigns

A Bold Coordinated Approach

Continuity in vision, strategy, and management for USAID agricultural development efforts from 1966 to 1972 was provided by Dr. Raymond Fort, the agricultural economist who was Chief of the Rural Development Division, later the Food and Agriculture Division. He articulated the Schultz development model and the complex implementation strategies it required to his large team of U.S. advisors, to PCVs, and to HMG counterparts. It was substantially due to his vigorous management and ability to motivate both Nepalis and Americans that so much progress was accomplished in a relatively short time. Fluent in Nepali, he actively communicated with diverse Nepali audiences, enjoying the confidence of many Nepali decision makers. In addition, Agronomy Advisor Dr. Glen Johnson’s

work helped shift the program emphasis toward research and adaptation of improved technologies from outside Nepal.

With the urgent need to increase foodgrain production providing a new focus, USAID and HMG began concentrating resources and agricultural service programs in areas with the greatest production potential – the Terai and the Kathmandu, Pokhara, and Rapti valleys. This coordinated program targeted five districts in 1966, nine in 1967, and 16 in 1968. Task forces were developed to support “Grow More Wheat”, “Grow More Rice”, and “Grow More Corn” campaigns, and to pursue targets for increased yields and expanded areas of HYV production. The ambitious objective was to increase cereal production by 12 percent from 1966 to 1970. Specifically, this would require substantially increased rice and maize production and introduction of wheat as a second crop in the spring season.

As part of the Food Grain Production Project, USAID assisted HMG in restructuring the Department of Agriculture to form functional sections for Production, Research, Extension, and Training. USAID resurrected support for agricultural research, but now the emphasis was on adaptive research, more systematic and focused than previously. Researchers conducted trials on improved cereal varieties brought into Nepal through USAID-funded links with International Agricultural Research Centers (IARCs), including CIMMYT in Mexico, IRRI in the Philippines, and the Rockefeller Foundation in India. The project emphasized out-of-country training for agricultural researchers and extension staff. Most USAID-funded technical training in the late 1960s took place in Indian universities, where the U.S. had already made considerable investments in technical assistance and scholarships were supported by PL 480 rupees. In addition, researchers were sent to the U.S. and other countries for graduate training in agricultural research.

Revitalized Field Network For Targeted Districts

To strengthen varietal testing and breeding programs and insure rapid and significant returns in farmer productivity, USAID posted U.S. technical advisors at research stations. In 1967, three former PCVs with agricultural degrees were hired as junior Officers-in-Training (JOTS) to work as Resident Agricultural Advisors at Biratnagar, Rampur, and Janakpur Stations. In 1968, three senior direct-hire agricultural technicians were added at Nepalgunj, Parwanipur, and Bhairahawa. These U.S. advisors brought badly needed jeeps and “expeditor” energy to the stations, working closely with Nepali field researchers to carry out simple varietal selections, test improved varieties of wheat, corn, and rice in local conditions, conduct demonstration trials on-station and in farmers’ fields, and carry out improved seed multiplication and seed distribution.

In addition, Resident Station Advisors and other USAID advisors supported extension staff in surrounding districts, specifically the District Agricultural Development Officers (DADOs), joint Nepali/Peace Corps teams, and Subject Matter Specialists located at stations. They organized training, farmer field days and field demonstrations, and provided necessary inputs for improved farmer production. USAID technical staff supporting research and extension field efforts included most of the 16 U.S. direct-hire agricultural staff, two contract staffers, and five Nepali technicians. In addition, 50 to 70 PCVs joined Nepali technicians to form JTA teams to work in targeted districts.

Credit and Agricultural Input Institutions

As part of its agricultural production strategy, USAID pushed HMG to transform the Cooperative Bank into the more “bank-like” Agricultural Development Bank. The new bank was encouraged to maintain credit discipline, and to expand its support to individual farmers rather than restricting its services to the organizational and political needs of the cooperatives. USAID helped integrate the Agricultural Development Bank and Department of Cooperative efforts into the production campaigns for rice, wheat, and corn. However, USAID finally terminated its support for cooperatives in 1968, after a study by a national commission found that only 200 of 1,200 cooperatives were financially viable, and that they served mainly the traditional elites. At the end of the decade, the Asian Development Bank stepped in as the bank’s primary donor. USAID continued to sit as an advisor to the ADB / N board into the early 1970s, and provided a \$500,000 grant to help HMG meet its local currency contribution requirement for a \$2.4 million Asian Development Bank loan.

In early 1966 a new USAID project helped HMG establish the Agricultural Supply Corporation (ASC) to purchase, treat, store, and distribute improved varieties of cereal seeds. The ASC mainly imported seeds from India and Pakistan, occasionally brought in seeds from the U.S. or Mexico, and sometimes purchased them from Nepali agricultural stations and individual farmers working under seed multiplication programs. In addition, the ASC was responsible for purchasing, storing, and distributing (through the cooperative societies) fertilizer, insecticides, pesticides, and tools. In 1971, it was merged into the Agricultural Marketing Corporation. USAID funded technical assistance to help establish an operating system for the new organization, and supported construction of six Terai godowns and a storage facility in Kathmandu.

Problems and Program Refinements

In spite of \$4 million invested in the Food Grain Production Project through 1968, farmers were not increasing cereal production fast enough to reach the target of a

12 percent increase by 1970. Partly this was because research focused on high-technology inputs, such as irrigation water, fertilizer, and improved seeds, which remained unavailable to many farmers. Even Terai farmers, with exceptionally fertile land and a relatively good transport system, could seldom match the optimal production conditions of the research stations. The program provided special services to progressive “cooperator farmers”, assuming that new technology packages would “trickle down” from these model farmers to neighboring small farmers. However, the full package was seldom feasible or profitable for small farmers.

Even if a farmer had adequate irrigation, accessibility and timeliness of other inputs remained problematic. USAID support for the ASC ended in 1970. A 1971 AID appraisal team concluded they were “not satisfied that ASC is capable of keeping up with effective demand in the Terai.” There were bottlenecks in receiving imports and in timely distribution of inputs to farmers. The team blamed “managerial lapses” of the parastatal organization, and urged USAID to contract another U.S. “expeditor” to help ASC improve fertilizer and seed distribution programs. A former USAID agricultural advisor noted that at that time, no one in USAID or HMG thought of a private sector alternative (Antholt, personal communication, 1990).

Import of improved cereal seeds from India was unreliable, causing serious supply disruptions in Nepal. The 1971 assessment team urged that USAID and HMG initiate seed multiplication programs at its Terai stations, to produce sufficient foundation seed to distribute to cooperating farmers. These farmers would be encouraged to multiply seed further. The team found that ongoing pilot farmer-based seed production programs were disorganized and lacked quality control. Also, research stations sometimes were not authorized to accept seed contracted from farmers. UNDP was expected to take responsibility for this program, but the team urged USAID, as the main “engine” behind the strategy, to be “on guard” and step in if this effort was unsuccessful.

An earlier assessment team concluded that USAID and HMG “have preoccupied themselves with the production aspects and given insufficient attention to the sale of the product.” Little information was available to farmers on market prices and networks, and no one was looking at farm level production economics to see if there were sufficient profits to cover input costs and marketing efforts. As the team noted, “the argument for the research / extension strategy is vulnerable unless a reasonable case can be more easily made that gross off-farm deliveries will be sold and they will be sold at a price profitable to the farmer.” The team did not envision a future marketing problem for Terai grain, even if India moved into a surplus cereal position.

Because of rapidly increasing grain production in the Kathmandu Valley and Terai, the team recommended that USAID begin an Agriculture Marketing Project (started in 1968) to deal with grain surpluses beginning to build up in research / production project areas. The project constructed nine storage facilities for cooperatives in the Kathmandu Valley, additional godowns in Terai grain surplus areas, and five godowns in food deficit Hill areas for storage of buffer stocks. USAID planned experimental marketing programs in 1970 for cereal grains (particularly wheat) and cash crops promoted by HMG.

One problem at the end of the 1960s was the competition between various donor agricultural projects for fire-attention of DADOs, JTAs and panchayats. Also, USAID itself had supported development of a number of farmer support systems that required careful coordination at the district level to ensure farmer benefits. To sort out relationships among developmental institutions such as cooperatives, credit providers, research stations, extension, and land administration at the district levels, USAID supported establishment of District Agricultural Coordinating Committees, bringing together relevant agencies and headed by the Chief District Officer.

In Kathmandu, agricultural task force teams were organized with USAID assistance, including representatives of Land Reform, Research and Extension, the ASC, and the Agricultural Bank. These groups visited the most productive districts for joint planning exercises. One USAID advisor was assigned to work with the experimental Bhaktapur Project, which aimed to develop a system for monetizing farmers' compulsory grain savings and provide credit for production inputs. This required coordination among several programs at the district level and above. Effective coordination of the new agricultural institutions created in the 1960s would continue as a thorny problem into the next decade.

What Was Accomplished?

A rough estimate of U.S. investments in agriculture in Nepal in the 1960s is \$10.5 million. What was achieved with this substantial investment?

Because of intensive U.S. support for the Nepali agricultural research system in the late 1960s through the Food Grain Production Project, it is generally agreed this was the period when effective station facilities, an operating system for adaptive research on cereals, and adequate seed multiplication facilities were first established in the Terai and at Khumaltar and Kakani in the Kathmandu Valley. During this period, the U.S. also supported B.Sc. training for approximately 350 Nepali agriculturists in India, and provided short-term and advanced degree training for more than 150 other Nepalis in the sector in the U.S., Mexico, Philippines, and India. Initial linkages were established with international research

centers including IRRI, CIMMYT, and the Rockefeller Foundation in India, providing access to improved genetic material for adaptive testing. Thirteen improved cereal varieties had been released by 1970.

Still, at the end of the 1960s Nepal's research linkages and field research system remained heavily dependent on U.S. energy, contacts and know-how. A 1971 appraisal team observed continuing dependence on U.S. station advisors, their much-traveled supervisors, and Division Chief Dr. Raymond Fort "in getting things moving." They recommended that USAID continue this prominent field role. One advantage was that U.S. advisors came to the field with accoutrements critical to effective rural work, such as jeeps, good research contacts, and efficient logistics support.

Part of the problem was that Nepali agriculturalists were learning new skills and new roles. Out-of-country training further drained an understaffed research and extension system. In addition, there was the continuing challenge of decentralizing research efforts and posting well-trained young men to remote research stations. In 1970, of 114 college graduates in the DOA, 96 were posted to Kathmandu. The best that could be said was that trainees were sometimes willing to be posted in the Terai.

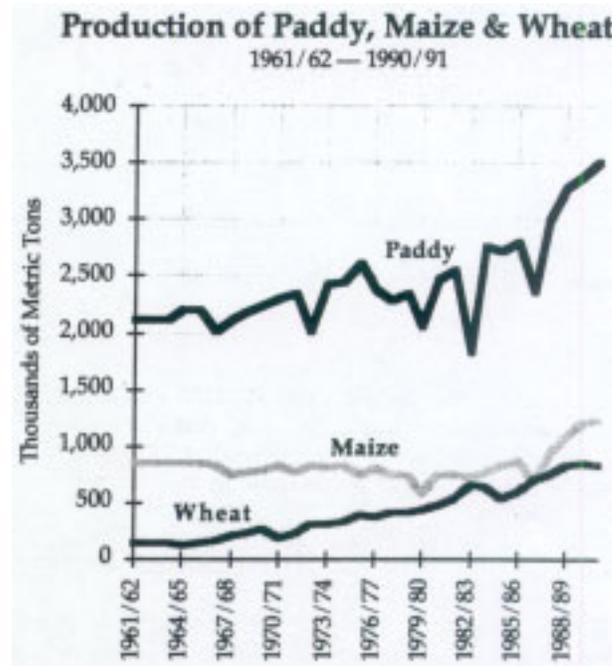
Cereal Crop Varieties Released by Plan Period

	I-III prior to 1970	I V 1970-75	V 1975-80	V I 1980-85	VII 1985-90	Total
Rice	8	6	4	6	9	33
Maize	3	3	1	2	3	12
Wheat	2	3	1	6	3	15
Total	13	12	6	14	15	60

Source: Agricultural Research Policy in Nepal: Strategy and Management Guidelines, ARPP Consultancy Report No. 19, August 1990.

A second area of accomplishment was establishment of support institutions deemed essential for farmers under the Schultz model of agricultural development. These institutions included the ADB, cooperatives, the ASC, an extension system working more closely with research stations in selected areas, and the Agricultural Marketing Corporation. The Extension Service, non-existent at the beginning of the decade, by the end had expanded to include 51 district offices and JTAs in half of the nation's 3,700 village panchayats. The ASC increased sales of all inputs from 1966 to 1970: fertilizer sales from less than Rs1.0 million to Rs16.9 million; sales of plant protection materials from Rs21,000 to Rs200,000; seed sales from Rs470,000 to Rs997,000; and agricultural tools and other inputs from Rs23,000 to

Rs1,145,000 (USDA, 1973). The volume of Agricultural Development Bank loans increased from Rs0.9 million in 1963 to Rs52.7 million in 1970.

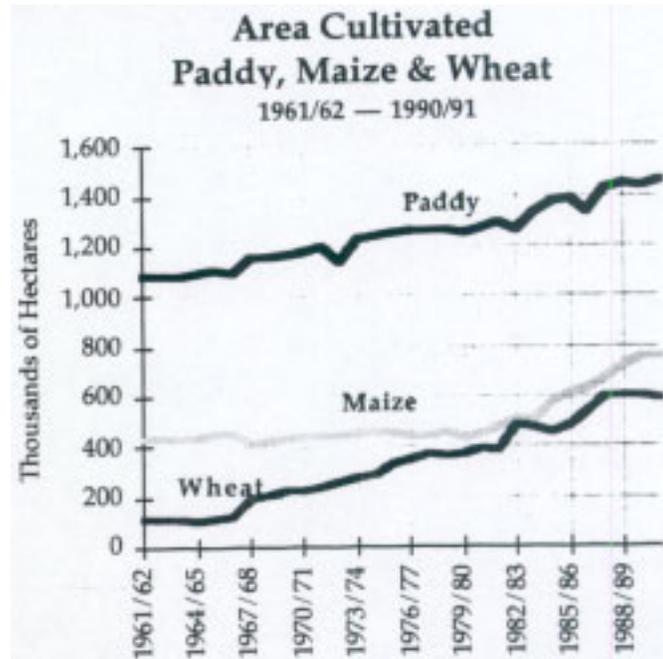


Source: *Agricultural Statistics of Nepal, 1990*, Department of Food and Agricultural Marketing Services, Agricultural Statistics Division. *Agricultural Research Policy in Nepal: Strategy and Management Guidelines, ARPP Consultancy Report No. 19, August 1990*.

USAID's agricultural program in the 1960s focused on increasing cereal grain production by increasing yields of rice and maize, and by increasing land productivity through farmer adoption of a second crop of spring wheat. Production of the three major grains increased by 3.8 percent to 3.3 million metric tons by 1970, as compared to a targeted 12 percent increase.

The adoption of wheat was a success story in parts of the Terai and the Kathmandu Valley, with the number of hectares planted increasing from 100,000 in 1965 to 226,000 in 1970, and production (see previous graph) increasing from 126,000 to 265,000 metric tons. About 34 percent of the wheat land was planted with improved varieties which could produce four times the yields of local

varieties. Although wheat production rose sharply during this project period, it accounted for only about three percent of total grain production.



Source: *Agricultural Statistics of Nepal, 1990*, Department of Food and Agricultural Marketing Services, Agricultural Statistics Division. *Agricultural Research Policy in Nepal: Strategy and Management Guidelines*, ARPP Consultancy Report No. 19, August 1990.

Increasing maize production was more difficult, because of the need to develop varieties adapted to diverse local conditions. Production area and farmer yields did not appreciably increase during the late 1960s. Rice production area (see previous graph) increased modestly, from an estimated 1,101,000 hectares in 1964/65 to 1,173,000 hectares in 1969/70, with an estimated increase in production from 2,201,000 to 2,241,000 metric tons. Although yield potential was very high, Nepali farmers were slow to adopt improved short-strawed varieties, because they were less palatable than local varieties and management requirements were

complex. Increases in rice production were mainly due to opening up new production areas in the Terai.

At the end of the 1960s, the Food Grain Production Project and other components of the USAID / HMG agricultural strategy were only midway through implementation. Their shortcomings and successes would be more obvious in the decade to follow.



RURAL DEVELOPMENT & LOCAL GOVERNMENT: PANCHAYAT DEVELOPMENT

A Difficult Decision

Unaware of USAID's plans to terminate the Village Development Project, John Cool arrived in December 1961 as USAID's new Chief of Village Development, expecting to work closely with HMG in implementing this program. He was instead instructed to terminate activities in Village Development within the next year, and to prepare a plan transferring technically qualified Village Development Service personnel to various technical ministries.

After promulgating the Village Panchayat Act in January 1962, King Mahendra approached the U.S. Ambassador for assistance in adapting the "national genius" of traditional village panchayats into an alternative democratic system. Cool's responsibilities were abruptly altered, as Ambassador Stebbins directed USAID to analyze the potential for U.S. assistance in developing the Panchayat system as a vehicle for social and economic development, and political stability at the local level. As Cool later recalled (1968), the critical questions were:

Can U.S. assistance play an effective role in helping to develop patterns of local government which shore up or replace potentially unstable political systems? Should the U.S. become involved in such political development activities?

Cool (1964) describes the mood of the times:

There was, at the time, a considerable mystique associated with the panchayats; and feeling ran very strong in respect to the appropriateness or otherwise of U.S. participation in this activity The complexity of the situation in which I found myself at the time of my arrival was such as to make difficult a simple analysis of the factors governing success or failure. Indeed, even now, U.S. participation in the Panchayat Development Project must be regarded, at best, as a calculated risk.

Cool worked steadily at accumulating information, making a number of field visits and developing his analysis of the situation. He thought certain factors weighed in favor of U.S. assistance. First was strong support by King Mahendra, who considered the Panchayat system “a vehicle through which democracy can be built from the bottom upward in Nepalese society.” This meant an opportunity, unavailable before, to develop legally sanctioned local government bodies and an institutional framework for rural people to actively participate in development. A national referendum was proposed to be held within five years of establishing the Panchayat system, to determine whether it should continue or Nepal should return to multi-party politics. Cool was also impressed by King Mahendra’s efforts to provide for social and economic equality.

Another important positive factor was the enthusiastic group of Nepali professionals trained during ten years of U.S. support for the VDP. Cool was “impressed by the intelligence, motivation and sincerity of the field-level personnel associated with the Village Development Project and the local leaders who would form the base of the Panchayat system”. He felt the key human resource of 1,400 well-educated Kathmandu-based administrators, many experienced Block Development Supervisors and Village Development Workers, should not be dispersed to technical ministries but should be rechanneled into a new program for local institutional development.

Other considerations not mentioned in his report included the keen U.S. interest in supporting Nepal as a stable buffer state curing a period of open Indian-Chinese conflict, and the large assistance allocation riding on this analysis. After intense debate among Americans and Nepalis, “it was determined, on balance, such support should be given, provided it met AID criteria of economic relevance, self-help, and both administrative and fiscal feasibility.” HMG leaders must have been relieved, U.S. support for Panchayat democracy would weaken Indian arguments against it, moderate internal political opposition, and provide essential funding for the new system.

USAID Input In Defining the Panchayat System

The decision favoring U.S. support also meant HMG had the able assistance of John Cool, an anthropologist experienced in helping establish local government systems in developing countries. USAID and the American Embassy worked quickly to help HMG adapt the concept of the panchayat (originally a village-level adjudicative system) to a nationwide system of governance. As Chief of the Community Development Office and then Deputy Director of USAID, Cool developed a relationship of trust and frank dialogue with senior HMG officials. He invested much effort in working with like-minded Nepali leaders to create a Panchayat system that emphasized development rather than just politics, and advocated decentralized decision-making at the village and district levels, elected representatives managing local development, and mobilization of local resources.

In March 1962, Cool recommended that competing agencies working with local governments – the Home Affairs Ministry, the emerging Panchayat and Local Government Organization, and the Ministry of Development’s Village Development Department – be merged into a single ministry. In July, the Minister of Development assumed responsibility for both the new Panchayat Ministry and the Home Ministry. The Development Ministry was then abolished, and Village Development Service personnel were transferred to the Department of Panchayat Development in the Panchayat Ministry. U.S. assistance supported the “development” side of this new administrative unit, the Department of Panchayat Development under Director Tara Dev Bhattarai, rather than the “political, law and order” side.

Total U.S. expenditure for the Panchayat Development Project from 1962 to 1972 was \$4.2 million. In the Project Agreement, signed in January 1963, “conditions precedent” to funds release included HMG agreement to 1) allocate at least 10 percent of land revenue collected for support of local government projects, and 2) delegate some taxing authority to locally elected bodies. USAID provided \$600,000 per year for three years, for financial and material support of administration, training, and self-help development activities at village and district levels. Panchayat Training Institutes were established to train elected district panchayat leaders and government officials, with mobile training programs for village leaders. Program managers were sent abroad for training.

The heart of the project was grant-in-aid support for small-scale public works. These were to be planned by elected village panchayat and district panchayat leaders, and partially paid for by revenues collected in the villages. District panchayats could approve village panchayat proposals up to Rs25,000. U.S. funds initially provided two-thirds of the support for matching grants-in-aid. It was

planned that U.S. funding would decline and be completely phased out by mid-1966.

U.S. local currency funds supported salary and support costs for central and field staff of the Department of Panchayat Development. This included 720 former Village Development Workers who became responsible for assisting village panchayats during meetings, training sessions, and planning of development activities. It also supported District Development Officers, some of whom were former Block Development Officers in the VDP.

Problems with Panchayat Development

Critical problems continuously undercut key development objectives which USAID had emphasized were crucial to its support. Disillusionment with the “grand experiment” first set in with the refusal of the central government to grant authority to districts and villages to raise and use locally collected revenue, part of the larger failure to devolve power to district governments. Dr. Raymond Fort, Rural Development Division Chief from 1966 to 1972, argued strongly for devolution in 1969:

...elected officials who have responsibility for development under the constitution do not have the means to carry out development efforts. The technical Ministries that have the means do not have the authority. The Central Government which has the authority does not have the responsibility because this lies in the local Village and District Panchayats The answer is to concentrate power, authority, responsibility, and resources at a particular point in the panchayat organizational structure; in my opinion, this should be the District level The first step would be to place the means (in crude terms, money and technicians) for development at the disposal of those who are responsible for development Once the above step in decentralization is taken, all sorts of interesting possibilities arise. For example, employees of HMG will have to be responsible to district level wishes, not to their present bosses in far-off Kathmandu. Panchayat taxes would have a chance to be used for specific development purposes.

Key leaders of the Panchayat Development Department began to speak out against problems in the system. The reaction of the conservative Home Ministry was to assert greater control to stamp out this “dangerous political criticism”. In the fall of 1965, HMG abolished the Department of Panchayat Development and formed a single Ministry of Home and Panchayats. The political concerns and police responsibilities of the Home Ministry became dominant; government development officers and locally elected representatives feared sanctions if they spoke frankly or acted boldly in support of local development. A USAID Junior

Officer (Cluett, 1968) noted that “the morale and level of productive activity of formerly strong, active workers in the Panchayat experiment is at an extraordinarily low ebb.” In his 1967 close-out report, Cool described this process as the reconstitution of the authority of the Bada Hakim (traditional governor) by the Home Panchayat Secretary and his appointed representatives, the Zonal Commissioners. At the district level, the Chief District Officer, with primary responsibility in law enforcement, became the top development officer.

Another problem was the inevitable one of maintaining acceptable HMG and local records and accounts for grant-in-aid development projects. Newly elected officials, many with little or no education, were not prepared for this type of accounting; nor were HMG ministries. This, combined with basic policy conflicts over direction of the Panchayat Development Program, led USAID to terminate the grant-in-aid component early. Theoretically, these funds (along with possible additional support) were to be reinstated after the operating system was improved as a result of USAID supported training and technical assistance.

At the local level, problems continued to emerge. Many local rural works schemes were unsuccessful because they were selected according to political expediency rather than sound development criteria; there were few technically competent engineers or overseers in rural areas; and there was unreliable release of funds from technical ministries. Increasingly, line ministries recentralized control of program funds and technicians “with a cultivated disregard for panchayat leaders” at the local level. Projects often failed to extend their services to areas away from Kathmandu or mobilize support of local leaders. The Panchayat Development Project also failed to support equal participation in local decision-making by the poor and less educated ethnic minorities, as traditional landholding elites controlled resources at all levels.

Late 1960s: Reduced USAID Support

With USAID withdrawal of funds for panchayat grants and increasing domination of the Panchayat system by the Home side of the Ministry, USAID reduced administrative support for the program and lost interest in the ineffective policy dialogue with HMG. In the late 1960s, USAID narrowed its assistance to training elected officials, other local leaders, and district civil servants, and providing technical assistance in development planning and implementation for selected district and village panchayats. The first component included construction of facilities and institutional strengthening for four Panchayat Training Institutes at Rampur, Nepalganj, Jhapa, and Jawalakhel. It also included mobile training activities and national panchayat conferences to bring local leaders together to discuss local development issues.

In the second component, USAID Junior Officers (JOT) and trained Peace Corps Volunteers (PCV) worked with selected district and village panchayats to improve coordination of local programs with activities of technical ministries. Separate development programs originating in ministries were making increasing, and conflicting, demands on local level officers and political representatives. JOTs and PCVs also were to help establish smoothly functioning district offices, encourage district staff to visit and assist village panchayats with projects, and assist districts in formulating development plans.

As long as policy problems persisted in the system, such narrowly focused interventions had little impact on increasing popular participation in the development process. In the characteristically frank words of a former PCV, a Junior Officer in the Rural Development Division wrote:

Compelling evidence suggests that training is having little, if any positive effect on the pace and quality of rural development, in the face of far more powerful forces at work in the rural areas. It is disturbing that USAID/N continues to identify the lack of trained HMG personnel as the central problem when, in fact, most well trained, experienced panchayat officials are simply not performing their jobs as they were trained.

– Cluett, 1968

The Peace Corps' Role

PCV Participation

As USAID Chief of Community Development, John Cool recognized that dedicated field workers experienced in democratic self-help contexts were needed to assist HMG in Panchayat Development. He encouraged an agreement allowing Peace Corps Volunteers to work in Panchayat Development activities at village and district levels. A summary of this period by the Peace Corps/Nepal Director (Morgan, 1969), characterized the first PCV group of 39 members as “an incredibly positive group” in “a brave and exciting, if somewhat naive, attempt at community development”.

In 1964, plans for closer integration of USAID and Peace Corps work in Panchayat Development were disrupted by termination of the counterpart Department of Panchayat Development when the Home and Panchayat Ministries were merged. The sixth PCV group, assigned to Panchayat Development as local project overseers, became disillusioned with politics and bureaucratic red tape. After 1966, PCVs were involved in panchayat training, as overseers in rural development schemes, and in trying to improve management systems in district panchayat offices. They had the closest U.S. involvement in Nepal’s “grand experiment”, were frequently frustrated, and reported their many problems and few

successes to, their director and USAID. To the end of the decade, they made thoughtful, pragmatic suggestions on how to restructure Panchayat Development activities to make them work “on the ground.”

At the end of the 1960s, when USAID interest was flagging and other development strategies were competing for Mission attention, the Peace Corps offered to test the feasibility of “genuine decentralization of authority” and “concerted panchayat development” in several mid-Hill districts. The Peace Corps and USAID insisted on local taxing and spending power; committed Chief District Officers with clear decision-making authority; simplified procedures for grants-in-aid; USAID local currency contributions for local public works projects; and sufficient trained PCV overseers working under technical supervision of a field-oriented USAID engineer. HMG did not agree to these conditions, and the idea and the project died.

Former PCVs As USAID Field Workers

In July 1964, AID Administrator David Bell requested that John Cool organize a social science “operations research” effort similar to the Vicos Project in Peru, to consider “significant factors inhibiting and promoting the modernization of rural Nepal.” It was hoped research results would be relevant to similar development efforts in other countries. USAID hired five former PCVs to carry out studies in rural communities involved in panchayat development. They began preparing field reports in early 1966, but by this time interest in the panchayat experiment was dwindling, due to U.S. termination of its grant-in-aid support and the fact that John Cool was leaving Nepal. Findings were summarized by Cool (1968) and were used to clarify USAID’s view of local-level problems in managing development.

What Was Accomplished?

In 1967, USAID officers tried to sum up the impact of the Panchayat Development Project in terms of quantitative outputs. While emphasizing “the incredible difficulty in getting accurate statistics of development progress” and acknowledging they were not sure of the actual significance of completed projects to villagers, they were able to point to the following self-help rural works schemes: 2,000 village meeting houses and community centers; 4,800 kilometers of roads and trails; 2,400 kilometers of small irrigation projects; 1,630 small bridges and culverts; 1,600 village wells; and 1,600 other schemes such as schools, ponds, and

godowns. Between 1963 and 1967, the training program reached 18,500 village and district panchayat members and 1,821 district staff members.

Twenty-five Nepalese studied in the U.S. in community development and sociology / anthropology, and 60 more had long- or short-term training in third countries. The project helped build and strengthen three Panchayat Training Institutes and a field training program. The project sponsored three National Panchayat Development Conferences for local leaders to provide feedback to the central government and to establish guidelines for future programs. In 1966, Regional Panchayat Conferences were held; however, this innovative feedback mechanism was not sustainable in the political environment of the late 1960s.

In reviewing USAID attempts to create participatory democracy with a local development emphasis, certain key points stand out. First was the heavy analytical and judgmental burden placed on a single USAID advisor newly arrived to Nepal and working in an atmosphere of intense political pressure. This contrasts sharply with later patterns of USAID program decision-making characterized by the lengthy deliberation of large assessment teams.

Second, the early 1960s was a time when the idea of “one-party democracies” adapted to “local culture” was largely untested and conceptually popular with Western intellectuals and donors, as well as citizens of developing countries. Nepal was one of many countries experimenting with this political form and calling it “democracy.” It was also a time when those in power, including leading bureaucrats, verbally advocated local government and popular participation, but had yet to come to terms with the realities of sharing power and decentralization.

The third, point is that the lack of conceptual clarity regarding the basic ingredients of a democratic system led to confusion among donors and Nepalis between the “form” and “substance” of democracy. USAID and concerned Nepali counterparts eventually learned they could more easily influence the “forms” of democracy in Nepal — elections, training, conference, district development plans, and better organized district offices, but had no influence on the “substance” of democracy — the sharing of power, responsibilities, and resources with locally elected representatives. A final point is that to USAID’s credit, it moved decisively to reduce support when it realized by mid-decade the panchayat experiment was not achieving genuine local democracy and decentralization.

John Cool emphasized (1967, 1968) that the Panchayat system laid a foundation for involving rural Nepalis directly in development decision making, although this process was never fully realized. The system in operation in the late 1960s fell short of the original vision, but project inputs did result in a significant number of trained central government officials recognizing responsibility to work

with local government, more frequent field visits to supervise and inform panchayats, and better trained personnel in key field positions.

Two JOTs (Ecker-Racz and Cluett, 1968) who were close observers of the program in rural areas found a “significant increase in political awareness at the rural level and a change in attitude regarding the concept of self government.” There was interest and participation in rural elections and functioning local governments. Through the grant-in-aid program, the project significantly expanded local interest and political participation in development activities. It could be argued that these changes might also have taken place if the U.S. had not provided legitimacy to the Panchayat system, and a multi-party system had replaced it sooner.

Cluett also noted the problems of increasing political awareness under the Panchayat system (1968):

The GON is not effectively handling Nepal’s demands for increased political expression and popular participation in the development process. Its reaction to conflict and confusion in the rural areas is to clamp on tighter controls and to become less responsive to local needs.

The achievements and failures of panchayat development must also be viewed in the context of deep change as a long-term process. Cool (1967) concluded in his final report to King Mahendra and the Prime Minister that:

The changing of peoples’ attitudes and the building of those institutions which makes possible the functioning of a participant form of political organization is not something which can take place by decree. Perhaps the time required for modernization in Nepal should be seen to be much longer than had been earlier thought. Perhaps 5-year or even 20-year plan projections are unrealistic.

Termination or Continued Investment?

A new USAID Director, Carter Ide, arrived in 1969 with instructions from Washington to rigorously review projects and terminate or refocus them to meet current AID development emphases. The question of termination or continuation of the Panchayat Development Project was given serious consideration between 1968 and 1970.

Dr. Raymond Fort, Chief of the Rural Development Division, concluded in 1969 that USAID should either mount a major new effort to achieve original objectives or terminate the project. In his opinion, any new rural development initiative should not be located in the Ministry of Home and Panchayat. The technical ministries and Planning Commission had captured the development initiative. The Planning Commission was supporting a concept of “growth centers

in development corridors”, giving districts more authority over budgets and allocating scarce resources for special development projects. Fort suggested that USAID consider working in this framework. However, neither HMG or USAID followed up on this course at the time.

A Junior Officer offered insights into the dynamics surrounding the controversial decision to terminate the project:

The Panchayat project is likely to be terminated at the end of FY 1969 because USAID/N and Embassy policy-makers have apparently determined that further involvement in this kind of project will not further our stated objectives in Nepal. The Embassy in Nepal apparently fears becoming too deeply involved in, and committed to, a fairly chaotic political institution in Nepal, which might not survive much longer. Within USAID/N the Panchayat Project is viewed as a rather minor activity among more important projects and, more specifically, USAID/N technicians fear that the success of their projects vary inversely with involvement in Panchayat.”

—Cluett, 1968

USAID Director Carter Ide saw the situation as one in which HMG had failed to pursue an exceptional opportunity for local development with the window of opportunity closing due to changing interests of USAID and HMG:

Many of the community development projects in which we had invested great enthusiasm and energy had not come to full fruition owing to the reluctance of the monarchy to let the local panchayats learn from their own mistakes. We still nursed local governments where we could, but the big momentum left by John Cool languished as we took up projects identified by the centralized bureaucracy.

—personal communication, 1990

Most Panchayat Development Project activities were terminated in 1970.



HEALTH AND FAMILY PLANNING

The Nepalese Context

The rudimentary state of Nepal's health care system elicited a dual response from planners and policy makers of the 1960s. One approach emphasized construction of basic facilities and development of human resources and the institutional capacity of the Ministry of Health. The goal was a simple package of basic health services, delivered through curative hospital facilities located in urban areas — the Kathmandu Valley and a few district headquarters. This type of systematized health care, while relatively easy to achieve, reached only a small and elite segment of the population.

The second approach concentrated on controlling common communicable diseases. The most serious of these were targeted by public health programs, designated as semi-autonomous projects under the MOH. These "vertical" categorical projects were specially funded from outside the regular budget, with a high proportion of their support from foreign aid. Most significantly, they were envisioned as short-term, temporary programs, destined to end as soon as their purpose was achieved. In addition to the Nepal Malaria Eradication Organization (NMEO) established in 1958, leprosy and tuberculosis control projects were started in 1965 and a smallpox eradication drive began in 1967. The fifth vertical project was the Family Planning/ Maternal and Child Health Project (FP/MCH), Nepal's official government family planning program and a major recipient of USAID assistance from its inception in 1968.

Projects in Health

USAID's public health assistance continued the previous decade's emphasis on physical infrastructure, the most visible and obvious need. Offices, health posts, clinics and hospitals were constructed or renovated and provided with commodities and equipment. A secondary emphasis was human resource development. By 1970, nearly 250 Nepalis had received participant training in health and family planning. Training focused on strengthening the Ministry of Health, the beginning of an ongoing effort to formulate an effective health delivery system suited to Nepal.

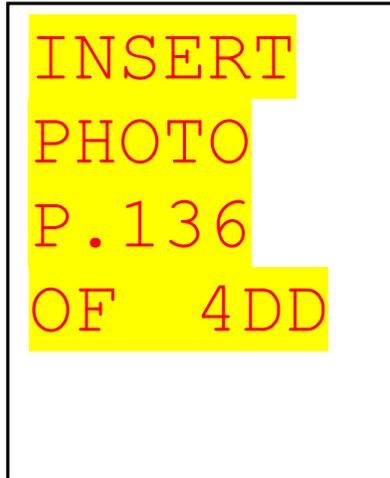
USAID health assistance during the first portion of the decade was broad-based, with multiple projects covering nearly every facet of health care development. During the later 1960s, priorities focused on consolidating the successful Malaria Eradication Project and developing a family planning program.

The Assistance to Public Health Services Project was drastically reduced in scope in 1962 as a result of funding cutbacks. Three components were transformed

into separate projects (Public Administration, Nurses and Other Paramedical Workers' Training, and Health Education), and the project goal was refocused onto completing the establishment and renovation of 13 health centers and 14 hospitals throughout Nepal. Assistance included funding for building construction and renovation, personnel training and commodity supplies.

A major project during the mid-1960s was the renovation and expansion of Bir Hospital in Kathmandu. The largest and most important medical institution in Nepal, the hospital was chronically under-equipped and understaffed. Dr. Edward F. Crippen, Chief of USAID's Public Health Division at the time, recalled that cows wandered freely through the hospital's wards, and patients protected their beds from intrusion by surrounding them with bamboo sticks.

The original ambitious plan for the Bir Hospital Assistance Project was cut back after funding reductions. The modified project included the design of a new site plan for hospital facilities, the construction of new buildings and renovation of old ones, the drilling of a 300-meter artesian well to ensure a steady water supply, and a supply of basic equipment and commodities. The Surgical Wing, dedicated in December 1968, was built and equipped with USAID assistance. Over \$400,000 went to upgrade and modernize the government-operated hospital and train staff in modern techniques, including the maintenance and operation of equipment. The goal was to transform Bir Hospital into a "flagship" operation providing professional training and improved medical care.



Lecture Room, Nursing School, Chhetrapati, Kathmandu 1961

The Water Supply Development Project, initiated in May 1960 under USAID's Engineering Division, was transferred to the Health Division in August 1961. The project goal was to improve the quality and increase the quantity of domestic water supply in the Kathmandu Valley, and to a lesser extent in the surrounding Hills. Sixteen deep wells were drilled at various locations, including Kathmandu Airport, Sano Thimi Education Material Production Center, Patan Industrial Development Center, and HMG Secretariat of Singha Durbar. About a dozen villages in the Valley were provided with water supply distribution systems, and a team of HMG engineers was trained in well-drilling techniques.

An ambitious 15-year nationwide Health Education program originally drafted in 1957 was cut back to a 1965 deadline, partly due to financial restrictions and partly to an ongoing dispute within USAID as to the importance of health education as a separate component. "There were a lot of people, myself included, who thought that everyone involved in health was a health educator", Dr. Crippen noted. During the project's eight-year duration, a basic staff of Health Education specialists was trained. Some worked in public health programs like Malaria and Smallpox Eradication, Immunization and Maternal and Child Health Services; others were retained in the central Health Service office to assist in program organization and supervision. The project hoped to make best use of existing health resources by educating panchayat leaders, educators, and the general public about sanitation, disease prevention, and improved health practices.

USAID assistance to the Health Education Project included long-term participant training for qualified public health educators (eventually meant to be assigned to zonal and special health education programs); technical advice in organizing and managing public health programs; preparing educational materials and training participants; and operational support for expanding the Health Education Section services to rural areas.

USAID was involved in public health through non-project activities as well, Dr. Crippen recalled. When a smallpox epidemic threatened Nepal in the winter of 1963, WHO's ongoing vaccination program was unable to meet the increased demand due to the difficulty of storing and transporting frozen vaccines. The final blow came when the American Everest Expedition hired over 600 porters to carry its gear to Namche Bazaar. The porters brought smallpox as well, carrying the disease up the trail and back to their home villages. The Nepalese Minister of Health requested vaccine from the U.S. Embassy, which passed the request on to USAID. In less than a week, 200,000 doses of dry vaccine donated by American Pharmaceuticals had reached Nepal and were being distributed to local health

workers in rural areas. By May 1964, 700,000 doses had been distributed through the Department of Health infrastructure, and the epidemic had been quelled.

Developing a Public Health Service

The major project during this period was Public Health Administration, a joint undertaking with WHO, the Dooley Foundation, and HMG to improve the organization, management and operations of health services nationwide. The program continued efforts of the Assistance to Public Health Project to develop a detailed long-range national health plan. Long-term goals of the plan included the integration of separate health units like the NMEO within the Department of Health Services, and the decentralization of services – themes which have continued to the present day. In its broadest sense the project sought to develop a method of funneling funds, administration and services down through zonal, district and panchayat levels to a widely scattered rural population, a challenging task that is still continuing.

The concept of the rural Health Center as a means of providing a basic minimum of rural services was developed with USAID collaboration and introduced in the Third Plan. Originally the centers were intended to be staffed by at least one doctor, supported by trained paramedicals, but the MOH soon found that most doctors preferred to remain in urban settings. Nine health centers were completed by 1970, but a chronic shortage of trained manpower left many of these institutions seriously underutilized.

USAID and HMG shared the costs of establishing and operating reorganized sections within the Directorate of Health Services, including Community Health Services, Planning and Statistics, Training and Education, Maternal and Child Health, and Communicable Diseases. Support was provided for half of the 14 Zonal Health Departments established during this period. USAID renovated offices in HMG Directorate of Health Services, trained participants in public health and administration, and provided construction and operational support for 16 District Health Offices. HMG's contribution was the construction of zonal hospitals. By 1965, 104 health units — administrative offices, clinics and hospitals — had been established around the country, though there was a shortage of trained manpower to staff them. In accordance with the WHO concept of “circles of influence”, an attempt was made to strategically locate health service facilities in order to maximize their use. From this base HMG was to establish health posts at the village level, depending on the availability of funding and personnel.

Family Planning

The Beginning

Nepal's population, like that of many developing countries, began a rapid increase in the post-World War II era. The effects of this relentless mathematical progression did not become apparent for some time, due in part to the lack of statistics on population growth (the first indication was the 1976 Nepal Fertility Survey).

The need to achieve a stable balance between population and resources was identified by a few USAID advisors and staff during the mid-1960s as a critical element in achieving significant improvements in the quality of life. Establishment of a family planning program was discouraged by both HMG and AID/Washington. Joseph Toner, USAID director from 1964 to 1966, recalled in a 1990 interview: "I wanted to focus on family planning, but the Nepalis had no interest, and the health facilities of the time were so primitive that we needed inputs from Washington, especially in training." The problem was not in resources — Toner recalled "we had no budget problems during this period" — but in commitment. AID / Washington was only prepared to support a "modest" family planning program, in particular through commodity support ("we were drowning in condoms", Toner recalled). The major demand in Nepal was believed to be for abortion and sterilization, but Washington guidelines were "not to alarm the anti-family planning people" in the U.S. Lacking both major investment and commitment, the proposal foundered.

It was only a few years ahead of its time. International donor attention turned increasingly in the late 1960s to financing family planning programs, and USAID funding followed suit. In 1965, the agency's worldwide allocations for family planning constituted about 5.5 percent of total health and population funding. By 1978 this figure had risen to nearly 60 percent of the total.

Nepal also moved slowly towards embracing family planning. The first formal endorsement came in 1965, as King Mahendra announced to the Rastriya Panchayat that his government had adopted a family planning policy "in order to bring equilibrium between population growth and economic output". Official HMG policy during this period was to first reduce growth through socio-economic change, and only secondarily through a family planning program. Many officials felt that a rapid population growth rate was in fact desirable, to counteract Indian immigration into the Terai. The government's main population policy through the 1960s was resettlement from the overcrowded Hills to the Terai. This altered

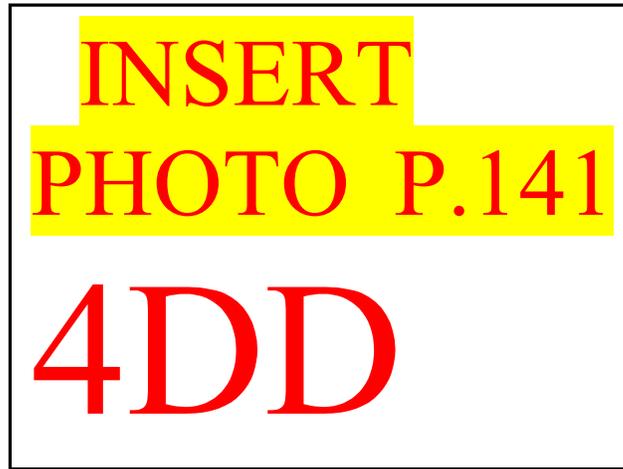
population distribution, but did not resolve, or even squarely address, the problem of population growth. A 1968 report by a USAID consulting team noted:

The government has in principle adopted family planning as a priority activity; however, we do not believe that it is generally appreciated just how important the program is, or the magnitude of effort required in order to achieve sufficient results.

The first organized governmental family planning activities began in 1966, as the Maternal and Child Health Section of the Department of Health began offering limited services in the Kathmandu Valley, with supplies and equipment provided by USAID. In 1968, with USAID encouragement and support, the unit was officially transformed into the Nepal Family Planning and Maternal and Child Health Project (FP/MCH), a semi-autonomous agency within the MCH division. This official linkage of health and family planning was motivated by several factors. Planners hoped to gain greater acceptance by delivering health care along with birth control, and combining the two maximized the efficiency of health service delivery. In terms of strategy as well, a reduction in Nepal's high infant mortality rate was considered necessary to achieve a decrease in the birth rate.

The goal of the Family Planning Project agreement signed on June 30, 1967, was "to establish an effective Family Planning Program". HMG was to include the new program in the MCH Division and appoint a Family Planning Advisory Board. The project would establish birth control clinics in the Kathmandu Valley, using the IUD as the program basis.

Four months later, a second agreement was signed regarding support of local costs of the family planning project. USAID funding accounted for 80 percent of the project's total activity budget for FY 1968. The following year, the agreement was further expanded to finance twelve more family planning clinics, commodities, participant training, and advisors.



A Women Auxiliary Health Worker provides rural health care.

USAID's intensive support for family planning in Nepal thus began with the inception of the FP/MCH project. Early achievements mainly focused on organizational establishment and consolidation, and an overall evaluation is best made within the context of the 1970s. While acceptance rates for most methods of birth control fell below targets in the early years, overall progress was rated as satisfactory, most significantly in the areas of staff development, public interest and support, and physical infrastructure.

Malaria Control: A Stunning Triumph

The dramatic, nationwide reduction of malaria was perhaps the greatest technical and logistic triumph of the 1960s. From more than two million cases annually in the early 1950s, malaria was reduced to an all-time low of 2,468 cases in 1968. USAID at the time considered its anti-malaria work among its most successful efforts in Nepal. This assessment remains true today, for although malaria has since resurged from its all-time low, control of the disease in many formerly endemic areas has remade the country, opening up large portions of the fertile but uninhabited Terai. Malaria control has brought immeasurable benefits to Nepal, reducing human suffering and improving economic efficiency and production and general wellbeing. The considerable advances achieved in the Terai over the past few decades were built on the base provided by malaria control.

Administrative Issues

USAID's Malaria Eradication Program was categorized as a Special Project Activity in the early 1960s; by 1967, it was operating under Rural Development. Though it was originally placed in the sector as a matter of administrative convenience, malaria eradication played a significant role in opening new land to agricultural development, and thus was considered integral to overall rural development.

USAID resources were channeled through the Nepal Malaria Eradication Organization. USAID provided advisory teams of technicians, all DDT, spraying equipment and anti-malarial drugs, overseas participant training, and 75 percent of the operating expenses of the NMEO. By the end of the project in 1973, USAID had contributed \$13.5 million to malaria control. WHO provided advisors, training fellowships and commodities, while HMG was responsible for Nepalese staff, office housing, local commodities and the balance of the NMEO budget. Malaria control was high on the government's list of priorities, commanding nearly half of the health budget.

By the mid-1960s the NMEO was generally acknowledged to be one of the best-managed organizations in Nepal. Intensive in-country and participant training had built up a cadre of 4,000 trained full-time workers by 1968, making it one of the largest civilian organizations in the country. However, the NMEO's status as a temporary project meant these gains were not fully institutionalized.

USAID advisors were aware of the necessity for a permanent local health service infrastructure to continue maintenance operations after the major goals of the NMEO had been achieved, and they questioned the existing health service's capacity to carry out anti-malaria functions. Rather than jeopardize achievements by transferring malaria control to basic health services, they advocated the large and well-organized NMEO be used as a base for the development of permanent rural health services. Adding immunizations and family planning to the duties of the malaria worker seemed a logical way to maximize effectiveness in a resource-scarce country.

The NMEO

The technical advisors who arrived in Nepal in 1959 to assist the fledgling NMEO found the old Insect-Borne Disease Control Bureau (IBDCB) program scattered in "bits and pieces" across Nepal, a reflection of USOM's tendency in the 1950s to spread efforts over a very wide base of operations. They soon realized that rugged terrain, widespread endemicity, and a shortage of trained staff made a simultaneous nationwide attack on malaria impossible. The country was divided into three roughly equal portions, with the readily accessible Central Zone slated

for first efforts. The zones, however, were on paper only. “Nobody had any kind of idea of what was really out there, because there were no maps of any kind,” recalled malariologist Larry Cowper one of the original team members, whose 10 years of anti-malaria work in Nepal span four decades.

The first step was geographical reconnaissance: detailed surveys located every house in the Central Zone that would require spraying. The NMEO’s survey maps were in great demand by other organizations and sectors. Up until that point, the best available map of Nepal was a British version produced in 1927. Because NMEO workers visited house-to-house, their mapping served to update data from the National Census survey as well.

Information collected during this preparatory phase proved vital in planning strategy and calculating supplies of insecticides and drugs. Preliminary research also included assessing the frequency of malaria, the particular types of mosquito carrying it, and the best way to go about spraying. Political pressure to speed up spraying continued, but the NMEO, institutionally stronger than its predecessor, was able to resist until the necessary preliminaries had been completed. Strategy followed the classic four-phase malaria eradication model developed by WHO and used worldwide:

- **preparatory:** geographic reconnaissance, organizational establishment and training;
- **attack:** house spraying, followed by house-to-house surveillance to detect and medically treat malaria cases;
- **consolidation:** intensified surveillance to eliminate any remaining cases;
- **maintenance:** continued vigilance by the regular health service to guard against re-introduction.

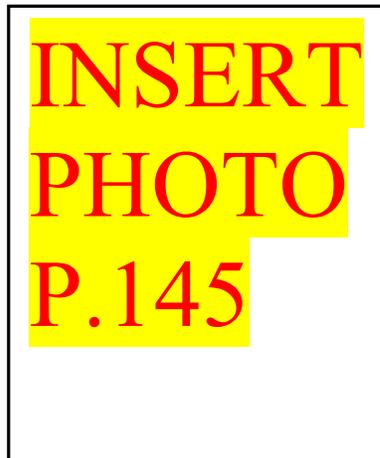
By 1960 the Central Zone was ready to commence the attack phase of insecticide spraying. Previous procedure had been to take gangs of workers from Kathmandu, along with cooks, tents, and provisions, a massive undertaking beset with logistic difficulties. The NMEO defied the conventional wisdom that it was “impossible” to hire local men to work as sprayers, and recruited and trained thousands of local villagers. “Over the years, they have proven to be the best sprayers in the world,” said Cowper, “I’ve worked in 32 countries, and no place have I found workers more willing to meet the heat, the dust, the sweat, the boredom, the separation from their families, than in Nepal. And that goes from top to bottom — supervisors to fieldworkers”.

A spirit of improvisation infused the early NMEO: insecticide was weighed out against a canvas bag filled with stones on a beam scale borrowed from the local bazaar. Rather than wait ten months for replacement parts for sprayers to

arrive from the U.S., workers improvised parts from local materials for one-third the cost.

The transportation of tons of insecticides to remote areas involved the largest supply movements ever seen in Nepal up until that date, since rivaled only by the most massive mountaineering expeditions. As many as 300 porters would gather in an open field near Swayambhunath to pick up loads of insecticide bound to 15 different destinations, some over a week's walk away. By 1962 a diversified stocking system had been developed, allowing direct shipment from New Delhi to 14 different points along the border and greatly simplifying supply efforts.

In addition to spraying, surveying, and distributing medicines to malarial cases, fieldworkers took the time to explain the causes of malaria to villagers, few of whom understood the reason for spraying. Many thought it was to kill flies, lice, and bedbugs as well as mosquitoes. Traditional beliefs ascribed malaria to many causes: milk, eating fish or yogurt, sleeping in the midday sun on a grassy field, walking through the early morning dew. Efforts had been made as early as 1957 to explain the mosquito-malaria transmission cycle. Mainly, though, "we just told them the spraying would stop malaria," Cowper said. "And it did."



An employee of the Nepal Malaria Eradication Organization

By 1964, five years of spraying in the Central Zone had achieved protection for 2.8 million Nepalis, opened up 42,000 acres of agricultural land, and reduced malaria cases to the point where the surveillance phase of house-to-house visits could be implemented. The preparatory phase begun in the Eastern Zone in 1962 was shifting into spraying, and had already protected over 800,000 people in the Eastern Terai, including some of the most malarious areas of Nepal. Mapping and preparatory activities had begun in the remote Western Zone in 1963, and spraying was expected to begin in 1965. The NMEO had a permanent staff of over 2,300, an even larger temporary corps of local spraymen; a number of higher-level staff had received participant training abroad. The NMEO's mobile field staff was the largest and most visible of the decade's vertical projects. By 1965 it was providing care for 3.5 million people on a regular basis; at its peak it was to achieve regular coverage of six million people. In many remote areas, the malaria worker was the only government worker villagers ever met. No other USAID project of the era equaled the direct impact upon vast numbers of people that the NMEO achieved.

MALARIA: ERADICATION OR CONTROL

The December 1958 agreement of technical assistance establishing the NMEO transformed the malaria control program established in 1954 into a malaria eradication program. The goal was complete elimination of the disease by 1971 (the deadline was later extended to 1973). This policy was in accordance with the worldwide eradication drive of the 1960s. Nepal's anti-malaria program was part of a worldwide effort by USAID and WHO, which collaborated on Malaria Eradication Programs in 17 countries.

Eradication of malaria was achieved in about 50 countries, proving the technological feasibility of the goal. However, an international reassessment in 1969 suggested that complete eradication was perhaps inappropriate in certain situations. In Nepal's case, the continuing possibility of reinfection from India makes eradication difficult to achieve, and even more difficult to maintain. From a cost benefit viewpoint, the value of eradication was beginning to seem questionable. Large sums were being spent in the attempt to wipe out malaria in the Far Western Hills, which had a very low (less than .5 percent) but extremely widespread incidence of the disease.

A USAID Project Appraisal Report written in 1969 suggested the malaria program's goals be reevaluated. Malaria control, as opposed to full eradication, had been suggested as early as 1967. Early discussions had concluded eradication was preferable to control because costs would be high but finite. Other financial considerations began to assume increasing importance, however. USAID was anxious to lessen the NMEO's reliance on donors and to reduce inputs to a level that could be absorbed by HMG's budget. By reducing staff and concentrating resources on problematic areas, it was hoped malaria could be maintained at an acceptably low level, at a lower cost than demanded by the eradication drive. In 1971 the NMEO changed its goal of complete eradication to the objective of maintaining control, with full USAID support in the ensuing reorientation.

Impact of Malaria Control

Larry Cowper stated: "Ask any Nepali and they'll tell you: The best program USAID has ever put on, the most appreciated program USAID has ever put on, is malaria control." Quite literally, it changed the lives of millions. As early as 1956, settlers begun to move into the Terai; by the mid-1960s they were pouring down from the Hills. Population pressures, combined with a shortage of arable land, had

made life difficult in Hill regions at least since the 19th century, forcing many farmers to emigrate in search of employment. The opening of the Terai provided a safety valve for the increasingly crowded Hills. The average family holding in the Hills was 0.5 hectares. In the Terai, the average size of the new plots was 1.6 hectares — and it was fertile, flat, well-watered and located in contiguous fields, rather than scattered up and down a hillside. “All the farmers had to do was throw the seeds in the forest, and the crops would grow,” is how one observer described the situation in the newly-opened Chitwan region.

In 1954, 35 percent of Nepal’s population lived in the Terai. By 1965, the Terai’s annual population increase was the highest in the country, outstripping even the Kathmandu Valley. At the same time, the Hills and Mountains were showing a net population loss, a clear sign of the overall downhill migration trend. Through the 1960s the population of the eastern and central Terai grew by one-third, while the Western Terai’s population nearly doubled; meanwhile, the Hills and Mountains experienced 17 percent growth at the highest (Seddon, 1985). 1981 census data showed an even more tremendous rate of growth, as the Terai’s share of the national population shot up to 47 percent. By 1991, that figure was estimated at 51 percent.

Comparison of Specific Crop Outputs in Selected Malarious Districts of Nepal

DISTRICT	1967/1968					
	PADDY		WHEAT		OIL SEED	
	Area (Ha.)	Metric Tons	Area (Ha.)	Metric Tons	Area (Ha.)	Metric Tons
Makwanpur	9,900	22,028	2,550	2,550	4,000	1,500
Chitwan	22,500	45,450	3,500	3,675	15,000	8,850
Nawal	31,000	51,150	8,500	7,012	2,500	1,250
Parasi						
Kapilvastu	61,500	106,395	10,000	9,250	1,800	918
Rupandehi	64,000	105,600	12,000	9,600	3,900	1,872
Udaipur	11,000	23,650	175	175	3,800	2,280
Parsa	36,000	59,040	5,000	4,500	930	474
TOTALS	235,900	413,313	41,725	36,662	28,069	17,444
DISTRICT	1987/1988					
	PADDY		WHEAT		OIL SEED	
	Area (Ha.)	Metric Tons	Area (Ha.)	Metric Tons	Area (Ha.)	Metric Tons
Makwanpur	12,640	31,070	6,200	10,040	1,770	1,070
Chitwan	28,500	87,650	8,640	11,920	22,600	14,690
Nawal	35,260	81,810	12,720	17,810	6,610	6,300
Parasi						
Kapilvastu	71,150	135,300	26,580	32,430	2,200	1,100
Rupandehi	69,100	158,410	23,480	28,170	4,400	2,640
Udaipur	10,930	19,070	3,500	3,850	3,920	2,740
Parsa	46,320	137,780	14,540	17,160	4,400	2,420
TOTALS	261,260	651,090	95,660	121,380	45,900	39,960

Data provided by USAID's Agriculture Office, S.R. Bajracharya, June 1990

Notes: Makwanpur: Highly malarious area; controlled to low endemicity by mid-1950s

Chitwan: Rapti Valley area, "Blackwater Valley" (Kalopani)

Nawal Parasi: Endemic malaria. New settlers mid-1960s. Forest fringe cleared.

Kapilvastu: Large scale settlement at forest fringe after malaria controlled; specifically targeted by AID malaria assistance

Udaipur: Highly malarious area - controlled by mid-1970. Hilly terrain

Parsa: Highly malarious forest fringes. Large scale re-settlement and clearing

Malaria control's greatest benefits occurred in the highly malarious forest fringe and Inner Terai regions, previously nearly uninhabited. A dramatic illustration of the ensuing massive population shift is the Rapti Valley. Located in the Chitwan district of the central Inner Terai, the region was known as Kalopani or "Black Water", renowned only for its rich wildlife (it was a favorite Rana hunting ground) and the virulence of the malaria. An initial survey found 36,000 people living in the fertile 400 square mile valley, mostly indigenous Tharus who had developed partial immunity to malaria. Following the early and successful anti-malaria work by WHO in the mid-1950s, USAID sponsored a model resettlement program to open the Rapti Valley for settlement and cultivation. By 1960 the valley's population had reached nearly 100,000, and in the following decade it tripled again, a ten-fold increase from the original total.

The Surkhet Valley is another example of the transformation wrought by malaria control in the valleys of the Inner Terai. "The first time we went through there, there was nobody living in the valley, only a few animal sheds and fields," Cowper recalled. "The farmers lived up on the hillsides and would come down to farm the valley in the day, but went back up before nightfall. Although they didn't know the mechanics of malaria transmission, they did know that if they spent even one night in the Valley, they would fall sick within two weeks." This pattern of lowland fields and hillside dwellings appeared in many areas of the Terai, where the best land was located in the alluvial (and highly malarious) river valleys. Today the Surkhet District is home to 200,000 people, and farmers no longer need spend several hours per day walking to their fields.

The new settlers were nearly without exception motivated by the hope of a better life. The opening of the Terai offered them an escape from poverty, the chance to meet basic needs, and the opportunity to send their children to school. Between 1963 and 1978, 13,684 families were relocated through official resettlement programs. The spontaneous unofficial migration was enormous. The World Bank estimated between 1961 and 1971, 400,000 settlers migrated onto 72,000 newly cleared hectares; other estimates are even higher. Total migration to the Terai was estimated at 1.5 to two million. By 1971, 41 percent of Terai land was cultivated, compared to 9.4 percent of the Hills and less than two percent of the Mountains. Though the Terai contains less than 20 percent of Nepal's total area, it includes 64 percent of its cultivated land, producing a similar percentage of the nation's foodgrains and a high proportion of cash crops like mustard oil and sugar.

Beyond its role as the agricultural ricebowl of Nepal, the Terai's proximity to Indian markets and supplies make it the nation's industrial heartland. Over 3,200 industries are located in the region, with investments totaling three billion rupees and an annual output of five billion rupees. Figures from 1985 / 86 indicate the Terai contributed total revenues of Rs.793 million in duty and taxes. A complex of factors contributes to the Terai's industrial prominence: the region has the nation's highest road length/area ratio outside the Kathmandu Valley, with 15 of its 20 most densely populated districts and the majority of urban centers.

The major negative result of the Terai's transformation was the ecological devastation resulting from development. Through the mid-1950s, the richly forested Inner Terai remained one of the last and lushest remaining examples of a unique ecosystem which once stretched from the Indus River in present-day Pakistan to the border of Burma. Development of the Terai's rich resources entailed the destruction of huge tracts of virgin forest and wildlife habitat. Representative portions have been preserved within the boundaries of national parks and wildlife reserves, but for better or worse, the Terai's ecology has inevitably been altered.

Nepal's once-extensive forest resources were virtually untouched until the new settlers came, clearing land for planting and cutting timber for fuel, construction and export. One observer (Seddon 1985) estimates that over half the forest cover of the eastern Terai, the most densely populated region, was cut between 1952 and 1972. Despite these negative impacts, there is little question that the opening of the Terai has made a vital and indispensable contribution to Nepal's development.



EDUCATION AND ECONOMIC DEVELOPMENT

The Government of Nepal is aware that its most basic resource resides in the character, energy and skill of its people and that little can be accomplished with material resources until this basic resource is brought to the level where peoples' fundamental attitudes, skills and motivations will support and maintain sustained development.

—USAID Development Assistance Program, 1962

A growing awareness of the role of economic growth in national development served to underline the importance of improving education in Nepal. In the international development arena, as well as in HMG policy and USAID's program, education assumed a prominent role in development. In 1959, the Asian member states of UNESCO met to discuss education's role in facilitating economic growth, and later sent educator / economist teams to Nepal and other developing countries to advise on planning to promote more effective use of education in economic development.

King Mahendra, who supported the view that development of education would enhance economic growth prospects, considered education a direct investment in the country's human resources, and sought to create a unified educational system to serve Nepal's development needs. By the beginning of the decade, Nepal's 9.4 million people had achieved a national literacy rate of 8.9 percent, a considerable improvement since 1951. However, because the general population was still barely equipped to participate in implementing development plans, a national system of education that would support the development goals of the new Panchayat system became a top priority in Nepal's Second and Third Plans.

USAID's Education Program in the 1960s

In 1961, AID prioritized its development goals by creating functional account categories to disburse project funds. During the first half of the decade, Education and Training was considered top priority. USAID dramatically expanded its education program in Nepal, and added substantial training components to other projects. Government Administration and Rural Development became the top Agency priority in 1964, but Education and Training remained the highest priority in HMG's and USAID / Nepal's development objectives. Between 1964 and 1970, USAID spent more on education development than at any other time during its 40 years of assistance to Nepal.

Throughout the 1960s, USAID's assistance to the development of a national system of education remained comprehensive, but was increasingly focused on

qualitative improvements rather than on physical expansion. Major emphasis was given to developing educational institutions and supporting participant and in-service training for teachers, educators and administrators.

Until 1968, most USAID initiatives in education were continuations or expansions of activities begun in the 1950s, to reinforce earlier progress. USAID's Education and Training Project (1961-1963) attempted to meet the basic educational needs of the population through several components: Primary Education, Secondary Education, Teacher Training/Higher Education, Adult Education, and Education Materials Development. Between 1964 and 1967, these components were accorded independent project status. Technical Education was added as a new initiative, covering both vocational training for secondary teachers and technical skills training for secondary school graduates.

In 1968, USAID's education projects were consolidated under the Teacher and Technical Education Project, which lasted until 1972. This consolidation was in response to AID's worldwide fiscal retrenchment and HMG's intention to assume more direct control over development programs. Project activities carried out by a team from Southern Illinois University (SIU) included teacher education, teacher salary subsidies, curriculum and testing materials development, secondary and multipurpose (vocational) education, and science education. The project emphasized institution building: assistance was provided to the College of Education and its Laboratory School, five Primary School Teacher Training Centers, the National Vocational Training Center and its Demonstration Multipurpose High School, and the Education Materials Center.

Financing Education Development

USOM's education program in the 1950s had been successful partly because of its willingness to commit substantial financial and technical resources for a prolonged period. A similar commitment by USAID in the 1960s provided the continuity necessary to develop and institutionalize a national system of education. The U.S. remained, by far, the largest donor to education in Nepal. The only other donor in the sector, India, contributed just over \$1 million between 1952 and 1965.

Reflecting the 1959 decision to reduce contributions to educational development, USAID assistance totaled only \$395,000 between 1961 and 1963. However, assistance levels increased dramatically from 1964. USAID spent nearly \$12 million on nine education projects between 1961 and 1969, approximately \$10 million of this in the form of PL 480 Indian rupees. USAID assistance represented nearly 70 percent of HMG's education budget expenditures, and included Ministry of Education budget support.

This dramatic escalation in assistance to Nepalese education was short-lived, however. At the end of the decade, as AID redefined its development priorities

world-wide and began phasing out the use of Indian rupees in favor of dollar financing, assistance to education was reduced and projects consolidated. U.S. assistance at the end of the decade represented only 27 percent of HMG's education budget expenditures, reflecting not just a drop in total levels of U.S. assistance to Nepal, but also HMG's increased allocation to the sector.

Project Administration

Administration of USAID's education projects became the responsibility of direct-hire employees with the termination of the University of Oregon contract in 1958, and remained so until technical experts from SIU were called in to implement the Teacher Training and Technical Education Project in 1968. The 1960s were also characterized by a dramatic increase in USAID's American staff. USAID thus relied significantly less on Nepalese counterparts than in the previous decade. At the same time, education programs focused on central institutional development, resulting in reduced interaction with educators and teachers outside of Kathmandu. The strength of USAID's education programs in the previous decade had been in its substantial field network and hands-on presence, and its reliance on Nepali participation in project implementation. This diminished in the 1960s, as office-based administrators took over USAID's education program from field-oriented specialists.

Educational Administration: Training and Innovation

USAID continued to emphasize training and administrative development in education. While only 13 percent of all participants trained during the 1960s were in the education sector, a far greater number of Nepalese participated in in-service training for teachers and administrators.

USAID contributed to the development of education administration with participant training for Ministry of Education officers, and in-service training for administrators and educators in all segments of the education sector. Training programs helped reinforce the promising start made in the previous decade in developing effective institutions capable of directing development of a nationwide system of education. USAID support for educational institutions aimed to strengthen the College of Education, develop the National Vocational Training Center and its Demonstration School, and develop the Educational Materials Center.

Under the Panchayat system, the National Education Committee was formed as a high-level policy-making body. The committee centralized education planning and evaluation activities, and decentralized implementation of education policy. USAID assisted the Ministry of Education by training local-level administrators. By mid-decade, one education officer and district level education officer were

posted in each of the 75 administrative districts. In 1963, USAID assisted in establishment of the Division of Planning and Statistics within the Ministry of Education, meant to improve HMG's educational planning capability. USAID also provided both in-service and participant training to enhance the MOE's planning and evaluation capacity.

For USAID, participant training was a way to introduce educators and administrators to modern educational concepts. It was hoped that exposure to alternative models of educational administration and financing, teacher training, and curriculum and materials development would encourage Nepalese educators to translate some methods into working models appropriate for Nepal. Though traditional administrative practices continued to inhibit broad-based innovative approaches to education development, the large number of Nepalese educators exposed to alternative models ensured a steady infusion of ideas.

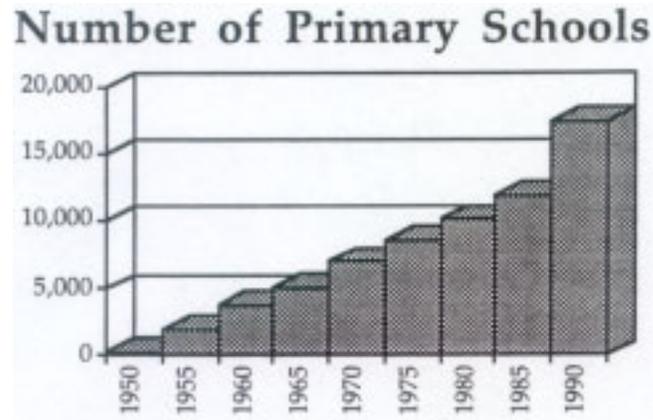
Primary Education

Between 1951 and 1961, the number of primary schools in Nepal increased from 321 to 4,001; enrollment jumped from two to 15.8 percent of the primary school age group. A 1961 UNESCO team found that female enrollment had increased from four percent of the total in 1954 to 35 percent in 1961. By 1970, 26 percent of primary school-age children were attending 7,256 schools.

Remarkable quantitative gains had been achieved. USAID now sought to improve the quality of primary education by financing activities designed to attract and educate more competent teachers and provide well prepared instructional materials and better-educated supervisors and administrators. Between 1961 and 1967, USAID committed more than \$3 million for primary education, to provide technical assistance and training and also to finance operation of institutions such as the College of Education and its Laboratory School, five Primary School Teacher Training Centers, and the Education Materials Center.

At the beginning of the decade, USAID's goals in primary education included support for a five-year elementary school program, establishment of 2,200 new primary schools, development of a uniform curriculum publication of textbooks for students and teachers, and teacher education - all continuations of activities started in the 1950s. USAID was also involved in cost-sharing of education facilities and construction of additional classrooms for numerous existing primary schools.

Despite early attempts to standardize the primary school curriculum, there were still at least six different types of schools operating in Nepal. USAID continued to pursue the development of a standard primary level curriculum, textbooks, and teaching materials through technical assistance to the College of Education and the Education Materials Center.



Primary Level Teacher Training

The rapid increase in primary schools during the 1950s had strained Nepal's teaching force to its limit. Salary reform at the primary level was needed to entice new teachers, and to encourage those with experience and training to stay. Though thousands of new teachers had been trained under various USAID-sponsored programs, graduates would often move into more lucrative professions. The opportunity for primary teachers to graduate to better-paying secondary level positions aggravated the shortage of primary teachers.

HMG, with USAID assistance, subsidized the salaries of teachers who received in-service training to encourage them to make use of their training and remain in the profession. The number of primary teachers steadily increased over the decade, until by 1970, Nepal had 18,674 primary teachers, as compared with 640 in 1951. Unfortunately, less than one-quarter of the total had received any formal teaching instruction.

Until 1968, USAID continued in-service training for primary teachers through support to the College of Education and its mobile normal school teams. In 1968, USAID sought to institutionalize the normal school training concept by establishing permanent Primary School Teacher Training Centers, one in each of the five development regions. The centers offered one year of teacher training to students who had completed secondary school.

Secondary Education:

Meeting Nepal's Manpower Requirements

HMG's increased emphasis on manpower development caused USAID to allocate nearly \$1 million for the development of secondary education between 1961 and 1967. Beginning with the establishment of an experimental Multipurpose High School in Pokhara in 1956, USAID and HMG had sought to integrate practical, vocation-oriented subjects into the secondary school curriculum.

Targets were set to place one multipurpose high school in each of the 14 administrative zones and 32 districts by 1965. By the end of the decade, courses in vocational subjects were offered to all upper level secondary students attending the multipurpose high schools. USAID concentrated on developing a viable vocational curriculum that could be integrated into the curricula of existing secondary schools throughout the country.

USAID and HMG thought that linking academic and vocational courses of study would better prepare students to participate in economic and social development. Neither took into account prevailing attitudes towards secondary education, which was generally regarded as a means to gain employment in prestigious non-agricultural urban professions. Those able to afford a secondary education generally sought civil service positions as a reward for their achievement. Economic and social incentives both reinforced the high status of white-collar employment in Nepal, and educators, as well as the general population, remained unconvinced of the value of vocational education.

Significantly, the vocational programs failed to target the craftspeople and unskilled rural poor who would most benefit from such training. Instead, students from elite families used the multipurpose high schools (which received substantial operational support and trained teachers and administrators) as a springboard for college. This is evidenced by the fact that enrollment in vocational courses steadily declined in the ninth and tenth classes, as students prepared to take the academically oriented School Leaving Certificate examination in preparation for college. Evaluations of USAID's vocational education program suggested it would have achieved broader and more lasting success had vocational components been used as enrichment facilities rather than incorporated into the general curriculum, and had the program targeted out-of-school youth rather than those seeking an SLC.

Vocational Training for Secondary Level Graduates

Effectively shut out of development of higher education (for political reasons), USAID turned to financing activities aimed at providing vocational training for

secondary level graduates. Planning for the National Vocational Training Center (originally the Kathmandu Technical Institute) began in 1959. Buildings for the NVTC and its Demonstration Multipurpose High School, located at Sano Thimi, were completed in 1967. USAID financed the planning and construction of facilities, while HMG furnished land and personnel.

USAID contracted the services of a team of educators from Southern Illinois University to develop the NVTC as a vocational training model. The goal was to increase the supply of trained Nepalese, primarily in agriculture and industry. Programs were also established in home economics and business education. The NVTC introduced aptitude tests and entrance exams to Nepal, and established a guidance division to help students find jobs upon completion of their studies. By 1971, over 100 students had completed a two-year course in vocational subjects; the guidance division helped place 50 percent in occupations in the fields in which they had been trained.

Some of the NVTC's most successful programs were not part of the regular curriculum, but targeted audiences likely to apply the skills taught. The Young Farmers of Nepal Program provided vocational training in agricultural methods to out-of-school youth from Birgunj and Bhadrapur, and the Special Skills Improvement Training courses provided training for carpenters and masons.

Despite a promising start, the NVTC proved unable to draw sufficient students to maintain the program. It was subsequently incorporated into Tribhuvan University under the Institute of Education, serving as a training center for secondary level vocational teachers.

Secondary Level Teacher Training

As compared with 120 secondary teachers in 1951, by 1970 there were 5,628. Only 981 teachers had received any formal training, all through USAID sponsored programs.

USAID's early involvement in secondary-level teacher training was through in-service training at the College of Education and its demonstration school and at experimental Multipurpose High Schools. These trained secondary teachers in order to reorient the curriculum toward a more practical vocational program. USAID sought to expand secondary level teacher training opportunities by developing training programs at the National Vocational Training Center and its Multipurpose Demonstration School.

Most teachers trained at the NVTC were not convinced of the merits of vocational education, however, and reverted to traditional classroom teaching methods when unobserved. Demonstrating agricultural techniques, for instance, was considered demeaning for an urban teacher. Obviously, it was not enough to

introduce new teaching methodology. What was called for was a more basic change in values and attitudes, reorienting the elite to accept vocational occupations as essential for national development.

STEP: Educational Innovation

In 1969, USAID became involved in the Science Teaching Enrichment Program (STEP), an innovative effort to improve secondary students' learning of science and scientific methodology. STEP emphasized content-based, hands-on student experimentation with topics relevant to Nepal such as agriculture.

The STEP concept originated with a Peace Corps Volunteer who had taught science at a USAID-sponsored Multipurpose High School in Birgunj. In the mid-1960s the Peace Corps, in collaboration with the General Science Specialist of the Ministry of Education, introduced the program in five secondary schools.

The first four STEP teacher training programs were staffed primarily by Peace Corps Volunteers; the fifth, funded by USAID, provided on-the-job training for science teacher-educators attending the College of Education. A full-time science specialist from USAID was assigned to work with trainees. STEP's interactive teaching methods were eventually introduced at the Laboratory School of the College of Education.

STEP was successful because it dealt with actual conditions in Nepalese schools, helping teachers to provide effective science instruction in the absence of reading materials. Repeated in-service teacher training was an important program feature. Unfortunately, the STEP method was not widely disseminated because of the high cost of equipment such as microscopes and test tubes.

USAID's support for the STEP program, which lasted until 1973, lent an element of continuity to the program that would not have been possible otherwise. For instance, USAID provided funding for three Peace Corps Volunteers to remain in Nepal after their two-year tours were completed to continue training secondary level teachers in the STEP methodology. USAID also provided budget support to the Ministry of Education for classroom development and construction of furniture for schools where STEP was being implemented. A similar model for teaching secondary level mathematics (PRIME) was later developed by another Peace Corps Volunteer and introduced at the Laboratory School and in some multipurpose high schools.

Adult Education

The National Education Planning Commission had set universal literacy as a national goal second only to primary education, and the national literacy rate reached 8.9 percent by 1960. In 1961, USAID provided its first full-time technician to assist with development of Nepal's adult education programs.

USAID helped establish the Adult Education Section of the Ministry of Education in 1962 to strengthen government administration of and institutionalize the literacy programs USAID helped initiate in the previous decade. Thousands of adults were made literate through the Ministry of Education's adult education programs. By 1965, 300,000 copies of 20 textbook titles had been produced and distributed by the Education Materials Center, and a radio education program for adults was being broadcast weekly over the radio. USAID contributed \$168,000 to adult education between 1961 and 1967.

Education Materials Development

The multi-purpose Education Materials Center (EMC) was established in the mid-1960s with technical assistance from the STCJ team under contract to USAID. The EMC originated in the late 1950s as a poorly housed education press attached to the College of Education. The Publications Division was responsible for production of primary textbooks and instructional materials. The new EMC was responsible for writing and designing texts for the primary and secondary levels, and for developing curricula and some adult literacy materials. It produced and distributed the materials as well.

U.S. assistance focused on the development of educational materials to provide students and teachers with badly needed texts and instructional materials. Through its participant training program, USAID helped develop the editorial capacity for production of education materials. Members of the SIU contract team advised and trained Nepalese personnel at the EMC in preparing instructional materials for Nepal's primary and secondary schools, and in the development of curricula for the National Vocational Training Center, multipurpose high schools, and the Primary School Teacher Training Centers.

In addition to educational materials, the EMC produced 8,000 copies of professional texts on educational psychology, child growth and development, and primary school teaching methods. The SIU contract team members were responsible to a significant extent for the proliferation of professional education materials; team members published books, manuals, teaching guides, magazines, articles, conference summaries and workshop papers.

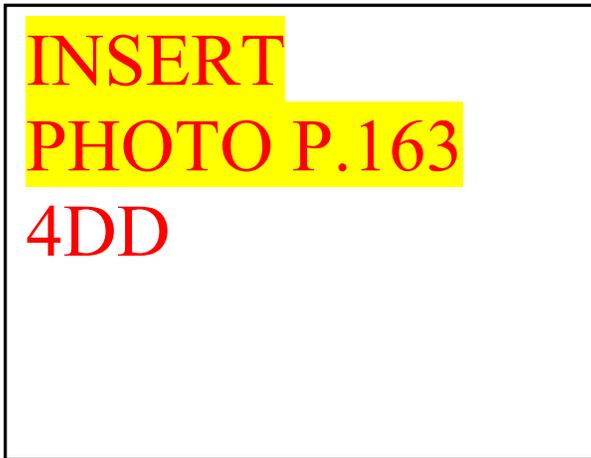
The EMC housed the Ministry of Education's audio-visual services as well as a printing plant. A complete audio-visual plan for Nepal was developed by an SIU technician, but because of budget constraints was only implemented at the National Vocational Training Center. The Audiovisual Center itself was beset with technical problems because of the daunting paperwork involved in procuring equipment and replacement parts from the U.S., and the lack of skilled maintenance personnel.

One criticism of the EMC was that it was responsible for too many aspects of text production, requiring a skilled administrator to coordinate the diverse activities. HMG's practice of periodically shifting administrators to new positions to prevent them from gaining too much support and authority in a given institution meant that USAID had to repeatedly recruit and train administrators. Eventually, some of the EMC's tasks were reassigned to the new Curriculum, Textbook and Supervision Division of the Ministry of Education.

The Ministry of Education, with USAID support, achieved its goal of creating a totally Nepali curriculum and a textbook production and distribution system rated "superior for a country of Nepal's level of development." Between 1961 and 1967, USAID spent more than \$2 million on education materials development for the primary and secondary levels. The EMC subsequently assumed responsibility for publishing and distributing all textbooks for primary through high school levels.

Library Development

In 1954 Nepal had 54 libraries, all located in larger population centers. In 1962, USAID provided a full-time advisor to assist with development of the Tribhuvan University campus libraries: during that year, USAID helped establish libraries in ten rural colleges. Over 50,000 books were supplied to these and to the Tribhuvan University Central Library, and participant training was provided for three librarians.



The library at the College of Education, Pokhara

Assessing USAID's Impact

Though Nepal's educational system still required quantitative expansion, USAID had succeeded in highlighting the importance of quality education through adult education programs, improved curricula, educational materials development, and teacher education. USAID's most important contribution to education development during the decade was its emphasis on in-service and participant training in all segments of the education sector.

USAID's institutional development efforts in the education sector, begun in the 1950s, had aimed to provide Nepal with educational institutions and the skilled manpower to operate them. During the decade, education policy was increasingly influenced by Nepalese trained in the U.S. and third countries who had returned to assume influential positions in educational administration, and began actively influencing policy decisions. USAID had helped establish the institutional capacity within HMG to plan and implement education programs on its own, setting the scene for reduced levels of U.S. involvement in education development in the next decade.



TRANSPORTATION

Nepal's road-building efforts gained momentum in the 1960s, as bilateral donors cooperated (or, more frequently, competed) in building highways. All-weather road construction accelerated from an average of 45 kilometers built annually from 1955 to 1965, to 163 kilometers per year between 1965 and 1972. Britain, the USSR, India, and China, all supported the construction of various segments. USAID supplemented these efforts by building up the institutional capacity of the Department of Roads, the purpose being to improve maintenance of roads built by other donors.

The sad fate of the Regional Transport Organization had taught USAID that road construction in Nepal was expensive, difficult and time consuming. Further construction programs were viewed with a jaundiced eye. The 1964 *Country Assistance Program* (CAP) maintained that Nepal's economy would have to advance in order to justify major expenditures on a national highway system. USAID's goal was to create the demand through other development projects, thus naturally stimulating the supply of roads.

Either agricultural or industrial production would have to increase in order to economically justify heavy investments in transportation, but the absence of roads was in itself a serious barrier to achieving these increases. The 1964 CAP outlined the challenge as twofold: first, to improve and expand facilities for commodity transport along existing trade channels, principally by road development. This was a slow process, requiring massive capital investments. A second aspect was to rapidly develop aviation as a complementary transportation system encouraging political unification, social integration, and the rapid introduction of development inputs. Aviation development promised quick returns with lower levels of financial inputs than roads, and became a focal point of U.S. transportation assistance during the 1960s.

Road Construction

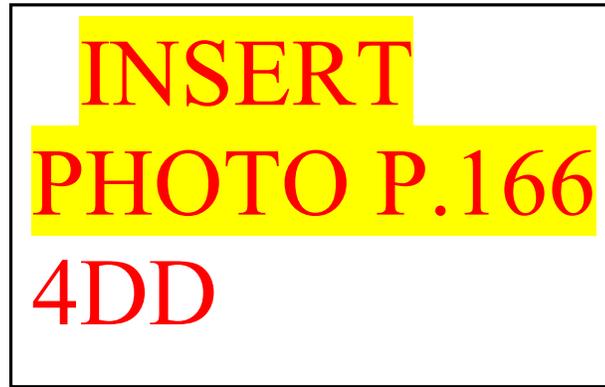
By 1968 Nepal's road network included the Tribhuvan Rajpath to India, the USOM-built extension through the Rapti Valley, a number of minor feeder roads in the Terai, and the Chinese-built highway to Tibet. To traverse Nepal from east to west, vehicles had to go through India. Construction on the East-West Highway began as an all-Nepali effort in 1962; donor assistance was sought beginning in 1964. USAID declined, questioning the value of the highway, then estimated to require \$70 million. The 1964 Country Assistance Program noted "USAID/N feels that the East/West Road is not economically justified at the present time, but

applauds this concrete manifestation of Nepalese self-help.” Portions of the early USOM-built Rapti Road from Hetauda to Narayanghat were rehabilitated and paved with assistance from the Asian Development Bank and incorporated into the East/West Highway.

In the early 1960s USAID continued funding capital projects, financing them with large amounts of PL 480 Indian rupees. Following the demise of the RTO, it turned toward strengthening the institutional capabilities of Nepal’s Department of Roads. The Road Development project was the vehicle for USAID’s goal of “assuming major responsibility for basic road development in Nepal”. The primary goal was to develop a “smoothly functioning” Highway Division, capable of independently administering road construction programs and providing maintenance.

Emphasis was on institution building and training rather than construction. USAID contributed a team of advisors, overseas participant training, commodity, and local currency support for administration services and construction. The project improved many short roads in the Kathmandu Valley, including the Dilli Bazaar, Baluwatar and Maharajgunj roads, and constructed a bridge over the Dhobi Khola and two spanning the Bagmati River (one in Baneshwor, enroute to the airport; the other near Gokharna).

Assistance also went to improving and expanding the Rapti Valley Road linking Hetauda and Bharatpur. An unusual element of this effort was a current-operated ferry across the Narayani River, linking the Rapti Road with the jeep track to Bhairahawa, at the time reachable only through India. The ferry was also intended to serve as a link in the planned East-West Highway, but the Asian Development Bank eventually built a bridge, making the ferry obsolete. The first 32-ton steel ferry procured by USAID was swept away in a flood a few months after it began operation in 1962. A replacement was obtained and installed under the Rural Development program, which had become the implementor of USAID’s road construction efforts. By 1966, USAID was de-emphasizing direct assistance to the Department of Roads, as it was with most ministries and departments, and shifting to a less direct, more supportive role.



The USAID funded ferry near Narayanghat

Suspension Bridges

Nepal is traversed from east to west by massive parallel ranges rising from 1,000 to 7,000 meters in altitude. These in turn are penetrated in a north-south direction by rivers and streams, which carve them into separate forms. The combination creates an exceptionally rugged landscape. Major trade routes linking the Mountains and the Terai tend to follow these north-south river valleys. These routes also serve as major supply lines for the Hills, as local trails link up with them and branch off to supply smaller villages.

The weakest links in this system tend to be the river crossings, often no more than rude log bridges swept away early in the monsoon every year. Summer rains swell Nepal's rivers up to 10 times in volume, isolating villages and entire regions for three to six months of the year, inhibiting trade and travel and disrupting services and local economies.

Rural Nepalis frequently express the need for suspension bridges across these seasonal barriers. The Swiss geologist Toni Hagen, who for seven years in the 1950s carried out fieldwork in all the major valleys of Nepal, reported the request he encountered most frequently was for improved trails and bridges (second was schools; third was improved health care). In his 1959 report to the U.N., Hagen wrote: "There is really no other project in Nepal which, with so little money and so little effort, could in such a short time affect so many people directly".

USAID's interest and involvement in suspension bridge-building dates back at least to the late 1950s. The situation originally appeared as a clear-cut case of technology transfer: teaching Nepalis to build bridges would result in rapid

dissemination of technology. HMG requested USOM assistance in the effort, and Toni Hagen reported USOM asked him in 1957 for a list of 100 most urgently needed suspension bridge sites. Presciently, he replied that a dozen would be sufficient for the first year. Despite USOM's best efforts, the first bridge was not built until 1964. The first dozen were not completed until 1968, justifying Hagen's phrase about "the tragedy of suspension bridges in Nepal".

The Suspension Bridges Project was initiated in 1958 with the stated purposes of encouraging government coordination at local and central levels, furthering self-help, and raising political, economic and social consciousness. U.S. technicians were to supervise and train Nepali members of the first construction crew, who would then lead progress on future bridges. Original plans were to build 25 footbridges with U.S. supplied materials and Nepali labor.

Organizational difficulties impeded action for several years. HMG's responsibilities — to determine sites for the bridges and organize and arrange labor and supervisors for transport of material and construction demanded complex coordination at a time when the government was in political turmoil. By 1962, when USAID upgraded the program goal to 72 bridges, not one had been constructed.

By the time the first bridge was built in 1964, USAID realized that institutional capability had to be created not assumed. A revised three-year plan to build 36 bridges was drawn up, and a Suspension Bridge Division (SBD) was opened under the Department of Roads in 1964. In line with USAID's goal of institution-building, emphasis was placed on on-the-job training of a core crew which would be able to erect bridges on its own and spread the knowledge of new techniques. The SBD managed to produce 12 of the 36 planned bridges by 1968, an accomplishment rated as "only fair".

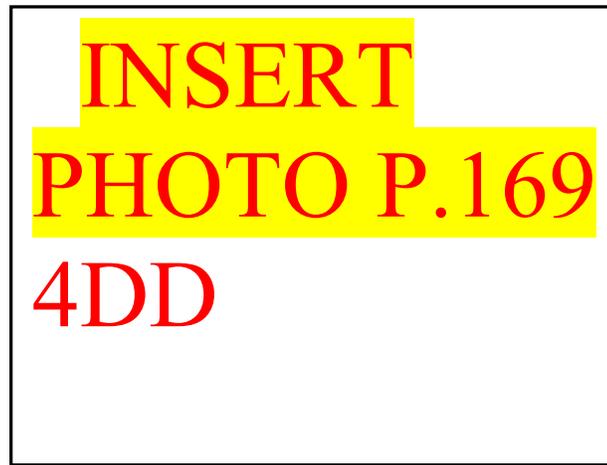
USAID support continued until 1975, by which time the SBD had built a total of 23 bridges with USAID funds. This modest total was disappointing in light of the overwhelming need, and the original expectation of achieving a similar number by 1960. While institutional capacity had been achieved in the SBD and was further strengthened through subsequent projects, Toni Hagen pointed out that benefits could have been magnified by manufacturing standardized bridge parts locally rather than imparting them from the U.S.

Air Transportation

Aviation development improved access to many remote areas unreachable by any means but walking. By the mid-1960s, USAID's transportation priorities had shifted from road-build to developing Nepal's internal air transport system as a means of complementing road construction and uniting the far corners of the

country. Road construction in Nepal had proven to be difficult, time-consuming and enormously expensive. Aviation assistance was now viewed as “the most efficient, rapid, economical and effective means” of improving internal transport (Country Assistance Program, 1964). Internal flights cut travel time between Kathmandu and Pokhara from six days to 45 minutes, and for the amount of money it took to construct 50 miles of finished highway in the Hills, USAID could and did run a four-year aviation development program.

Air service to Nepal began in 1950 with Indian Airways’ Patna -Kathmandu service. These flights landed at the Kathmandu airfield, known as Gauchar Airport (developed by India in 1954) until it was christened Tribhuvan International in the mid-1960s. Originally part of the endowment lands of the nearby Pashupatinath Temple, the land once served as a grazing ground for Pashupatinath’s sacred cows — thus the name *gauchar*, “cow pasture”. In 1952 Himalayan Aviation, another Indian company, began internal flights. In 1958 HMG took 51 percent interest in the company and established Royal Nepal Airlines Corporation.



The Kathmandu Airport: RNAC's fleet of aircraft

Beginning the following year and continuing through 1974, USAID channeled over \$8 million into developing Nepal’s aviation capacity under the Aviation Development Project and the subsequent Airport Development Project.

Communication and navigation equipment was provided for Gauchar Airport and six other airfields around the country. The project financed improvements of nine existing airfields, funded training of RNAC officials and operators and the construction of airfield buildings, including six terminals and three buildings at the main Kathmandu airport. In 1961 three DC-3 and two STOL Pilatus Porter aircraft were provided to the fledgling RNAC. One of the Pilatus Porters crashed that year and the other the next, but fortunately the planes were insured. A few years later the U.S. financed the addition of a 2,013 meter cross-runway to the main runway of Gauchar Airport, nearly doubling the length and allowing the landing of larger international carriers.

Equally vital was the network of STOL (Short Take-Off and Landing) airfields developed in remote locations about the country. The goal was to increase access, encourage the rapid movement of people and goods within the country, and generally accelerate the nation's economic, social, and political integration. In addition to providing access to remote areas where roads will never penetrate, STOL services deliver mail and commodities and maintain vital contact with isolated regions. USAID funded surveys for 36 STOL fields in various districts and sponsored the construction of several of them.

By 1973, Nepal had 15 small airports and eight STOL strips. RNAC's domestic passenger traffic increased from 25,000 in 1966 to 210,000 in 1970. In the words of a 1968 USAID consulting team, air transport had given the country "the essential minimum level of communication to permit it to function as a nation".



INDUSTRIAL AND CAPITAL DEVELOPMENT

USAID's initial expectation had been that as Nepal's transport and power networks developed, medium and small-scale industries would naturally appear. Increased agricultural efficiency and changing work patterns would create an unemployed population, ready to be channeled into industry and private enterprise. Assistance to the NIDC and other early enterprises was partially motivated by the desire to establish infrastructure necessary to support this anticipated shift. By the latter half of the 1960s, planners were realizing Nepal would remain a predominantly agricultural country for the foreseeable future. Efforts in diversifying industrial development accordingly shifted to supporting and accelerating sustained growth.

HMG's actions through three successive changes of government were characterized as a "progressively improving situation" by USAID. The government's first National Policy of Encouragement of Private Investment proclaimed in July 1958 was further clarified by a policy statement in February 1960 guaranteeing exemption from taxes. The Second Plan in particular highlighted economic development, with emphasis on transport, communications, and hydropower. But weak policy implementation and a general atmosphere of uncertainty tended to discourage investment and development, and industrial growth and output remained sluggish throughout the decade.

Skills Training

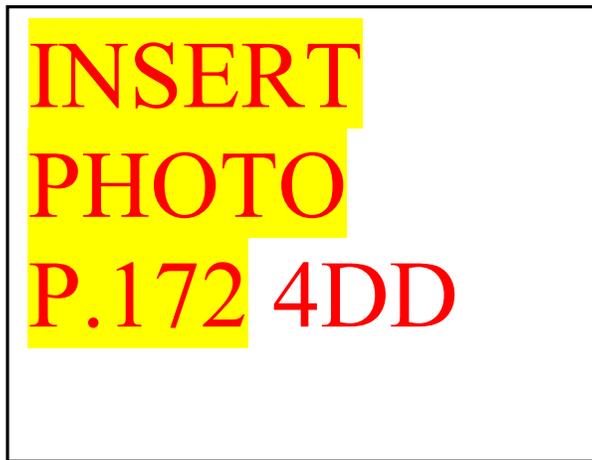
Nepal's shortage of skilled managers, technicians and workers seriously constrained industrial development in early years. The Industrial Pre-Management Training Project administered through the NIDC provided management training to over 100 college graduates and business representatives annually from 1960 through 1967 in an effort to increase the managerial pool. By 1971, over 120 long-term participant trainees sponsored by various programs had returned to Nepal and were applying their knowledge in industry.

Natural Resource Surveys

Of all Nepal's natural resources, forests were considered to be the richest and most easily exploitable. USAID showed great interest in developing sustainable forestry-based industries during this period. The Forest Inventory and Management Project, started in 1963 in cooperation with the Department of Forests, organized and trained personnel for a detailed national forest inventory, concentrating on the areas of greatest commercial importance in the lower Hills. A team of four U.S. technicians spent over three years providing training and technical advice in support of the survey, which indicated the location and extent of forest cover by

species and condition for much of Nepal. A Forest Soils Laboratory was also established for experiments in tree planting and erosion control. Statistics obtained from the inventory were used to develop Regional Forest Management plans selecting timber-cutting areas in order to efficiently utilize resources on a sustained yield basis. The project's greatest accomplishment was its large training component, encompassing overseas, local, on-the-job, and formal training. The project ended in June 1969 after nearly \$5 million in assistance, leaving a staff of professional foresters, technicians, and lab workers to conserve and utilize Nepal's forest resources.

During the same period, the Forest Products Development Project founded and supported two demonstration sawmills as part of the flood relief assistance for the Rapti Valley. One eventually became the Timber Corporation of Nepal, with a head office in Hetauda and five production centers. U.S. advisors trained crews in sawmill operations, maintenance, logging, and management. From 1967 on, the corporation operated without outside assistance as a government run enterprise. By 1970 the mill was realizing an annual profit of eight million rupees.



The USAID-funded Hetauda Sawmill

Water Resources

Hydropower is among Nepal's most promising natural resources. The country has an estimated capacity of 80 million megawatts, one-quarter of it economically feasible for development. Exploration of this tremendous asset began in the 1960s, assisted by several donors. In 1961, USAID's Hydrologic Investigations Project

began a nationwide evaluation of the country's surface water resource potential. The project introduced a continuous data collection system to help plan additional power and irrigation projects. USAID assisted the establishment of a Ground Water section in the Department of Hydrology and Meteorology, with training in collection and analysis of hydrological and meteorological data and support for technical assistance, equipment, and operating costs. A nationwide network of 95 stream gauging and other hydrologic stations was established for the systematic collection of water information, producing basic input for planning road, power and irrigation projects. This project also supported local costs of the U.N. Special Fund's preliminary survey of the Karnali River.

From 1969 to 1974, USAID assisted in investigating groundwater potential in the Western Terai, drilling test holes and tube wells. to collect water samples for analysis. The regional focus typified USAID's increasing concern with the large and underdeveloped western portion of the country. Basic information gathered by the Ground water Investigation Project provided detailed information for production well construction which proved vital to subsequent irrigation projects. Nepali technicians received on-the-job training in hydrology investigations to conduct further investigations, and well-drilling and scientific equipment was provided. Logistically, the project was slowed by the time required to procure and ship equipment from the U.S.. Original targets had to be reduced as project implementors discovered that nearly all the proposed drilling sites demanded the construction or improvement of access roads. The original obligation span was extended two years through 1974.

Industrial Development

The Industrial Districts Project, operated through the NIDC, encouraged private industrial investment by providing strategically located rental factory facilities with a guaranteed supply of essential utilities. Lack of basic infrastructure was a major bottleneck in private sector development. Industrial districts offered the possibility of developing and offering necessary infrastructure and services in an efficient fashion.

The Balaju Industrial District began operations in 1961 under a district manager contracted by USAID. The unit had roads, communications, drainage, water and power, warehouses, and factory unit space. The model developed here was spread across the country. By 1990 Nepal had ten industrial districts in various locations, with more planned. Altogether the industrial districts and their client industries employed 10,500 people and had an investment of about 108 million rupees. Balaju remained the largest, with about 80 industries employing 3,500 workers. USAID also supported the Hetauda Industrial District, which opened in 1964.

Power Development

Power Development Integration was a complex multi-donor project designed to improve and expand power distribution in the Kathmandu Valley and the developing industrial area of Birgunj-Hetauda. At the project's inception in 1960, Nepal's national power capacity was less than 10,000 KW — insufficient even for internal domestic requirements. Distribution was limited to the Kathmandu Valley and Biratnagar, and the supply was far from reliable. HMG's Second Plan put high priority on the extension of power facilities, and multiple donors joined in the effort, including Japan, the U.K., India, and the USSR.

USAID's project involved seven different activities, one of which was an attempt to coordinate all the diverse donors, knitting together different inputs to build a rational supply system. USAID provided over \$11 million in local currency and dollar grants through 1967 to systematically increase electricity for industrial and private use. Project emphasis was on distribution rather than generation, in order to help Nepal best utilize the new capacity. Assistance was largely financial, directed towards local costs and supporting HMG operational costs, with smaller technical assistance and training components.



The 1970s

NEW DIRECTIONS: GROWTH WITH EQUITY

For Nepal the decade was characterized by a relatively stable political environment under the Panchayat system and moderate economic growth. King Birendra, who came to power in 1972 after the death of King Mahendra, espoused many of the same political and economic development principles that characterized his father's administration. There was an increasing emphasis on improving government service delivery in the Hills, to ensure an equitable distribution of development benefits throughout the country. HMG attempted to decentralize planning and fiscal responsibility, and increase access to the economic benefits of development.

For USAID, the early 1970s was characterized by the consolidation of projects begun in the previous decade, and by a re-evaluation of its role in Nepal's evolving development environment. While development assistance during the first two decades was considered a relatively straightforward matter, by the 1970s it had become a more complex issue. Assistance no longer involved a series of isolated inputs, but rather an interrelated cluster of carefully planned and integrated activities. The 1970s were a time of shifting paradigms in the development world. During this transitional period, AID and USAID / Nepal reassessed their past roles and sought to increase the effectiveness of future initiatives by developing a long-term program strategy.

Key development themes for the early 1970s were identified in an AID Consulting Team report (Nepal's Development Strategy and USAID's Role in Support of the Strategy) prepared in December 1968 to suggest a support strategy for the upcoming Fourth Plan. It recommended that USAID:

- pace development programs and projects according to HMG's ability to implement and administer them in consonance with its manpower and financial resources
- focus projects in line with HMG priorities;
- assist HMG to develop its management capabilities in order to improve its ability to raise and spend funds;
- cluster development efforts in districts or regions to integrate administration and delivery of government services; and
- balance efforts between the Kathmandu Valley, the Terai, and the Hills for a more equitable distribution of benefits.

These themes were in line with AID's global assistance strategy introduced in 1973 as the New Directions legislation of the Foreign Assistance Act. They complemented the Government of Nepal's own efforts to achieve more effective development. An opportunity to follow up on these issues was provided when Carter Ide, one of the four members of the Consulting Team, was appointed director of USAID in 1969. He would remain to guide the U.S. assistance program until 1974.

New Directions in USAID's Program

The 1973 passage of the New Directions legislation placed a new emphasis on meeting peoples' basic needs through small-scale technical assistance projects, as opposed to the large-scale capital transfers which characterized the previous decade. AID's new economic development approach was based on the principle of "growth with equity." Through the increasingly popular mechanism of integrated development projects, the mandate sought to increase access to government services and the benefits of development by "maximizing employment via labor-intensive economic activities, and insuring access of the poor, usually small rural producers, to the means of production, the market, the financial systems, and technical knowledge." In Nepal, USAID sought to influence HMG's own move to target the rural poor by seeking government cooperation in fostering agricultural cooperatives, equitable land tenure patterns, and equitable income distribution.

Effects of the new legislation were slow to emerge in the Nepal program. USAID held to its traditional course for several years while assessing the potential for new and more focused initiatives. As a result of AID's worldwide fiscal retrenchment, USAID's program, including the number of U.S. direct-hire staff, was dramatically scaled back. The reduced staff was forced to assume greater administrative responsibilities while reorienting the program to meet New Directions guidelines.

Between 1973 and 1976, USAID focused on consolidating its ongoing projects as a first step towards designing new ones. An unusually large number of pilot studies in health, education, agriculture and rural development helped explore the most effective and efficient means of reaching Nepal's rural population.

USAID's program began to incorporate the New Directions legislation only after Samuel Butterfield arrived to head the Mission in 1976. Butterfield was uniquely suited to carrying out implementation of the new legislation; before coming to Nepal he had served as Associate Director for Technical Assistance with the Working Group on Rural Poor in Washington, D.C., which determined how to implement New Directions legislation worldwide. Partly due to the lengthy

project preparation and evaluation process mandated by AID, progress was again slow. Not until the end of the decade were USAID's first comprehensive integrated rural development projects like Resource Conservation and Utilization and Rapti Integrated Development ready for implementation.

RECOLLECTIONS OF Nepal

Carter Ide (USAID Director, 1969 to 1974)

The general atmosphere throughout my tour in Nepal was one of open-armed welcome. Along with the Indian Aid Mission, we played a proportionately larger role in the aid community than other donors. The U.S. represented a kind of "Third Force", another option to the bilateral relations of Nepal with India and China. I had never worked in a political environment as free of U.S. self-interest. After serving in Latin America, India, and Pakistan before coming to Nepal, I felt liberated from the military, trade, and business constraints, and from Presidents and Secretaries of State given to "tilting" in some direction or other. Our program in Nepal was "objective" and "disinterested"; perhaps "dispassionate" is a better term, since we were certainly interested. We may not have achieved perfection, but we could try to follow the textbooks on selecting priorities of genuine developmental impact.

By the end of my tour the scene was different. Many other countries had initiated substantial aid programs, and nearly all UN agencies came to be represented (even the maritime experts were there to advise the Nepalis on a ship they had bought to carry their own cargo, until it foundered). Coordination of aid programs became a significant problem. The Finance Ministry was charged with signing formal aid agreements, but it too had trouble policing the numerous informal approaches from all manner of HMG agencies and semi-private bodies. Not only did every donor expect a local currency contribution (enough to break any budget) but the trained personnel were so few that we all descended on the few expert Nepalis to give us their favored attention.

USAID itself had by this time a long list of so-called "completed" projects of which we were only dimly aware; as new enthusiasms and advisors took over, the older projects dried up and we were pressed by AID/Washington to terminate them in favor of new fads. Many Nepalis came up to me on social occasions to enquire plaintively why we had abandoned them and what should they do with the forestry or geological survey equipment gathering dust in

their closet. Ramesh Upadhaya (then in the Finance Ministry) and our program office compiled a list of all foreign aid-related projects undertaken in Nepal. The pile of documents reached to the top of a filing cabinet.

The donors met frequently, increasingly under the aegis of the UN Resident Representative, but seldom got down to sufficient detail to prevent duplicate requests and redundant efforts. Since Nepal was such an attractive place to live, foreign advisors from all agencies did their best to keep a piece of the action.

We had many discussions of the merits of “institution building” versus more visible “showpieces” to bring home to the Nepalis the U.S. “presence”. On the whole, we played a low-profile role, providing advice, training, and project related equipment. In some cases we tried to make a larger splash, as with construction of the Central Statistical Office, with attendant equipment and advisory services.

In retrospect, I suspect the most important contribution we made to Nepal was out-of-country training. As Nepalese training institutions were established and staffed, USAID training presumably declined in importance. It is fair to say that an entire generation of Nepalis had exposure to the outside world which influenced them far beyond the specific job-related skills that justified their training at the time.

U.S. Economic Development Assistance

New Directions in Programming U.S. Assistance

AID's New Directions guidelines announced in 1973 required systematic sectoral analyses and thorough consideration of alternative assistance strategies to assure the highest possible cost benefit ratio. The objectives and feasibility of strategies had to be clearly understood by both AID and Nepalese decision-makers.

The proposed 1972 USAID budget pointed out that Nepal's development had reached a critical point. In previous decades, almost any development activity had been considered a positive input, but by the 1970s projects needed to be considered in terms of their relevance to the current development context, including Nepal's economic performance, the availability of resources, and HMG's ability to effectively utilize resources. Disappointed by minimal returns from some

development efforts, AID hoped that more realistic design would make future projects socially and economically sound and effective.

USAID in the 1970s focused on longer term planning of comprehensive development strategies as mandated by AID. To this end, AID-sponsored study teams evaluated ongoing USAID projects, undertook assessments of Nepal's needs in agriculture, health, and education, attempted to align U.S. strategies with HMG's own development priorities, and developed plans to improve allocation of available resources, both domestic and foreign. USAID increasingly emphasized the role of research and planning in ensuring effective projects, as well as the importance of project monitoring and evaluation.

In 1975, slightly over half of Nepal's development budget was financed by foreign aid. Roughly 20 percent of this amount consisted of U.S. contributions. Reduced levels of assistance made USAID programming more selective. Increasingly, it was directed toward activities directly benefiting the rural population, per the New Directions mandate. USAID's program concentrated on food production and nutrition, education and human resource development, and population and health. By 1978, traditional discrete sectors such as agriculture, health, education, transportation and communications had been replaced by a multisectoral, integrated approach to rural development.

Regional Strategies

This integrated systems approach to rural development coincided with a new regional emphasis; a departure from the policy of the first two decades which had aimed (often unrealistically) at having a nationwide impact. Regional emphases had been advocated by USAID as a development concept in the 1960s through projects like the Western Hills Road Project and the Remote Areas Development Project.

The Fourth Plan (1970 to 1975) introduced a new regional emphasis with plans to develop north-south zones linking the Hills and Terai. The goal was to foster a more equitable distribution of development benefits by creating a capable, regional administrative infrastructure. According to USAID's 1975 Capital Assistance Program, the previous "prime emphasis on growth regardless of distributive justice has led to a situation full of imbalances."

Up to this point, HMG, USAID, and other donors had concentrated development investments in the Terai and the Kathmandu Valley, where critical infrastructure was being developed and where transportation and communications were relatively good. The 1970s saw increasing recognition of the need for more development investments in the Hills, where a majority of the population resided

at the time (six million, as compared to one million in the Mountains and three million in the Terai). Rather than continuing to rely on spillover benefits from development in the Terai and the Kathmandu Valley, USAID in the 1970s turned to supporting increased agricultural productivity and improved service delivery in the Hills.

USAID's Program Support

Technical assistance was considered an important feature of the U.S. assistance program in view of Nepal's limited institutional capabilities and lack of skilled manpower. It was meant to accelerate development of Nepal's indigenous institutional capacity to plan, implement, and manage its own development programs, as the U.S. ultimately considered Nepalese better able to adapt new technology and skills to local conditions than foreign technicians. Capital assistance supported specific project activities and influenced allocation of HMG resources in support of joint program goals.

By 1972 AID had mandated a change-over from a program financed by excess U.S.-owned Indian rupees to one financed entirely by dollars. Local currency support was reduced but remained to an extent, and was programmed to have a more direct impact on Nepal's economic development, mainly by improving delivery of government services in the Hills.

Whereas USAID had provided vital input in formulating Nepal's economic and development policy in the first two decades of the country's development, a plethora of eager donors, coupled with falling U.S. annual assistance levels, meant that USAID's influence diminished in the 1970s. By the end of the decade, USAID was contending for influence with ten major bilateral donors, many smaller bilateral donor programs, and four multilateral assistance agencies. As a result, USAID began developing alternative avenues through which to channel its assistance and continue influencing the course of Nepal's development.

Recognizing its own financial and manpower limitations, USAID supplemented its bilateral program with contributions to multilateral agencies, and played an important role in facilitating donor coordination. This allowed USAID to continue working in areas such as infrastructure development that would not have been feasible otherwise. To broaden its ability to administer new projects, USAID continued to channel assistance through non-governmental organizations, and contracted with various U.S. government agencies and U.S. universities to provide technical assistance.

USAID/PEACE CORPS COLLABORATION IN NEPAL

Long before interagency cooperation was mandated in 1979, USAID/Nepal and the Peace Corps were utilizing one another's technical, cultural, and financial resources to supplement program objectives. Since the Peace Corps established its first program in Nepal in 1962, Peace Corps Volunteers (PCVs) have assisted USAID projects in agriculture, health, education, and infrastructure development. Many others have collaborated on an informal basis through their work in USAID target areas. PCVs have played a pivotal role, supplementing USAID's technical expertise with their strong field presence and knowledge. By the late 1980s, more than 120 PCVs were participating in activities under USAID's Agricultural Research and Production, Rapti Development, Institute of Forestry, Forestry Development, and Child Survival Family Planning Services projects.

Collaboration between the two agencies was originally discouraged as it was felt their approaches to development were too disparate. The Peace Corps' "people strength" was said to be at odds with AID's substantial financial and technical base. In fact, the agencies' basic development premises are similar in intent, if not execution. The differences were bridged somewhat in 1973 with the introduction of the *New Directions* legislation shifting AID's emphasis from macro development (through policy dialogue and institution building) to projects targeting the rural poor.

The *New Directions* legislation pushed AID into areas the Peace Corps had been working in for years. Despite obvious parallels in terms of development objectives, it was not until the late 1970s under the Carter administration that the relationship between the two agencies was effectively clarified, and the terms of reference for a coordinated development effort defined. Gradually, despite differences in style and programming, the two agencies realized that they shared a common purpose. Though the development mechanisms are different, the objectives are ultimately the same: to assist economic and social development to improve lives.

Statistics reflect the successes of the partnership. By 1985, former PCVs made up 13.5 percent of AID staff worldwide. Between 1978 and 1982 in Kathmandu, more than 50 percent of the USAID Mission had served as PCVs in Asia.

In 1983, USAID introduced the Small Project Assistance Program to support community-based development projects implemented by PCVs in conjunction with rural communities. The Small Project Assistance Program in

Nepal was administered by the Peace corps through HMG's Social Services National Coordination Council. Under the program, USAID supported the activities of more than 40 PCVs in over 30 projects in agriculture and forestry, health, and education.

In addition to project collaboration, USAID staff and contractors supported a wide range of training sessions and conferences to promote a broader understanding between USAID and Peace Corps. Despite AID's shift from the basic needs-oriented program of the 1970s to its later focus on improving the policy environment, USAID and the Peace Corps continue their close cooperation in Nepal.

Financing Nepal's Development: An Increasingly Complex Issue

Foreign Assistance

Until mid-decade, most foreign-assisted projects were entirely financed by donors, including local and in some cases maintenance costs. As Nepal's economic performance improved somewhat in the late 1970s, it was able to assume a higher proportion of development costs. Foreign resources financed 46 percent of development spending in the Fifth Plan period, as compared with approximately 60 percent during the Fourth Plan.

In the 1970s, multilateral development agencies entered the scene in Nepal, increasingly influencing development policy. Multilateral contributions increased from less than one percent of all development assistance in 1974 / 75 to 46 percent in 1980 / 81. Most assistance was characterized by soft loans rather than grants, while bilateral aid continued to be given mostly as grants. Despite the potential for this increased foreign assistance to create a significant burden of repayment, Nepal's absorptive capacity and economic performance improved somewhat during the Fifth Plan period according to the World Bank.

The 1968 AID Assessment Team had urged HMG to carefully choose projects to pursue, and to increase coordination of donor projects within the framework of its own planning efforts. Little action took place until 1976, when the Nepal Aid Group was formed to help coordinate increasingly complex assistance in line with the government's own development priorities. The forum, however, was used

mainly to discuss policy issues and pledge assistance levels rather than to actually coordinate efforts.

Prospects for Domestic Resource Mobilization

In terms of traditional economic measures like GDP or even agricultural productivity, Nepal's economic progress had been limited. Between 1965 and 1975, the economy actually stagnated when measured by most standard economic criteria. Though this was blamed at the time on Nepal's being in the early stages of development, and the necessity to spend on projects that would yield long term results, like physical and institutional infrastructure, these investments increased GDP.

According to a 1975 USAID planning document, "none of Nepal's policy objectives can be achieved without substantial and sustained growth of agricultural output." In 1976, 94 percent of Nepal's population worked in agriculture and related occupations. Eighty percent of export earnings came from agriculture. Nepal's traditional agriculture structure, characterized by limited access of farmers to markets, was a major constraint to modernizing the economy. The small production gains achieved were immediately eroded by rapid population growth.

Nepal's ability to raise investment levels and per capita income was further constrained by its thin natural resource base and shortage of trained manpower. Because limited data made only rough estimates of economic performance possible, the actual extent of the country's resources remained uncertain.

Nepal's ability to contribute resources to its development was further limited by a narrow tax base relying on indirect taxes, and an inelastic tax structure. In addition, the financial performance of most government corporations was poor. Dependency on imported development commodities such as cement, fertilizer, and petroleum products made the country's economy increasingly vulnerable to the vagaries of the world market, forcing Nepal to expend valuable reserves. World prices increased rapidly during the decade, and the terms of trade with India deteriorated. With an increasing need for imports to support development, Nepal faced serious balance of payment problems, exacerbated by its limited foreign exchange reserves. In addition, worldwide oil supply problems in the first half of the decade caused fuel shortages in Nepal, effectively halting importation of much needed development commodities.

Nepal's inability to absorb existing financial resources, both domestic and foreign, had been a serious problem for HMG in previous decades. USAID felt the success of development activities was dependent upon Nepal's ability to absorb development assistance through improved planning, monitoring, and evaluation

procedures, better mobilization of human and financial resources, and through less restrictive economic policies to provide an atmosphere more conducive to improving and expanding both public and private sector performance in the economy. The success of Nepal's development effort also depended heavily on the interaction of the Nepali and Indian economies.

Nepal's Plans for Development

Partly in response to the limited usefulness of its five-year economic plans, HMG adopted a supplemental Two-Year Development Program in 1972, outlining the policies of the new King, Birendra. The plan de-emphasized infrastructure development, replacing it with a more people-oriented strategy. Planners hoped to concentrate directly on productive activities to “optimize returns from earlier infrastructure investments,” and to direct the benefits of increased production through quicker yielding investments and social services to achieve “increased agricultural productivity, balanced regional development, improved social services, effective resource mobilization and employment promotion.” A secondary aim of the program was to decrease Nepal's dependency on foreign aid by tapping indigenous human and natural resources.

Slow overall economic growth and the concentration of development investments in urban areas in the Kathmandu Valley and the Terai in the 1950s and 1960s led to the more comprehensive regional strategy in the Fifth Plan, which de-emphasized infrastructure development and focused on increasing national output (particularly in agriculture). Whereas Nepal's most serious development constraints in the 1950s were its lack of physical and administrative infrastructure and skilled human resources, by 1965 there was a compelling need to feed a growing population. By the early 1970s, the population growth rate was exceeding the increase in agricultural production, forcing planners to focus on the long-term implications of Nepal's rapid population growth.

USAID noted that to increase productivity, HMG would have to ensure access to minimum basic services:

Both improved health and education are determinants of the quality of an essential development input, manpower – without qualitative improvements in Nepal's manpower resources, productivity will not be maximized.

The new policy of providing minimum basic services to the maximum number of people coincided well with USAID's congressional mandate to reach the rural poor. USAID concentrated its assistance to support programs providing basic social services to rural areas (improved health care delivery, family planning, and

education). Other projects aimed at improving the technical capacity of HMG personnel and institutions; institutionalizing and improving indigenous research, planning, and evaluation capabilities; and transferring project management skills to HMG personnel.

U.S. Assistance to Institutional Development

A development strategy in Nepal which presumes too much administrative capacity ...will not only be frustrated, but will waste resources. Development efforts in Nepal should give high priority to projects which require minimal administration ...it is essential to concentrate development efforts as much as possible in order to focus scarce administrative resources

-AID Assessment Team, 1968

Nepal's Administrative Capacity

In 1951, HMG administration was staffed by approximately 7,000 officials. By 1973, the civil service had expanded to 50,000, with an additional 30,000 employed in various public enterprises. Including teachers, the police, and army, there were nearly 200,000 civil servants, representing roughly half of all wage and salary employment outside agriculture. The growth in numbers of civil servants was accompanied by the proliferation of government agencies and parastatal enterprises.

When King Birendra came to power in 1972, he professed a commitment to administrative reform. One of his first moves was to give the National Planning Commission more authority in creating, implementing, and evaluating Nepal's five-year economic plans. As part of the reform measures, the Foreign Aid Division of the Ministry of Finance was reorganized to handle project planning and monitoring. In addition, planning cells were created within the various technical ministries to develop annual plans and budgets for the respective sectors and to carry out long-term planning and evaluation. Unfortunately, there was little coordination between ministries.

Despite King Birendra's commitment to administrative reforms, by 1979 there were a total of 21 ministries in addition to the National Planning Commission, with roughly 45 subordinated departments, of which 30 were engaged in economic and social affairs. By 1975 there were 60 public enterprises. The low productivity of the public sector indicated the same central concentration of authority as in previous decades, and underscored the need to seriously pursue administrative

reform. HMG, as well as donors, had overestimated its willingness and capacity to undertake its own reform.

Administration of Development Activities

The evolution of HMG planning institutions staffed with trained administrative personnel meant there was less tendency to merely respond to the development priorities of foreign donors, and more concentrated efforts on the part of HMG to plan its own development strategy. Because effective development was difficult to achieve under a highly centralized government administration, the regional development strategy introduced in the Fourth and Fifth Plans was intended to improve decentralization. The District Administration Plan released in 1974 represented one of the first efforts to coordinate local and national planning, with its emphasis on devising district development plans.

USAID's approach to developing Nepal's institutional capacity grew out of the recommendations of the 1968 Aid Assessment Team report, which pointed out that multiple donors had overtaxed HMG's scarce administrative, manpower, and budget resources. Most foreign-aided projects required local contributions, presumed HMG would assume maintenance responsibilities once donor assistance terminated, and assumed that the government could absorb staff working in government institutions created by the projects. The proliferation of donors and projects in the 1970s placed new strains on Nepal's domestic resources.

USAID's main outlet for improving Nepal's institutional capacity was assistance (with the Ford Foundation) to the Center for Economic Development and Administration (CEDA), established in 1970. As an independent, high quality institute of public administration, CEDA exerted a tremendous influence on institutional development and reform. Its training program exposed several hundred mid-level HMG managers to modern concepts of planning, project analysis, and development administration. CEDA organized seminars on aspects of public administration, and established important linkages with scholars and institutions in the U.S., Southeast Asia, and India to facilitate an exchange of ideas on modern concepts in public administration. In addition, CEDA's Documentation Center provided administrators with access to current information on administrative practices. Later, to its detriment, CEDA was incorporated into Tribhuvan University.

HUMAN RESOURCE DEVELOPMENT: INSTITUTION BUILDING

According to a World Bank report published in the early 1970s, “the general and widespread shortage of manpower skills at all levels in both public and private sectors...is responsible for undermining effectiveness of plan implementation.” The conclusion was substantiated by the National Planning Commission (NPC), which determined that Nepal’s manpower resources lacked “a hard core of sectoral planners, administrators and managers of high caliber in adequate numbers.”

The NPC’S assessment led to adoption of a two-pronged approach to human resource development 1) to send personnel in public and private sectors abroad for training in required areas; and 2) to consolidate and upgrade in-country training facilities. In 1972 the NPC became the authorizing agency for all overseas training, playing an increasingly important role in training throughout the decade.

Though training facilities existed within some government institutions (largely as a result of USAID initiatives in the 1960s), they were generally poor in quality, and the number of civil servants capable of conducting management training was extremely limited. The heavy demand for middle-level management created by decentralization efforts was exacerbated by a growing multiplicity of development projects. Short-sighted planning and poor education had created a surplus of the nominally educated unemployed on one hand, and an acute shortage of skilled manpower on the other.

Prior to 1973, most USAID-supported participant training provided specialized skills to support specific projects. Comparatively few early participants were trained in management, and still fewer slots were provided for middle-level manpower. While high-level technical training continued throughout the decade under individual USAID projects, donors and HMG identified a need for training middle and lower-level institutional managers. As a New Era (a Nepalese consulting firm) evaluation team pointed out in 1980, limited financial and manpower resources were not as serious a problem as the “paucity of adequate capability and skills to make appropriate decisions in the manipulation of available resources.”

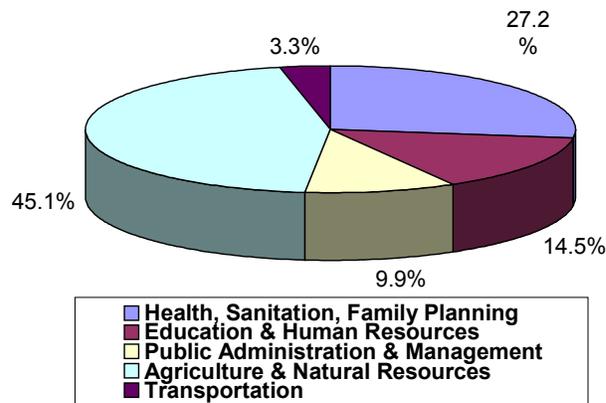
HMG singled out USAID on the basis of its past record in human resource development, and urged it to initiate a special training project to help fill the middle-management gap. Negotiations eventually resulted in the Manpower Development Training Project, an important component of

USAID strategy to develop Nepal's institutional capacity.

The project's primary objective was "to orient and train a host of middle and high level personnel working in government, semi-government, and private undertakings – specifically those engaged in administration and management." The ultimate goal was more reliable management of the country's resources, which would lead to accelerated economic growth and more effective development. The project also sought to meet the long-term need for HMG capacity to plan and administer major training programs. The ultimate goal was to have HMG assume responsibility for the participant training function being performed by USAID.

Though the Manpower Development Training Project succeeded in improving the performance of individual participants (supervisors reported that participants were more "decisive, skilled, knowledgeable and efficient"), newly acquired skills could have little impact on overall performance as long as the administrative system remained rigid, and promotion continued to be non-performance based.

Participant Training 1970-1979



Program Impact

For much of the decade, USAID was occupied assessing Nepal's development needs by conducting pilot studies in health, education, agriculture and rural development, to determine the most appropriate means of channeling assistance in consonance with the guidelines of the New Directions legislation, and in line with HMG's own priorities. Some of USAID's more notable achievements during the decade were its efforts at facilitating and participating in donor coordination through dialogue, and its assistance in transferring new project planning and management skills to various Nepalese institutions. By the end of the decade, USAID was emphasizing development through the mechanism of integrated rural development projects, and was poised to implement its first comprehensive projects.

Though Nepal enjoyed moderate economic growth for most of the 1970s, by the end of the decade Nepal was again facing a serious balance of payments deficit, experiencing trade and transit problems with India, and requiring greater foreign assistance as development projects were completed and responsibility turned over to the Government. USAID's program in the next decade would continue to encourage Nepal to adopt economic reform measures to stabilize the economy, as well as assist in addressing such pressing problems as environmental degradation and rapid population growth which were eroding Nepal's development gains.



AGRICULTURAL DEVELOPMENT

Themes for the Early 1970s

New Directions and other AID Changes

AID/ Washington's major policy and operations changes in the early 1970s had little significant effect on USAID's agriculture program strategies until the end of the decade. Under the New Directions mandate, USAID continued to focus on rural development and assistance to small farmers. It now had to ensure that small

and disadvantaged farmers received project benefits, such as increased production greater employment opportunities and increased household incomes. As in all sectors, project design periods were lengthened to include more assessments, feasibility studies, research activities and pilot efforts. Careful programming was particularly called for in Nepal's agriculture sector, which for two decades had offered so many intractable problems.

The AID-mandated cutbacks in Mission staff and the creation of strong agricultural technical units in Washington meant that much assessment, project design and evaluation work was shifted to Washington, which was tightening its control over Mission programming. Severe cuts in technical support staff in AID seriously threatened USAID / Nepal's Food and Agriculture Division, with its extensive field program. In the early 1970s USAID had up to 15 agricultural advisors, many spending much of their time in the field with the Food Grain Technology Project. The 1971 Agricultural Appraisal Team recommended this large U.S. Direct Hire team remain in place through the end of the project and not be replaced by a U.S.D.A. or contract team.

Indian rupees had supported much of USAID agricultural assistance during the 1960s. When the Government of India and AID discussed phasing out PL 480 rupees in the Nepal-assistance program in 1972, USAID agricultural advisors and their HMG counterparts were concerned that B.Sc. degree training for Nepali agriculturists in Indian universities would be terminated. Large AID investments had developed quality agricultural training and research programs in Indian and Pakistani universities, and these served as AID's regional training centers for South Asia. After a short interruption, a rupee agreement ensured large numbers of Nepali agriculturists could continue to receive degree training in Indian universities. Through the 1970s local currency support played a substantial role in agricultural projects. For example, from 1971 to 1974, USAID provided \$5 million in local currency to the Ministry of Food and Agriculture for general budget support for research and extension.

Reviewing the 1960s

Noting USAID's ambitious agricultural institution building efforts in the 1960s and increasing donor competition for assistance "niches", a 1968 AID report (Wheeler, *et al.*) emphasized that HMG's thin administrative, technical and financial resources had been overtaxed, and could not manage all of these projects effectively. The report recommended USAID consolidate its programs before undertaking new investments, and cautioned USAID, HMG and other donors to concentrate development efforts in order to reduce waste.

Several USAID agriculture projects which had established new public sector institutions in the 1960s were shifted to other donors in the early 1970s or terminated. Support for the Agricultural Credit and Cooperatives Project ended in 1970. After USAID helped create the more “bank-like” Agricultural Development Bank (ADB / N), the Asian Development Bank stepped in, in 1969, to become the primary donor. USAID continued to sit as an advisor to the ADB / N Board into the early 1970s, and provided a \$500,000 grant to help HMG meet its local currency contribution requirement for a \$2.4 million Asian Development Bank loan.

Through 1970, USAID continued support for the Agricultural Supply Corporation, which was merged into the Agricultural Marketing Corporation a year later. In the early 1970s, West Germany took over support of fertilizer imports for Nepal, and HMG supported the ASC (AMC). Unfortunately, untimely supply of agricultural inputs to farmers continued to be a serious problem in the 1970s and later. At the beginning of the decade, USAID completed its Agricultural Marketing Project which constructed grain storage godowns mainly in the Kathmandu Valley and supported market studies. Soon after, the FAO became the major donor in the agricultural marketing area. USAID provided 20,000 tons of Title II Food For Work cereal grains as a drought relief grant in 1972 / 73 to support construction of storage facilities and other public works in food deficit Hill areas.

Land and tenure reform was judged by the 1968 AID consulting team to have had limited payoffs, as these programs had done little to increase agricultural production. Reform efforts by HMG and other donors had run into predictable administrative and enforcement difficulties early on. The team argued that other factors were probably more important in effecting production increases, e.g., high rent disincentives to farmers, land fragmentation due to inheritance patterns, unavailability of necessary agricultural inputs, and taxation and pricing incentives and disincentives.

A Question of Balance: The Hills and the Terai

Through the 1960s, HMG and donor development policy attempted to maximize investment payoffs by concentrating agricultural investments in the Terai and the Kathmandu Valley. Critical infrastructure was being developed in these regions, irrigation was more available, and Indian agricultural inputs and grain markets were more accessible. This strategy meant that average per capita income in Nepal grew, but with considerable inequities, reflected particularly in stagnant incomes in the Hills.

A fundamental premise of the Food Grain Production Project was that Terai's foodgrain surpluses and improved agricultural technology would make their way into food-deficit Hill areas. The 1968 AID consulting team found the 1965 HMG study supporting this model had failed to consider high transport costs in the Hills, and the fact that most Terai grain merchants were selling surplus grains in India. The team concluded that the Terai-Hills transfer model was unrealistic; as the Indian economy offered higher prices for Terai's surplus grains than Hill farmers could afford. Due to Indian dominance of the Nepali economy, HMG had limited ability to manipulate prices to achieve a better distribution of food grains. In view of this situation, the 1968 report recommended:

...development of the hill areas must be carried out in the hills, rather than through reliance on possible spillover benefits from developments in the Terai and other areas.

Development Clusters or Zones

During the 1960s, HMG/USAID projects had attempted to extend various agricultural support systems such as extension, inputs, credit, cooperatives, and storage facilities into the Hills as well as the Terai. These efforts were stymied by formidable transport and communications constraints. The 1968 team recommended that USAID and HMG consider creating a limited number of "development clusters" in the Hills, selecting areas served by air transport that would eventually be reached by motorable roads.

HMG's Fourth Plan outlined a similar concept of four north-south "development zones" to strengthen integration of the Hills and the Terai. In the agricultural sector, the concept was further developed by adding the idea of comparative production advantages of different environments in each zone - livestock in the Mountains, vegetables and fruits in the Hills, and cereal grains in the Terai. According to this simplistic model, a donor would help develop these production advantages and build roads and airports to create trade networks within particular "zone corridors". During the Fourth Plan, HMG established four Development Regions and invited donors to assist in developing specific corridors. Other donors, such as the Swiss, the U.K., West Germany, and the ADB, started small area-specific projects. Although HMG invited USAID to develop the Nepalganj to Jumla corridor, the Mission preferred to assist national systems rather than concentrate resources in a single region.

Low Productivity of Foodgrains

Agriculture remained the single most important sector in Nepal's economy, generating 66 percent of the GDP, employing 94 percent of the labor force, and providing 80 percent of Nepal's export earnings. USAID continued as the primary donor in agricultural research and extension through its Food Grain Production Project (FGP). As developed in the 1960s, project strategy was to bring in improved cereal varieties, carry out limited on-station adaptive testing, multiply seeds on-station or assist the Agricultural Supply Corporation to purchase them from other countries, and then rapidly introduce these new varieties and improved technology to farmers in high potential districts. U.S. advisors at each station acted as expeditors for these activities. With USAID assistance, it had been expected that the Green Revolution model of agricultural development in India would be duplicated in Nepal.

Actual performance was disappointing. While data was poor, it appears paddy production increased by an average of 1.8 percent annually from 1966 to 1973, maize by 0.9 percent, and wheat by 5 percent. This averaged out to a 1.2 percent annual increase in foodgrain production. Over the same period, the population growth rate was 2.1 percent, resulting in declining per capita production, from 329 kilograms of the three major foodgrains in 1961, to 288 kilograms in 1971 and 260 kilograms in 1973. Foodgrain exports were reduced and availability declined further in Hill areas that were already at or below subsistence levels.

The Food Grain Technology Project (FGT) model of simple, rapid technology transfer failed to consider a number of farm constraints: the lack of improved seed varieties appropriate to Nepal's diverse agro-climatic conditions; limited availability of irrigation, inputs, and credit; limited knowledge about diverse farm management systems; limited grain storage facilities and poor marketing systems; and an ineffective extension system with rural workers lacking technical support. In addition, farmers had no private sector alternatives to inefficient and under-supported public sector agricultural support systems. More time, better informed strategies, and larger investments were required to address these constraints.

Evolution of the Food Grain Technology Project

In spite of these disappointments, USAID continued with a revision of the Food Grain Production Project (renamed Food Grain Technology Project or FGT) between 1971 and 1974. From 1957 to 1974, USAID spent approximately \$16 million on this evolving research and extension project. By the end, more than 600 Nepalis had been trained in agricultural fields, with most receiving B.Sc. degrees in India.

The revised project dropped the old model of crash production campaigns with imported high yielding varieties (HYVs) in favor of increased emphasis on in-country agricultural research. No one had ready answers for Nepal's formidable production problems, but the USAID agricultural specialists who arrived at the end of the 1960s were committed to creating a sophisticated research capacity in Nepal to address them.

Kayastha, *et al.* (1989) analyzed retrospectively the reasons for this "growing awareness of the need to strengthen the adaptive agricultural research program". At the urging of USAID and other donors, HMG had created in the late 1960s a single, relatively strong department, the Department of Agricultural Education and Research, to supervise crop research. By the early 1970s a critical mass of well trained and motivated Nepali agricultural researchers was returning from advanced training in U.S. universities and International Agricultural Research Center (IARC) programs. They brought back technical skills and field experience, new varieties for testing, and breeding lines for development and selection under local conditions. Several HYV varieties were quickly released. Internationally respected agriculturists also worked in the FGT Project, including IRRI and CIMMYT advisors. In addition, USAID supported advisors at research stations saw firsthand the need for improved technologies adapted to Nepali farms.

The FGT Project continued to support extension work, including construction of offices in 13 districts and training for field staff at research stations. However, the extension system's poor results and critical research needs caused USAID to shift its primary support back to research, focusing on Terai stations at Rampur, Janakpur, Bhairawa, and Nepalganj.

In 1972 the project helped establish National Commodity Programs for rice, wheat and maize, with each program headquartered at one of the stations. Each commodity team included an agronomist, plant breeder, plant protection officer, and soil scientist. With facilities improving, research programs began indigenous breeding programs for wheat, maize and rice, and continued evaluating and selecting imported genetic material. The programs collected 1,200 local rice, wheat, and maize varieties and tested their performance under varying conditions. Commodity teams began adaptive testing of new varieties for the diverse agro-climatic environments in Nepal, and research stations continued to be responsible for seed multiplication.

The next major project innovation came in 1973, when National Commodity Programs began to carry out farmer field trials (FFTs) for nationwide testing and evaluation of new crop varieties. Most FFTs were in the Terai, the most compatible area for the lowland technologies coming from the IARCs and Indian

universities. However, even this level of transfer was not as simple as first perceived. Early FFTs were carried out in the Terai on irrigated, highly fertilized fields, matching conditions at international centers. Thus, although 70 percent of all rice land in Nepal was rainfed, the National Rice Improvement Program initiated its FFT program by testing IRRI exotic early-maturing varieties suitable only for irrigated areas that could be double-cropped. Feedback from the early FFT program resulted in some modification of research.

By the mid-1970s the FGT Project, UN/FAO's Hill Food Development Project in the middle Hills, and the U.K.-supported Lumle and Pakhribas Hill Agricultural Centers had all begun conducting FFTs to evaluate the yield potential of various crops under different agro-ecological conditions. Results indicated "a large yield gap between on-station and on-farm trials, especially in those environments which were different from the stations" (Kayastha, *et al.*, 1989). These disappointing results pinpointed the critical research issues for the second half of the decade and the next USAID project: identifying the causes of these yield gaps by testing improved varieties under realistic conditions in different agro-ecological areas; and developing better adapted varieties.

Lengthy Programming Process

During the first half of the 1970s, AID conducted several agriculture sector studies to prepare for future programming. There were several reasons why the Mission took this uncharacteristically lengthy step: the introduction of the New Directions guidelines emphasizing more carefully justified projects, uncertainty about rupee funding and staffing cuts, and AID emphasis on coordinating with other donors and HMG in developing the new assistance program.

The agricultural assistance arena had a growing number of donors carving out areas of investment. These included the FAO (Agricultural Marketing), the ADB (Agricultural Credit, Chitwan Valley Development, and Kankai Irrigation), the World Bank (Birgunj Irrigation), India (Horticulture and Veterinary Services), the U.K. (Gurkha Retraining and Hill Agriculture Centers), West Germany (Gandaki Agricultural Development Project and Fertilizer Imports), and Japan (Regional Agriculture Development). The World Bank was considering loans in groundwater/surface water irrigation, rural development, and livestock, and Canada and the U.K. planned to expand their programs.

In this crowded field, USAID had difficulty holding HMG's attention for planning and approval of projects. USAID faced a complex set of tasks in finding a complementary assistance niche in the sector: to address needs defined by HMG; define a role that fit its special technical assistance capacities; take on difficult and

experimental field tasks that other donors were not addressing; and benefit the “poor majority” of the New Directions mandate.

Programming Options

The 1971 Agricultural Appraisal Team outlined the following options for USAID's follow-on project: 1) pull out of fieldwork to focus on an advisory role in Kathmandu; 2) further exploit Terai agricultural potential by continuing work in the Terai stations; 3) build up an agricultural development program in the Hills; or (the option preferred by HMG) 4) concentrate on an integrated area development program. The appraisal team rejected the first option because HMG had only a few highly trained managers of its own in the field and U.S. advisors were recognized as critical in “getting programs moving” in the field. It recommended USAID consider the remaining three options.

Subsequent studies developed the third option further by arguing that Hill agricultural programs could not rely on technology created for the lowlands. Sophisticated plant breeding and adaptive testing were required to develop HYV varieties adapted to Hill conditions. Economic studies were needed to see how these varieties might be used in Hill cropping system. Finally, certain valley systems in the Hills, given irrigation, fertilizer, and marketing opportunities, had good potential for cereal grain production. All of these were dependent on new roads to service these areas. The key message from experts was that USAID should not embark on a crash program for agricultural development in the Hills, but should build an adequate technical and social science research base for a new generation of development projects after infrastructure was in place.

USAID Agricultural Strategy Decisions

By 1974, USAID had completed its analyses and developed its agricultural strategy for the rest of the 1970s. The 1975 Development Assistance Program's Food and Nutrition Strategy stated that “while stagnating production is the overall priority development problem, it is probably more helpful to refer to smaller order problems within the sector.” Many of these problems were being addressed by other donors and HMG. USAID chose to address the low productivity and quality of foodgrain production, the limited capability for data collection and applied analysis, and the need for trained manpower.

The follow-on to the Foodgrain Technology Project would be an applied production technology project to develop and adapt improved varieties, emphasizing both Terai and Hill production systems. It would include seed processing and cropping systems components. Project design awaited a

Rockefeller Team report on Hill agricultural systems requested by HMG and USAID. To address the problem of poor quality of foodgrains, an activity to introduce a new test variety of high-lysine maize in Hill areas was begun with an associated nutrition study, but this was never developed into a major program.

USAID also planned two other projects. The first was to improve the Ministry of Food, Agriculture, and Irrigation's (MFAI) capability to collect and analyze agricultural economics data, particularly for farm economics. However, HMG preferred assistance from the World Bank or UNDP/FAO for this activity. The second project was to develop a new Institute for Agriculture and Animal Sciences (IAAS) at Rampur to provide quality degree and non-degree training in agriculture. USAID also planned to continue supporting agricultural participant trainees in India, the U.S., and other countries.

The Integrated Cereals Project

USAID and the MFAI requested a Rockefeller Foundation team to appraise agricultural research and development projects in Nepal, and to recommend strategies for addressing the knotty problem of improving agricultural production in the Hills. Carried out in late 1974 and published in 1976, the study was supported by USAID, the Rockefeller Foundation, and the Ford Foundation.

The Rockefeller report emphasized that HMG "corridor" development strategy for increasing Terai-Hills commercial interchange depended on road construction, and was thus not a realistic short-term strategy to meet urgent food and economic needs in the Hills. It concluded that only an accelerated Hill agricultural development effort could adequately address these problems. After assessing several Small Area Development Projects, the team concluded that a geographically concentrated approach had only localized impacts in the Hills. What was needed was a national effort to provide "systematic and sustained development and application of new production technology suited to resources and restraints of the Hills." The team cautioned this would not be quick or inexpensive:

The Green Revolution era has created the concepts 1) that modern agricultural technology requires cash intensive inputs, and 2) that yield-boosting 'breakthroughs' are to be anticipated. In fact, the impact of research in agriculturally advanced nations has been through continuous - albeit modest - changes in genetic yielding capability, disease resistance, pest control and the minimizing of yield restraining hazards or factors. 'Breakthroughs' are not common.

The fact that 42 of 55 Hill districts (representing 62 percent of Nepal's land area and 41 percent of its population) were not served by roads precluded the rapid

introduction of cash-intensive agriculture characterized by high inputs, irrigation, and mechanization. The team identified researchable issues for reducing yield losses of specific Hill crops and increasing multiple cropping and land use intensity in localities with adequate rainfall.

In the view of the Rockefeller team, Nepal was on the verge of making the same well intentioned mistake as some other less developed countries: investing in agricultural extension to “maximize the contact at farm level” without having sufficient improved and adapted technology to feed into the system. The team emphasized that “most introduced varieties and materials will have to be modified through an indigenous adaptive research and testing program to fit the growing season, to meet specific disease and pest hazards, and to suit local quality preferences.” This required increasing the effectiveness of the cereal commodity research programs headquartered in Terai stations.

It also required the building of a separate farming systems program to focus on Hill agriculture, which would carry out regional testing, farm evaluation, and demonstration / promotion of improved technology suited to farming systems in the Hills. A major criticism by the Team was that many projects failed due to researchers' ignorance of farmers' problems and conditions. The team recommended verification trials in farmers' fields, as station trials didn't accurately simulate actual farm conditions in diverse agro-ecological areas.

The Rockefeller team's recommendations provided the conceptual framework for USAID's follow-on Integrated Cereals Project, which was contracted out to the International Agricultural Development Service in 1977. The consulting team was headed by Dr. Wayne Freeman, who had been a member of the Rockefeller team. As a result of his clear vision and dedication in managing the ICP, particularly in encouraging field research, this project is considered by Nepalis and Americans to be one of the most effective agricultural projects ever implemented in Nepal. Under the ICP, support continued for the cereal commodity programs, and a Cropping Systems Program was developed with four research sites in the Hills and two in the Terai.

The non-traditional Cropping Systems Program integrated research and extension by carrying out research trials with farmers in their fields. Interdisciplinary teams (including, for the first time, socio-economists) were formed to define field research problems through on-farm studies, carry out comparative economic studies of traditional and improved cropping patterns, and devise means to rapidly transfer improved technologies. Close contact with farmers helped researchers to address factors influencing the adoption of new technologies. Technology component trials, farmer field trials (FFT) and cropping

pattern trials were carried out for site-specific and cropping pattern-specific adoption. Promising technologies used shorter duration, higher yielding cereal crops and developed cropping patterns that squeezed more production out of the growing season.

ICP also initiated a new Minikit Program, which was launched by the National Commodity Programs in 1977. Minikits contained seeds of one or more new varieties, cultivation instructions, occasionally appropriate doses of fertilizer and insecticide, and a results feedback card to be returned to the commodity program. Programs prepared the kits and distributed up to 30,000 annually free to farmers through the extension service. A later review (Kayastha, *et al.*, 1989) concluded that while the minikits effectively and quickly disseminated new varieties and technology to farmers, they were more useful as an extension tool than in providing performance feedback to researchers.

Institute for Agriculture and Animal Sciences

In 1972, USAID funded a planning survey on developing an agriculture education institution to meet the critical need for skilled agricultural manpower. The JTA College in Kathmandu was moved to the site of a former Panchayat Training Center in Rampur in 1973 and was renamed the Institute of Agriculture and Animal Sciences (IAAS).

The survey report, prepared by Mid-Western Universities Consortium for International Activities (MUCIA), recommended a comprehensive 20 to 30 year effort leading to a major national agricultural university. Ambitious guidelines written into USAID's IAAS Project in 1974 stated this institution would fulfill the need for vocational agricultural graduates to teach in secondary schools, train extension and agricultural research officers at the JTA and B.Sc. levels, and conduct agricultural research. In 1975, MUCIA won the contract to provide technical assistance for institution building, advanced degree training for teaching staff, equipment and other support. A local currency grant of \$4.2 million was used to construct facilities.

The 1976 Rockefeller report was pessimistic about early prospects of IAAS producing the skilled manpower needed by research and extension systems. There was intense competition between the Ministry of Education (MOE) and the MFAI for trained personnel to be posted across Nepal. Because IAAS was placed under Tribhuvan University, the Ministry of Education was the counterpart for the IAAS Project. The MOE had early on "captured" the IAAS to meet its own training target of 650 to 1,000 vocational agricultural teachers for secondary schools by 1976. The Rockefeller team argued that IAAS was "in fact a Vocational

Agriculture Teacher Training Institution.” The team felt that DOA staff should continue receiving degree training in Indian agricultural universities. It also noted that due to this conflict, responsibility for training extension JTAs had been shifted from IAAS to research stations, which “cannot take on an added, excessive training burden without further diminution of research.”

Apart from these problems, the IAAS’ newly created, remote campus had insufficient staff and inadequate facilities. Only four staff members had transferred from Kathmandu to Rampur, and less than half the required number of teachers had been hired by 1975.

During the late 1970s, IAAS began to train JTAs (one year curriculum) and JTs (two year curriculum) for the DOA, and to phase out training of vocational agriculture teachers. Also, students were enrolled in a new degree curriculum. The MUCIA contract team changed frequently, with members seldom staying the 25 month contract period. On HMG side, there were changes in the Deanship of the Institute, with Deans frequently absent. Unrealistic expectations, an admittedly difficult context, and lack of continuity and commitment from both advisors and IAAS leadership combined to make the IAAS project a disappointment in the early years.



A student at the Institute for Agriculture and Animal Sciences examines disease organisms and parasites in the veterinary lab. IAAS Project.

-photo by Alison Wright

Other USAID Investments in Agriculture

AID, the Rockefeller team, CIMMYT, and IRRI agreed on the need for seed processing plants in western Nepal as part of the ICP's broader foodgrain production strategy. The objective was to provide Hill communities with storage facilities for seed and other inputs. However, AID insisted this component be removed from ICP and approved separately as a dollar funded capital project. USAID's Seed Production and Input Storage Project was approved in 1978, but not contracted until December, 1979.

In the late 1970s, USAID provided an agricultural economist to advise the DOA and the new semi-governmental research organization, the Agricultural Projects Services Center (APROSC). To meet the joint USAID/HMG objective of increasing HMG planning and implementation responsibilities in agricultural and rural development projects, APROSC received a large grant in 1977 to develop project preparation skills and hire complementary consulting services. USAID also gave the Agricultural Development Council a \$460,000 grant to organize training in research and planning, identify target groups and determine project impacts under the ICP, assist HMG in using the technical knowledge accrued through the ICP, and advise the DOA and APROSC on Farming Systems Research.

Accomplishments in the 1970s

Establishing a National Research Capacity

By the beginning of the 1970s, USAID and HMG had realized there would be no 'green revolution' in Nepal. None of the IARCs had ready solutions for Nepal's formidable agricultural problems. Through the FGT Project in the early 1970s and the later ICP, USAID and HMG developed a field focused research system to begin the in-depth research needed to increase foodgrain production.

USAID funded participant training in agriculture and natural resources for 636 Nepalis during the 1970s (45 percent of participant trainees during the decade). This included a large number of B.Sc. students in Indian agricultural universities and advanced degree and short-term students at IARCs and U.S. universities. Yadav (1987) reported that during the 1970s, trained personnel in the agricultural sector increased nearly 250 percent, from 1,397 in 1970 to 3,383 in 1980. The number of trained officers having at least a B.Sc. degree increased from 352 to 873. In agricultural research, there were 388 trained officers by 1980, 157 of them with M.S. degrees and 14 with Ph.D.s. Despite heavy U.S. support for training, the research system had a thin level of expertise for the job it had to do. Yadav notes

the 14 Ph.D.s constituted only four percent of research personnel, “well below the target of 20 percent suggested by the World Bank.”

To build a system that put researchers in daily contact with farmers' problems, USAID projects devoted much effort to improving major Terai research stations and cropping system research sites: constructing new station facilities, providing research supplies, and creating multidisciplinary research teams supported by expatriate specialists from IARCs and project teams. A 1982 AID evaluation of the FGT Project compared research facility staffs over a ten year span and found 18 of 114 degree holders were posted outside Kathmandu in 1970, while in 1980 the number had risen to 355 of 625. This increased research staff assumed new tasks, including running the commodity improvement programs (including nationwide FFTs and national summer and winter crops workshops), conducting cropping systems research, multiplying HYV seed, preparing minikits for distribution by extension workers, and training and backstopping extension staff.

A 1979 mid-term evaluation of the ICP found good progress in establishing and staffing cropping systems research sites, training manpower, and realigning research objectives. National commodity research programs for rice, maize and wheat had been strengthened, with “improved multidisciplinary staff teams producing research results that are markedly superior to those of only two years ago.” The research system was developing new varieties offering greater potential for higher yield and disease and insect resistance, though these were still mainly tailored to the Terai.

Impacts on Cereal Grain Production and Farmers

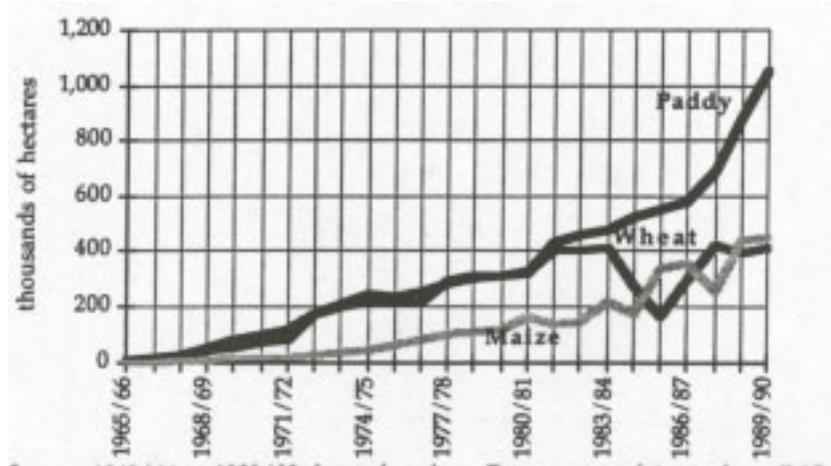
Although the research system was releasing new HYV varieties and providing fertilizer recommendations, it was proving difficult to get new varieties and practices into production. By 1980, Nepal's annual population growth rate had increased to 2.6 percent, while foodgrain production had grown at only 2.2 percent. Per capita foodgrain production thus decreased, despite modest production increases through the 1970s.

Disappointing production was partly due to uncertain monsoon rains, causing crop failures in the final years of the decade. Only 10 to 15 percent of Terai farmland was irrigated, and the percentage was much lower in the Hills; most crops were rainfed and thus seriously at risk. A growing population was placing increasing pressure on Nepal's limited arable land: the newly opened Terai was already reaching saturation, and the increasing use of marginal land gave limited agricultural results. Noting that the Terai's surplus was declining and there were

food deficit areas in the Hills, the World Bank (*Nepal Agricultural Sector Review, 1979*) declared Nepal was no longer a foodgrain surplus country.

Area Under Improved Varieties

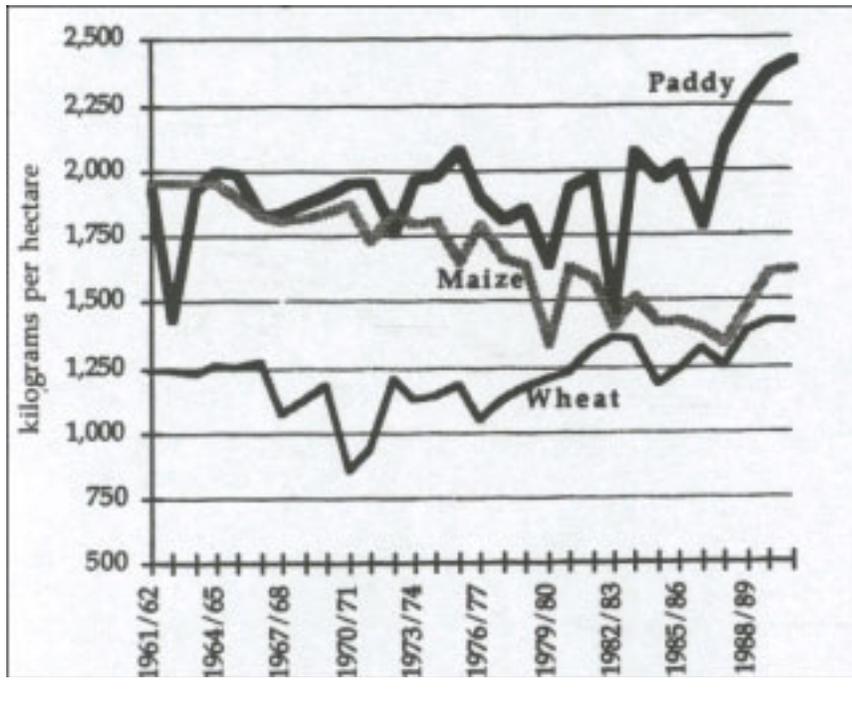
1965/66 — 1989/90



Source: 1965/66 to 1982/83 data taken from Department of Agriculture/MOA data and summarized by USAID; 1983/84 to 1989/90 data taken from *Enhancing Productivity of Limited Resource Farmers in Nepal, ARPP Terminal Report 1990*; Table 4.5.

Data for wheat production indicate that improved wheat varieties were effectively introduced to farmers during the 1970s. The area planted to wheat more than tripled to 381,000 hectares in 1980. However, total foodgrain production could be significantly boosted only by higher yields from improved varieties and increased double cropping of rice. Farmers were much more conservative about adopting new rice varieties, with only about 25 percent of planted area under improved varieties by 1980. Average rice yields declined from 2 metric tons per hectare in 1964 / 65 to 1.85 in 1978 / 79. Maize and wheat yields also fell slightly during this period.

Average Yields of Paddy, Maize, & Wheat



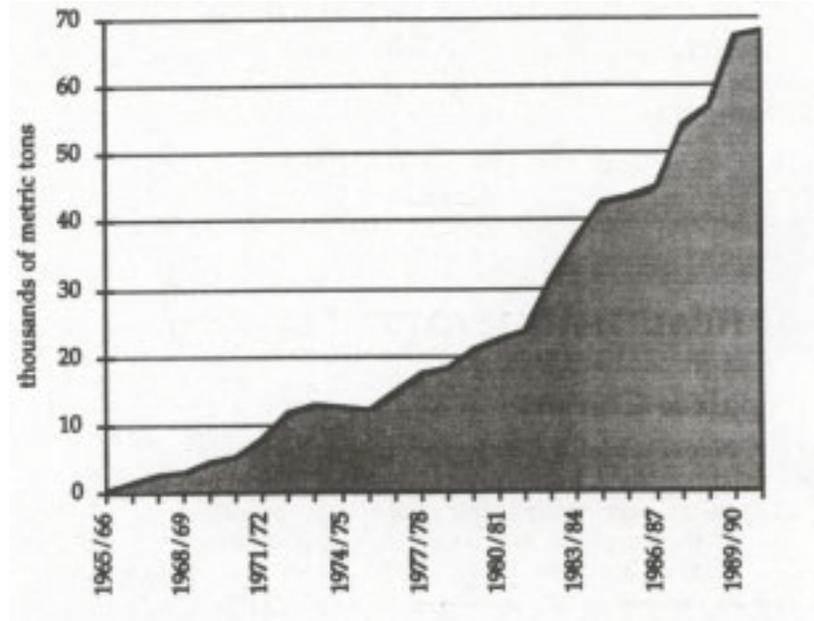
Source: *Agricultural Statistics of Nepal*, Department of Food and Agricultural Marketing Services, 1990; 1988/89-1990/91 data from HMG, Ministry of Finance, *Economic Survey 1990/91*.

The 1982 final impact evaluation for the FGT project interviewed Terai farmers, researchers, and extension personnel, and found many farmers were aware of the improved varieties and high input recommendations, due to distribution of minikits, FFTs, field demonstrations and contacts with the extension system's model farmers. The team also found:

*As the new ideas trickled down, however, the packages came apart
Farmers ...often perceive both themselves and the extension service as*

helpless to act on the advice. There are a lot of 'ifs' involved in the successful completion of the adoption cycle: if the rains come on time ...if the electricity is available to run the pump and the canals are not silted up ...if the AIC handles the imports in a timely way, it may be possible for the cooperatives to get their supplies on time; if the farmer holds a title deed ...to get credit at the Agricultural Development Bank or has enough sash to buy without credit, then it might be possible to purchase available inputs

Annual Use of Nutrients in Chemical Fertilizers



Source: HMG, Ministry of Finance, *Economic Survey 1990/91*. Data from 1965/66 to 1973/74 from *Basic Statistics of Agricultural Inputs in Nepal*, AIC, January 1983.

In spite of an average 18 percent per annum increase in fertilizer use since the beginning of the decade, overall use of fertilizer in Nepal was exceedingly low,

with only seven percent of the area planted to foodgrains receiving fertilizer. Government pricing policies (high fertilizer prices and low rice prices to aid urban consumers) discouraged higher foodgrain production, and supply lines were seriously disrupted.

Despite all these problems, the 1982 evaluation team concluded many Terai farmers believed they were better off than they would have been without new varieties and fertilizer recommendations. Farmers were experimenting with multi-cropping, new varieties and fertilizer, though often using lower than recommended inputs. Soil fertility and yields were declining in the Terai under these conditions.

Meanwhile, ICP researchers had begun studying diverse agricultural conditions and farming systems in remote Hill areas. Expanding agricultural service systems to the Hills and developing appropriate varieties and recommendations for Hill farming systems would take place in the 1980s.



HEALTH AND FAMILY PLANNING

The Nepalese Context

Until 1970, Nepal's health development had focused on a network of curative-based hospitals, health centers and health posts on one hand, and single purpose preventative programs delivered through vertically organized projects on the other. The public sector had evolved considerably from the early 1950s to encompass a modest system of 40 hospitals, nine health centers, and over 100 local health posts. The latter two types of institutions were generally underfunded and undersupervised, and none extended services into surrounding rural areas. The five major vertical programs (tuberculosis, leprosy, immunization, malaria, and FP/MCH) had better outreach capabilities, but the services delivered by their trained fieldworkers were highly specific.

Health manpower was also in short supply. Nepal had one of the worst physician-to-population ratios in the developing world (1:40,125 in 1976) and a severe shortage of supplementary paramedical workers. These shortages in staff and infrastructure were aggravated by a skewing of resources towards urban areas,

especially the Kathmandu Valley. The Valley had less than five percent of the national population and a quarter of all the hospital beds in Nepal. Remaining facilities were concentrated in the more easily accessible Terai, which had over twice as many health posts as the Hills. In 1975, 43 of Nepal's 75 districts were without hospitals; ten lacked even a health center. Nepal's rural majority, roughly 90 percent of the population, remained without access to modern health services.

The government was under growing pressure from the population to provide some type of minimal health care. Health posts and safe water were two of the most frequently mentioned needs in local surveys. Such efforts had been deferred though the 1960s, in part by HMG's adherence to the development rationale that social service expenditures should be limited until increases in the GNP and the tax base could finance such improvements. However, by the early 1970s it was clear the need was too pressing for the government to wait: for reasons of economics, efficiency and equity, rural health services had to be expanded.

A High-Cost Proposition

Meeting the health needs of Nepal's rural population demanded a tremendous infusion of resources. Government expenditures for health had tripled between 1965 and 1975, but low urbanization, a high rate of internal migration, and a population scattered over difficult terrain pushed the cost of reaching each member far beyond the Rs.5 per capita public sector health investment allocated by the government budget.

The first 15 years of health development had been concerned with developing the most basic level of health facilities, services and manpower. The majority of these achievements were focused in urban areas. Extending an effective program to rural areas was an entirely different situation, demanding a low-cost essential services delivery system with realistic goals. Several options were discussed: training local volunteers for village outreach; expanding mid-level and auxiliary personnel to provide a basic minimum of health services requiring little professional supervision; and consolidating overlapping administration and activities of vertical projects into a single central service.

Integrated Health Services Delivery

The Roots of Integration

Integration was a dominant theme in international health in the early 1970s. The term can be used to describe a multitude of activities and systems, depending on the context. In Nepal it has generally been defined as the process by which the functions, staff and resources of diverse vertical projects are absorbed into a larger

government administrative structure, which emerges during the process. Something of the sort had been discussed as early as 1959 with regard to providing permanent employment for NMEO's army of workers. While USAID had no particular ideological concern for integration per se, the concept fit well with its New Directions mandate for humanitarian aid reaching the "poorest of the poor".

Beginning in the late 1960s, both USAID and WHO advocated integration of Nepalese health services as a cost effective measure to increase the efficiency of outreach fieldworkers. Various government health programs had found that the largest portion of their staff expenditures went to get the fieldworker to the scattered houses of individual villagers. Once he (rarely she) was there, efficiency demanded he cover as many subjects as possible. A corps of multi-purpose workers trained and administered under one organization would presumably be more cost effective than a series of uni-purpose workers under separate organizations. And the assumed imminence of malaria eradication was expected to free the Nepal Malaria Eradication Organization's (NMEO) large and well trained staff for other purposes. Using the NMEO as the backbone of a permanent primary health care system was a frequently proposed and apparently reasonable policy.

This scenario had at least two serious flaws: the NMEO covered only the malarious lower half of the country, leaving the upper Hills and Mountains in need of a new system. Secondly, the anticipated eradication of malaria never occurred; instead, in the mid-1970s serious flareups demanded considerable reinvestment of labor and resources. By this point, however, HMG had already committed to integration. Integration boards and committees were established in 1970 to launch pilots, along with the Community Health and Integration Division. HMG and donors began to explore alternative models of integrated health care.

Integration Pilot Project

In 1971, as part of USAID's Integration of Health Services Project, slightly different health service delivery models were implemented for testing in two dissimilar districts: Barsa in the Terai, and Kaski in the Hills. The Kaski model utilized NMEO administrative and field workers, adding a few additional duties to their normal house rounds. In Barsa, auxiliary paramedical workers delivered a wider range of services to households. This pilot was administered by the Department of Health Services section of Community Health and Integration Division, utilizing its existing health care services.

After 18 months of operation, a joint HMG / USAID / WHO evaluation found workers in both models were visiting nearly 100 percent of homes monthly, providing a much wider range of simple preventive outreach services at a similar

per capita total cost than non-integrated districts. (Individual health output measures were without exception cheaper under the integrated pilot.) Coverage of malaria and smallpox had fallen in comparison to vertical programs, but as the evaluation pointed out, “satisfactory” levels of coverage for an integrated program would probably be lower than those achieved by uni-purpose programs. The performance differential could readily be justified by the greater population coverage and lower cost, and did not preclude the use of special technical organizations to supplement routine health service.

The major problem noted in the integrated pilot was weak management, serious enough to bring the Bara project to a near halt after 18 months of operation. Despite indications that an integrated program demanded complex management skills (as well as 65 percent more staff than non-integrated health posts), the evaluation team concluded the tested method was capable of achieving HMG's goal of providing minimum basic services to the maximum number of people. By 1975 Kaski District and four Terai districts had made the transition to Bara-model integration.

Whatever the apparent flaws of the integrated model, it must be remembered that during this period villages that were not served by the malaria, smallpox, leprosy or tuberculosis vertical projects and were far from health centers and hospitals had no health care whatsoever. The IHS pilot project appeared to offer a method of delivering minimal services to remote rural areas. Regardless of its problems, it was successful enough to get both HMG and USAID to commit to a gradual shift to a nationwide integrated system over the next decade. The Integration of Health Services Project was slated to run through June 1978, supporting a gradual expansion of the experiment to six districts.

Changing Times

In mid-1975 events converged to radically speed up the adoption of integration. The original plan had been to eventually integrate all vertical programs into the Department of Health. IHS would be gradually extended nationwide, incorporating the experience and information of the pilot studies. The infrastructure of the NMEO (where it existed) was to be used as the basis for expanded health services, with its cadre assuming multiple duties.

In 1975 HMG's Long-Term Health Plan for 1975 to 1990 was released, defining the course of official health policy for the next 15 years. It reinvigorated the movement towards integrated services, with a clear commitment to expanding basic rural health services at the village level through gradual integration of vertical projects into a single basic health service.

The 1975 release of the Fifth Plan reinforced this decision, with its refocusing of development priorities on the Hills and on increasing government services to the rural populations. This resulted in a major sectoral shift in government funding, with health increasing from two to 18 percent of the total budget. The Fifth Plan's mandate in health was clear: "To develop Integrated Basic Health Services in order to provide health services to the village people as soon as possible".

HMG's commitment to rapid expansion was underscored by the specific goals of the Long-Term Health Plan, which called for the establishment of 1,052 fully integrated health posts in all 75 districts, plus 15 district and four regional hospitals, all to be completed by 1985. The rate at which these goals were to be implemented was impossibly rapid, but the plan underscored a serious commitment to achieving an integrated nationwide health service as quickly as possible.

The impetus came from a radical political reorientation. Expansion of government health care delivered a message: development, national unity, social justice. The first 20 years of development had seen a disproportionate amount of investment going to Kathmandu and the Terai. By the early 1970s, a growing population had rising expectations, fed by past development gains. A system of health care covering the rural poor, in contrast to a curative, static hospital model serving wealthier urban residents, appeared to be a moral imperative and a political necessity. As the IHS Project Paper noted, "The development process is a race between events and control." Program expansion, staff increases and growing public expectation combined to make the moment "a critical, take-off point in the development of health services.... If their expectations are unmet soon and substantially, disenchantment with present policies will follow."

This theme has motivated many of USAID's development initiatives since the early 1950s. At periodic intervals, a revolution of rising expectations was presumed to be sweeping Nepal. While the case could be better argued in the 1970s, the extent and depth of public discontent were not closely examined. The situation may not have demanded the radical, rapid adoption of integrated health services which occurred.

The decision to adopt full-scale integration was flawed in that it was not based on a solid analysis of the pilot project proving that integration was the best means to deliver national health services. The pilot study had demonstrated broader coverage rates and administrative savings with multipurpose workers, but there was no finding of increased effectiveness; in fact, the indications were otherwise. The decision for integration was made for economic, political and humanitarian

reasons (and because integration was the trend of the times) rather than practical ones.

Formulation

In response to the challenge set forth in the Fifth Plan, HMG and major health donors joined in an intensive three-month planning session to design an operational blueprint for a nationwide rural health service system. "Project Formulation - Basic Health Services" proposed a network of 810 upgraded and expanded rural health posts, each serving an average of 15,000 people. A corps of junior Auxiliary Health Workers (JAHW) would extend services from here into the community. Through regular home visits they would establish a personal relationship with clients and become an "agent of change". This one-on-one outreach lay at the heart of the project design. All vertical projects were slated for gradual phase-in, with the exception of malaria, which was deliberately excluded at the beginning and left to the NMEO.

The service delivery mix emphasized preventive care and low-cost, high-payoff interventions involving high-risk groups like mothers and children. Family planning and maternal-child services were ranked high in importance. At once wide-ranging and in-depth, these activities demanded extensive resources. The project was designed at a period when multilateral donors were becoming a major source of assistance in Nepal: from 1975 to 1979, various U.N. agencies provided \$15 million in support to health and family planning. From 1974 to 1980, total assistance commitments to health increased six times.

HMG enlisted seven major donors and several minor ones in support of IBHS. USAID redrafted and expanded its project plans and formulated the Integrated Health Services Project (1976-1981). This provided \$3.4 million for contract specialists, participant training, commodities, capital assistance to build two Auxiliary Health Worker schools, and other direct assistance costs for surveys, planning, and evaluation.

Money, however, was not the most essential component of the program: far more crucial was the internal capacity to convert financial resources into services. The IHS Project Paper noted the system's effectiveness depended on support and training. To this end the project was designed with heavy inputs into policy development and administrative support. A team of specialists was contracted to assist in developing the management and training capacity needed for a nationwide integrated health service.

The integration attempt was too complex for Nepal to have attempted in its state of development at the time. The public health sector had grown at an

extremely rapid rate, from virtually zero in 1950 to \$50 million in assistance by 1975. As the project paper pointed out, management and supervisory capabilities were the “two most critical missing elements in delivering health services”. While the USAID project aimed to remedy this lack, the IHS program demanded a total of \$20-30 million in assistance, making the entire enterprise a gigantic gamble. Still, HMG's initiative and its ability to coordinate diverse donor inputs and channel them towards improving management and supervision were hailed in the Project Paper as a “turning point in the development of the health sector. For the first time HMG has been able to coordinate all the donor inputs and direct them primarily toward improving management and supervisory capabilities”.

Integration of Health Services

The IHS project was designed to assist in the rapid nationwide expansion of the 1972 integrated model. The project focused on increasing HMG capacity to organize and manage an effective, national integrated basic health service. The vehicle selected for delivery was the Integrated Community Health Division, a subsection of the Department of Health. (In 1980 the division was accorded project status, and the IHS was renamed the Integrated Community Health Services Development Project.)

USAID's financial and commodity assistance played an essential role in the evolution of the integrated services delivery systems, while its advisory support for the management system was described as “the key to bringing the ICHP to its present state of development” (*IRH/FP Project Project Paper*). Financial, commodity and management problems remained, however, and by 1979, the original six districts were still the only fully integrated ones. Seventeen others were designated as partially integrated districts, and integration was operating on the level of individual health posts rather than a district-wide basis. Only 65 health posts offered fully integrated services, and even these were encountering difficulties in assimilating the FP/MCH and NMEO projects.

Still, by 1980 a new system was clearly being built. Over five hundred health posts had been established, 283 of them offering some level of expanded services according to the integrated model. More than 1,500 Village Health Workers had been trained and 48 district headquarters had been established. Perhaps the clearest indicator of tangible change was the estimated percentage of the population served by a health facility (defined as those living within four hours walking distance). In 1971 that figure was 16 percent; ten years later it had jumped to 46 percent, and the per capita ratio of health posts to population had more than doubled, despite the decade's high population increase. This figure must be considered a

measurement of potential rather than actual achievement, however, as local health posts are generally understaffed and underutilized.

The Integrated Community Health Division's task was formidable: to build a national system of health posts, staff them, develop a system of mobile workers to deliver effective primary and preventative care – and to integrate several strong, well-developed vertical projects. All this was to be accomplished with a smaller budget and less autonomy than most of the vertical projects the division was supposed to dominate and eventually absorb. The ICHD was low in the MOH hierarchy, and it was seriously understaffed, with a central office of only 19 workers, compared to 360 central staff at the NMEO, and 424 central and regional Family Planning/Maternal Child Health (FP/MCH) staff. In addition, the division suffered from financial constraints. The ICHD budget for 1978/79 constituted only 0.1 percent of the development budget, resulting in severe shortages of medicine, equipment and supplies.

Creating a single management / supervisory structure to administer expanded efforts proved extremely difficult. Successful and well entrenched organizations like FP/MCH felt threatened by integration. Though these were originally planned as temporary projects, over the course of time they had assumed institutional status. Largely funded by donor aid, the vertical projects had proven quite effective in performing their specific tasks. In addition many had excellent outreach capabilities, a strength the integrated program had hoped to harness.

Both HMG and USAID had continued to support the growth of vertical programs while working to develop integration. This was viewed as a way to maintain the achievements of individual programs, maximizing service coverage while an integrated system was being established. Keeping the old systems going until the new one had completely worked out was a way of hedging bets. Within USAID there were internal conflicts in both Washington and Kathmandu between integration advocates and supporters of vital categorical programs like malaria and family planning, who did not want to see their program's gains submerged or lost under the new system. The result was summed up in the IRH/FP Final Evaluation in 1989:

USAID has completely supported all the divergent (and occasionally contradictory or overlapping) health efforts in Nepal. While this may, have been useful at a time when it was necessary to get anything going, that approach bears reexamination.

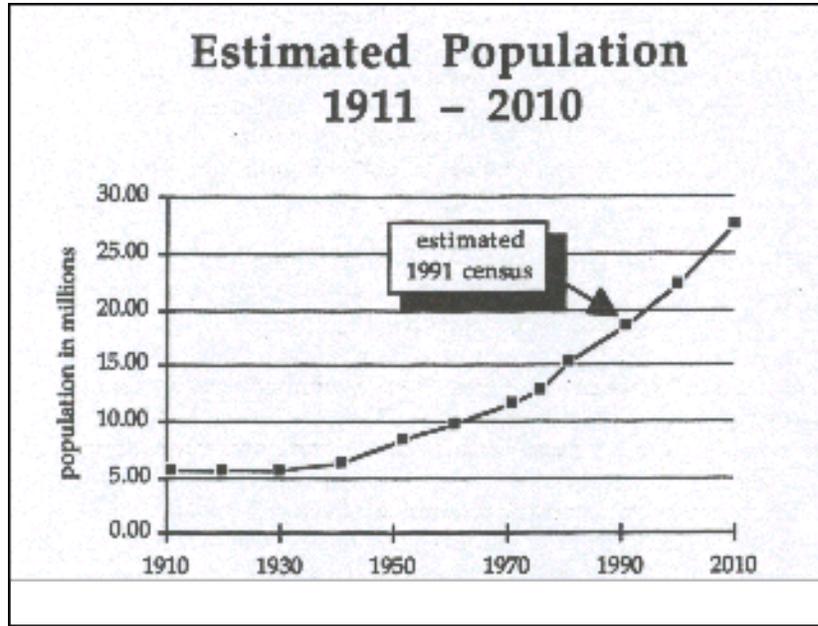
Population Growth and Family Planning

Population growth was the wild card in Nepal's development. Through much of the 1970s, a lack of demographic research and statistics kept the implications of its profound impact hidden from both the government and the public. Estimates of the annual population growth rate during the decade ranged from 2.0 to 2.4 percent. The 1981 Census determined that the population growth rate was 2.7 percent, but the preliminary results of the 1991 Census indicate that estimates in the 1970s were probably correct, and that the 1981 Census overestimated Nepal's population. The 1991 Census estimated population growth to have been 2.1 percent. This will result in a doubling of the population in 33 years.

The growth rate indicated an alarming potential to nullify gains in all sectors. In the field of health, the decade's population growth more than offset the small numerical increases achieved in staff and facilities. Though the total number of physicians and hospital beds increased by eight percent between 1971 and 1975, in comparison to population these indicators showed a net decrease. The population per physician ratio increased by over 300 persons (to 1:30,746), and population per hospital bed increased by 29 persons (to 1:5,790). Obviously a substantial increase in facilities would be necessary to maintain even the minimal level of service being provided; still larger inputs were required to effect a net improvement. From a development perspective, population control was vital to securing gains already achieved, and an essential prerequisite to further progress. In this sense, USAID's comprehensive assistance to Nepal's national family planning program spanned sectoral divisions, making it the most fundamental of all development programs.

A Background Look

Awareness of a population problem was slow to develop nationally, partly because of the extreme isolation of rural Nepal (in both a geographic and an ethnic / linguistic sense); in part because of the paucity of statistical information conclusively demonstrating such a problem. A relative rise in awareness is reflected in the government's increasing funding for population. In 1968 family planning was allocated 1.8 percent of total health funds. In 1974, allocations had climbed to 13.3 percent. Following the release of the 1976 Nepal *Fertility Survey*, the country's first major demographic study, the issue was taken more seriously.



While Nepal's first specific population growth policy was established in the Fourth Plan, this period saw the gradual building up of a solid sectoral foundation through manpower training and physical infrastructure. With the Fifth Plan, family planning moved higher on the list of priorities. The document went far beyond previous policy to acknowledge the adverse effects of population growth and, set tangible goals, calling for a five percent decrease in the birth rate and a more than seven-fold increase in the number of contraceptive users within five years. Family planning efforts were supposed to be incorporated into the developing Integrated Health Services, but due to IHS's incapacity, the FP / MCH project remained the major vehicle.

Policy Development

Systemizing governmental concern for the conceptual issues of population policy was a lengthy and difficult process. Concerned about the lack of understanding regarding the serious implications of population growth, USAID supported a series of attempts to develop a high-level population policy group. The Fifth Plan had called for the creation of an organization empowered with broad responsibility to

investigate, report and make recommendations for policies and programs related to family planning.

The Population Policies Coordination Board (POPCOB) was established in mid-1975 with USAID funding and support, followed by advisory assistance the next year. POPCOB was charged with coordinating the population related activities of various ministries and proposing ways to control population, but the agency was never sufficiently powerful enough to effectively deal with the issues. In July 1978 HMG reconstituted it as the National Commission on Population, chaired by the Prime Minister overseeing implementation. USAID support for this agency was channeled through a separate program, Population Policy Development (1979-1984).

Programs and Projects

The Family Planning Project (renamed Population and Family Planning in 1976) continued with several extensions and revisions until 1979, channeling over \$17 million into strengthening and expanding family planning through the FP / MCH Project. USAID assistance to the sector was comprehensive, totaling as much as 90 percent of all monies spent on family planning between 1968 and 1974. Between 1968 and 1972, USAID provided an average of 75 percent of the FP/MCH's operating and construction budget. This figure fell to 50 percent in the latter part of the decade. Other inputs included provision of technical advisors, commodities, and facilities, which included the establishment of outlying clinics, regional and district offices, and construction of a new FP/MCH central office (which subsequently housed the MOH), a training building, and a warehouse in Kathmandu. Beyond physical inputs, the program targeted in-country capabilities in planning, implementation and evaluation as the key to developing more effective population policies and programs. While a professed commitment to controlling population growth had existed since 1965 in Nepal, achievements in family planning remained minimal. The key to effectiveness lay in increased HMG commitment – both political and financial – and in enhancing technical and managerial capacity.

USAID assistance focused on developing that capacity. Long-term advisory assistance helped to develop research, evaluation and training studies, educational material for training workers and evaluation methodologies, and assisted in the establishment of field clinics. A large participant training program included upper-level government officials and administrators. Later in the decade, a broad local training program shifted to improving the administrative, accounting, and data

collection capabilities of district level staff. By 1980, 393 population and family planning personnel had received training outside Nepal.

In the earliest portion USAID stressed research and evaluation, assuming that significant results could be realized within a few years' time. The complex of factors determining fertility, and fertility's relationship with other issues, was not well understood. Basic information on population growth rates, demand and acceptance indicators, and motivation was lacking, as were more complex assessments of regional and ethnic variations, the economic and social impact of population policy, and potentially effective communications strategies. USAID sponsored studies exploring these questions, and supported local costs of the landmark 1976 Nepal Fertility Survey, part of the World Fertility Survey. The first real data on fertility in Nepal, the NFS set standards for future research and provided valuable information for long-term planners.

In 1976 an extremely optimistic project revision summarized the Family Planning Project's "considerable progress": POPCOB had been established, a fieldworker training system and experimental delivery systems were being tested, and the demand for Voluntary Surgical Contraception was high. Research efforts were producing data and expanding capability, and a number of senior HMG officials and administrators had been trained. "In our opinion the Nepal program is on the runway with engines revving for takeoff," the report stated, noting that "financial, manpower, commodity, and other essential resources are either in place or are rapidly being developed" and that USAID support had been generally well-utilized by HMG.

The revision incorporated a few minor new elements, principally a population policy advisor to work with POPCOB, reflected in the change in title to Population and Family Planning. Two years later, a new revision noted that service expansion had proceeded "more rapidly" than policy development, a positive way of expressing the failure of POPCOB. A separate population policy program was proposed for 1979, while the final extension aimed to strengthen and expand the service side of FP / MCH.

Experiments in Service Delivery

Exploring effective, appropriate family planning methods and ways to deliver these to a largely rural population was a major goal of the five year extension to the Family Planning Project approved in 1974. The USAID contractor, the University of California, Berkeley, designed and tested two service delivery models. One expanded the use of local Panchayat-Based Health Workers or PBHWs. The other focused on voluntary surgical contraception (VSC) delivered

through mobile camps. USAID funded the local costs of these expansions, plus technical service, participant training for FP / MCH staff, budget support, and commodities.

Static family planning delivery techniques through clinics and hospitals had proved relatively inefficient at reaching and educating the vast rural population. A pilot study of mobile health workers in two districts from 1972 to 1974 indicated these local, community based workers were more effective than clinic-based aides in providing FP/MCH services to villagers. The Panchayat Based Health Worker was a locally recruited and trained worker (nearly always male) who made door-to-door rounds, providing the regular personal contact needed to motivate major behavioral changes. Studies showed PBHWs spent twice as much time with clients as other village-based workers: the ICHP's Village Health Workers or the NMEQ's Malaria Field Workers. Their task was to motivate, inform and provide family planning methods, as well as deliver basic maternal and child health care and motivate immunization camps. In some remote regions where health posts were two to four days walk distant, the PBHW was the sole provider of Western style health care.



A Panchayat-Based Health Worker provides basic health care.

The project's 1978 extension proposed a rapid expansion of PBHWs to strengthen service delivery. Between 1978 and 1980, an additional 1,000 workers and 170 supervisors were trained, a four-fold increase over the previous years. Mobile training teams and regional training centers managed to meet the goal without great difficulty, but the rapid expansion served to lower the educational level of workers, thus diminishing service quality. In addition, USAID's recommendation that the selection of PBHWs be entrusted to local committees entangled the position in the political patronage system, further diminishing performance quality.

A second service delivery technique tested by the Berkeley team and recommended for expansion in 1978 was voluntary surgical contraception. Beginning in the early 1970s, Nepal had pioneered the use of laparoscopic sterilization services for rural women, a sophisticated method delivered by project-trained physicians. The VSC Service Expansion Program proposed training additional physicians and chartering STOL flights to establish temporary camps in remote areas. The high demand for VSC (an evaluation team reported observing a Janakpur camp which performed laparoscopies on over 3,000 women) appeared to justify institutionalization of services for long-term needs. This was to be combined with the expansion of mobile camps beyond the Terai and into the Hills. Nepal's heavy reliance on VSC was to have negative results in the future, however, in terms of poor demographic impact.

Achievements of FP/MCH

Through the decade, the FP/MCH Project's rapid expansion and progress contrasted – and competed – with the struggling integration program. Its semi-autonomous status, a result of the FP/MCH's independent board, allowed it the flexibility necessary for innovation and experimentation, essential at the time to find workable formulas to reduce fertility rates.

By 1980 the FP/ MCH project had been implemented in 62 of Nepal's 75 districts. A network of four regional and 50 district offices supervised 232 family planning clinics. A few of these also delivered pre- and post-natal care, nutrition and oral rehydration therapy education, plus immunization campaigns for children under five years of age. More than 1,000 trained PBHWs were delivering family planning services on a door-to-door basis, supplying motivation, information and commodities.

FP/MCH's system of seasonal, mobile sterilization camps was proving highly popular, with the number of sterilizations far exceeding the goal. Between 1967

and 1980, nearly 80,000 sterilizations were performed, the majority vasectomies, but female laparoscopies became increasingly popular in the 1970s.

Regional training centers had been established to implement an in-country training capability evaluated as “excellent”, and a small but high quality Research and Evaluation Division was producing a range of data and analyses, including a three-year, eight-district longitudinal study of Nepali knowledge, attitudes and practices regarding birth control. This study produced Nepal's first meaningful demographic data, vital to intelligent program planning. A two-year longitudinal Fertility, Morbidity and Mortality study involving 30,000 people was also underway.

USAID had contributed to all these achievements, and in addition supplied the vast majority of Nepal's contraceptives. The generous supplies, in fact, far exceeded the need: a 1979 Audit Report found a six year backlog of contraceptives, requiring the destruction of \$200,000 in outdated pills and condoms.

Perhaps most significant in the long run, USAID-supported manpower training in family planning made the FP / MCH project the best trained section within the MOH. By 1984, 68 FP / MCH staff members had received long-term participant training and were making substantial contributions to professionalism and managerial capacity as well as specific family planning and health programs.

Though nationwide family planning acceptance rates remained low (6.8 percent of married couples by 1981, compared to 2.3 percent in 1976), the FP/MCH Project surpassed its contraceptive use targets during the 1970s, and exceeded many operational and infrastructural goals as well, achieving its target of contacting 15 percent of eligible couples. At this early stage, the systematic development of organizational infrastructure was considered most significant, a way to build a solid base for an increasing number of acceptors in the years to come.

Contraceptive Retail Sales

USAID's experience with contraceptive social marketing in many countries has indicated that harnessing existing commercial marketing infrastructure can increase contraceptive prevalence at a low cost. Up until 1978, most of Nepal's contraceptives were provided free of cost through government family planning facilities. About 100 private retail shops sold condoms.

In 1976 the Contraceptive Retail Sales (CRS) project was launched through AID/Washington as a social marketing effort to increase availability, distribution, promotion and use of temporary birth control methods. By promoting subsidized

sales of contraceptives through retail outlets across the nation, the project was designed to complement the government family planning program with its emphasis on sterilization.

Westinghouse Health Systems was contracted to assist the CRS project. The first objective was to design a commercial distribution system for contraceptives in Nepal. This goal was based on two assumptions: an existing marketing infrastructure, and a potential for high sales to cover a majority of operational costs. While these assumptions were true of most other countries with contraceptive social marketing programs, Nepal's economy posed special challenges. The system was simply not geared to developing a new market for national products. Advertising campaigns, sales representatives, even specially designed packaging were all either very new or non-existent in Nepal.

CRS sales of subsidized high quality contraceptives were launched in June 1978, but developing a national market has remained a continual challenge. Lack of transportation precludes; easy delivery, and many Nepali shopkeepers were hesitant to display the product. Within 18 months of initiating sales, however, contraceptives were being provided through nearly 2,500 retailers in cities and towns in Nepal.

Through 1979 the CRS project concentrated on developing marketing support systems and a marketing research survey, the first in Nepal, as the basis for a new advertising campaign. Innovative attention-getters included display contests among shopkeepers, a frisbee contest held in the national stadium, and a float in King Birendra's birthday parade. Attractive, interesting displays were designed to desensitize open sales of birth control methods. The CRS campaign won its Nepali advertising firm a special commendation trophy in the 12th annual Asian Advertising Congress competition in 1980. More than the initial sales levels achieved, these efforts helped increase public awareness of contraceptive availability and reduced social resistance to the subject.

Malaria Control

Resurgence and Renewed Efforts

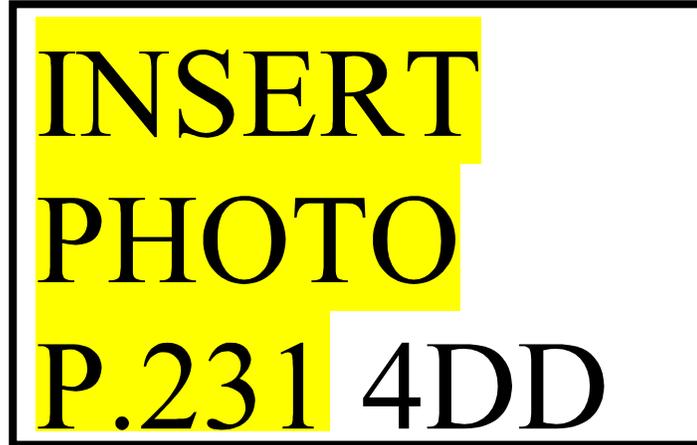
Following four successive years of low-level (fewer than 3,000) malaria cases reported nationwide, USAID withdrew its support for the NMEO with the termination of the Malaria Control Project in 1972. It was felt the 6.7 million people covered under the project could be protected under the less intensive consolidation phase of case detection and treatment rather than insecticide

spraying. Both USAID and HMG were eager to divert the major resources demanded by anti-malaria work to other pressing health needs.

As it turned out, the decision to reduce insecticide spraying was premature. Cases jumped to 8,500 in 1973; in 1974 major localized epidemics generated over 14,600 reported cases. The flareups were a warning sign demanding renewed attention. A 1975 strategy review reinstated insecticide coverage for 2.2 million people, just in time to avert the massive epidemics which swept India and Pakistan in the mid-1970s.

It quickly became apparent that malaria control would continue to demand long-term expenditures. Controlling malaria was even more important in view of the Terai's new economic significance, but the situation was far more complicated than in the preceding decades. The epidemiology of the situation had altered considerably. Importation of malaria from India caused a high proportion of cases. The ecosystem of Nepal's malarious zones had also altered under the influence of a decade of heavy insecticide spraying. As vast tracts were cleared and settled by thousands of people, new vectors emerged, requiring continual research to discover effective responses. The large new Terai population had no natural immunity to malaria, and resistance to DDT and chloroquine was increasing. Malaria control had in a sense fallen victim to its own successes.

While acknowledging the seriousness of the situation, USAID was wary of re-involvement in a program that had already consumed 15 years and over \$13 million in funds. A memorandum for a review of the 1976 Nepal Development Assistance Program outlined the issues: the NMEO had a well organized and trained cadre; WHO was providing advisory assistance; HMG had dollars to buy DDT, but would not accept a loan for the purchase. HMG's desire for USAID to participate in order to obtain grant rupees to assist with the balance of payments with India was not viewed as sufficient reason for re-entering anti-malaria efforts. However, controlling malaria was also the key to expanding integrated health services, and the specter of increased epidemics threatened to nullify previous gains.



Insecticide spraying to control resurgent malaria.

USAID contributed an additional \$3.6 million grant to a Malaria Control project operating from 1975 through 1980. The UNDP provided \$3 million for insecticides, while WHO supplied \$800,000 in commodities, technical assistance and training. Resources were channeled through the NMEO, with the goal of strengthening institutional capacity for monitoring and controlling malaria outbreaks. The project was coordinated with the evolving IHS to encourage a smooth transition from NEMO to integrated services in specific areas. Early attempts at transition to an integrated system in six districts were not successful. Short on staff, funds, and supplies, the integrated program was unable to maintain the NMEO's gains, and malaria increased markedly under its control. This and other reasons, including increasing DDT resistance in the Terai, the appearance of chloroquine-resistant strains, and the problem of continual reinfection from India, caused the failure of the project's goal to stabilize national malaria rates at a maintenance level Annual Parasite Index (API) of 0.5 percent, or 3,000 cases per year.

The shortfall resulted in part from the massive Indian malaria epidemic of 1976 to 1979, which contributed to an influx of cases across the southern border into Nepal. The NMEO's quick response to large-scale local outbreaks in 1977 averted a potential epidemic on the scale of those sweeping South Asia in the mid-1970s. Only a few districts had stabilized a 0.5 percent API by 1979, but

evaluations of the project's overall success were generally favorable, finding "noteworthy success," though "development of malaria control technical methodology is far from complete ...both basic and operational research must be given more emphasis" (Nance *et al.*, 1979).



EDUCATIONAL REFORM AND NATIONAL DEVELOPMENT

Nepal's education system, as measured by the number of schools, teachers, and students, expanded twenty-fold between 1950 and 1970. Qualitative improvements did not keep pace with quantitative expansion, however. Education suffered from a lack of trained teachers, good standardized texts, the low status accorded the teaching profession, and the fact that physical expansion could not keep pace with rapidly expanding enrollment. Dramatic educational reforms were required in order to educate Nepalese to fully, participate in development.

Nepal's first three economic plans repeatedly noted the shortage of trained manpower as the biggest obstacle to achieving development goals in all sectors. Despite large-scale training efforts, budgetary, administrative, and geographical constraints, and the difficulties inherent in educating a linguistically and ethnically diverse population, all continued to impede progress.

By 1970, Nepal had achieved a national literacy rate of 15 percent, only a slight increase over the 1960 level of 8.9 percent. In part, a rapidly growing population had swallowed up increases in schools and students. Unemployment was high among the educated in Kathmandu, while technical posts remained vacant, and the general quality of education system remained poor. Moved by these problems, King Mahendra delegated the Education Advisory Council to revise and update policies to better address Nepal's educational and development needs. In 1971, the council introduced the National Education System Plan (NESP), superseding the National Education Planning Commission's 1956 education plan.

The NESP was designed to support the Fourth Plan's regional strategy for mobilizing human resources. It outlined three objectives: to meet Nepal's trained manpower needs; to extend educational opportunity to the maximum number of people (including out-of-school youth and adults); and to increase the relevance of the education system to Nepal's economic development needs.

Introduction of the NESP coincided with King Birendra's commitment to carrying out national development using Nepalese expertise. While Nepal still required substantial capital assistance to meet its education targets, HMG hoped to reduce its reliance on foreign technical assistance by raising the general level of education. HMG solicited donor assistance for development of specific educational institutions and programs in support of the NESP. This was intended to reduce the influence of any single donor in education, as well as to demonstrate HMG's capacity to establish its own educational priorities.

Though 25 donors, including India, UNESCO, UNICEF and the U.K., established technical participant training programs during the 1970s, none came forward to support NESP-inspired reforms in general education. Even USAID, the main donor for two decades of educational development, lost interest when it became clear HMG preferred to adhere to the NESP policy, rather than select nationwide components such as teacher training or curriculum development.

The National Education System Plan

At the time of its introduction, the NESP was seen as a radical departure from the *status quo*, a Nepali "declaration of independence from U.S. policy dominance" in education (USAID / Nepal 1971 Capital Assistance Program). Though it was conceived by Nepalese educators and administrators, it bore the imprint of the U.S.'s 20 year involvement in Nepal's educational development. Some objectives were basic concepts that had been promoted by U.S. educators, particularly the inclusion of practical training at all levels, and the emphasis on vocational training at the secondary level.

The NESP sought to make education more relevant to Nepal's needs by increasing access to education, particularly in rural areas, and especially for women; by reducing adult illiteracy; extending basic education; vocationalizing secondary education; and finding cost effective approaches for financing education at all levels. Though the NESP sought to qualitatively improve the entire education system, it directed a large percentage of the education budget toward expanding secondary level education through vocational education and technical training.

Under the NESP, HMG focused on strengthening central-level planning capacity in order to reorient the education system towards development priorities, and to increase efficient use of development resources. The National Education Committee (appointed by the King) was responsible for formulating policies and issuing directives, coordinating the functions of Tribhuvan University, the Ministry of Education, and other ministries concerned with enforcing the NESP,

and evaluating the progress of the entire education program. The Ministry of Education was given responsibility for implementing the NESP.

The goal of reforming the education system to make it more development oriented was a laudable venture, but as set forth in the NESP, it was unrealistic. Though HMG intended to implement the NESP in all 75 districts in only five years, it lacked the capacity to train the personnel needed for the task. Curriculum development, textbook preparation, and teacher training were impossible within the five-year framework; USAID felt a 20 year implementation schedule would have been more realistic, allowing for periodic assessments and reshaping of policy.

The NESP mandated strong central control and standardization of Nepal's educational system. While this was intended, in part, to assure equitable distribution of development benefits, both Nepalese and expatriate educators questioned the benefits of mandating uniformity in a developing country. USAID and the Southern Illinois University contract team felt that "progressive and rapid development of some parts of the education system should not be inhibited for the sake of allowing all segments to evolve in uniform patterns." Aside from the repressive effect this had on certain advanced parts of the system, achieving uniformity required an administrative capacity HMG lacked.

Finally, the NESP policy of "education for all", given limited resources, directly conflicted with the goal of improving educational quality. An inherent weakness in the NESP-designed education system was that it was built around Nepal's manpower requirements, and estimates of manpower requirements remained guesses.

By 1975, when the NESP should have been implemented in 50 districts, only 25 districts (108,000 students) had been affected by the change. Four years after implementation had begun, planning and policies reverted back to the *status quo ante*. Though the NESP was not implemented as planned, the limitations which prevented full implementation did help to focus government resources in important areas such as the need to expand teacher training and improve capacity to evaluate policies, the need to continue exploring cost effective alternatives to the formal school system, and the need to improve educational administration and supervision. Throughout the decade improvements were achieved in each of these categories, though much remained to be done.

USAID's Education Strategy

Coinciding with the introduction of the NESP, USAID's education program was drastically reduced by AID's worldwide fiscal cutbacks, to the point where HMG

expressed concern that USAID was no longer interested in assisting education development in Nepal. In fact, the coincidence of AID's worldwide program reassessment and Nepal's bold educational reform initiatives, provided USAID with an opportunity to reassess its role in the education sector.

The *New Directions* mandate led to an increasing USAID focus on developing research and evaluation components in its projects to provide a mechanism to analyze viable alternatives for education development. USAID also sought to improve planning and management of HMG education programs by incorporating feedback, monitoring, and evaluation components in its projects.

Though the U.S. remained active in Nepal's education sector, it was no longer directly involved in shaping education policy and programs. USAID's extensive in-service and participant training programs had helped develop institutional and human resource capacity to the point where Nepalese educators and administrators began establishing their own priorities in education.

U.S. strategic interests in the education sector in the 1970s focused on attaining certain levels of achievement in education as a prerequisite for achieving results elsewhere. As in the previous decade, USAID continued to focus on qualitative improvement of the education system through institutional development. USAID essentially abandoned its systems approach to educational development, however, focusing instead on projects to improve quality and innovation in selected high-priority institutions like the Institute of Education, the National Vocational Training Center, and the Education Materials Center, and in areas such as teacher education, curriculum, and education materials development.

USAID assistance was channeled through two main projects. The \$7 million Teacher and Technical Education Project begun in 1968 was replaced in 1972 by the Teachers and Materials Utilization and Development Project (TMUD), which continued to develop the Institute of Education. The innovative, nonformal Radio Education Teacher Training Project was initiated in 1978 to train primary school teachers through radio programming and self-instruction.

Financing Education

During its first two decades of development, Nepal faced the constant challenge of generating funds to meet the costs of its rapidly expanding education system. By the 1970s, education budget expenditures had increased more than 300 percent from 1950s levels. USAID's disbursements in the education sector (a total of \$18.8 million for education projects between 1951 and 1975) dropped from a high of 66 percent of HMG's education budget expenditures between 1963 and 1967, to just

four percent from 1973 to 1975. Reduced levels of U.S. assistance, coupled with the need to finance nationwide implementation of the NESP, placed an increasing burden on HMG to find alternative funds.

According to USAID's 1975 Development Assistance Program strategy, before introduction of the NESP, local budgeting was income oriented – expenditures were determined by the availability of funds. Under the NESP budgeting became expenditure oriented. Whereas education was traditionally financed with locally available resources (for instance, payment in kind for teachers' salaries), the NESP increased the cash cost of education. In addition, tuition and fees under the NESP were higher. Authors of the NESP assumed that local communities would respond to the need to increase local contributions in order to improve education. Local cash-raising ability proved severely limited, however, and the ensuing funding shortages created supply problems with teachers and required instructional materials. Mobilizing funds and enthusiasm to establish schools proved easier than mobilizing funds to maintain schools and meet operating expenses.

Early HMG evaluations of the NESP showed that increased school fees (as well as a shortage of teachers) acted as barriers to expanding educational opportunity, one of the NESP's major objectives. In addition, the diverse distribution of Nepal's population increased the cost of education and magnified already substantial administrative problems. To help local communities meet educational costs, HMG covered 100 percent of primary teachers' salaries in remote areas; less-remote areas received smaller grants. Though this provided some relief, HMG determined that the NESP objectives could not be met through the formal school system alone. Subsequently, USAID helped develop the Institute of Education's capacity to identify innovative and cost effective nonformal education alternatives to increase accessibility and relevance of education.

Assisting Educational Administration

USAID continued to provide financial and technical assistance to educational institutions, and in-service and participant training for educators and administrators. USAID focused on building a management capacity within HMG's educational institutions to improve program administration.

Institutional Development

Through the Teachers and Materials Utilization and Development Project (TMUD), USAID continued efforts begun in the mid-1950s to improve Nepal's educational institutions. USAID assisted the Institute of Education (IOE) to

develop a research and evaluation component (which later became the Center for Educational Innovation and Research, CERID) to examine teaching methods, utilization of educational materials, and research and evaluation to improve curriculum and teaching methods. The main focus for improvement in these areas was math and science teaching, both considered crucial to development and technological change. The project also sought to strengthen pre-service and in-service teacher training by including teachers and supervisors in research and evaluation, thereby incorporating the “consumers” into the design and evaluation process.

Because training of skilled agricultural manpower was an HMG priority, HMG solicited USAID's assistance in developing the Institute for Agriculture and Animal Sciences (IAAS). Progress in the 1970s was limited to planning the development of an agriculture education program that would prepare teachers to staff secondary school agriculture programs. Later, development of the IAAS became a separate project under USAID's Agriculture and Rural Development Office, focusing on development of a post-secondary level training facility for agricultural occupations. During the 1970s, USAID also assisted development of the Institute of Medicine.

Participant Training

According to a March 1990 evaluation of USAID's participant training program, between 1953 and 1975, 310 Nepali educators were trained in the U.S. and third countries; 222 of whom spent at least one academic year in training. Major areas of emphasis for educators were teacher training, vocational education, and educational administration, paralleling USAID's program emphasis. USAID-sponsored participant training for educators continued through the 1970s, primarily through the Education Skills Training project, which provided specialized management training for educators in financing, planning and research.

Primary Education

Of \$18.8 million in U.S. assistance committed to Nepal's education development between 1951 and 1975, roughly half went to different aspects of primary education, benefiting over two million primary level students who attended school during this period. USAID contributions to primary education during the 1970s focused on development of curricula and textbooks and on teacher training. NESP's attempt to make education more relevant to development called for a completely new curricula for the primary and secondary levels, which entailed a revision of textbooks and teaching materials. USAID provided financial and

technical assistance to the Institute of Education and to the Education Materials Center to help design and implement the necessary changes.

USAID also supported HMG's goal of increased access to education in rural areas, particularly for girls. By the end of the decade, female enrollment in primary grades had increased to nearly 20 percent, an encouraging improvement over the extremely low levels of the early 1950s.

By 1979, Nepal had achieved over 50 percent enrollment at the primary level, as compared with 26 percent in 1970 – a remarkable improvement, though still short of HMG's target of 65 percent enrollment by 1980. These increases were largely achieved because of HMG's decision in 1975 to eliminate tuition and textbook charges for the primary levels. These improvements were qualified by the facts that 50 percent of students dropped out within the first three years, and the level of learning was very low, especially in math and writing.

Partly to address the high dropout rate, in 1972 HMG reduced the primary level from five to three years duration (grades four and five became part of the lower secondary level). If learning could be accelerated in a shorter time, educational opportunity would be expanded. Primary education was to impart literacy through reading, writing, simple arithmetic, and some knowledge of agriculture.

The change challenged the traditional view that functional literacy could be achieved in five to seven years, and donors viewed it as radical and impractical. It was unlikely students could be made functionally literate in only three years, and extremely limited access to reading materials outside of school made the sustainability of literacy questionable. Studies in other developing countries showed that functional literacy could be achieved in only a few years in a monolingual society, but a country as ethnically and linguistically diverse as Nepal faced greater challenges. The high cost involved in developing new materials and retraining primary teachers eventually forced HMG to abandon this experiment, and in 1980 the primary level reverted to five years duration.

Secondary Education

The practice of offering vocational courses as supplements to the general academic curriculum was overtaken by the NESP directive calling for complete vocationalization of the secondary level curriculum. As with primary education, reforms were to occur within five-years, including development of new curricula, textbooks, and vocational training for teachers. Under the NESP the secondary level was redefined: the lower secondary level (grades four through seven) was to be pre-vocational, and focused on developing the “dignity of labor” by teaching

the use of native materials in handicrafts, while the secondary or high school level (grades eight through ten) was to teach vocational skills in accordance with national manpower requirements.

In an attempt to set uniform standards, the NESP exerted a new and comprehensive control over the secondary school system. A directive was issued stating all secondary schools must operate under the NESP. As in the previous decade, however, there was a serious lack of administrative staff and adequate teacher training facilities, and no appropriate curriculum or textbooks. In a reduction of its previous comprehensive role, U.S. assistance to secondary schools was directed primarily at educational institutions concerned with teacher training and educational materials development.

Even backed by significant financial inputs from USAID and the presumed U.S. expertise in vocational education, the effort was not successful. While incorporating sound educational models and innovations, the NESP set unrealistic goals, including full vocationalization of curriculum and a tight implementation schedule. It overemphasized the use of sophisticated equipment, which most schools could not afford (vocational education was estimated to cost four times more than general education when the costs of equipment, textbooks, curricula, and teacher training were factored in). The level of training was insufficient to fully qualify students for employment, and deep-rooted social incentives made white-collar jobs remain more desirable. Vocationalization of Nepal's secondary level proved neither culturally nor practically feasible. After only four years of implementation, the NESP policies were dropped and reoriented toward a less radical policy, targeting specific groups for vocational education. In 1978 HMG began establishing trade schools in rural areas in lieu of the vocational high schools that ostensibly prepared students for participation in the overall development of the country. Such technical schools not only targeted those most likely to benefit from vocational instruction, but also helped decentralize educational opportunity.

Teacher Training

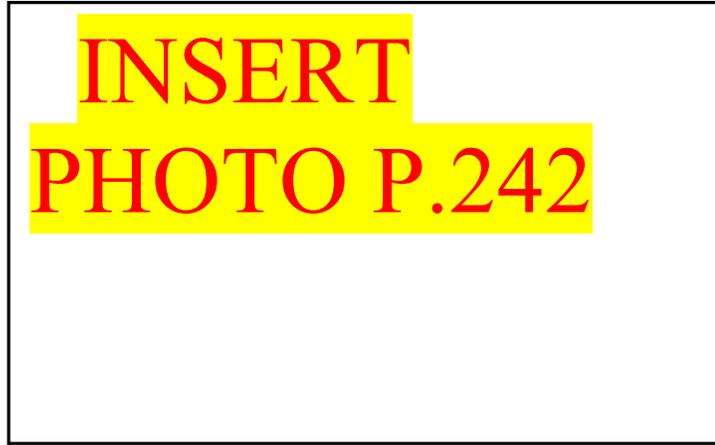
Successful implementation of the NESP depended on a corps of trained teachers to improve and expand primary education and to carry out the vocationalization of the secondary level. Teachers were the key to success of qualitative improvement of the education system, and teacher training was accorded high priority in the NESP. It also remained the major focus of USAID's education program.

Radio Education: Innovations in Primary Teacher Training

Under the NESP, HMG was committed to providing all primary schools with trained teachers to improve the quality of primary education. Existing training facilities, however, could not handle more than 800 to 900 per year. USAID and HMG turned to radio-based teacher training as a cost effective means to reach a large and scattered rural audience.

In the 1950s, USAID-sponsored radio programming aimed at extending educational opportunities to out-of-school youth and adults. Though informational programs continued to be broadcast throughout the 1960s, USAID concentrated most of its efforts on providing assistance to traditional, formal types of education. By the mid-1970s however, radio education was considered an innovative alternative means to address the educational needs of the rural poor. The impact of several UN-sponsored experimental radio information programs in education, agriculture, population and health was being studied at the time. With its limited financial resources and overburdened administration, Nepal needed viable nonformal methods of education if it was to realize educational improvements for the entire population.

In 1976; at the request of HMG, USAID arranged with other donor agencies for a coordinated study of the feasibility of low-cost, wide-coverage radio education. The team was comprised of three technicians from USAID, one from the British Council, two from UNICEF, and one from UNESCO. According to the draft report of the feasibility team, "Even if our [primary teacher training] radio course cost estimate is too low by one third, it still will represent less than 10 percent of the cost of traditional teacher training to HMG and trainees."



Basic Teacher Training Programs developed by project script writers are recorded at the RETT project studio and broadcast over Radio Nepal.

photo by Alison Wright

The study outlined a phased implementation plan for radio education. The first phase would create a personnel structure and produce programs and materials. Phase II tested these on a group of 100 primary teachers, and Phase III, implemented only after the success of the first two phases was determined, expanded the program to include more teachers under less structured conditions. Southern Illinois University was eventually contracted to implement the expanded program.

USAID's historical involvement with teacher education led to the Radio Education Teacher Training project (RETT) initiated in 1978. Budgetary and institutional constraints involved in traditional methods of teacher training generated strong HMG support for the project. RETT was designed to provide in-service teacher training to at least 2,500 primary school teachers annually, using radio broadcasts, brief residential instruction, and self-instructional textbooks. Primary teacher training was considered the best area to demonstrate the potential of informational radio broadcasting. RETT targeted the large number of primary teachers who had not passed the School Leaving Certificate exam.

RETT program production facilities were maintained at the Janak Education Materials Center at Sano Thimi, where a control room-studio complex had been in operation since 1974. UNICEF supplied much of the project's equipment,

including portable receivers for distribution to rural teachers. To facilitate broadcasting, USAID eventually provided Radio Nepal with a 100,000 watt short-wave transmitter and antenna, administrative buildings, and a recording studio. USAID provided a total of \$3.25 million for the project, contracting with Southern Illinois University for technical assistance. HMG contributed \$523,000.

RETT was successful in meeting its early quantitative goals. Between 1978 and 1983, 3,000 teachers were enrolled in the program, 2,500 radios were distributed, and 6,000 sets of self-instructional materials were distributed. Approximately 165 hours of instruction were developed and broadcast. The program resulted in a substantial increase in the number of trained teachers. While the total number of primary school teachers did not increase substantially between 1970 and 1975, the number of trained teachers increased by one-third. Between 1975 and 1979, as a result of USAID-sponsored teacher training programs, the number of trained teachers increased by another one-third, to total 9,605.

Secondary Level Teacher Training

In 1971, the NESP transferred post-secondary teacher training programs to Tribhuvan University. They came under the Institute of Education and the National Vocational Training Center, both institutions where U.S. assistance continued to play a key role. Under the NESP, the Southern Illinois University contract team trained secondary level vocational teachers, following models introduced by the SIU team in the 1960s. Training was carried out at the National Vocational Training Center and its Demonstration Multipurpose High School.

As an incentive to rural teachers, the Ministry of Education offered a special allowance to volunteers for vocational training, and was promptly inundated by teachers seeking the allowance and the opportunity to train in Kathmandu. Even with the allowance, teachers in remote regions found travel to Kathmandu and other training centers difficult to afford.

Problems encountered during the previous decade continued to plague vocational training programs at the NVTC during the 1970s. Apart from the MOE's limited financial and institutional capacity to train the number of teachers required to successfully implement the NESP, there was cultural resistance to vocational education. Most teachers denigrated manual labor, and tended to revert to traditional rote-memory teaching methods if not directly supervised. In addition, many trainees did not return to their teaching positions, taking advantage of their training to move into more lucrative occupations.

Nepal's limited training capacity was a primary factor in preventing widespread implementation of the NESP. Despite it, the total number of lower

secondary and secondary level teachers increased from 5,628 in 1970 to more than 14,000 in 1979. Over 6,000 of them had received some training, as compared with only 981 trained teachers in 1970.

The Teach Corps

One component of the Teachers and Materials Utilization and Development Project secured short-term personnel to develop and demonstrate teaching methods and materials at the secondary level. The “Teach Corps” was comprised of U.S. educators who extended the use of improved teaching techniques and educational materials into subject areas other than math and science (already covered by the STEP and PRIME programs). Teacher training methodology adopted the STEP and PRIME teaching models that had been developed and implemented by Peace Corps Volunteers in the previous decade.

The 1970s in Retrospect

By the end of the decade Nepal had achieved an overall literacy rate of 21 percent. Primary school enrollment had reached more than 50 percent, and lower secondary and secondary level enrollment had reached 25 percent and 19 percent. Girls’ enrollment had risen from less than one percent of all students attending schools in the early 1950s to nearly 20 percent of enrollment at the primary level, 18.4 percent at the lower secondary level, and 16.5 percent at the secondary level. Overall access to education increased dramatically, especially in rural areas, due largely to the policy of providing free primary education and textbooks to primary students.

The vast increase in school enrollment represented a major gain in equality of educational opportunity for low-income Nepalis. However, though HMG attempted to provide both increased access to educational facilities and qualitative improvement, as in the past, qualitative improvements were outstripped by physical expansion.



TRANSPORTATION

By the mid-1970s Nepal had 1,750 kilometers of paved road and 2,800 kilometers of jeep track. The national average of one kilometer of road per 4,000 people was still considerably less than other LDCs. Governmental emphasis on transportation continued through the Fourth Plan, which channeled over 40 percent of public sector expenditures into transportation, 80 percent of it into roads.

Road construction efforts were evolving beyond the goal of simple national integration into a more sophisticated approach which increasingly emphasized transportation's role in rural development. This approach reflected the increasing complexity of development efforts as a whole. "Integration", a password of the decade, demanded processes be evaluated in context. Development was no longer a series of isolated inputs, but a coordinated effort – at least in theory.

A 1972 World Bank report on Nepal's transportation sector expressed a popular view when it stated:

Secondary roads connecting the Hills and the Terai should be developed as elements in regional development programs rather than as road projects per se. Project priorities should be based in substantial part on the need to realize a better balance in food grains ...road projects should ...be considered as only one a element, albeit fundamental, of production-oriented projects. As a matter of fact, this package approach is one of the merits of the growth corridor concept.

Viewed in these terms, road-building became an even more complex effort than before. The steadily advancing East-West Highway received official priority. Secondary were north-south "feeder roads" connecting the highway to planned collection / distribution centers in nearby valleys. These sites were to be enhanced by development activities and investments. USAID's involvement in the process centered around one of Nepal's most ambitious transportation efforts, the Western Hills Road (WHR), begun in 1969 and completed in December 1979.

The Plight of the Far Western Hills

Drier and less productive than other regions of Nepal, the Far Western Hills and Mountains of Nepal were developmentally neglected. Initial efforts had focused on the Terai and on Central and Eastern Nepal, regions with high economic potential which were relatively easily accessible from Kathmandu. Several years of drought beginning in 1963 generated concern about Far Western Nepal's deteriorating agricultural an economic situation.

USAID Deputy Director John Cool outlined the situation in a 1967 paper. The five districts of the Far Western Hills constitute about 30 percent of Nepal's total area and supported over 20 percent of the national population, but received less than five percent of government resources. The region's population had more than doubled from 1920 to 1961, while agricultural technology and productivity had stagnated and soil fertility had actually decreased. Disappearing forest cover and a chronic imbalance between "mouths and resources" only exacerbated the situation. While the Far Western Hills had immense long-term potential in sustainable use forestry and hydropower, middle-range action was necessary to stabilize the situation and encourage economic development.

Except for a few miles of fair weather jeep track in the Terai, Nepal's five westernmost districts were entirely without motorable roads. Sporadic air service was offered by two newly constructed STOL airstrips, but in general the huge portion of Nepal lying west of Butwal and Bhairawa was nearly inaccessible from within Nepal. Travelers usually journeyed by Indian transport up to the Nepal border, then walked.

Opening the region through transportation development was advocated as a solution (or at least a necessary first step to one) to the complex problems of rural development in a remote area. Planning for a road connecting Dangadhi and Dandeldhura went back to at least 1958: the WHR had been among the many non-achievements of the ill-fated Regional Transportation Organization.

The Western Hills Road was an experiment testing the stimulating effects of increased transportation on economic and social development. Instead of linking major population centers, it was designed to link two isolated regions: the chronically food-deficit Hills and the more developed Terai, each with their own distinct environments and economies. The Far Western Terai and Hills were economically interdependent, but the week-long roundtrip journey between them greatly handicapped development and increased the prices of goods in the Hills.

The 148 kilometer road connecting the Terai town of Dangadhi, a market and administrative center, with the smaller Hill village of Dandeldhura was to be an economic lifeline, stimulating regional economic development. The food-surplus Terai would be able to alleviate hunger in the chronically food-deficit Hills, while improved transport would provide a ready market for the products of Hill farmers, eventually encouraging small industrial development.

The road was expected to lower the costs of necessities, open up inaccessible forest land to cultivation, and increase agricultural production. Some advocates went even further, suggesting that it would draw tourists into the remote region, and that "schools, hospitals, health clinics, electric power stations, water sheds,

sawmills, factories, cottage industries, and new communities will surely come to life in the wake of the highway's invasion" (de Folo, 1969).

More sophisticated analyses suggested that "the road, while facilitating solutions to existing problems (particularly in the Hills) will not by its mere existence bring about solutions to any of them." While reducing the time for a round-trip journey from seven to two days would facilitate basic inputs and exports and to a certain extent restructure production activity towards a market orientation, extensive development programs would be needed to fully maximize economic growth and returns. (S.J. Rana, no date).

USAID did consider funding a rural development project to operate in conjunction with the road and enhance its impact. The Far Western Hills Development Project got no further than a draft agreement in August 1968. Like the road, the program was designed as labor-intensive in order to maximize regional benefits. Tentative goals included the construction of a transport network (including mule trails and STOL airfields), horticultural and agricultural development, irrigation and forestry projects and development of cottage industries, all to be based around "the Main Road".

A Development Assistance Program Review memo laid out the issues: "[Do] we know how to engage in a rural development project in a Western Hills region as currently proposed?" The World Bank had stated an interest in rural development in Nepal. The options were outlined: USAID could start the project on its own, wait and assist the World Bank, or stay out of rural development altogether. The last alternative won. The Western Hills Road in itself was believed to be sufficient to generate extensive economic improvement.

Project Design and Implementation

The WHR was designed with development opportunities in mind beyond the economic benefits of the road itself. Previously, surfaced roads in Nepal had been built by foreign donors using expatriate personnel for all positions except laborers. The result was that Nepal's relatively large cadre of academically trained road engineers received little practical experience. As the first major transport project entirely staffed by Nepalis, the WHR developed national self-sufficiency in road planning, design and construction and received enthusiastic support from the Department of Roads. USAID provided limited engineering advisory assistance (increased in the latter portion of the project); the Department of Roads carried out construction on its own.

The project went beyond the "do the job" mentality of other road projects to provide valuable training experience, underscoring the importance USAID placed

on institutional development. Such an effort inevitably met with difficulties. Former Mission Director Carter Ide recalled: "The many delays and 'learning experiences' involved in this enterprise found an unenthusiastic response among auditors, who insisted on comparing the results with those of the expatriate road builders."

The actual construction was deliberately designed as a labor-intensive effort, minimizing the use of capital equipment in order to maximize local benefits and raise the purchasing power of local people. Over 2,000 local workers were employed in building the road, and the wages they received injected a considerable amount of cash into a largely non-monetized economy. The labor-intensive nature of the project slowed construction time, however. While the DOR engineering team did an excellent job in pushing the road through difficult terrain, the estimated time and cost for construction more than doubled by the time of completion in 1979.

In the original 1969 joint-financing agreement, the U.S. provided 75 percent of total costs (\$8.8 million) in PL 480 Indian rupees, plus the halftime services of an on-site highway construction engineer. By 1972, the road was only 40 percent completed and it became apparent the original sum was insufficient. HMG requested and received a \$7 million additional loan. Final costs were estimated at about \$14.3 million, or about \$100,000 per kilometer. One factor which considerably increased projected costs was the mid-project upgrading of construction standards to trunk road level.

Economic Justifications

The case of the WHR illustrates the difficulties of applying economic cost benefit analysis to road construction in Nepal. The statistics ordinarily used in calculating internal rates of return and cost benefit ratios are unreliable or simply inapplicable in the case of a penetration road into an extremely undeveloped area. Ordinarily roads are built to meet existing demand, and their economic feasibility can be based on savings in transport costs and other benefits. But in Nepal, north-south feeder roads are built to create demand by stimulating economic activity. Projecting the benefits of the WHR involved guesswork. A U.S. Department of Transportation economist roughly estimated the ratio of economic costs to benefits at 1 to 3 (Fine, 1973).

Landslide Stabilization

During construction and after completion, the WHR's northern portion was subjected to extensive landslides. Five to seven million cubic feet of debris had to

be removed annually from the roadway, raising maintenance costs to about Rs30,000 per mile. The road demanded an infusion of resources the DOR was not prepared to make, and needed further work to save it from the prospect of abandonment.

In 1979 USAID allocated an additional \$2.3 million to a Landslide and Soil Stabilization Project (LSS) to ensure the Department of Roads would inherit an operable all-weather road without significant environmental problems. The Project's final review team concluded in December 1983 that the goal of an operable all-weather road had been met. The WHR was a high-quality structure – perhaps too high-quality for the Department of Roads. The report concluded that the road was probably over-designed for its situation, as the DOR, with limited resources, was unable to maintain it at the standard to which it was designed.

While the Landslide and Soil Stabilization Project was successful, the very need for it brought the original decision on the road's location into question. The desire stated in the 1969 Working Paper to “break this poverty cycle and provide an axis for regional economic development” overrode engineering considerations regarding placement of the road. The only preliminary planning information came from a government team's, six-day survey of the proposed location in 1967. Their report paid scant regard to the fact that 84 percent of the Western Hills Road runs through mountainous terrain characterized by steep slopes, thin soil, and widespread erosion

A United States Forest Service engineering geologist called in to analyze the road in 1978 severely criticized most of the decision involved in locating and building the road. The LSS evaluation team, while finding the engineering work successfully completed, noted the road's “curious” location, completely isolated from the rest of Nepal (it was planned to eventually be linked with the East-West Highway). In addition, the “terrain and geologic situation is among the most difficult ever seen by the writers,” the report noted.

Impact of the WHR

Evaluating the impact of the WHR on rural life is rendered difficult by the lack of data on pre-road conditions. The road has had the predicted positive impact in increasing agricultural production and diversifying the economy, though the extent of these developments is still rather limited. To a larger extent, the WHR has succeeded at reducing interregional disparities in income.

The greatest impact has been in the Hills, particularly the densely populated region around the road terminus of Dandeldhura. The greatest initial utilization, and most important impact, has been the enhanced movement of goods and

supplies into the formerly isolated Hills. This has facilitated the introduction of basic inputs needed to increase agricultural yields. An HMG Department of Agriculture economist visiting in 1982 found an impressive increase in the area planted for foodgrains and a production increase at least partly due to the use of new varieties (Thapa, 1982). A basic sufficiency of food, a new situation for the Western Hills, can be expected to support development of other cash-generating activities.

The price differential between essential goods in the two regions has dropped sharply. The profit margin for exported goods like ghee has increased as transport costs have dropped, boosting the incomes of Hill farmers. The net income redistribution effect has been to equalize or increase Hill incomes compared to the Terai, as predicted in the project paper. Employment on road building temporarily benefited hundreds of local farmers, though the completion of the road virtually wiped out portering, a traditional means of earning income. Access to government health and education services has increased to some extent, varying directly with distance from the road.



The 1980s

THE FOUR PILLARS: AID'S BLUEPRINT FOR DEVELOPMENT

In 1980, despite three decades of substantial foreign aid, and many accomplishments, 60 percent of Nepal's population was living below HMG's declared poverty level. Economic and social development were hampered by declining agricultural production, chronic underemployment, and one of the world's lowest literacy rates. Rapid population growth tended to erode what progress had been achieved. Nepal's population continued to depend on agriculture for its livelihood. Of 7.8 million workers, 93 percent were engaged in agriculture, five percent in service occupations, and only two percent in industry.

In addition to these formidable constraints, Nepal's potential for accelerated economic development was further hampered by continuing deficiencies in basic education and health services, the low status of women and their limited role in development activities, a small private sector constrained by restrictive policies and limited investment potential, and a limited capacity to mobilize and utilize resources.

Economic Trends

During the 1980s, development activities relied increasingly on attempts to improve economic performance through policy reform. The donor-led move to macroeconomic reform emphasized the need for accelerated economic growth to achieve national development, and sought to improve the government's institutional capacity, at the district and village levels as well as centrally. Nepal's economic crisis in 1985 opened the door for dramatic reforms, and led HMG to begin to seriously address the challenge of achieving economic stability and self-reliance.

The Sixth Plan (1980-85) expressed HMG's continued commitment to fulfill basic needs, paralleling AID's *New Directions* mandate to reach the rural poor. It continued earlier attempts to improve access of the rural poor to the benefits of development, and emphasized increasing overall productivity, especially in the Hills. Special emphasis was given to programs that generated employment, had the support of rural people in local development projects, and encouraged the private sector. While the Sixth Plan aimed at creating conditions favorable to long-term sustained growth, it was not until the Seventh Plan (1985-90) that HMG undertook the necessary structural reforms to attain such growth.

The Basic Needs Program adopted in December 1985 mandated the achievement of "major improvements in the quality of life" by the year 2000. Specifically, it set standards for food, firewood, drinking water, basic health

services and sanitation, primary and adult education, transportation, and communication facilities. The Basic Needs Program focused on regionalizing development, admitting that the development process could not be run only from the Kathmandu Valley. The government aimed to transform the overly centralized development process into bottom-up planning and implementation at the district and village levels. HMG hoped decentralization would increase Nepal's absorptive capacity to effectively use domestic and external resources and reduce government deficits.

Political Unrest

Destabilizing political and economic events frequently impeded development progress in the 1980s. In 1980, as a result of student-led popular unrest for political reform, King Birendra conceded to a referendum to decide whether to continue with the Panchayat system with suitable reforms, or opt for a multi-party parliamentary system. The Panchayat system won by a slim margin.

In the mid-1980s, political unrest culminated in the *Satyagraha* (nonviolent civil disobedience movement) in 1985, launched by the Nepali Congress Party to restore the multi-party system of government, and to press for other reforms. The movement was voluntarily suspended after a series of violent incidents instigated by radical political elements.

At the end of the decade, a trade and transit dispute with India created economic hardships and temporarily slowed development efforts. This event preceded renewed agitation for a multi-party system of government. Repeated instability slowed development, but also highlighted the need for change, leading to the democracy movement of 1990 and the subsequent transition to a multi-party system.

AID's Blueprint for Development

In contrast to the *New Directions* emphasis on meeting the basic needs of the poor majority through small-scale technical assistance projects, AID's global strategy in the 1980s focused on policy dialogue to achieve its development objectives. In 1982, the Reagan Administration introduced the Four Pillars legislation, outlining AID's major policy objectives:

- policy dialogue with the host country to identify policy constraints and practical improvements;
- institutional development to encourage decentralization of institutions and reliance on private and voluntary, rather than public, institutions;
- technology transfer, such as seeking breakthroughs in biomedical research, agriculture, and family planning;

- greater use of the private sector in solving development problems.

By 1985, AID had articulated its policy objectives in a strategic, long-term plan entitled “Blueprint for Development.” Economic growth, especially through developing the potential of the private sector, became the means to achieve development as outlined by the *New Directions* legislation. The two initiatives thus combined to shape USAID’s program in the 1980s, and beyond.

WOMEN IN DEVELOPMENT

The 1973 Percy Amendment to the Foreign Assistance Act required that the U.S. bilateral assistance program:

...be administered so as to give particular attention to those programs, projects and activities which tend to integrate women into the national economies of foreign countries thus improving their status and assisting the total development effort.

As the major contributors to family farm enterprises and the primary users of forest resources, women play a particularly important role in Nepali development. The significance of their contributions was revealed by a landmark five-year research program, the *Status of Women in Nepal*. Begun in 1977, the study was funded by USAID and administered through Tribhuvan University’s Center for Economic Development and Administration (CEDPA). The first of its kind, it greatly expanded understanding of rural women’s multiple and significant roles.

The survey collected information on the status and roles of women in eight different ethnic groups, producing a statistical profile of Nepalese women and a series of socioeconomic case studies. The goal was to provide an informational base from which planners could facilitate the integration of women into the development process.

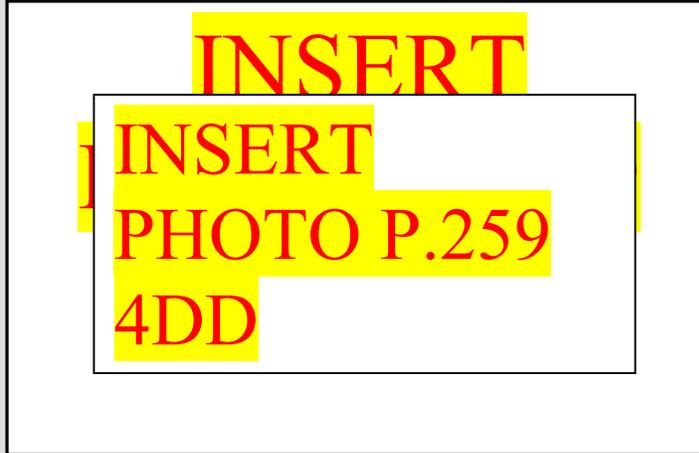
The study found Nepali women make extensive contributions to rural domestic economies. Women are primarily responsible for farming, both in terms of their labor contribution (nearly double that of men) and decisions. In 42 percent of cases they make agricultural decisions on their own; in another 12 percent they participate in joint decision-making. As the primary procurers of firewood, fodder and water, they play an important role in the use – and misuse – of natural resources.

However, social custom currently restricts women’s interaction with the outside world. Women tend to relate to development efforts through the mediation of men. Traditional patterns of information flow thus fail to capture the energy of the people who perform over half the labor and make many of the important decisions on family farms. Closer involvement of women is vital to the success of development projects, and requires special efforts on the part of program planners and implementors.

The Status of Women in Nepal developed ten recommendations, used as guidelines in project development by USAID and by donors in general. They include:

- women should be targeted in each development sector,
- female access to productive resources and employment should be increased,
- increased attention should be paid to women's legal rights and adult education, and
- improved technology should be developed and disseminated to ease women's tasks.

Most importantly, the study recommended that planners fully recognize women's economic contributions and include them in development efforts.



USAID assistance to institutional development has helped create employment opportunities for Nepali women.

Beginning in the early 1980s, major USAID projects developed specific strategies to increase female participation. The Applied Technologies Unit of the Rapti Development Project introduced new technologies like bio-gas for cooking, and seed storage bins which directly impacted the performance of women's tasks. In 1984, the project started supporting a Women in Development Officer (WDO) in each district. WDOs were charged with coordinating a broad range of activities designed to increase female participation in development. In 1986, the project was redesigned to broaden its activities, actively involving women in all of them.

The Resource Conservation and Utilization Project had a high degree of orientation towards Women in Development (WID) issues – necessary in view of

women's close involvement with resource use. Natural resource projects must reach women to successfully inject new information and concepts into communities. While RCUP's original project design acknowledged the multiple needs and roles of women, strategies to ensure inclusion of women in project efforts did not begin until two years into the project. And while RCUP personnel became increasingly aware of women's importance in resource management, many retained a limited awareness of women's varied roles, perceiving only traditional roles (kitchen gardener, cook) or highly visible non-traditional ones (students and staff members at the Institute of Forestry). As a result, the project's WID components tended to focus only on women's domestic role while overlooking their general economic significance, reducing the potential impact of efforts.

Early efforts to incorporate women into development tended to be either overly vague or too specific. USAID's position on WID issues has gradually evolved to emphasize that integrated, gender-sensitive projects better serve the needs of women (and overall development) than separate strategies or projects that tend to keep women isolated from the mainstream. Projects now seek to incorporate WID concerns as an integral part of general programming – paralleling the integral role women play both in daily life and in development in Nepal.

Including women in overall project designs has generally proved easier than identifying and implementing specific, successful methods. USAID's 1980s portfolio included several activities involving women. One was the Vegetable, Fruit and Cash Crops (VFC) component of the Rapti Development Project which, in several communities, successfully assisted women in commercial horticulture. Another was the Child Survival / Family Planning Services Project, with its theme of "Services By and For Women" and its support of the Female Community Health Volunteer program.

A precondition of USAID support for the Institute of Agriculture and Animal Sciences and the Institute of Forestry requires ten percent of student slots be reserved for women. As a result, female enrollment at the IAAS increased from three students in 1983, to 30 in 1988. Such efforts are one way of ensuring women will play a larger role in Nepal's future development. A familiar trend is found in the Development Training Project, which met the target established in 1985 of 20 percent female trainees. Targets were raised to 35 percent in 1990.

In education, the Literacy Program Expansion Project, which operated through World Education Inc., exceeded its target of 50 percent involvement of females. About 70 percent of its trainees (totaling about 20,000 in 1990) were female. Though not a specific WID program, literacy education has proven to be extremely attractive to women, who know first-hand the disadvantages of illiteracy. Nepal has an extremely low, but increasing, female literacy rate. Increasing female literacy still further is a basic step towards raising women's social status, helping to actualize their immense potential contribution to development.

Application of AID's Strategy in Nepal

According to USAID's 1984 Country Development Strategy Statement, USAID's projects aimed to:

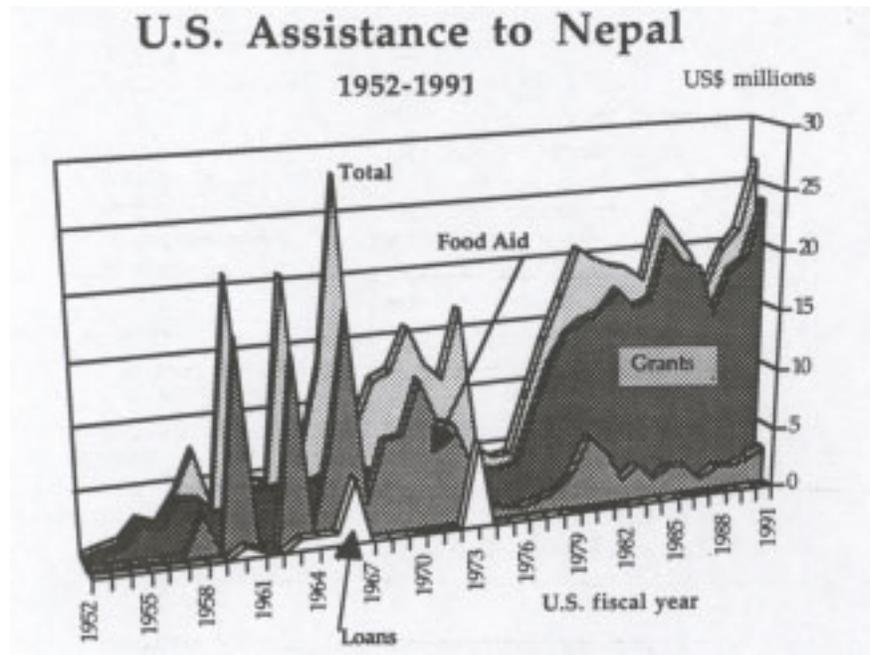
increase the capacity of national delivery systems, emphasize Nepalese leadership with USAID playing a supporting role, keep development costs down and development techniques simple, pay careful attention to the role of women in development, and collaborate with other donors and Nepalese institutions to ensure effective use of limited development resources.

Through policy dialogue, USAID sought to encourage economic growth by promoting macroeconomic policy reform and the inclusion of the private sector in development. USAID's program aimed at accelerating development of HMG's institutional capacity to plan, evaluate, and administer development programs and to improve national service delivery systems. Institutional development, including training, was considered basic to USAID project and program successes. It was assumed that the benefits, of improved administration and economic performance at the central level would improve the ability of rural communities to participate in national development.

In line with the *New Directions* objectives, USAID continued to advocate decentralization. Project assistance in the early 1980s focused primarily on the Hills and was intended to support HMG's stated goal of equitably distributing development benefits. USAID's program at the local level was designed to assist the government to meet basic needs, and to help deal with selected rural development priorities such as raising *per capita* food production, improving health and nutrition, controlling population growth and environmental degradation, accelerating manpower skills and training, and creating alternative rural employment opportunities. USAID's program concentrated on agriculture, rural development, and natural resource management (60 percent of funding) and health and family planning (up to 30 percent). The remainder went for education and participant training.

Though policy dialogue aimed at a national impact, USAID's program assumed a pronounced regional emphasis, with large integrated development projects. Through these, USAID sought to work directly with local groups to assure participation and access of the poor to development benefits. Developing local capacity to plan and manage efforts was critical for achieving growth in Nepal's many isolated districts. Rural development was viewed as the best means

of linking villages with national delivery systems, and the most effective means of decentralizing the development process.



Administration of USAID's Program

Throughout the decade, USAID streamlined its program, reducing the number of projects to focus on key problems. Between 1980 and 1982, USAID projects dropped from a total of 17 to 11. Project coordination was emphasized so that each reinforced the objectives of the others.

To ease the impact of personnel reductions, USAID relied increasingly on institutional contractors to implement programs, especially the complex new integrated projects. It also relied on Peace Corps Volunteers (by the end of the decade, 38 PCVs were involved in USAID projects) and national and international private voluntary organizations well-positioned to carry out rural

development programs. Increased attention was paid to donor coordination and the potential of Nepal's private sector.

Program Support

USAID's program included technical assistance, training, and commodity assistance, with significant local cost support for projects to cover local capital and recurrent costs of specific HMG activities. USAID focused on fewer but larger projects with a systems focus because of the need to address linked problems. In addition, there was a shift from single to multi-year or "life-of-project" financing, reflecting USAID's emphasis on longer term development strategies. Project design emphasized collaboration with various HMG ministries in an attempt to improve dialogue with the government on policy issues and project management.

To augment its bilateral contributions to Nepal's development, the U.S. provided indirect assistance through such multilateral agencies as the World Bank, ADB, UNDP, UNICEF, UNPPA, WFP, WHO, and UNCDF. The multilateral banks concentrated on infrastructure development projects far larger than the U.S. was able to support alone. Substantial contributions to multilateral agencies, coupled with USAID's prominent role in donor coordination, allowed the U.S. to influence the course and direction of Nepal's development, and to increase the scope of its influence in the policy arena.

Policy Dialogue and Reform

Nepal's Economic Crisis and Structural Reform

Nepal's mid-decade economic crisis resulted from a complex mix of long-term factors: increasing demands on limited foreign exchange earnings caused by declining exports and increasing imports, increasing domestic demands, an over reliance on inefficient state-owned enterprises, and an increasing debt service burden. Continuous increases in public expenditures, coupled with declining revenue surpluses, resulted in shortages of foreign exchange and a drying up of domestic borrowing capacity.

Nepal's revenue base has never been able to cover regular and development expenses, and increased investments in social services during the Sixth and Seventh Plan periods placed an additional burden limited resources. The inability to adequately mobilize domestic resources was partly the fault of an overly centralized administration, unable and unwilling to enforce necessary land and tax reforms. Other factors contributing to inadequate resource mobilization include government restrictions on private enterprise, and an overwhelming dependence

on Indian economic and trade policies. Government, frustrated at the lack of development, decided to try to accelerate development through large increases in spending. This failed to work and led to large deficits and increasing debt service problems.

Massive structural reforms were required to stabilize the situation in the short term, and to improve economic practices for the long term. The International Monetary Fund intervened with a stand-by arrangement to stabilize the economy in 1985; shortly after, the World Bank introduced a longer term Structural Adjustment Program (SAP).

The Structural Adjustment Program was intended to “accelerate sustained economic growth by reorienting the economy towards a path relying more on the private sector, and on improved allocation of public and financial resources.” The program was concentrated in five sectors: macroeconomic management, agriculture and forestry, industry and trade, public sector enterprises, and development administration.

The macroeconomic policy reform measures called for under the SAP were to increase real GDP growth by reducing government borrowing and deficits, restructuring public enterprises, and maintaining international reserves at an adequate level. These were whole-heartedly supported by USAID. HMG committed itself to improving monetary management, strengthening tax administration and divesting some public enterprises. The government also undertook to better maintain completed development projects and use public investments more efficiently. Under the program, Nepal’s trade was liberalized somewhat, and increased land taxes raised revenue levels.

In addition to implementing overdue economic policy reform measures, the SAP was seen as a step towards fulfilling Nepal’s “Basic Needs” objectives, as the Basic Needs Program emphasized the need for production increases, principally by revitalizing agriculture and private sector participation.

USAID’s Policy Dialogue

USAID’s policy dialogue in Nepal has traditionally emphasized coordinating planning and management of development activities with HMG. Increased attention to policy dialogue in the 1980s was partly due to the Four Pillars legislation, but also in response to Nepal’s precarious economic situation and the need to improve domestic resource mobilization and utilization.

At the beginning of the 1980s, USAID-HMG policy dialogue focused on natural resource conservation, a comprehensive population strategy, and continued decentralization of HMG development administration. As donor consensus on the need for economic reforms grew, USAID’s policy focus shifted

to encouraging appropriate macroeconomic reform to achieve broad based economic growth. In concurrence with the guidelines of the IMF and World Bank Structural Adjustment Program, policy dialogue pursued greater domestic resource mobilization (especially from agriculture), improving operation and maintenance of ongoing development projects rather than beginning new ones, reducing the number and increasing the efficiency of public corporations, and achieving policy reforms in agriculture price policy. In particular, USAID's strategy emphasized the private sector's important role in economic development.

USAID's extensive experience in Nepal's agriculture sector, particularly its advocacy of agriculture price reform, was instrumental in developing the agriculture reform guideline outlined in the SAP. The SAP in turn increased USAID leverage in pursuing specific reforms in fertilizer and seed policy, agriculture pricing and marketing, and related private enterprise incentives. USAID also assisted government in developing population and natural resource conservation strategies in support of the SAP.

Support for Decentralization

USAID focused primarily on strengthening the capacities of local governments and communities to plan and implement development activities. Decentralized development administration was encouraged through its regionally-based integrated rural development projects, and through assistance to HMG and PVOs (private voluntary organizations). USAID sought to improve HMG administration by incorporating monitoring and evaluation components in its projects, and reinforcing these with in-country training.

Only limited progress was made in decentralizing development administration in the 1980s. The highly centralized HMG administration allowed little productive interaction between the center and rural areas, and development models provided by foreign donors have reinforced this top-down structure by emphasizing central planning. A lack of genuine commitment to decentralizing fiscal and administrative responsibilities, combined with a persistent shortage of skilled manpower, continued to thwart decentralization.

Donor Coordination and Contributions

Though donors increasingly emphasized the need for economic self reliance, a steady flow of foreign aid made it difficult for Nepal to break away from its traditional dependency on outside assistance for development. By the 1980s, roughly 40 bilateral donors and non-governmental organizations and at least 12 multilateral agencies were extending aid to Nepal, most requiring counterpart contributions for projects. The growing role of multilateral agencies was reflected

in figures for 1979, which showed that for the first time, soft multilateral loans accounted for a greater share of external assistance than grants.

The increase in donors creates an increased need for coordinated development efforts. The World Bank-led Nepal Aid Group, formed in 1976, (in which all major donors except India and China participate) was intended to provide a forum for coordinating development activities.

Discussions of the Nepal Aid Group led to a general consensus. Donors believed that economic self-reliance depended on increased domestic resource mobilization, particularly in agriculture, reducing the number of public corporations and increasing the efficiency of remaining ones, emphasizing operations and maintenance of development projects rather than developing new ones, and developing a coherent population strategy to combat Nepal's rapid population growth. These views mirrored AID's, reflecting the globalization of economic assistance strategies.

In addition to the Nepal Aid Group meetings, USAID and a small group of donors worked to formalize development coordination through thrice-yearly meetings between HMG and donors, with bimonthly "donor only" meetings, and with periodic sectoral meetings.

HUMAN RESOURCE DEVELOPMENT

In the early 1980s, the world Bank called Nepal's poor public administration capabilities the "most crucial deterrent to economic growth". USAID's training program aimed at improving these skills, both in the public and private sectors, to reinforce Nepal's absorptive capacity in all development sectors.

While individual project components continued to support technical training to meet specific needs, the Development Training Project (DTP) initiated in 1985 was designed to increase the overall effectiveness of HMG's administration of its development programs. The project is designed to respond to both public and private sector training needs (particularly short-term technical training) in areas not covered by USAID's current projects. It runs through 1994.

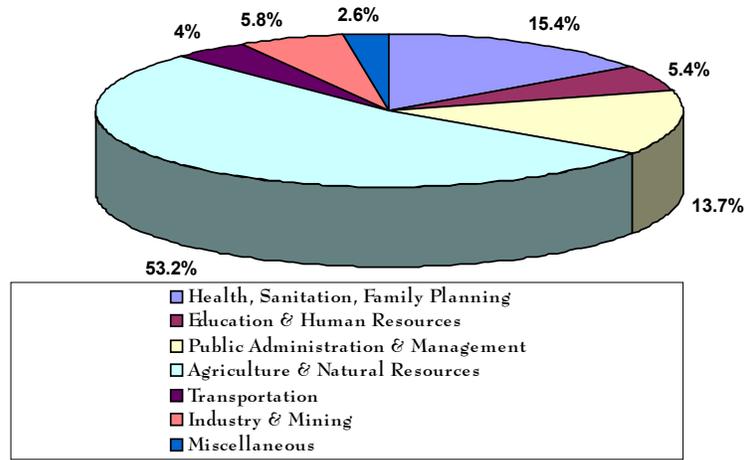
A follow-on to the Manpower Development Project (1973-1980), the DTP was a collaborative effort between USAID and the Ministry of Finance's Foreign Aid Coordination Division, which oversees overseas training. By the end of the 1980s, the project's participant training component had sponsored

426 Nepalese to study in the U.S., India, and third countries. Most were trained in project analysis, planning, implementation, management, and monitoring, while others pursue degrees in subjects related to agriculture, health, and engineering. Returned participants report they are applying their new skills in their jobs, often by seeking opportunities to improve working procedures.

The in-country training component supports local private voluntary organizations in conducting management training programs on a pilot basis. USAID has provided grants to the Business and Professional Women's Club for secretarial training to promote employment for women, and to the Management Association of Nepal for private sector training. A 1988 evaluation of the project noted that though both organizations successfully conducted training programs, they needed to institutionalize their training capacities and reduce reliance on USAID for recurrent expenses.

In previous decades, training concentrated on the public sector to strengthen and reform government administration. In response to AID's mandate to promote private sector and women's involvement in development, the DTP reserves 25 percent of training positions for the private sector, and 35 percent for women.

Participant Training 1980 – 1990



Private Sector Initiatives

The biggest constraint to private sector development in Nepal has traditionally been political. Faced with increasing pressure to achieve developmental progress, and influenced by USAID’s belief that reducing the government’s role in the economy and increasing the role of private enterprise is vital for self-sustained economic growth, the Government of Nepal in the mid-1980s began to consider increasing participation of the private sector in development.

USAID’s early efforts at encouraging private sector growth were discouraged by a predominantly public sector economy, and limited to assistance to the Nepal Industrial Development Corporation and two industrial districts. In the 1980s, responding to AID policy and HMG’s professed commitment to developing the private sector, USAID mounted a concerted effort at promoting private sector economic involvement. USAID attempted to implement this policy within the framework of traditional development sectors, by involving private enterprises in producing and distributing technological innovations, and expanding their role in extension services.

Efforts included assisting the establishment of the Nepal Contraceptive Retail Sales Company for the private sector sale of contraceptives; providing advisory services to the Nepal Securities Exchange Center to improve performance in capital markets; examining the potential for private sector involvement in forest management and commercial exploitation of forest resources; providing training for the private sector; and providing assistance to indigenous and international private voluntary organizations involved in development projects in Nepal's rural areas. Agriculture and rural development projects made efforts to establish private seed and fertilizer dealers as well as promote smaller scale agribusinesses.

USAID has acted as a catalyst to promote national economic growth through private sector development by encouraging a reduction of the direct role of government in the economy, and by advocating policy reform to enhance resource mobilization. As the climate for policy dialogue and economic reforms improved in the late 1980s, the prospects for an enhanced private sector role in Nepal's economy grew, and USAID increased its efforts in this direction. The World Bank's Structural Adjustment Program provided renewed strength to USAID's private sector initiatives.

Private Voluntary Organizations in Nepal's Development

In the mid-1980s, USAID began advocating support to private voluntary organizations (PVOs) to further enhance the private sector's growth-promoting role in Nepal's economy. Until recently, few PVOs operated in Nepal because the government did not consider them as a potential development resource. Recent experience has demonstrated that PVOs are often better suited than donor agencies and government institutions to provide a cost effective means of delivering assistance. Channeling assistance through PVOs has enabled USAID to sponsor activities that would not otherwise have been possible. Among Nepal's donors, USAID has been the leading advocate of PVOs as a development resource.

In 1981, USAID initiated the Private Voluntary Organizations Co-Financing Project, which co-funded projects administered, by three U.S. PVOs (World Education Inc., Save the Children Federation, and Winrock International Institute for Agricultural Development), and one local PVO (the Nepal Red Cross Society). Project activities successfully promoted better health, education, and agriculture and natural resource management practices in targeted communities, and helped develop local capacities to plan and implement community-based development programs.

A follow-on project, PVO Co-Financing II, was begun in 1987 to assist an increased number of U.S., international and local PVOs working in Nepal. By the

end of the 1990s, phase II of the \$10 million project was supporting the activities of twelve PVOs in agriculture and rural development, natural resource management and conservation, health and family planning, and education and literacy.

In line with USAID’s traditional focus on strengthening Nepal’s institutional capacity, a sub-objective in Phase II of the project aimed at strengthening indigenous PVOs’ capacity to design, implement and evaluate community-based development efforts. USAID believes indigenous PVOs are uniquely situated to channel private contributions into social service projects, and sees them as an important potential source of self sustaining development activities.

U.S. Assistance to PVO Activities in Nepal 1981-1990

A. U.S. PVOs Funded by USAID

Center for Development and Population Activities (CEDPA)	to assist in developing a strong core of NGO managers, particularly women, who will be able to effectively provide health, family planning, and women in development education and services in their communities
Cooperative for American Relief Everywhere (CARE/Nepal)	to promote community-based natural resource management, and to assist the Agriculture Development Bank/Nepal to institutionalize a Small Farmers Community Irrigation Program in the Rapti Zone
National Cooperative Business Association (NCBA)	to support private enterprise development in the Rapti Zone by helping to build local capacities for self-sustaining economic development based on the use of local resources
Private Agencies Collaborating Together (PACT)	to strengthen the role and capacity of the Social Service National Coordination Council (SSNCC) and its related units in their coordination, facilitation, technical services delivery, and resource transfer tasks on behalf of at least 50 Nepalese PVOs
Save the Children Federation (SCF) U.S.A.	to expand community-based integrated rural development activities in the Goraha District
The Asia Foundation (TAF)	to support the expansion and diversification of training activities of the Women’s Legal Services Project, including in-service and pre-service legal education to

The Asia Foundation (TAF) <i>continued</i>	practicing lawyers, women law students, women development officers, and in developing their ability to assist village women seeking legal counsel
Winrock International Institute for Agricultural Development	to improve the social science policy analysis capability of government and non-government institutions working in agriculture and natural resources management in Nepal, and to design and conduct policy-oriented analysis on key issues in agriculture and natural resource management
Woodlands Mountain Institute (WMI)	to conduct studies and suggest ways to preserve targeted ecosystems in an environmentally viable and economically feasible way
World Education Inc. (WEI)	to increase the number of people served by the National Literacy Program and to improve the efficiency and effectiveness of the program
World Wildlife Fund (WWF)	to provide training and supervision to core staff of the Annapurna Conservation Area Project in techniques of protected area management, financial control, and program administration; and to create a permanent international conservation, training and research institute primarily focused on Chitwan National Park

B. Centrally Funded U.S. PVOs

Freedom From Hunger Foundation (FFHF)	to support community development and applied nutrition activities
Helen Keller International (HKI)	to support community-based rehabilitation and non-formal education for blind and low-vision children and adults
International Union for Conservation of Nature (IUCN)	to develop and implement a national conservation strategy promoting scientifically-based activities encouraging sustainable use of natural resources

C. USAID-Funded Nepali PVOs

Business and Professional Women's Club (BPWC)	to provide secretarial science and office management training to Nepalese women
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Center for Women and Development (CWD)	to establish a library on women in development and bridge the knowledge gap regarding the status of women and their contributions to economic development
Family Planning Association of Nepal (FPAN)	to establish a repair and maintenance service system for family planning equipment for HMG family planning program
Nepal Fertility Care Center (NFCC)	to continue the Family Planning Association of Nepal efforts to establish a repair and maintenance system for family planning equipment
Mrigendra Medical Trust (MMT)	to reduce mortality from acute respiratory infections in Jumla District
Legal and Environmental Analysis for Development and Research Services (LEADERS)	to conduct public opinion surveys and carry out other activities in support of the development of Nepal's constitution
Nepal Law Society (NLS)	to carry out in-depth research and discussion on key individual rights under the Nepalese legal system
Nepal Pediatric Society (NEPAS)	to increase the use of Oral Rehydration Therapy (ORT) in Nepal and to sponsor research related to ORT and infectious diarrheal diseases
Nepal Red Cross Society (NRCS)	to reduce maternal and child deaths in Jumla and Dang districts
Nepal Women's Association (NWA)	to provide assistance to the children of those disabled or killed in the 1990 democracy movement
Nepal Women's Organization & Women's Legal Services Project	to educate rural women on basic legal rights, thereby building a cadre of trained resource people at the village level able to help themselves and others in protecting and advancing their rights
Service Extension and Action Research for Communities in the Hills (SEARCH)	to support voter education activities in the Mid-Western development region

(information compiled by Usaid/Nepal's Program Office)



AGRICULTURAL DEVELOPMENT

The Early 1980s

In the first half of the decade, USAID continued to lead efforts to assist HMG in developing an effective agricultural research and extension system and in strengthening the Institute of Agriculture, and Animal Sciences. The Integrated Cereals Project was supplemented in 1980 by Seed Production and Input Storage Project (SPIS). These efforts to strengthen the national research, extension, and seed input systems were linked to the agricultural components of USAID's two largest projects, the Resource Conservation and Utilization Project (RCUP) and the Rapti Rural Area Development Project (RAD), area-specific projects started in 1980.

The Integrated Cereals Project: Taking Technology to Farmers

Originally planned as a five-year project ending in 1981, the ICP was extended until 1984, bringing USAID funding to \$10 million and HMG funding to \$3.6 million. The project extension was granted to allow testing of newly developed production technology and dissemination methods in the Rapti and RCUP project areas. Three additional years also allowed time to complete research station construction and participant training.

Project inputs included support for an International Agriculture Development Service team of seven expatriate specialists and a large Nepali support team; in-country and participant training (29 M.S. and four Ph.D. degrees); short-term training at the IARC's; construction of staff housing, laboratories, office buildings, and seed processing plants at each commodity research center; upgrading of station research facilities; and vehicles and other equipment.

By 1980, the ICP had successfully strengthened multi-disciplinary commodity teams for rice, wheat, and maize, and established six cropping systems sites for on-farm research. Here, ICP staff tested improved cropping systems involving new varieties, new crops, and improved agronomic practices. The most promising technologies relied on short-duration, high-yielding cereal varieties that permitted more output per hectare during the year. Non-cereal crops were often found to fit into these cropping patterns.

During the project, the rice program released 10 improved varieties; seven for the Terai and, three for the Hills. These had varying adaptive features in terms of maturity range, disease resistance, and water requirements. The maize program released three varieties including Arun 2, an early maturing variety useful for Hill and Terai multiple cropping patterns. The wheat program released six new

varieties with increased resistance to leaf rust. The project also began working with soybeans and other legumes in testing new cropping patterns.

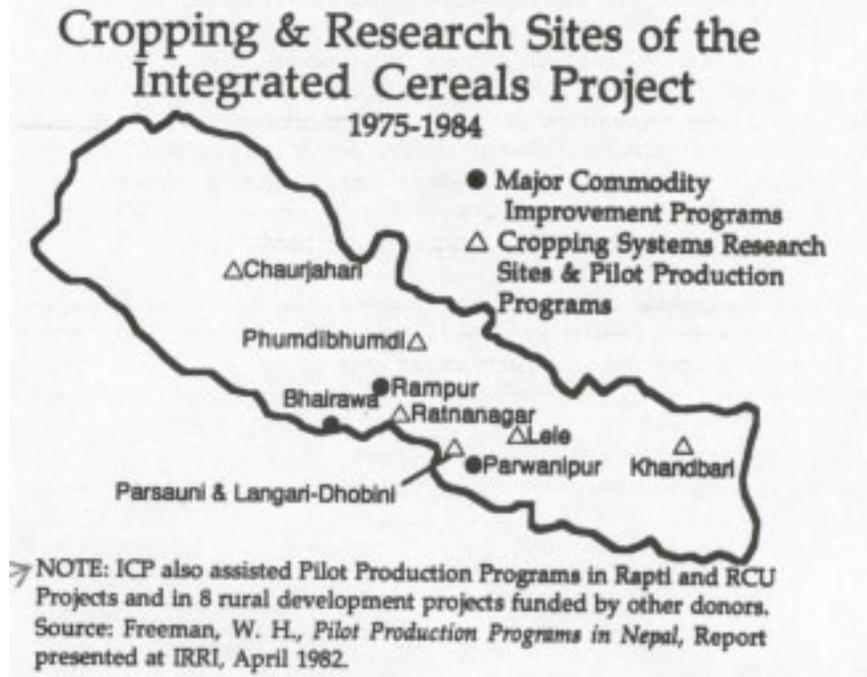


The Integrated Cereal Project assisted in setting-up seed cleaners such as this one at Rampur

After an initial concentration on developing innovative on-farm research methods, the project began to test non-traditional extension methods to transfer new technologies. At first ICP staff used the Pre-Production Verification Trial (PPVT) package, which included seeds, chemical inputs, and guidelines for improved cropping patterns to be replicated in on-farm trials in various agricultural development projects and government extension sites. Next, the ICP introduced minikits (30,000 annually), which functioned as a small-scale dissemination device for improved varieties.

In 1980, new methods were used to promote wide-scale adoption of proven technologies. The project began with small pilot production programs on scattered farmers' plots around the cropping system research sites. In 1981, the ICP decided to conduct production programs on three- to five-hectare blocks of contiguous fields. This approach had a number of advantages: a definite demonstration effect; easier farmer training, supply of inputs, irrigation management, and access to extension staff; simplified organization of farmers for ADB / N credit; the ability to use a contiguous block for local seed multiplication; and easier assessment of economic benefits. In Hill areas lacking sufficiently

large areas of contiguous fields, the small pocket production program was used as an alternative. These technology transfer and production programs were tested by the ICP in the Terai, in RCUP and Rapti Project areas, and in other donor project areas. The ICP's improved cropping patterns and innovative extension approaches were incorporated into the World Bank-supported extension program in the Terai.



The ICP's Impact

It is difficult to assess the ICP's impact on country-wide production, as cereal production dropped during the project period because of weak monsoons and decreased fertility of maize-growing regions. However, the area planted with improved varieties expanded, with improved rice area doubling to 36 percent, maize tripling to 38 percent, and wheat doubling to 92 percent. Farmers recognized the benefits of improved varieties even through they frequently could not meet input requirements. Project-sponsored surveys found that farmers in

ICP block production programs achieved significantly increased production and income.

Although the ICP was considered a resounding success, giving a definite boost to Nepal's cereal research and extension efforts, there are lessons to be learned from it. First, despite its intended Hills orientation, most of the project's successes were in the Terai. The problem of low productivity in Hill farming systems remained unsolved because of limited access to purchased inputs, highly varied environments, and extremely complex farming systems.

Second, successful block production programs required a high degree of technical, assistance and logistical support, with heavy reliance on inputs imported into the production areas by the project. This high level of advance planning and logistical support proved unsustainable by counterpart agencies after the project's end. (Contacts between extension staff and farmers also dropped dramatically). Timely credit from the ADB/N was another input not always manageable without ICP facilitation. And as the ARPP Terminal Report (1990) pointed out, "In Nepal, rationing exists for fertilizer, seeds, water and credit, so targeting inputs to specific geographically defined areas implies that fewer resources are available for farms that lie outside these blocks." The ICP demonstrated how a good research and extension system could operate, given concentrated efforts and a good support system. But as the effort could not be completely sustained outside the project framework, its applicability was limited.

The ICP experience highlighted system changes necessary to boost Nepal's agricultural production. Specifically, long term institutional reforms were needed to improve management and performance in Nepal's agricultural research system. Evidence of this need included the Department of Agriculture's (DOA) failure to institutionalize the ICP-developed Cropping Systems Program and the Socio-economics Program; underutilization of highly trained manpower; staffing instability due to temporary staff positions and poor promotion opportunities, salaries and allowances for research scientists; and inflexibility in transferring funds to adjust to research priorities.

Another set of problems (which ICP temporarily solved in its production programs, only at high cost) was severely restricted inputs to farmers, particularly improved seeds and fertilizer. The Agriculture Inputs Corporation controlled these input supplies, but experienced management problems in balancing supply and demand. Subsidized fertilizer often "leaked" across the Indian border, creating shortages, particularly in the Hills. In addition, the cooperatives did not effectively manage distribution. Another input problem was the unreliable supply of irrigation water: most irrigation depended on large-scale public agencies which

suffered from management problems. USAID would begin to address many of these problems in the latter half of the 1980s.

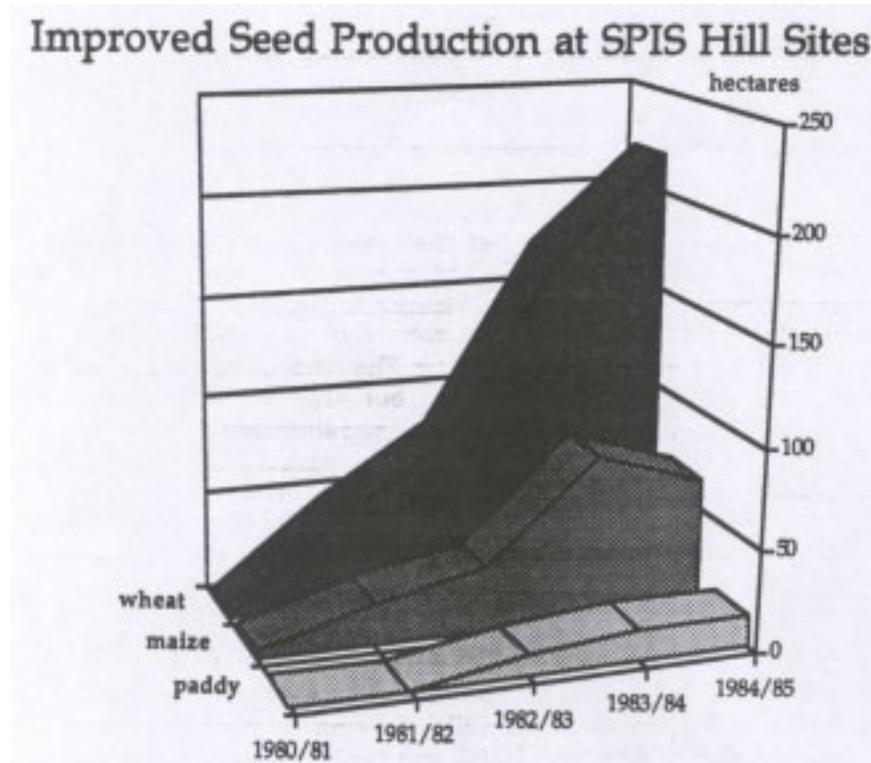
Improving Seed Production and Input Storage

A sister project to the ICP was the Seed Production and Input Storage Project (SPIS) initiated in 1980. This \$5.5 million project received \$4 million in USAID funds, \$1.4 million from HMG, and the remainder from the Peace Corps. It was implemented by two expatriate supervisors and an AIC-DOA implementation team, including JT/JTA site coordinators and PCV field assistants.

The project addressed Hill farmers' limited access to improved seed, resulting from the AIC's inadequate supplies and inability to distribute on time. Other problems were poor seed quality caused by incorrect handling, and a reliance on Terai-grown seed, not adapted to hill environments. The entire distribution process was heavily subsidized by the government.

The SPIS Project worked with the AIC and DOA to create a decentralized private system based on farmer seed production, storage, and marketing in the Hills. This was to be accomplished by constructing and organizing 28 mini-seedhouses and small warehouses in the Hills, a seed processing plant in Dang, and a DOA central seed testing laboratory and genetic seed storage unit. The project also supported participant training and a useful program of in-country training for officials and farmers on seed production and handling. In addition, it provided logistic support, a contingency budget for seedhouse management, and project allowances to encourage improved performance and increased site travel. However, this last input led to staff dissatisfaction and rapid turnover when the project ended and these benefits were terminated.

Although 20 seedhouses and accompanying production sites were established under the SPIS and seed production steadily increased, implementation revealed a number of problems with the original model. The planners believed a seedhouse could be run by cooperating farmers with technical guidance and improved foundation seed input from the project. Farmers could multiply the seed, store the surplus safely in the seedhouse, and process it there. However, seedhouses were quite far from many farms, and few farmers wanted to trust their seed to someone else's management. A second model of a commercial, cooperative organization of seed producers was unsuccessful due to problems in organizing groups and competition with AIC-subsidized seed. The model eventually implemented, placed seedhouses under AIC's control, with definite operational plans and annual targets.



Source: USAID/Nepal, Seed Production and Input Storage Project. Project Assistance Completion Report, 1986

The project design failed to anticipate how the seedhouse concept could be made operational in the context of Nepal's Hills. Similarly, no one had thought out the marketing problems for Hill farmers producing large quantities of surplus seed near seedhouses. It was determined that the large-scale seedhouse model (supplying about 40 metric tons of seed) should be pared down to a smaller operation to produce and market seed within a district. The system's success also depended on a reliable supply of source seed, consisting of saleable varieties superior to existing ones. On the basis of the SPIS experience, it was recommended that a private sector, low-cost system be set up to be run by and for farmers. A basic element would be satellite seedbins on farms, eliminating the

difficulty of transporting seed within the district. The follow-on Agricultural Research and Production Project (ARPP) would work from this recommendation.

Strengthening the IAAS: Completion of Phase I

In 1981, a project amendment extended USAID support for the Institute of Agriculture and Animal Sciences to 1984, increasing funding by \$2.3 million to a total of \$5.5 million in dollar support and \$4.2 million in local currency. The project was again amended in 1983 to more clearly define the IAAS' role as a B.Sc. training institution.

A final evaluation conducted in 1983 examined 10 years of implementation by the contractor, MUCIA. The evaluation team was asked to assess whether the IAAS had developed the capability to train agricultural manpower at the B.Sc. and JT/JTA levels. Was it worth further investment, or was the development process complete?

The team concluded there had been substantial growth in the physical plant and institutional size. The faculty had increased to 70 teachers (among them 15 Ph.D.s and 50 M.Sc. holders), while enrollment had grown to 450. In contrast to earlier observations, the team found the "dean and faculty are functioning as a team and the MUCIA advisors are executing a well developed work plan." The team did comment on the isolated Rampur campus and its problems with communications, transport and housing.

On the other hand, progress was slower than expected; part of AID's investment had not been effectively used, and critical hurdles remained before the IAAS became a strong institution of higher education. The evaluation specifically emphasized the need to improve teaching and curriculum, incorporate more practical learning, prepare an adequate quantity of relevant instructional materials, and carry out more applied field research. Additional faculty housing was needed to ensure returning staff would stay, and a hostel was needed for women students. Staff were encouraged to make better use of the research and demonstration farm and to begin development of a livestock management curriculum.

This team concluded that "the magnitude of the strength of IAAS exceeded that of the weaknesses", and recommended that AID continue assistance for another five years. Guidelines for Phase II included an emphasis on organizational development with limited capital construction. There was to be continued focus on staff development in teaching, research, service, and administration. The team particularly emphasized that IAAS needed continuity and commitment from its Nepali leadership, and from expatriate advisors who should remain with the project for its duration.

The Second Half of the 1980s

USAID continued as the lead donor in agricultural research and seed production programs for the Hills. Follow-on activities from the ICP and the SPIS Project were integrated into the Agricultural Research and Production Project (ARPP). USAID also continued the institutional strengthening of the IAAS.

New program initiatives at mid-decade included a pilot irrigation management project and innovative work with user and production groups under the Rapti Project. A major development for Nepal was the introduction of a Structural Adjustment Program in 1985, in response to the government's financial crisis. Because of USAID's project experience and understanding of constraints in the agricultural sector, Mission staff were well positioned to contribute to donor / government policy discussions and to help define loan conditionality.

USAID's agriculture and rural development work in the late 1980s focused on an analytical review of problems and opportunities in developing a market-led private sector agricultural strategy. These studies and analyses facilitated design and approval of the Agro-enterprise and Technology Systems Project, which established USAID's leading role in interactive support for client-oriented agricultural research and private sector market expansion activities in the 1990s.

Evolution of the Agricultural Research & Production Project

Despite successes of the eight year ICP effort, constraints on research, extension and access to inputs continued to slow development and adoption of improved technology, particularly in complex Hill farming systems. The follow-on project was designed to address these constraints through a much broader focus than the ICP. The Agricultural Research and Production Project (ARPP) targeted three main areas: 1) multiple types of support for the research system; 2) development of a Hill Production Program; and 3) continued development of the Hill Seed Program.

ARPP came on board as Nepal's major agricultural research project in 1985, and ran through mid-1991, with Winrock International Institute for Agricultural Development as the technical assistance contractor. The project received \$10 million in USAID funding, \$3.8 million in HMG support, and Peace Corps support.

Support for NARC Research Planning and Management

One component of ARPP was designed to assist MOA efforts to reorganize scattered agricultural research programs and activities into a unified system. In 1983, the FAO, with USAID and World Bank support, had prepared a Nepal Agricultural Research Review proposing four options for reorganization. The

ARPP project paper called for, at minimum, the activation of a senior-level Research Coordination Committee (RCC) in the MOA to guide policy and direct and review research activities. The DOA also planned to establish a National Agriculture Research center at Khumaltar in the Kathmandu Valley to coordinate crop research. It was planned that ARPP would work with the DOA and the Department of Livestock Development and Animal Health to support their organizational changes.

At the project's beginning in 1985, HMG moved decisively to create an integrated and more autonomous National Agricultural Research Service Center (NARSC, now renamed the National Agricultural Research Center or NARC). Created under the DOA, it was soon moved to the Ministry of Agriculture and was made responsible for all agricultural research. Commodity research programs and disciplinary research activities were joined in NARC, and several research farms and stations placed under its jurisdiction

In view of this significant institutional change, the 1988 mid-term evaluation for ARPP recommended that "NARSC should become a focal point for ARPP activities." All technical assistance and financial support would be directed through NARC, and project emphasis would be placed on developing this organization and the RCC. The evaluation recommended redirecting a portion of remaining project resources to meet some of ARC's immediate capital needs. ARPP also focused on the management and programming needs of the new organization.

A critical report, *Agricultural Research Planning and Management* (Freeman, 1987), assisted NARC and the Research Coordinating Committee to conduct a study of personnel policy and beginning a National Research Outreach Program implemented by NARC stations. The final consultation in this series was a long-term strategic planning document (Freeman, *et al.*, 1990) on agriculture in Nepal to be used by the MOA and donors in formulating support programs to achieve medium-term sectoral goals. With ARPP's assistance, NARC was sufficiently strengthened to attract larger HMG budget allocations and increased donor funding for agricultural research.

Support for Targeted Research Programs and NARC Stations

ARPP faced a diverse set of tasks in helping develop NARC's research program. The project was to assist the DOA in establishing a Farming Systems Research and Development Division (FSRDD, an expansion of the Cropping Systems Program to include other crops, livestock, horticulture, and agro-forestry) and a Socio-Economic Research and Extension Division (SERED, also derived from the Integrated Cereals Project). ARPP was to establish a National Pulse

Development Program and a Hill Crops Program, support research on bio-fertilizers, help NARC maintain close linkages with International Agricultural Research Centers (IARCs), and fund independent research projects in farming systems production. It was also supposed to help improve the operation of 17 research farms and stations by preparing Farm Operational and Development Plans and developing the farming systems program.

FSRDD (now FSORD) and SERED were only partially institutionalized, as few permanent posts were allocated to these divisions. Staff from other divisions were not always willing to be seconded, and officers and trained JTs / JTAs often left for permanent posts. Staff morale and incentives to work in the field suffered because ARPP, unlike the ICP, was not allowed to pay salaries and travel allowances above the low rates set by HMG. The new farming systems sites were institutionally isolated and not tied to any farms or stations. Meanwhile, the concept of farming systems research had lost credence worldwide due to implementation problems and lack of useful results. This frustrating experience led to the recognition of the need for a station-based Research Outreach Program incorporating some elements of the cropping and farming systems approaches, and supported by a permanent staff.

ARPP and the International Development Research Center (IDRC) were able to help NARC establish a National Hill Crops Improvement Program with an effective domestic varietal testing network in key Hill stations and farms. AARP also joined with ICRISAT and IDRC to support the establishment of the Grain Legume Improvement Program (GLIP) at Rampur.

ARPP played a key role in supporting linkages between ARC and IARCs and other international programs. The genetic resource contacts were particularly important to the new Hill Crop Improvement Program and GLIP, but also contributed to the cereal programs. Because the Soil Science Division is more involved with research on chemical fertilizers supported by FAO, ARPP provided limited support to the Bio-fertilizer Program, promoting the use of *Sesbania* as a green manure crop and conducting workshops to exchange information.

Another weak research area supported by ARPP was Livestock Research and Production. A major effort was made to develop the NARC Animal Nutrition Laboratory at Khumaltar. While the attempt to organize a livestock outreach effort failed, ARPP did get a strong response from a livestock production program which included establishment of four district forage resource centers. Fodder grass and tree production rapidly expanded in these areas, resulting in increased milk supplies. The agroforestry initiative was less successful because there was no institutional "home" for this effort under NARC.

ARPP inventoried NARC research farms and stations and began preparing operational and long-term development plans for priority stations. It also helped NARC prepare a long-term Operation Plan for the National Research Outreach Program. Another achievement was ARPP's assistance in bringing ODA-supported Hill research stations into the NARC network, and encouraging their participation in research outreach activities in surrounding Hill districts. These stations were essential in getting the Hill Crops Improvement Program off to a good start.

Hill Production Program

ARPP was originally charged with conducting a production program in four Western Hill districts, to test improved technologies around farming systems sites and other locations, and determine the best extension approach for the Hills. This goal was later dropped, due to problems unanticipated by the ARPP design team:

...it became apparent that a) there was little improved technology of crop materials that had reached the ARPP districts and thus there was no basis to launch large-scale block production programs, b) AIC would not be able to deliver increased quantities of fertilizer ...and c) it would be difficult to test new extension methodologies without having identified available technologies to extend.

—ARPP Terminal Report, 1990

Aside from problems like small scattered pockets of land and limited road access, the main constraint was that no proven technology was available for intensive production programs in the Hills. The ARPP team decided to step back and test new technology and improved crop varieties in farmers' fields over a range of agro-ecological conditions. One focus was appropriate technology for sustainable agriculture in rainfed Hill areas, involving reduced reliance on fertilizer-intensive cereal grains, introduction of improved non-traditional crops (including legumes), and incorporation of green manure crops and fodder crops and trees. ARPP found that "it is possible to get substantial increases in productivity and farm income from remote hill farms. Farmers are receptive to new crops (*Sesbania rostrata* as a green manure crop, oats, lentils, groundnuts) if they fit an improved cropping pattern" (ARPP Terminal Report, 1990).

ARPP developed an outreach model with strengthened linkages between farms/stations and extension services in Hill districts, and was later asked by NARC to develop a program to improve promotion of new technology nationwide. Without support from the ICP, the Terai block production programs had "lost focus and momentum". The NARC National Research Outreach Program developed with ARPP assistance gives key regional stations primary

responsibility for on-farm testing. Station research outreach staff and extension staff collaborate in the design, conduct and evaluation of experiments held in farmers' fields. The value of this approach is that it gets researchers into the field on a regular basis, and has stations provide technical and logistical support. However, backup support is also needed from the national commodity programs and technical disciplines.

Seed Development Component

ARPP assisted HMG in establishing a National Seed Development Board within the MOA, supporting the Seed Technology and Improvement Program (STIP) as the coordinating office for seed development activities. ARPP also helped improve foundation and breeder seed production programs for principal food crops, forage, fodder, and green manure crops, and improved the network of national and regional seed-testing laboratories.

Building on the experience of the Seed Production and Input Storage Project, ARPP initiated a Private Seed Producer-Seller Program in eight Hill districts to help achieve local self-sufficiency in quality seeds and generate cash income by sales to local farmers. Estimates revealed the program added five to six million rupees to farmer income per year.

Key elements in this very successful farmer-to-farmer program were the timely supply of preferred varieties of foundation seed by STIP, supply of storage bins and fumigants for purchase by farmers, extension staff and farmer training, and strong support from the ADOs. The program seemed to offer a workable model of seed supply in the Hills, though like all other field-based programs, sustainability depended on provision of transport for equipment and seeds, and sufficient per diem rates for fieldworkers.

Phase II at IAAS

The \$4.1 million IAAS Phase II Project began in 1985. Project inputs, including a technical assistance team from Utah State University, were linked to a World Bank loan providing equipment and construction of additional dormitories, staff housing, and classrooms. The project paper delineated clear institutional objectives: improved administration, curriculum and teaching materials (including establishing a B.Sc. Animal Science program and improving extension agent training at the two branch campuses); improved teaching, research, and staff services; implementation of an IAAS farm development plan incorporating research and practical training; development of an extension outreach program; scholarships for female students; and development and implementation of an effective maintenance plan for facilities.

Pilot Work in Irrigation Management

Based on an initiative from AID/Washington, USAID developed the Irrigation Management Project (IMP), a seven year project initiated in 1985 with USAID funding of \$9 million and a HMG contribution of \$4 million. The IMP was to increase the institutional capability of the Department of Irrigation (DOI) and farmer groups to develop and sustain efficient irrigation management practices. The project established a Systems Management Division to conduct pilot field activities at two sites (Sirisia-Dudhaura in the Terai and Handetar in the Hills) to study operations and maintenance issues of systems with water-user associations. A second component was the Irrigation Management Center, which trained irrigation staff and guided applied research.

The IMP addressed the poor performance of public agency-managed irrigation systems in Nepal, which reduces the agricultural productivity of water users. One reason was a departmental bias toward construction, and a corresponding neglect of the increasingly important functions of management operations and maintenance. Also in the past, the DOI tended to ignore systems owned and operated by farmers. IMP was a modest attempt to draw government attention to irrigation management issues, but it operated as a small side effort in the DOI portfolio, which gave priority to large construction projects.

With donors and HMG looking for ways to fix an expensive system that was not working to ensure farmer productivity, the IMP's pilot efforts at redefining farmer user groups and DOI responsibilities in operations and maintenance provided an important alternative model. An energetic USAID Project Manager for IMP saw the opportunity and introduced this model in multi-donor discussions in 1987/ 88 which were articulating conditionalities in the agriculture sector for the second Structural Adjustment loan. This alternative model based on "user participation" (farm responsibility and control) contributed to a significant reorientation of the irrigation sector in Nepal in the latter part of the 1980s. The concepts championed under IMP were incorporated as fundamental principles in a Irrigation Master Plan and the Irrigation Sector Program funded by the World Bank, ADB, and UNDP. The DOI became a separate department and assumed responsibility for both HMG and farmer-owned systems.

The IMP unit was subsequently institutionalized as a new Systems Management, Training, and Research Division in the DOI. The project was extended for two years and redesigned to support this process. This division worked with new District Irrigation Offices, organized as part of a decentralization effort to assist with small-scale irrigation programs. Farmers interested in small systems were able to request assistance, but had to provide

some support and participate in management. Medium and small systems formerly under various HMG agencies were to be turned over to farmers for management, while large systems would be jointly managed by farmer associations and the DOI.

Beyond Projects: Policy Change and Analysis

In the mid-1980s, USAID began to concentrate on a policy agenda and to work with other donors in pressing for policy reforms in agriculture, rural development, and resource conservation. This coordinated effort was relatively successful in speeding up decentralization efforts and in convincing the MOA to establish NARC as the coordinating institution for agricultural research. But not until HMG's 1985 financial crisis and the subsequent Structural Adjustment Program was a more effective format for policy dialogue, based on loan conditionality, created.

Backed by its extensive project experience and policy studies, USAID was able to introduce useful concrete proposals into donor discussions and help define needed conditionalities. This included key input into the formulation of the Forestry Master Plan, the Irrigation Master Plan, and the National Seed Board policies permitting private producer-sellers of improved seed.

Problems with access to fertilizer began soon after the first agricultural input parastatal was established, with USAID assistance, in the 1960s. However, USAID and other donors failed to convince HMG to implement critical reforms in the fertilizer marketing system. HMG did bring its pricing system closer to India's to prevent leakage of subsidized fertilizer across the border, but the agreement to increase private sector participation in fertilizer sales and distribution was only partially met. USAID was able to get an agreed upon Fertilizer Management Plan for Rapti Zone, including a pilot program for licensing of private fertilizer dealers and early storage of fertilizer in Hill depots, but a subsequent study found poor AIC compliance.

USAID acted on another front as the chairing organization for the Donor Sub-group on Fertilizer. USAID's efforts successfully energized the donors to support an ADB/UNDP study on the fertilizer sector in preparation for the second ADB Agriculture Program loan. This study conclusively showed the AIC system to be inefficient and expensive, with a private sector competitive market system promising more efficiency and cost effectiveness. The report's primary recommendation was that HMG should permit full private sector participation in importation, distribution, and sales of fertilizer. USAID's involvement has been catalytic throughout this process.

In the last years of the 1980s USAID's Agricultural and Rural Development Division seriously examined the problems and opportunities for developing a market-led, cash crop-based, private sector-driven development paradigm to encourage greater growth in the agricultural sector. In some ways this was a radical departure from USAID and other donor assistance strategies of the last forty years, while in others it was a logical development of USAID's evolving priorities and private sector activities in the ARPP and the Rapti Project.

A series of studies and workshops drawing on diverse project and AID resources created a better understanding of current cash crop production, processing and marketing systems in Nepal, and constraints to private investment in each of these. This included study of domestic and regional marketing opportunities, existing private agro-input and service delivery systems, and experience and options for small producer associations. Fleshed out with these analyses, the initial paradigm was incorporated into both the Agro-enterprise and Technology Systems Project and into selected activities of the Rapti Project.



RURAL DEVELOPMENT

The Rapti Development Project: Phase I

Although HMG encouraged donors to support regional development programs during the 1970s, USAID hesitated to commit itself because there were no models for this type of project in Nepal, and because USAID wanted clear evidence of HMG's commitment to decentralization. In 1977, the World Bank agreed to finance construction of a road from the East-West Highway into the Dang Valley in the Rapti Zone. USAID agreed to develop the impact area of the road, and to explore the feasibility of an expanded rural development project incorporating all five districts of the Rapti Zone.

Because of AID interest at that time in collaborative project design to encourage a host-country sense of project "ownership", USAID contributed \$1.4 million for a collaborative two year design project. This was carried out by Nepal's Agricultural Projects Services Center (APROSC), Cornell University, and USAID. APROSC fielded a large team of HMG officials and consultants to

perform initial data collection and analysis and participate in the design effort. This collaborative process resulted in a comprehensive but unwieldy project that included too many components and gave rise to multiple management problems.

The Rapti Zone Rural Area Development (RAD) Project began implementation in 1980, and was scheduled to end in September 1985. Phase I was part of a proposed 15 to 20 year effort to raise income levels and improve the quality of life in the Rapti Zone. It was an AID *New Directions* project intended to meet the basic needs of the poor majority, defined here as the farmers of the Middle Hills.

Project purposes were to improve income, farm production and other measurable quality of life indicators in the project area; and to increase local demand for, and control of, national service delivery systems in agriculture, resource management, health, family planning, and education. The project paper defined four broad targets essential to achievement of these purposes:

- improved household food production and consumption;
- improved income generating opportunities for poor farmers, landless laborers, occupational castes, and women;
- strengthened capacity of panchayats and other local organizations to carry out local development efforts;
- increased availability and use of service delivery systems.

The project identified HMG programs in ten ministries and agencies as key to improving quality of life, and ambitiously planned to strengthen all of them. Investments were organized around food and agricultural production, forestry and natural resource management, employment and skills development, road development and rural works, and institutional development. The latter component supported HMG's long promised efforts to devolve power and responsibility to district and village panchayats.

The Farming Systems component (34 percent) supported small irrigation systems; five Small Farmer Development Program (SFDP) credit offices per district; training and support for "Leader Farmers"; upgrading and construction of offices, warehouses, and two agricultural and livestock service centers per district; construction of the Agricultural Training Center at Nepalgunj; and Subject Matter Specialists (SMS) to carry out adaptive research and disseminate research findings. USAID's Integrated Cereals Project and Seed Production and Input Storage Project also worked in the Rapti Zone to complement the RAD. These inputs were expected to increase crop production by 25 percent, significantly increase livestock productivity, and establish kitchen gardens and fruit and nut orchards.

The Rural Works component (25 percent) upgraded three roads into the Mid-Hills and provided \$600,000 in grants to each district to support locally planned and constructed drinking water systems, minor irrigation improvements, bridges and trails. The Renewable Resource Management Component (12 percent) included assistance to plant fodder and fuelwood species in community-owned Panchayat forests, establish 60 Panchayat nurseries for distribution of 400,000 seedlings, and promote community forestry management of existing forests. Mobile soil and water conservation teams were to establish demonstration plots in eroded areas and assist local residents in preparing anti-erosion land use plans. A separate National Forestry intervention was to reforest more isolated areas, undertake research, and establish nurseries.

The Institutional Development component (11 percent) supported the physical upgrading, increased staffing and training, and logistic support of district offices, including district health centers. USAID's Integrated Rural Health/Family Planning Services Project was expected to complement this by expanding health and family planning programs in the Zone. The RAD provided \$2 million for construction, staffing and operations of Project Coordinator's Office in Dang, meant to coordinate ministry programs and provide technical assistance when central and regional offices were not doing so. Implementation was managed by the USAID Rural Development Office and HMG-appointed PCO staff, with an explicit effort to limit expatriate technical advisors so they "do not usurp or exert undue influence in the overall direction of the Project." Expatriates served as specialists in construction, procurement and logistics, financial management and accounting, and planning.

The Employment and Skills Development component (8 percent) provided \$500,000 to the Department of Cottage and Village Industries to train poor farmers, the landless, occupational castes, women, and disadvantaged ethnic groups in light industries. Also \$1.3 million was budgeted to upgrade schools, train teachers and provide scholarships for disadvantaged students. An Appropriate Technology Unit received \$600,000 to develop technologies for local industry, to increase energy efficiency and improve the quality of food processing and storage in the Hills.

Phase I: Problems and Progress

In mid-1983 AID conducted a "special" mid-term evaluation of the recently initiated Rapti Project. Reasons for this were:

The Rapti Project has always been the subject of unusual scrutiny in Washington, for reasons not entirely its fault. The project was designed and begun in the heyday of one of the endless parade of donor fashions,

as an integrated rural development project. No sooner was it underway when the wheel turned, IRD project fell out of favor, and were replaced by other donor fashions These problems have been compounded by increasing financial and human resource constraints within AID, by imperfect mutual understanding between Mission and Bureau leadership, and by the particular difficulty of doing business in Nepal.

IRD projects became unfashionable, partly because early experience worldwide showed that complicated, multi-ministry projects encountered coordination problems that seriously undercut success. The Rapti Project was no different in this regard. The special evaluation team arrived early in implementation, before many coordination problems could be worked out. Although the project was designed to provide \$6-7 million per year, a slow start and financial management problems had slowed disbursements and implementation. Project expenditures began at US \$700,000 in 1980/81 and slowly climbed to US \$4.8 million by 1984/85. Only 54 percent of planned inputs were completed by the scheduled end of Phase I.

The 1983 team tried to reshape the project to reflect AID policy changes under the Reagan administration. They emphasized that "increased production and income is crucial to any future rural development strategy" because "rural areas must pay their own way" for services to improve the quality of life of citizens. The team put USAID and HMG on notice that "if conditions ...are essentially the same in two years as they are now, the project should be terminated." Major program changes were demanded in five areas: resource conservation; household production systems; private sector incentives; devolution of power and responsibilities to district and village panchayats; and family planning.

The USAID Rural Development Office and HMG worked energetically over the next two years to meet AID requirements for project survival. HMG initiated the community forestry program in Rapti, promulgated by-laws in 1984 for implementing the Decentralization Act, and posted Local Development Officers (LDO) and other officers to prepare district development budgets and annual program plans.

The main project goal, vaguely defined as improvement of quality of life, was replaced with a clearer focus on increasing household income. The evaluation team had called for a "rural development strategy ... to be oriented and carefully coordinated to strengthen the multiple income opportunities of the household in food crops, livestock, fodder, tree crops, off-farm wages and local industry employment." Service components in family planning, health, and education were

pruned away to sharpen Rapti's focus on increasing household incomes, environmental protection, and strengthening local institutions.

The team had also called on project managers to identify and test alternative approaches to improving household incomes and not rely entirely on existing HMG programs. As a result, the project supported HMG's new Production Credit for Rural Women Program in Rapti, and developed a pilot Household Production Systems component to provide a private sector extension system to increase cash cropping and income opportunities in selected villages. The team had also called for improvements in incentives to encourage local private enterprise and mobilize economic activity. USAID funded two studies and began to press for privatizing seed production and fertilizer distribution.

As the two year deadline approached, USAID proposed a three year no-cost extension, which it justified by outlining progress in the five problem areas. AID granted an initial one year extension to accommodate a final project evaluation to determine whether a longer extension was merited.

In its extension proposal, USAID argued first that significant development momentum had been built up in the Rapti Zone by the Project's contributions in infrastructure construction, enhanced support to districts by central ministries and the PCO, and increased staff in district offices. In addition, terminating the project early would seriously undercut HMG and local commitment to development that had been demonstrated. The proposal also discussed the significant role the project was playing in reinforcing decentralization of authority to the districts. In 1984, HMG began implementing the Decentralization Act; the project could now help districts to improve planning and management of local development resources. Finally, USAID emphasized the project was being refocused to increase rural household incomes through new initiatives such as the Household Production Systems component, and expansion of FDP and PCRW credit programs in the Zone.

The 1985 evaluation team concluded that USAID's arguments were sound, and that the project should be continued. The Rapti Project should continue to support HMG's "bold steps to decentralize and improve local participation and local mobilization of resources". In addition, it maintained that in spite of the many problems of complex, multi-ministry projects, mobilization of internal resources for development "required multiple programs, sometimes via one project." However, the team recommended Phase I be terminated:

Initiate the second phase ... as an institution-building local development project more sharply focused on technology transfer in agriculture and the environment. Recommended project strategy involves three elements:

- a) *strengthening institutional capacity for managing development at*

district and village levels; b) expanding and strengthening natural resource management programs; and c) concentrating resources efficiently and effectively on agricultural production [including livestock] in both valley and hill areas.

Another recommendation was reduction of Project Coordination Office staff and responsibility, redistributing management functions to the districts and the Regional Office. Phase II technical assistance was to be structured as a single project implementation contract, giving the primary contractor broad responsibility for project implementation.

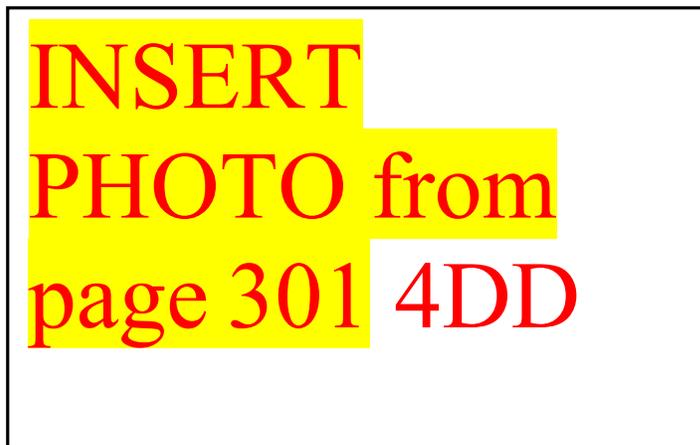
Phase I continued until July 1988. Only a few activities were funded in the final year, as USAID and HMG directed their energies to designing and initiating Phase II, the Rapti Development Project (RDP). The project completion report detailed Phase I achievements:

- rural works program construction of 46 drinking water systems, 15 suspension and wooden bridges, 163 kilometers of mule tracks, 180 kilometers of all-weather road, and four medium and 10 small irrigation systems. In addition, Nepal's first training in the scientific management of construction projects was conducted by J. Isaacson, at Tulsipur in 1985;
- increase of HMG officer staff with project related agencies from 33 to 80; degree training for 60 participants and short-term training for 279;
- implementation of the Decentralization Act, with district and village Panchayats preparing development plans and approving district programs and budgets, and better HMG support for Panchayat planning and implementation;
- construction of an Agricultural Training Center, 41 district buildings, 10 sub-district Service Centers for expanding extension efforts, AIC input storage facilities, and upgrading of the Musikot Vegetable Seed Production Center with an expanded outreach program;
- five-fold expansion of fertilizer supply in the Zone;
- an Appropriate Technology Unit developing and extending bio-gas plants, shallow tubewells, and other technology;
- credit targeted to women farmers in the PCRW Program, and increased ADB / N investment in the Zone, from Rs3.7 million to Rs24 million;
- transformation of the Zone from a chronic food-deficit area to an area of moderate food surplus (annual production of food grains increased from a 174,000 metric ton annual average to 220,000 metric ton average, a 26.3

percent increase leading to a *per capita* increase from 198 kilograms to 213 kilograms);

- crop diversification into fruits and vegetables; and
- household incomes increased in target areas where surveys were carried out. (Household Income Surveys carried out by APROSC in 1979 and 1989 suggest household cash incomes have perhaps doubled in real terms).

The Project Completion Report also pointed out that “in retrospect, many of these criticisms [in the 1983 and 1985 evaluations] were premature in the judgement of success, since the Project achieved equal or better production outputs in many components targeted by the Project Paper.” In addition, the Rapti Project tested several experimental programs that became models for HMG policy and program reform: the SFDP and appropriate technology programs, licensing of private fertilizer dealers, a collaborative food-for-work road construction program with the U.N. World Food Program, and community management of forest land.



Village Water Tap, Rolpa District, Rapti Integrated Rural Development Project Area

Lessons from project implementation and evaluation gave USAID the impetus to move from a vague goal of “promoting development to meet the basic needs of the poor majority” toward clear articulation of a strategy emphasizing increased farm and forest productivity, income generation, and sustainable environments for farm households. HMG eventually accepted this redefinition of the project.

Rapti: Phase II

The Rapti Development Project, Phase II, started in July 1987 with a planned life of eight years: AID provided \$18.8 million of total project costs of \$27.4 million. The redefined project purpose was “to increase household incomes and well-being through increased productivity and improved sustainable management of farm and forest resource systems.” Crop, livestock and forestry production were to increase through improving technology transfer through HMG district line agencies, through strengthened local farmer organizations, and through private sector service delivery. The Ministry of Panchayat and Local Development (renamed the Ministry of Local Development in April 1990) was the lead counterpart agency, but there were defined roles for the Ministries of Agriculture and Forestry and Soil Conservation. The implementation structure was simplified from Rapti I, with a streamlined PCO and a single primary technical assistance team (the DEVRES/New ERA Consortium). The project’s four components are described below.

- **Agricultural Production:** strengthen extension programs for cereals and livestock; support formation and effective operation of local farmer user groups; improve input supplies by developing an AIC fertilizer plan for timely delivery, increasing the number of private dealers, support local seed multiplication systems, and transferring improved technology or seed storage and processing to farmers; and narrow the private sector Household Production Systems extension activity into the Vegetable, Fruit, and Cash Crop (VFC) program, supporting farmers in promising production pockets in commercial production of crops.
- **Forestry Production and Natural Resource Management:** expand local forest user groups and strengthen their legal and organizational capacity to manage local forests; encourage individuals and groups to use private and leased government land to produce forest products; strengthen Department of Forestry management of national forests through district level planning and divisional nurseries; and support HMG-managed conservation and stabilization efforts by expanding nurseries which supply plants for stabilizing roads, trails, canals and watersheds.
- **Local Groups and Private Enterprise:** establish local groups capable of managing agricultural and forestry activities through an expanded Small Farmer Development Program, other farmer associations, and expanded user groups for livestock, forestry, irrigation, and women in development activities; establish a Private Enterprise Unit (PEU) to carry out feasibility

studies for new small enterprises; and create new household and micro-enterprises in agricultural production / processing.

- **District Institutional Development:** improve Local Development Office capacity to plan, coordinate and monitor district programs; improve district and village planning and management of local resources; strengthen the Women in Development program through increased training and production opportunities for women; support an ADB / Nepal-CARE program for self-help construction and rehabilitation of irrigaton schemes; and support construction of bridges and maintenance of Rapti roads.

Rapti II: Evaluation Recommendations

A mid-term evaluation was carried out in April 1990 to provide direction for the project's remaining years. The team made strategic recommendations, specifically: the still overly complex project should be streamlined, with less promising interventions weeded out and funds reinvested in more productive activities, and long-term technical assistance in rural development economics was urgently needed to carry out appraisals of on-going and proposed project components. The evaluation team identified interventions they believed were of doubtful value, including the large number of Pre-Production Verification Trials for cereal grains, the introduction of exotic breeds and fodder on arable land, and the Department of Forestry's emphasis on planting pine seedlings.

Additional investments were needed to support farmers' priorities, such as expansion of the ADB / Nepal-CARE program for constructing and rehabilitating irrigation systems, and expansion of low-cost jeepable roads and mule trails into the Hills. The team called for further assessments of the effectiveness of service centers before additional investments were made.

The team identified four other key project issues. First was the need for HMG agencies to actively encourage private entrepreneurs (e.g., in seed and seedling production and fertilizer and agro-chemical sales) and to eliminate unfair competition from parastatals and government programs undercutting these enterprises. Second, the team concluded that cultivation in Hill districts already exceeded sustainable levels, with current production increases resulting from the expansion of cultivation onto fragile uplands, rather than from productivity gains. Although further analysis was needed, the team believed the main potential for increased agricultural production lay in improving irrigation in the Dang and Deokhuri Valleys.

The team also felt that Rapti II had over-emphasized institution building and sustainability within government programs. Recognizing "the deeply entrenched

rigidity of government institutions is difficult to break down,” they urged that the project give equal emphasis to direct efforts to transfer new technologies and management techniques to farmers. As the report stated, “Sustainability is more likely to be achieved when the farmers themselves use, disseminate and seek improved technology and advice ... RDP’s success in motivating and supporting farmer groups should ensure benefits are sustained beyond the life of the project.” A final issue was “the strong tendency for line agency officials to pursue their own specific targets with little liaison with other departments.” The team encouraged the TA team to continue support for community management of local resources in order to achieve the integration HMG officials were unable or unwilling to provide, and called for strong HMG support for this effort.

The team called for the agricultural production program to focus on the most effective interventions for increasing production of cereals, pulses, and oilcrops. Necessary adjustments included the following: establishment of an RDP Research Working Group to strengthen links with NARC and other research programs; more strategic use of Minikit, FFT, PPVT, and Block Production Programs to provide quality data, actually analyzed and used by the ADO staff; and a comprehensive soil fertility program including usage of chemical and organic fertilizers, crop rotations, soil fertility testing, and soil conservation practices. The team reaffirmed the need for the AIC to comply with the RDP’s fertilizer development plan, including increasing private dealer commission rates to at least 10 percent, and meeting farmer demand for easier-to-use complex fertilizer.

The evaluation recommended the VFC component, managed by the No Frills firm, shift from a production focus to a market research and development program for cash crops, and work to strengthen HMG extension capabilities in cash crops.

In the Livestock program, the team recommended revising budgets on the basis of technical and financial appraisals, and having technical advisors split their time between identifying the most appropriate interventions, and assisting the Department of Livestock Services work with user groups. Recommendations for the Forestry component included: the need to focus 70 percent of advisor time on increasing the capability of user groups, local government units, and Department of Forestry (DOF) personnel to manage community forests; shifting the emphasis of DOF programs to turn-over of management control to user groups and Village Development Committees; exploring the possibility of direct grants to forest user groups and Village Development Committees with approved management plans while degraded forests regenerate; simplifying the process of turn-over of community forests and allocating national forests; the need for the DOF to begin establishing contract nurseries and producing species preferred by

farmers (especially fodder trees); and the need to restructure the project's agro-forestry program.

The team recommended the project continue financing maintenance of Phase I roads and co-financing trail and road improvement programs with the World Food Program. In the Institutional Development component, the team recommended: continue encouragement of local groups and the community resource management approach, but concentrate on two to three pilot communities; encourage LDO and Planning Officers to carry out economic appraisal and ranking of development options; the Appropriate Technology Unit should work more closely with the Small Farmer Development Program to assess farmer needs for appropriate technology; and the Ministry of Local Development should link the Women in Development program more closely with sectoral agencies.



NATURAL RESOURCE MANAGEMENT

The Resource Conservation and Utilization Project

RCUP Objectives and Strategies

Although USAID had noted environmental problems in the late 1960s, natural resource conservation could only be placed on Nepal's development assistance agenda a decade later, when HMG began to be seriously concerned with environmental degradation in the Hills. In response, USAID developed one of its largest projects, the \$32.5 million Resource Conservation and Utilization Project (RCUP).

Because of AID's interest in the collaborative design process at that time, the project was designed by a Nepali team directed by the Department of Soil Conservation and Watershed Management (DSCWM), together with the Title XII Southeast Consortium for International Development (SECID, a consortium of universities in the southeastern section of the U.S., organized to provide technical assistance in AID projects) and USAID. The design team included 82 Nepalese technicians, social scientists, and economists from various agencies, 12 SECID consultants, and four USAID staff. The collaborative design process alone cost \$1.2 million.

The project was funded with \$27.5 million from AID and \$5 million from HMG. The planned project period was 1980 to 1985, but was extended, without additional funding, up to 1988. SECID not only helped design the project, but also went on to provide the technical assistance team for implementation.

The RCUP was conceived as the first phase of a long-term, USAID commitment to help halt rapid environmental deterioration in the Hills. The project purpose was “to assist HMG in the protection and restoration of the soil, water and plant resource base upon which the rural population is totally dependent.” RCUP targeted the small Hill farmer’s complex system of environmental utilization: concentrating agriculture in the lowlands and grazing on the steep slopes, while harvesting fuelwood, fodder, timber, and organic matter from forest lands higher up.

The DSCWM was the coordinating agency for the project which involved 11 counterpart agencies, including seven line agencies under four ministries, plus several independent units such as Tribhuvan University. These worked on seventeen project components centering on watershed, forestry and range management. Field work was focused on two river basin watersheds in west-central Nepal, the Kali Gandaki catchment (4,120 square kilometers) in Mustang district, and the Daroundi catchment (795 square kilometers) in Gorkha and Myagdi districts.

Project Components

The pioneering RCUP addressed natural resource conservation on a number of different fronts. New institutions were needed to set policies and organize field programs in this sector. At the ministerial level, HMG established the National Committee for Conservation of National Resources (NCCNR) to formulate and coordinate national policies and programs for resource conservation. (The RCUP budget did not support this national coordinating unit, however, nor did it directly support ministries participating in project activities.)

Funds and technical assistance were provided to the Training Wing of the Ministry of Forest and Soil Conservation (MOFSC) to support in-service and participant training of senior managers in relevant ministries. With RCUP assistance, the training wing organized a program to train project extension workers in agriculture, range management, forestry, and soil and water conservation. Project extension personnel were recruited from secondary school graduates in Hill districts. The other central-level project “input” was the effort of the RCUP team leader and HMG-appointed project director to set up new programming and financial procedures for project activities and to encourage participation by relevant ministries.

In a joint effort with HMG and the World Bank, the project also assisted in establishing the Institute of Renewable Natural Resources (later renamed the Institute of Forestry) to train natural resource management workers. The ongoing two year certificate program and a new B.Sc. program in forestry were housed at the Institute of Forestry campus at Hetauda, pending completion of the World Bank-funded Pokhara campus for the new degree program. RCUP provided five long-term and several short-term natural resource and administration specialists to help develop and teach a practically-oriented curriculum and strengthen research programs. The project also supported masters' degree training for faculty in U.S. universities, laboratory equipment and vehicles, and a fund to support natural resource management training for villagers.

The majority of RCUP funds were allocated for technical assistance and field activities in the following areas:

- **Energy Alternatives:** development and dissemination of bio-gas plants, and testing of new stove models, micro-hydropower installations, windmills, and multi-purpose water impoundments;
- **Forest Management:** pilot projects testing the effectiveness of managing forests under several forms of public and private ownership; extensive reforestation and revegetation of non-crop lands; carrying out forest inventories; and developing tree and forage nurseries;
- **Range Management:** planting, replanting, and intensive management of grazing land;
- **Animal Husbandry:** breeding improvement, improved animal husbandry practices, immunization against infectious diseases, and treatment against ectoparasites;
- **Agricultural Improvement:** use of improved varieties of cereals, and production and distribution of fruit tree seedlings and vegetable seeds; support for the Marpha Temperate Crops Agricultural Farm;
- **Watershed Management:** testing biological (revegetation) and mechanical techniques (gully control and river training structures, large impoundments, terrace and trail improvements, and road slope stabilization) to control run-off and channel it to stabilized stream beds;
- **Irrigation:** reduce cultivation pressure on steep slopes and prevent further soil erosion by constructing irrigation projects.

In addition, RCUP supported village drinking water and fish production schemes, and gathered natural resources inventory data as part of a monitoring program to appraise project effectiveness and develop models for future watershed and forestry management.

To meet the project's clearly stated objective of bottom-up management of resource conservation, the project targeted village panchayats as the appropriate level for local planning authority and responsibility. RCUP helped set up Catchment Conservation Committees in village panchayats to coordinate line agency activities and organize local participation in work projects. Project-supported Catchment Conservation Officers and Local Development Officers were to assist district panchayats in overseeing projects initiated by line agencies and village panchayats. Expatriate and Nepali specialists and PCVs worked as advisors to these, frequently experimental, local schemes, which focused on converting degraded land to environmentally sound uses.

The second largest budget item (over \$5 million) after technical assistance costs was construction of sub-district service centers with office and residential facilities for government field staff implementing RCUP activities. Meant to induce line agency officers to live in the field and work cooperatively on resource management, these were perceived as a forerunner of what HMG had to do to draw trained extension workers to the sub-district level. The project constructed 174 buildings; contract construction (which provided substantial local employment) also included large-scale river training structures and impoundments.

RCUP was just one of several similar projects underway in Nepal in the early 1980s. As soon as HMG indicated interest in this new sector, donors stepped forward to fund watershed management projects, including the Tinaru Project sponsored by SATA and GTZ, the Phewa Tal project sponsored by UNDP and FAO, and seven integrated rural development projects (including USAID's Rapti Project) with resource conservation components.

RCUP's Problems

Three RCUP evaluations (Simmons, *et al.*, 1983; Meiman, *et al.*, 1985; Parker, *et al.*, 1988), an AID analytical review of natural resource management efforts in Nepal (Chew, 1990), and a reflective interview with the first SECID team leader (Freeman, 1991) have identified problems and lessons learned in implementing this pioneer project as well as some of its contributions to long-term natural resource management efforts in Nepal.

Both RCUP and the Rapti Project began implementation as "orphans", designed and approved by AID in accordance with one administration's set of development priorities, and passed on for implementation to a less enthusiastic AID management with other priorities in the next administration. Designed at the end of the 1970s, the Rapti Project and RCUP were among the last large integrated projects favored by AID under the Carter administration. Large-scale

integrated rural development projects were not in favor under the Reagan administration, as most didn't meet the Four Pillars directives, and many had serious management problems and were suspected of being developmentally wasteful.

This change was reflected in the USAID Mission. With the departure of Director Samuel Butterfield and the natural resource management specialist, who had together shepherded project design and AID approval of RCUP and Rapti Projects, there was no natural resource specialist remaining on the staff and limited sense of ownership for RCUP. The new director and staff were concerned with emerging AID priorities, including better project management and timely disbursements.

Mission management required substantial revisions in the project management plan. A major USAID criterion of project performance during the early 1980s was meeting project financial disbursement targets. Preoccupation with these tasks absorbed a significant amount of the team leader's and project coordinator's time, limiting their field oversight and ability to make needed revisions to meet the project's objectives.

The RCUP's project design called for broad interdisciplinary training in resource conservation for IOF faculty and government officers as an innovative approach to addressing complex resource conservation problems. However, USAID and HMG wanted (and got) traditional training in specific fields. It was also clear that many HMG officers involved in the project needed to learn management as well as technical skills, but this never happened.

Although USAID and SECID expected to institutionalize the models being developed through the project in the DSCWM and other HMG agencies, all funds were held in the project, with no money allocated to ministries to set up new policies and programs. Contracted project staff constituted a separate unit from the DSCWM and other HMG departments. RCUP, along with six other ongoing resource conservation projects, weakened vital HMG departments by attracting their best managers to manage donor activities. This, combined with project-funded out-of-country training and frequent leadership changes, created institutional instability.

Although the project envisioned strong local participation and responsibility, in fact there was little incentive for District Conservation Councils or "lead Panchayats" to participate, as they had no authority except to approve projects already identified in the project agreement. Contrary to "bottom-up" rhetoric, both USAID and HMG had identified all of the "lead Panchayats" prior to implementation. In this sense, an evaluation noted, "the RCUP became just like

an ordinary public works project, and it was not necessary to have community participation in planning.”

Early on, the SECID team leader had suggested allotting seed grants to be managed by local panchayats, but HMG refused to trust local communities with grants at the time, and USAID did not want to press this point. Both the 1983 and 1985 evaluations called for increasing local participation in planning and implementing RCUP activities, recommending that local contributions should be a precondition for selecting specific Village panchayats for project activities. This recommendation was applied in the project extension period with requirements for increased community planning and management of schemes, and increased voluntary labor and other local contributions.

A related flaw was that the RCUP was essentially seen as a series of technical interventions. This is not surprising; the design team was composed mainly of technicians, who devised a project minimizing human and institutional development, which unfortunately proved vital to success. USAID and HMG officials were also biased toward technical expertise in preparing scopes of work for technical assistance. When budget cuts were needed at implementation time, two social science slots were dropped as the most expendable items. Ultimately the team leader successfully insisted on the restoration of an anthropologist, and following the recommendations of the 1983 and 1985 evaluations, the project later added an extension advisor.

The project's least effective portion was the \$5 million construction component, partly due to corruption in bidding and construction activities. Many Nepalis and Americans regarded this component as a waste of funds. RCUP centers were built to a scale and style incongruous in the local setting, frequently in locations without adequate water, or where HMG officials refused to live for fear of isolation or flooding. The 1988 evaluation found many RCUP buildings under-used or unused. USAID has since made efforts to transfer the buildings to agencies that can use them.

Given USAID, HMG, and SECID inexperience with the new field of resource management in Nepal, a more flexible design, or at least more flexible implementation, would probably have helped the project deal with unexpected problems, correct them, and meet its objectives. The special evaluation ordered by AID in mid-1983 to scrutinize and perhaps close down the project concluded that RCUP “could use an extended period to focus on the problems of implementation rather than facing the disruptions which would be associated with another evaluation”. Unlike the Rapti Project, few changes were made after this evaluation to give the project new life. However, in mid-1984, two natural resource management specialists were assigned to USAID to refocus the project

for a three year extension period, in order to effectively use the remaining \$7.2 million. In particular, the extension period allowed the project to develop a less ambitious and less costly model of watershed management appropriate to Nepal.

Progress and Lessons Learned

The RCUP provided a testing ground for innovative resource management technologies, and allowed experimentation with a variety of approaches to planning and implementation of resource management (both top-down, line agency-initiated approaches and those organized by local governments and user groups). These experiences helped USAID, HMG and other donors clarify issues; define policy, research, and training directions; and select models for the next generation of resource management efforts. Admittedly, this expensive and sometimes misguided learning process could have been accomplished in a more cost effective way. Another RCUP contribution was training in natural resource management for some HMG managers and IOF faculty and first-phase institutional development efforts for the IOF.

USAID realized that what was needed to leverage policy changes was a coordinated multi-donor effort, a focused project format, and more time for policy dialogue. There was little success in developing an integrated line agency approach, and it was decided that proven programs might more profitably be pursued through separate agencies rather than concentrating on elusive coordination objectives.

The most effective field interventions (in terms of cost, technical effectiveness, and local sustainability) proved to be simple, low-cost technologies undertaken and maintained by farmer individuals or groups. The initial RCUP emphasis on large-scale, expensive, multi-purpose projects and river training projects far exceeded Nepal's capabilities, and such projects often failed. Community management using simple techniques focusing on relatively small catchment areas was more suited to Nepal.

The RCUP extension tested this "small catchment approach" in an effort to develop an effective model for implementing small watershed programs. In the extension period Nepali advisors were used, rather than expensive expatriate advisors, and local participation was required. The District Conservation Officer and staff at each field center worked with committed farmers or groups, using simple resource conservation technologies easily managed and maintained by local communities. Representatives of village panchayats and farmers' associations were required to participate in identifying problems and organizing farmers to implement the activities.

The final project evaluation found this community-based approach more effective than the earlier RCUP strategy, and declared it worth replicating in other projects. However, RCUP did not succeed in institutionalizing this approach in the DSCWM, as the design team overestimated the capacity of counterpart agencies to sustain the effort after the project was completed.

Regarding the attempt to devolve forestry resource management to local authorities, the main lesson was that devolution should continue downwards to target user groups. A legal and institutional framework was needed under which farmer groups could undertake reforestation activities and manage and harvest restored forests. Due to an evaluation recommendation, special efforts were made to include women — the primary fuelwood and fodder collectors — in all later project activities, and Women Development Officers from the Ministry of Panchayat and Local Development (MPLD) were appointed to work with the project.

The IOF component continued as a “stand-alone” component of RCUP, with minimal student/faculty links to project field activities. Education and training would have benefited from increased contact with these to ensure the relevance of course content.

Mid-Decade & Beyond: Multiple Follow-on Strategies

With the bulk of RCUP behind it by mid-decade, and with two conservation specialists arriving to manage the natural resources portfolio, USAID broadened efforts into an array of projects and policy reform attempts which continued into the 1990s. These tightly focused efforts have contributed greatly to progress in natural resource conservation.

The PVO Co-Financing Project was created as a funding mechanism to respond quickly and flexibly to project opportunities as they arose. USAID has been able to respond to several HMG and private sector investment opportunities which have significantly expanded its influence on Nepal’s natural resource conservation goals.

Multi-Donor Policy Development Efforts

USAID interest in policy reform increased in 1985, when the World Bank agreed that the Structural Adjustment Program should include a focus on agriculture and natural resource management. The Department of Forestry’s reforestation strategy was not cost-effective, and had clearly failed to make a significant economic impact.

One item of conditionality required HMG take legal and administrative steps to establish an effective community forest management system, allowing farmers

to reap economic benefits from protecting and maintaining forest areas. USAID played a key role in insisting, on adoption of the community forestry model successfully tested in the RCUP, which turned control of forest land and resulting revenues over to communities and private owners. This would result in strengthened local commitment to forest productivity.

USAID also played a key role in coordinating donor examination of policy constraints on forestry development in Nepal, and supported two studies which recommended encouragement of private sector investments. This collaborative effort led to ADB and FINNIDA support for preparation of a Forestry Master Plan. The final document reflects the forestry management model developed in the RCUP — decentralization of responsibility to user groups and private leaseholders.

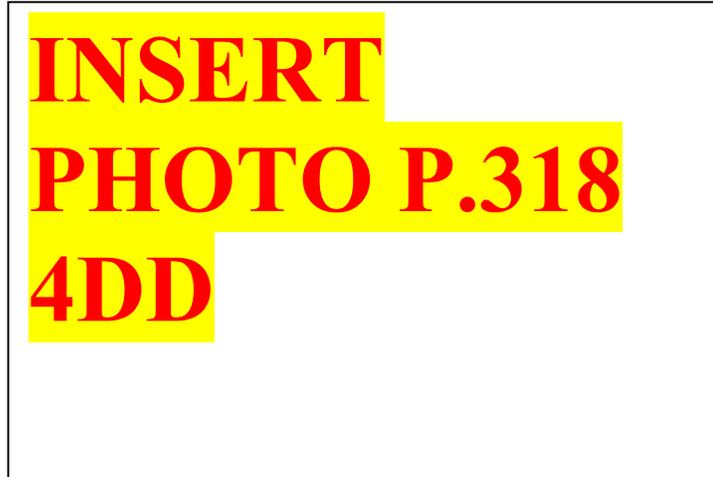
Institutional Strengthening: Institute of Forestry

The 1985 RCUP evaluation strongly recommended USAID design a follow-on project to continue institutional strengthening of the IOF, a “fragile flower that needs considerable attention and support if it is to grow.” This institution is seen as the best hope for providing skilled manpower for community forestry and other resource management programs. The eight year IOF Project started in 1987 with \$8.7 million funding from USAID and a \$5.3 million HMG contribution. Technical assistance is being provided by the Yale University School of Forestry and the International Resources Group, which provide two long-term technical advisors and other expertise through a Scholars-in-Residence program. The project includes curriculum development; staff and faculty participant training and in-country training; development of an applied research program on resource management; and limited commodity procurement for various institutional programs. The project assisted in developing a quality B.Sc. program at the main campus in Pokhara, and sound extension training programs at the Hetauda campus.

The project profited from lessons learned from USAID’s fifteen year experience in strengthening the Institute of Agriculture and Animal Sciences. Curriculum development, practical training for students, and faculty applied research efforts were all strongly focused towards the knowledge and skills needed by future employers of graduates — HMG natural resource agencies and donor projects. To maximize continuity and cohesion, USAID required that the implementing advisors live in Pokhara and make at least a three year commitment.

The IOF established two Social Forestry Demonstration Sites for training and research work for a Social Forestry Systems Study Group. Selected faculty

members began participant training at U.S. universities in the late 1980s. There was provision for up to 15 M.S. degrees and six Ph.D.s, in a broad range of fields, including forestry, soil conservation and watershed management, wildlife and national park management, and academic and research administration. A program of in-country training workshops was initiated, and faculty presented papers at international resource conservation symposiums. The project acted as a catalyst in linking the IOF to other donors in the sector, and in drawing donor funds to support research and training.



Practical field training for Nepal's future foresters, an important element of USAID support for the Institute of Forestry.

—photo by Alison Wright

RCUP Follow-On Projects

Three resource management models developed under RCUP have since been incorporated into other projects. In the mid-1980s, USAID decided to shift community forestry activities from RCUP to Phase II of the Rapti Project. Forestry and Natural Resource activities constituted one of the Rapti Project's three major components. It concentrated on transferring forest management rights and responsibilities to local user groups, and, to a lesser degree, on encouraging private individuals to develop and manage leasehold forests. The project

strengthened the field staff capacity of the Department of Forests and the DSCWM in the five Rapti districts, and provided technical assistance for their work in the zone.

The Nepal Coppice Reforestation Project was a research, demonstration, and training project which started with \$2.3 million in USAID funding from 1987 to 1990. Argonne National Laboratory (a U.S. Department of Energy-managed laboratory) staff worked to develop improved production systems for fuelwood, fodder and other tree products, using multipurpose trees which coppice (sprout again after cutting). The project tested several species in selected production systems adapted to the Middle Hills, and established three nursery and research/demonstration sites in Dhading, Sindhuli, and Ramechhap districts. A socioeconomic survey of the three site areas was used to analyze local demand and perceived deficits.

Following a 1989 evaluation, project management was assumed by the United Missions to Nepal (UMN), which took over the Dhading and Ramechhap sites. This follow-on project, renamed the Forestry Initiatives Project, received \$130,000 for three years through USAID's PVO Co-financing Project to supplement UMN's support. It continued the emphases of research, demonstration, outreach, and training. The project also served as a testing ground for forest policy initiatives considered under the Forestry Development Project.

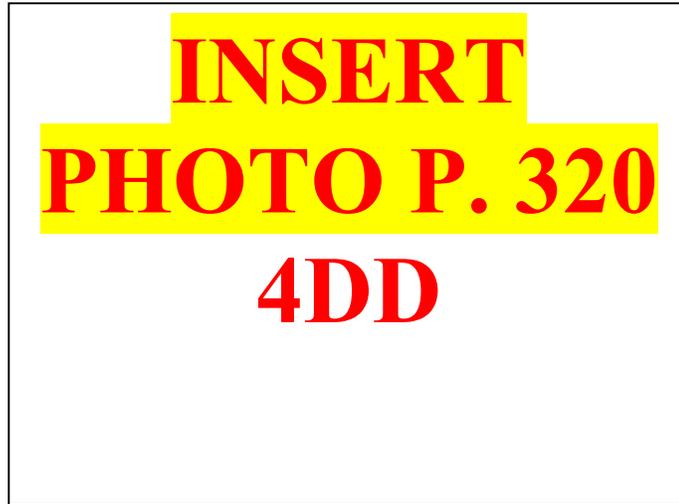
The CARE/Nepal Remote Areas Community Natural Resource Management Project worked with the small watershed management model developed during the last two years of the RCUP. Supported by \$900,000 in USAID funding, this project worked in Bajura, Mustang and Solukhumbu districts to help communities plan and implement small catchment management and production strategies. The project provided small grants and introduced low-cost resource conservation techniques such as small-scale irrigation systems, fruit tree cultivation, improved wood stoves, and agroforestry plantations. Because of difficulties in integrating government line agencies, this approach to local resource planning and management may be more appropriate for PVOs and other private sector agencies than for HMG.

Support for National Conservation Strategy & Biodiversity

From 1985 to 1987, USAID obtained funding from AID's Environmental Planning and Management Project to support the International Union for Conservation of Nature (IUCN) in preparing and initiating implementation of the Nepal National Conservation Strategy. As the largest initial donor, USAID played a critical guidance role in early stages of NCS planning. The IUCN office has

now been incorporated into the National Planning Commission as the NCS Implementation Program.

After completion of the RCUP, USAID maintained its influence on national conservation and biodiversity objectives in Nepal, despite very modest levels of project funding. Through its PVO Co-Financing Project, the Mission offered seed money grants to various organizations, which could be used for raising additional program funds. In one case, a \$100,000 grant assisted in securing an additional \$919,000 from other donors. Grants have been made to the Nepal Conservation Training and Research Institute, the Annapurna Conservation Area Project, and the Makalu-Barun Conservation Project.



A Smithsonian Institute researcher and his Nepalese counterpart study the genetics of Nepal's endangered one-horned Asian Rhinoceros.

—photo by Burt Levinson

USAID has contributed to biodiversity objectives by creating a new and ecologically important extension of Sagarmatha National Park, with plans for park management, research, community resource conservation, and tourism development; encouraging extension of the user group model of resource management to areas adjacent to and within national parks and conservation areas; decreasing management costs of reserves by encouraging local communities to manage conservation activities; supporting research action programs to protect and manage wildlife populations (such as the one-horned

Asian Rhinoceros and the Bengal Tiger) in Chitwan National Park; and increasing park income from increased tourism due to support by USAID and other donors.



HEALTH AND FAMILY PLANNING

Meeting the basic needs of the rural poor through continuing efforts to integrate health service delivery remained the goal of HMG and USAID during the early 1980s. Health was a high-priority sector, and the level of assistance rose as multilateral donors entered the sector on a large scale. HMG's health budget slumped during the decade, securing an average of 3.37 percent of the total national budget.

USAID's continuing legislative mandate to meet basic human needs was reinforced by the Sixth Plan's emphasis on rural health services delivered by paramedics operating from health posts, as opposed to urban-based physicians in hospitals. The Seventh Plan focused on minimum basic health needs, introducing the concept of primary health care. Nepal adopted the WHO primary health care motto, "Health for All by the Year 2000", and established targets for reducing infant mortality and fertility and increasing life expectancy. Basic health services were to be expanded and gradually integrated into the ongoing effort to consolidate health care.

HMG movement towards decentralization, as defined in the Seventh Plan, expressed the realization that a nationwide health service could not be run solely from the Kathmandu Valley. This resulted in outward structural changes in the MOH. In August 1986, five regional health directorates were established to localize supervision and implementation duties and encourage "bottom-up" planning.

By 1980, Nepal had 68 hospitals, 533 health posts, and a corps of Village Health Workers. Existing facilities had the potential to serve 40 percent of Nepal's population. The quality of services needed upgrading, however, and the majority of Nepalis remained without access to modern health care.

The continuing movement towards integration, combined with the adoption of the concept of community-oriented or "primary" health care, attracted multiple donors to the health sector. The IRH/FP's mid-project evaluation noted the resulting fragmentation:

A multitude of donor groups are participating in hundreds of isolated special interest activities, making the complete picture an incredibly complicated jigsaw puzzle. In some respects, it is amazing that it manages to function at all.

Developing an Integrated Rural Health System

IRH/FP: The Beginning

USAID's core project in health for the 1980s was the Integrated Rural Health and Family Planning Project (IRH / FP), which continued efforts to develop a nationwide integrated health system. USAID and HMG staff collaborated on project design, building it upon the experience and organization of the 1970s and the goals of the 1975 Long-Term Health Plan. Total cost of the original five year project (later extended to eight years) was \$104 million, of which USAID committed \$34 million, half from the Health and half from the Population Planning Account; other donors and HMG contributed the balance.

By virtue of its timing, IRH / FP became the natural successor to three USAID projects terminating in September 1980: FP / MCH, Malaria Control, and ICHP. The new project encompassed general health service delivery, family planning, maternal-child health, and malaria control — all the diverse objectives of USAID's newly formed Health and Family Planning division, created from the 1979 merging of the Health and Population divisions.

The project's purpose was to assist in improving overall management of health services and in expanding delivery in rural areas. The main vehicle for service delivery, and the focal point about which the program was designed, was the MOH's new Integrated Community Health Services Development Project (ICHSDP), the latest in a series of integration agencies, created in 1980 to replace the ineffectual ICHP Board.

ICHSDP continued the model tested and developed in the 1970s under IHS: expanding rural health service delivery through a cadre of local paramedics supervised by health posts and district level personnel, with program planning, management and coordination from regional and central offices. It was supposed to integrate ongoing vertical programs into this new system, but ironically, its own structure made ICHSDP yet another vertical program to be integrated. As quickly as it managed to grow, other projects outpaced its expansion. This uncoordinated growth, combined with ineffective management and a lack of any real authority over the vertical projects it was supposed to dominate, essentially

doomed ICHSDP from the start. The combination of centralized planning and direction, with decentralized service delivery and supervision was an unworkable combination of ideals and reality.

Project Design

IRH/FP's intent extended beyond previous USAID-sponsored projects in that it went beyond developing MOH capacity to deliver services to concentrate on the actual service delivery itself. Past USAID grants generally funded a single component of the MOH. The IRH/FP project supported multiple components: static, clinic and hospital-based health services run by the DHS; specialized vertical projects; and the integration effort meant to combine the two. The project's support of MOH operational expenses represented a reversion: USAID had dropped general operational support for HMG ministries by the mid-1960s.

The implementation approach was deliberately left flexible to meet unexpected needs which might occur in the process of developing a framework for organizational change. Details of an effective rural health and family planning service were left to HMG to develop. The project scheduling was ambitious — 48 of 75 districts were to be integrated by 1985 — but no specific constraints were noted to the attainment of the general goal of improving management and expanding delivery. This proved fatal to the attainment of the final goal, a smoothly functioning MOH management system. Institutional constraints within MOH were severe, but the original project design underestimated them, addressing them only in piecemeal fashion.

No detailed plan ever evolved to specify how, when and where integration would occur. Implementation occurred on an *ad hoc* basis, through negotiations and persuasion by the ICHSDP staff. In addition, there was no clear vision of how the system should function once integration was accomplished. Management functions were frequently duplicated (for example, health post workers in integrated districts were supervised by both the DHS and the ICHSDP), and many experienced project personnel were simply let go when integration occurred, disrupting programs and losing valuable services.

Project support concentrated on subsidizing the routine operating expenses of MOH units, providing technical assistance to improve management, funding training and construction costs, and supplying commodities (chiefly contraceptives and anti-malarial insecticides). By 1984 the contractor, John Snow, Inc., was involved in over 100 activities encompassing a wide range of MOH operations.

Mid-Project Evaluation

Despite severe constraints, the first five years of IRH / FP made contributions to a health service delivery system. The project's stated goals of strengthening management capability and expanding services were partially achieved, though not solely within the context of integration as originally envisioned. Most of the progress in management and service expansion occurred within vertical projects sponsored through the IRH/FP budget.

By 1984, 744 health posts (450 of them integrated) had been established in 48 districts, and 26 districts were under full or partially integrated management. Manpower shortages remained, with 20 to 45 percent of field supervisory posts empty because of vacancies or absenteeism, but training capabilities were relatively strong. Over 4,000 workers had received basic or refresher training, and USAID-sponsored technical training for MOH officials included over 100 long and short-term participant trainees in the U.S. and third countries.

IRH/FP was less successful in its main goals of improving management and integrating services. Obstacles to integration ranged from lack of infrastructure to attitudinal resistance and concerns about "loss of turf" from vertical program staff. The greatest barrier was that responsibility for implementing integration was given to a "Project Group" with no real authority or control beyond its ability to persuade. For vertical programs, the integration effort became "someone else's project", something that would be accomplished without their active collaboration. As the mid-project evaluation pointed out, integration is not just a project: it is a basic organizational philosophy. Without the commitment and involvement of vertical projects, little progress could be made.

At the district level, the organizational change from vertical projects to integration also proved more difficult than expected. General management problems and poor supervision combined with the difficulties of converting employees and maintaining coverage levels. In view of these obstacles, the MOH was reluctant to drop vertical coverage and turn its full energies towards implementing integration. USAID likewise continued to support vertical programs, for even though they competed with integration, they had made significant progress in specific areas.

By 1985, 10 years into the integration experiment and five years into IRH / FP, it was clear that the project's major objectives were not being achieved. The project implementation schedule planned too many activities in too short a time, and by 1984 the project was far behind schedule. Early on, IRH / FP dropped a district-wide integration schedule to concentrate on upgrading existing non-integrated health services within previously integrated districts. Between 1980

and 1986, four districts were fully integrated. By 1987, only 20 had been integrated, most only partially, for a total of 26, as opposed to the 48 originally slated for integration by 1985.



USAID has supported the training of thousands of paramedical workers throughout Nepal.

—photo by Alison Wright

The project was also overly optimistic in expecting HMG to effectively absorb and utilize \$34 million in five years. By September 1984, with ten months left to go, only \$23.5 million had been spent. An evaluation team recommended that USAID terminate support to the ICHSDP but continue to support other activities. Subsequently a three year no-cost extension was approved, which corresponded to a change of USAID's HFP personnel. Thus, IRH/FP entered what was essentially Phase II from 1985 to 1988.

IRH/FP: Phase II

The mid-project evaluation recommended a strategy shift from the earlier “top-down” approach to focusing on implementation at the district level, a point much closer to actual service delivery. USAID resources concentrated on developing effective, expanded field service delivery, shifting from the management stress of

Phase I to dealing with major implementation problems, and working within the system rather than simply providing financial support. Management structures were tied to service delivery, with a more specific regional focus. Support for the ICHSDP was dropped, as was funding of drug supply logistics and construction. Financial accountability was tightened, and incentives for VSC and contributions to general operating expenses were phased out.

These revisions broadened the project's former focus on MOH operations in the Kathmandu Valley. The provision of infrastructure, salaries and operational expenses for the MOH were typical of an earlier era but unusual for the 1980s. Phase II of IRH / FP resumed USAID's concern with improving the life of Nepal's rural majority, focusing more specifically on the women and children of Nepal. From the mid-1980s on, child survival became an increasingly important theme. Improving provision of a broadened range of family planning interventions was (and remains) another priority.

Phase II of IRH/FP began an active search for sound, concrete investments, but the MOH's ongoing reorganization delayed this process. The project's later extensions tested service mechanisms which are currently being implemented or further explored. Post-1988, IRH / FP programming served as a bridge to the Child Survival/ Family Planning Services Project, begun in 1990.

Two events occurring in the mid-1980s set the tone for future health sector development. King Birendra's 1985 "Basic Needs" initiative placed special emphasis on family planning and child survival, paralleling and supporting USAID's child survival objective. In July 1987, HMG announced a total structural reorganization of health services. A Public Health Division of the MOH was created under which vertical projects (including ICHSDP) were to be integrated. A separate Curative Division oversees the hospital system, and a degree of responsibility for implementation was delegated to Regional Health Directorates. HMG also committed itself again to a nationally integrated system of health service delivery, the most significant step since the integration process began in the early 1970s. Combined, the two events signaled a symbolic recommitment to goals consistent with USAID's health policy and objectives, reflecting at least in part upon USAID's long-term role as the sector's major donor.

Family Planning

Population growth remains one of the most complex variables in development planning; this is true of many countries, not only Nepal. Challenges particular to Nepal include a wide range of ethnic groups and castes, transportation difficulties, low female literacy and a generally low social status of women. A 1977 study

ranked Nepal 87th out of 94 countries in socioeconomic indicators correlating with receptiveness to family planning and fertility decline.

Despite these difficulties, Nepal's contraceptive prevalence rate more than doubled in the 1980s, from seven percent in 1981 to 15 percent in 1989. A cost benefit analysis performed by Integrated Development Systems in 1983 showed benefits from averted births greatly exceeded family planning expenditures.

High fertility rates and a high rate of infant and child mortality appear to be closely related in Nepal. USAID's health and family planning policies have since the late 1980s integrated strategies for reducing both. Child survival initiatives will presumably result in a reduction in the birth rate, though altered behavior may not be evident for a decade or longer following a reduction in child mortality.

Population Policy Development

The impact of population growth cuts across all sectoral divisions; reducing it requires policy development at the highest levels. Both the World Bank and USAID had long advocated a high-level population policy board an organization that would draw governmental attention to population problems, research the causes of population growth, formulate policies to encourage a lower rate, and coordinate HMG activities influencing population.

Earlier efforts through USAID's Population/ Family Planning Project failed to produce a viable organization. The first attempt, POPCOB, was unsuccessful. A successor agency, POPCOM, was created in 1978, and the following year a \$2 million, three-year Population Policy Development Project was approved to monitor and coordinate its development with technical assistance and participant training, but the Population Commission was slow to materialize. A 1982 telegram from USAID / Nepal to Washington described the project as "probably our most difficult and one of our most important projects."

After several reorganizations, the institution's fourth successive incarnation appeared as the National Population Commission (NPC) in April 1982. Chaired by the Prime Minister, with a full-time vice chairman and an independent secretariat, the NPC appeared to have finally overcome the organizational and managerial constraints of its predecessors.

The original project formulation had also evolved since 1979. The NPC was conceptualized in the Project Paper as a sort of research clearinghouse, commissioning studies on a variety of population-related issues. This was to be reinforced by participant training in research methodology. The linkage between knowledge, research and policy changes was described thus:

AID hopes to educate and inspire those concerned with and responsible for population control ... if results are presented in a policy framework,

research can produce policy changes, mainly because of the universal interest and concern evident in HMG and the level at which this issue is to be addressed.

The project's mid-term review in December 1982 had little to actually report upon, since the organization had only been operational for eight months. Among the few tangible accomplishments to that date was the sponsorship of a series of regional conferences on population for political leaders, culminating in a national conference in 1982. All were well received and effective, part of the institution's role in generating high-level commitment to population policies.

Due to the project's late starting date, a no-cost extension until 1985 was recommended. The review team redirected the project away from the idealistic Project Paper. The review urged research be limited to subjects directly relevant to the institution's main task of reducing population growth, concentrating on population policy and planning research rather than the 35 pages of social science research topics originally outlined. While members of the NPC tended to regard their main task as calling attention to the population problem, researching its causes and coordinating governmental population activities, the team stated "the more important activity should be the formation of a comprehensive and detailed policy through which fertility could be brought down rapidly".

The central purpose was reformulated as reducing population growth. All activities not directly relating to this should be curtailed. "Birth rate reductions do not only come from family planning", the team pointed out, adding that a program of fertility reduction through incentives and disincentives would be a valuable contribution to national policy. The present moment, the report warned, was crucial for development of an effective population policy:

... the history of population policy in Nepal has been a history of disappointment. At first it was thought that establishing a family planning program would be sufficient, but the birth rate rose instead of declining ... During all the time the Commission was being formed and re-formed, the increase in population in Nepal reached crisis proportions. It would be a great tragedy, and certainly the surrender of a last hope, if the Population Commission in its present state should fail to lead the country in an effectively implemented policy of population control.

While the NPC did record significant accomplishments in the following two years, proving influential in articulating policies through 1983, this was due mainly to the skill and influence of its vice-chairman. Its successes did not last long enough to become institutionalized. Changes in leadership and the

government caused a decline in the NPC's influence, and the institution's impact and authority declined to virtual insignificance.

Family Planning Delivery Methods

Government-sponsored family planning during the 1980s was delivered through three different service approaches:

- stationary, through health posts and FP / MCH centers;
- mobile, through temporary Voluntary Surgical Contraception camps; and
- door-to-door, through the Panchayat-Based Health Worker, and, to a lesser extent, the Community Health Leaders and Village Health Workers of the integrated program.

At various times, USAID has supported all these service delivery methods. In 23 integrated districts, family planning was delivered by the multi-purpose Village Health Worker. The VHW's effectiveness in family planning was limited, as they were charged with delivering 11 other activities as well to a widely scattered rural population. In addition, the great majority of VHWs were male, which inhibited discussion of family planning with women clients.

The vertical FP/MCH project remained active, expanding steadily throughout the decade. On paper, FP / MCH was subsumed under the integration effort; in actuality, it received 39 percent of the project's total funding, the largest of any component. In Nepal's 52 non-integrated districts, FP/MCH was the major provider of family planning. Emphasis was mainly on sterilization rather than temporary methods, and the maternal-child health component was largely ignored.

The project operated through a corps of Panchayat-Based Health Workers (PBHW) delivering outreach services. USAID had been instrumental in the development of the concept of this community-based field worker, funding the entire cost of the PBHW program from 1976 to 1983. Later, the component remained strongly supported, with 47 percent of PBHW salaries funded through the IRH / FP.

PBHWs were intended to work at the grassroots level, providing basic maternal-child health services and family planning methods, and encouraging support for sterilization and immunization camps. By 1986 over 2,500 PBHWs covered about 60 percent of total districts. Their performance was generally rated as unsatisfactory, due partly to insufficient training and support; and their demanding activities engendered a high turnover rate. PBHWs were nearly all male, which restricted potential contacts with female clients. Finally, the official emphasis placed on voluntary sterilizations led many PBHWs to believe that garnering support for VSC was the main component of their job.

In 1984, USAID began exploring the potential effectiveness of female PBHWs. Studies had shown that female workers were more effective than males in delivering maternal-child health care and in counselling female clients for family planning, yet they constituted only about 15 percent of the total force. The number of women workers was limited by the job's demanding travel and time requirements, by a cultural tendency to allocate salaried positions to men, and by recruiting criteria implemented in 1981 raising the educational requirements. Following an evaluation of the status of the PBHW recommending an increase in female workers, USAID in 1985 required that all new PBHWs be female. During the next few years female workers increased to over 50 percent of the total.

In addition to governmental family planning efforts, USAID supported several PVOs. The Family Planning Association of Nepal (FPAN), which performed 20 to 30 percent of the nation's Voluntary Surgical Contraception, was supported through projects and through the IPPF. More recently its emphasis has been redirected towards birth spacing, clinical services and counselling. Other USAID-funded PVOs included the Nepal Red Cross Society, the Mother's Club and the Ex-Servicemen's Organization, which distributed pills and condoms to villagers, an effort covering over 50,000 clients. Finally, New Era and Integrated Development Systems carried out population, family planning, and social science research.

The Contraceptive Retail Sales Company (CRS) continued to increase the availability of temporary methods, steadily expanding its distribution network to over 5,000 small shops, pharmacies and retailers and retailers by 1982. By 1988 it reached 14,000 retail organizations in all 75 districts, far exceeding the year's target of 11,000. Its achievements are notable in view of the struggle the organization had faced in implementing marketing and advertising techniques in a society where these were nearly unknown.

CRS' presence has complemented and to some extent balanced the official emphasis on sterilization by providing temporary methods. In 1983 it was incorporated as a Nepali-managed, private, non-profit company, with a small policy-level advisory board made up of members from various ministries, the FP/MCH Project, and USAID. Funding was provided by USAID under a cooperative agreement. An increasing degree of self-sustainability was emphasized as the organization expanded product lines and markets and moved towards a more independent commercial orientation. USAID supported efforts to restructure company operations through a revised management and administrative systems, increased self-sufficiency and adoption of a privatization plan.

Voluntary Surgical Contraception

In purely quantitative terms, the greatest success of the entire IRH / FP project was the Voluntary Surgical Contraception (VSC) component. At the beginning of the 1980s, Nepal began to emphasize voluntary sterilizations over temporary methods. By 1981, 75 percent of the married women using family planning used VSC. Female sterilizations in particular experienced a tremendous increase, up 2,500 percent from 1976 to 1981 to constitute one-third of total family planning methods.

Nepal's shift to VSC was partly motivated by the minimal follow-up care required, compared to that demanded by temporary methods (the weak national health structure was presumed to be inadequate to the task of follow-up). Another, more questionable, proposition was that permanent methods would have a greater demographic effect than temporary ones (David, 1984). As Nepal soon discovered, however, VSC's demographic impact is a function of the age and parity of the acceptor. Both male and female VSC clients in Nepal were generally 30 years or older, with four to six living children. VSC's impact on reducing population growth was thus minimal.

In 1982 an incentive system was introduced, which tended to motivate both service providers and clients away from other methods and towards VSC. The 1987 VSC goals were met two years early, but the goal of 500,000 temporary method users was only 73,500 by 1986. By 1989 VSC was responsible for 86 percent of an overall 15 percent contraceptive prevalence rate, seriously skewing the balance of family planning methods. In Nepal, *pariwaar nirojan* (family planning) tends to be associated with permanent sterilization, which has a limited appeal.

The concept of birth spacing through temporary methods being promoted by USAID promises a greater demographic impact. VSC appeals to a limited range of clients; temporary methods are more appropriate for younger couples with fewer children. In addition, birth spacing offers the possibility of improving maternal and child health. A broad consensus maintains significant increases in family planning acceptor rates will be impossible to achieve unless the health and survival of young children is relatively assured. Birth spacing, along with oral rehydration therapy, immunizations, and other interventions, offer the possibility of reducing child mortality.

Malaria Control

The need for a continued malaria control effort was made evident by the outbreaks of the 1970s. The ongoing commitment to malaria control demanded a

considerable amount of money desperately needed elsewhere; this was unavoidable, however. Though the NMEO organization demanded nearly half the Ministry of Health's budget, it provided a well managed malaria control service. Cautiously estimated, the net value of agricultural land protected by malaria control was \$319 million (IRH/FP assessment).



A Passive Case Detection Volunteer performs a blood test for malaria, part of USAID's decentralized approach to malaria control.

The localized outbreaks of the 1980s demanded a "fire-fighting capacity" to respond to rapidly shifting conditions. USAID assistance complemented HMG and donor efforts, providing \$4.6 million in insecticides from 1980 to 1988 through IRH / FP. In the early 1980s the national case average was relatively stabilized at 16,500 annually. In 1984 the case number reached nearly 30,000, and the following year a sharp 30 percent increase to 42,321 resulted from two epidemics in the Mid- and Far-Western region.

Three main causes were identified: population movements, including a massive influx of malaria from India; ecological changes, including the intensive deforestation and resettlement of the Inner Terai and the ensuing lack of up-to-date entomological data necessary for surveillance; and insufficient spraying

coverage due to a shortage of insecticides. Activities in 1984 and 1985 in Western Nepal were particularly insufficient, directly contributing to the epidemics of 1986. Also, the increasing emergence of a more deadly form of *falciparum* malaria, more difficult and expensive to treat than the indigenous *vivax* malaria, raised concern. While USAID's supply of insecticides terminated in 1988, it provides substantial funding for other control measures under the Child Survival/Family Planning Services Project, and continues to engage in an intense dialogue with HMG and donors on control issues.

Child Survival: The Late 1980s

The brunt of Nepal's morbidity and mortality falls upon young children. A conservative estimate of the national infant mortality rate was 112 per 1,000 live births in 1990; in some areas, combined infant-child mortality rates were as high as 400 per 1,000. Diarrheal diseases were associated with about 45 percent of under-five deaths, with pneumonias (acute respiratory infections, or ARI) implicated in an additional 20 percent.

Nepal's high rate of infant / child mortality led AID / Washington to designate it one of 22 "Child Survival Priority Countries". Since the mid-1980s, USAID has been exploring child survival methodologies, seeking simple, easily replicable interventions with the potential to save thousands of lives. Early assistance supported the Ministry of Health's Expanded Immunization Program, as well as NGOs in field testing alternative systems of service and delivery for immunizations, oral rehydration therapy and ARI services.

Starting in 1986, the Jumla ARI Intervention Trial served as a test model of a case management approach to childhood pneumonia control — the only large-scale community-based program in the world focused solely on ARI. A grant implemented through the Nepal Red Cross Society supported training of local workers in active case detection and treatment of ARI in young children. The experiment proved that clinical case management by trained villagers at the community level is feasible, manageable and affordable. The program subsequently expanded to include Vitamin A therapy and ORT/DD information collection, providing a testing ground for a package of basic child survival interventions has proved useful in Nepal as well as other developing countries.

At the close of the 1980s, USAID's sectoral strategy in health and family planning was consistent with the MOH's emphasis on basic needs, child survival and reduction of population growth. Forty years of assistance to Nepal's health and family planning sector gave USAID the perspective and experience necessary for an accurate understanding of the current situation. A "lesson learned" in this

sector is the need to maintain direction beyond the short term in order to achieve sustainable successes.



EDUCATION AS A BASIC NEED

By the mid-1980s, 23 percent of Nepal's 18 million people had achieved literacy. Primary school enrollment had reached 1.7 million, and secondary level enrollment stood at over 200,000. While Nepal had achieved major gains in education since 1951, it still required assistance to improve educational quality and expand educational opportunities. The Basic Needs initiative introduced in 1985 targeted education as one of seven basic needs, and further singled out literacy improvement and primary education as vehicles for achieving overall development.

USAID's Strategy

USAID's strategy in the education sector during the 1980s was designed to take advantage of particular capabilities for technical transfer. USAID provided technical assistance to upgrade HMG's capacity to collect and analyze education statistics for more informed decision-making in the education sector; assisted with expansion of radio-based teacher training activities which aimed to improve the quality of primary level instruction; and assisted HMG to expand its national literacy program and upgrade post-literacy skills. USAID also helped build a capacity within HMG to design, test, administer and evaluate activities to improve educational quality.

USAID's education program was designed to enhance development in other priority sectors. USAID supported HMG's view that community participation in the development process would increase benefits, and therefore continued to support education as the means to encourage participation.

Assistance levels in education remained relatively low through the 1980s, although a comprehensive Basic Education Project was planned for implementation in 1990. It advocated a return to the systematic approach to education development developed by USAID in the 1950s and 1960s, and was designed to improve overall access to education by assisting with teacher training, adult literacy, radio education, and institutional support to the Ministry of

Education and Culture. Unfortunately, budget constraints and AID's changing priorities meant the project was never approved by Washington.

Education Administration

In 1984, Nepal was chosen to participate in a centrally-funded AID project to help seven developing countries "improve the performance of their educational systems and strengthen their capabilities for educational planning, management and research." Improving the Efficiency of Educational Systems (IEES) was a ten year project to help developing countries formulate educational policies for more efficient use of educational resources. The project was a collaborative effort involving a consortium of U.S. universities, USAID Missions and host governments.

In 1988, the IEES project in Nepal published the Education and Human Resources Sector Assessment: Nepal, which contained recommendations for improved development and management of Nepal's education system. The report outlined seven areas: Nepal's planning and management capacity, instructional methods, data collection and analysis, decentralization, quality control of educational activities at all levels, educational financing, and more effective use of foreign assistance in implementing education programs. While commending Nepal's progress in education since 1951, the recommendations pointed to the need for more efficient allocation of HMG's resources throughout the education sector.

The report was meant to encourage policy dialogue, and to help Nepal more effectively use donor resources in education priorities. The Asian Development Bank used the report as a guide for planning teacher training projects, formulating plans to coordinate its activities with USAID's Radio Education Teacher Training project. Most importantly, since the report was a collaborative effort between the IEES coordinator and Nepalese counterparts in the Ministry of Education and Culture, it resulted in a transfer of data collection and analytical skills, and created a data base for subsequent development planning in the education sector.

Teacher. Education: RETT II

One of the most serious constraints to expanding access to quality education continued to be the shortage of trained teachers. In 1981, there were approximately 17,500 untrained primary teachers in Nepal, accounting for roughly 64 percent of total teachers. Six thousand of these teachers had either not taken or failed the School Leaving Certificate exam. Even those teachers who had passed the SLC needed in-service training to reinforce teaching techniques.

HMG's targets for universal primary education by the year 2000 could not be met using only traditional teacher training facilities. The Institute of Education had been training 800-900 primary teachers per year at its thirteen campuses, and lacked capacity to expand. As in the 1970s, radio-based education was promoted as an effective means of overcoming financial and geographic constraints and achieving primary education targets. To meet HMG's target of providing schools for 87 percent of children between six and ten years of age by 1990, a minimum of 12,000 primary teachers were needed. Radio education provided the means to address at least some of Nepal's teacher training needs.

In 1981, HMG declared that the Institute of Education would only be responsible for degree-granting programs. Most of the IOE's programs at the time were focused on pre-service and in-service teacher training rather than on degree courses, and as a result, it was forced to drop its teacher training programs. Coming at a time when HMG was seeking to encourage more teachers to join the profession, this move effectively discouraged continuation of formal training programs to improve classroom performance. Staff interest in teacher training at the IOE diminished, and enrollment at the IOE's campuses dropped by more than 40 percent. HMG was forced to rely, increasingly, on nonformal radio education to train its teachers.

USAID and the Ministry of Education responded to the situation with radio broadcasts to improve on-the-job performance of primary teachers. Through 1984, the Radio Education Teacher Training Project continued to provide in-service teacher training to at least 2,500 primary school teachers annually through radio broadcasts.

In 1984, USAID initiated Phase II of the Radio Education Teacher Training project (RETT II), which sought to improve primary teachers' classroom performance by upgrading their knowledge in math, science, Nepali and English (RETT I had indicated radio was better at conveying content information rather than methodology and teaching techniques). By 1986, 5,600 teachers from 72 of Nepal's 75 districts were enrolled in the RETT program, and nearly 3,000 teachers had received training certificates. The Radio Magazine Show, which constituted the program's nonformal segment, was proven an effective means for disseminating educational information.

The popularity of the RETT projects is evidenced by their meeting or exceeding target goals each year. Independent observers noted that teachers enrolled in RETT did apply the new information in their classrooms. Even teachers not formally enrolled in RETT were listening; lower secondary level teachers, for instance, were interested in development of a radio program

addressing their own needs. Radio education proved to be a cost effective method of training rural teachers in their own environment.

To encourage training, the Ministry of Education and Culture offered a salary incentive: in 1981, an SLC-passed teacher with additional radio-based training received Rs485 per month, as compared with Rs338 per month for a teacher without the SLC. In both cases, average salaries were not enough for what teachers were required and expected to do, though training-based salary increases were an improvement over HMG's usual practice of rewarding teachers based on seniority.

The overall success of the two RETT projects was largely due to their systematic approach to project implementation. Basic equipment and supplies, including radios, were procured well in advance, and early in the program more than 20 Nepalese were trained in the U.S. and third countries in priority areas such as textbook production and radio programming. In 1981, the Curriculum, Textbook, and Supervision Development Center of the Ministry of Education and Culture assumed responsibility for administering the radio programs. Careful, coordinated planning allowed for effective decentralized monitoring and evaluation of project activities. Despite the continued need for qualitative upgrading of primary education, RETT was termed "a valuable and well received program" in its 1984 final report.

In September 1990, responsibility for radio education teacher training was turned over to HMG. USAID felt the program was adequately equipped with the technology and skilled manpower to operate independently.

Adult Education

Under the Seventh Plan, 1.5 million adults were to be made literate by 1990. Had the only means to achieve such targets been through the Ministry of Education and Culture's Functional Literacy Program, goals could not have been met; the program was understaffed, lacking in material and financial resources, and relied on traditional rote-memory learning techniques. The program taught basic reading and writing skills, but provided few reading materials to sustain literacy. USAID's view that education should go beyond basic reading and writing skills to provide adults with the skills needed to actively participate in local development led to USAID's support for a project to strengthen HMG's literacy program.

In 1979, USAID provided a grant to World Education Inc. under the Private Voluntary Organization Co-Financing Project to develop a pilot for a nonformal adult education program. The Literacy Expansion Project initially developed curriculum and instructional materials for nonformal adult education. The

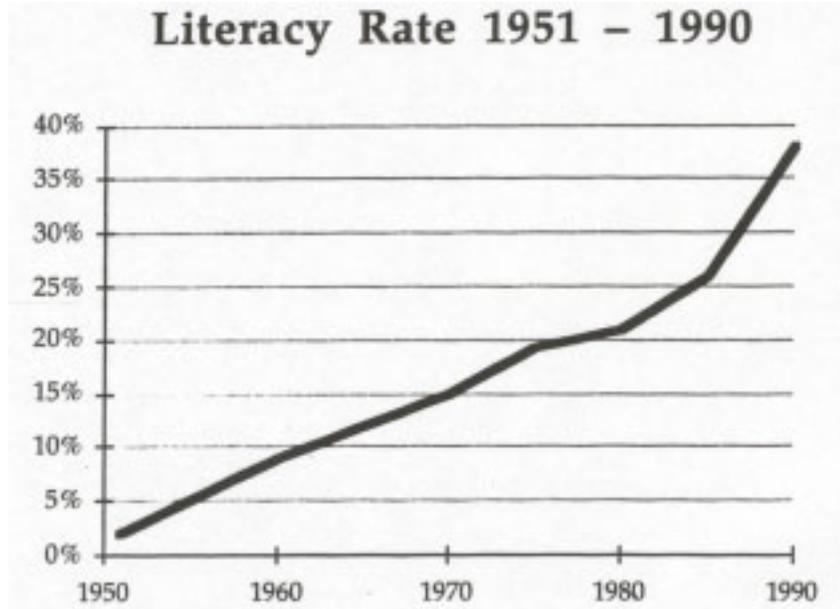
program's original aim extended beyond expanding literacy to encompass creating awareness of development strategies and practices which would encourage better local-level planning. Though HMG believed literacy was unnecessary for subsistence farmers in isolated rural areas, USAID saw nonformal education as a means to promote rural development.

Responsibility for implementing the project was given to the Ministry of Education and Culture (MOEC), then transferred to the Centre for Educational Innovation and Development (CERID), and then shifted back to the Adult Education Section of the MOEC, already overwhelmed by its responsibility for HMG's Functional Literacy Program. Eventually, the Functional Literacy Program was replaced by the Nonformal Education Program, combining the MOEC's experience with the technical and financial resources of USAID. Forty percent of the Nonformal Education Program's activities, (which incorporated USAID's Literacy Expansion project), were carried out by the MOEC's Adult Education Section, and 60 percent of activities were implemented by both indigenous and international non-governmental organizations, and other international organizations. The MOEC provided instructional materials to these organizations at cost, and trained teachers and teacher trainers at no charge.

The materials and instructional methods developed under the Literacy Expansion project followed a model proven successful in a nonformal education project in Ecuador, and subsequently adopted by UNESCO's Experimental World Literacy Program. World Education Inc. adapted the instructional materials to address the needs of Nepal's rural population, focusing on topics in agriculture and health and family planning.

After six years of testing, the program served 18,000 participants in its first year of operation in 1985, and steadily expanded to include more adults throughout the country. In 1988, 76,000 adults participated in literacy classes; nearly 50 percent of them women. In Phase II of the project, the Literacy Expansion Project sought to build upon successes achieved in Phase I by strengthening the MOEC's institutional capacity to produce literacy materials and provide literacy classes to an ever expanding audience. During Phase II, the contractor began researching development of a post-literacy program.

An independent assessment by World Education Inc. conducted in 1989 examined the impact of literacy on health care and natural resource conservation. The study found that prior to attending an adult literacy class, less than 10 percent of all participants would have suggested Oral Rehydration Therapy (ORT) for a child with diarrhea. After completion of the class, 90 percent would recommend ORT. Similar results were found when participants were asked about planting trees as a means of controlling erosion. The study proved that access to certain



types of information can greatly impact people's ability to improve their living conditions. World Education Inc. believed that the framework for achieving a 65 percent literacy rate by the year 2000 had been successfully established with the spread of adult literacy classes to all of Nepal's 75 districts.

Female Education

In 1985, the female literacy rate was 11.5 percent. Despite women's vital role in household and farm decision-making, and their influence on the attitudes and behavior of future generations, illiteracy served to isolate women from development-oriented government services. Nepal's Sixth Plan, which sought to increase female participation in the development process, was consistent with USAID's Women in Development policy. The plan placed special emphasis on "opening avenues of education to as many women as possible." The Ministry of Education and Culture and the National Commission on Population worked together to establish female enrollment targets for all levels, and to formulate programs to achieve the targets. In 1985, USAID and the Ministry of Education and Culture signed an agreement to develop the Girls' Access To Education Project. By supporting the Division of Women's Education in the Ministry of Education and Culture, with linkages to rural Women's Education Centers

(WECs) in 30 communities, the project was designed to help meet female enrollment targets. Due to a conflict between Nepalese implementing agencies regarding project objectives, the project was never implemented.



TRANSPORTATION

From the mid-1970s on, transportation dropped in importance as agriculture received increasing attention from both USAID and HMG. Sectoral expenditures decreased due to new priorities, USAID's shift away from large-scale construction, and the achievement of many early goals. Under the Seventh Plan, transportation was allocated just under 14 percent of the budget.

As efforts to improve rural life continued, transport projects such as trail and bridge construction and repair became more important. Experience had taught that roads are of limited relevance in the hilly and mountainous two-thirds of Nepal. In many regions they are virtually impossible to construct. Where they are built, they are extremely expensive to maintain and often hasten erosion. Improved bridges and trails are a simple, economical means of spreading benefits among the population. In addition, a national highway system takes decades to construct: quicker and more direct benefits can be obtained in the meantime by improving trails and bridges. USAID's involvement in transportation in the 1980s focused on a project involving this relatively small-scale and inexpensive alternative.

Trail Suspension Bridge Project

In August 1979, USAID provided \$3 million to build 24 to 36 bridges in rural Nepal under the Trail Suspension Bridges Project. The stated goal was to enhance the quality of life by increasing the flow of goods and services. Technical assistance was to be provided by SATA, which since 1972 had worked with the Department of Roads' Suspension Bridge Division (SBD), and by the Peace Corps. USAID was to finance materials, procurement and transportation for bridge construction

The joint involvement of USAID and SATA underscored their different attitudes towards institutional development. SATA had since 1972 provided a high level of technical assistance to the SBD, playing an active role in nearly every aspect of operations. The USAID approach was less participatory, concentrating on providing resources which presumably would create the basic

infrastructure to develop the SBD as an institution. In practice, however, this approach tended to emphasize building bridges over institution building. Merely providing resources was not enough for institutional development: guidance and structure was also necessary.

The USAID project did target one intervention in SBD's overall program: developing a set of consistent, objective criteria for selecting bridge sites, a notoriously subjective and difficult task generally externalized from the SBD. Bridge selection was a politically sensitive issue, complicated by tremendous nationwide demand: requests received by the SBD far exceeded its construction capacity. The Fifth and Sixth Plans had emphasized the need for detailed feasibility studies preceding bridge construction. In the late 1970s USAID commissioned a series of studies to develop objective selection criteria, and these became an integral part of the 1979 project paper.

The project grant agreement specified the use of the new bridge selection criteria as a precondition for the release of funds. Eventually the criteria were to be incorporated into the DOR's standard operating procedure. A contractor field-tested the criteria and developed a field survey manual to rank potential sites, but neither the SBD nor SATA was receptive to the new technique, and the criteria remained unused. Ambivalence within USAID itself contributed to the failure in implementation. The precondition of criteria use was waived for the first two years due to lack of time; the third year the requirement was simply dropped without explanation, despite a project extension paper citing implementation of the criteria as an important aspect of continuation.

From a quantitative point of view, the project was a success. A total of 44 bridges were built, exceeding the project's original goal; the final evaluation found they had a definitely beneficial effect. While bridges seldom improve the standard of living in gross economic terms, they do make life easier, improving the flow of goods and saving time, labor and money for local people and porters. A follow-up study found the bridges also enhanced socio-economic development by improving access to schools, health facilities, markets and administrative centers; simplifying firewood and fodder collection; and providing a focus for small markets that sprung up near bridge sites. Benefits were found to be greatest where a major trail crossed a major river, as in Benighat, where 40,000 people live within a day's walk from the bridge.



The 1990s

Democracy and Development

AID believes that democracy is an economic development issue, as well as a political one.

– AID Administrator Ronald W. Roskens

The success of the *Jana Andolan* (People's Movement) in the spring of 1990, which culminated with King Birendra assuming the role of constitutional monarch and the restoration of multi-party parliamentary democracy, infused the Nepali people and their friends with immense hope, as they entered the final decade of the 20th century. The early 1990s was a time of euphoria, when it was easy to imagine that the perennial obstacles to Nepal's development would soon be overcome, and the nation would emerge into the new millennium, no longer one of the world's least developed countries.

Nepal's history, however, had been shaped and directed by authoritarian regimes, relieved by only intermittent, and relatively recent experiments with democratic governments. In the 1990s, as in 1951 when Nepal first experimented with representative government, the country was challenged with shaping a democratic system appropriate to its diverse political, social, and economic aspirations.

An interim government comprised of representatives of the various opposition parties, including the Nepali Congress, the United Left Front, independents, and appointees of the King, was installed to oversee drafting of a new constitution and parliamentary elections. The new constitution, placing sovereignty with the people and providing for a bicameral legislature with a constitutional monarch, was promulgated on November 22, 1990, and on May 12, 1991, the interim government successfully carried out the country's first free and fair elections in 32 years.

In the four decades from 1951 to 1990, Nepal realized significant advances in agriculture, health, education, transportation and communications, and made major improvements in the delivery of government services and in the numbers of Nepalese trained for technical and administrative occupations. However, entering the final decade of the twentieth century, it remained one of the poorest countries in the world: 42.5 percent of the population remained below HMG's poverty line. Despite the general optimism accompanying the end of the Panchayat era, Nepal still faced major obstacles in substantially improving the lives of its people.

The seriousness of the challenge was not lost on the country's leaders. Dr. Ram Sharan Mahat, then Vice Chairman of the National Planning Commission, wrote:

The National Planning Commission is presently confronted with the task of formulating the Eighth Plan in a limited time at one of the most critical moments of modern Nepalese history. Although historically eighth, this will be the first plan of a fully democratic Nepal. The challenge in planning at present is not only because there are high expectations of people in the wake of the national election under a new polity when the resources are limited, but also because the economy has suffered from long neglect. Furthermore, new international economic realities compel us to re-orient our thinking and policies.

Foreword to "Approach to The Eighth Plan 1992-97"

As Nepal reviewed its past efforts, USAID and other donors reviewed their assistance programs and restructured them to suit the new context of political and economic pluralism, which provided USAID an opportunity to openly pursue democratic reform and economic liberalization initiatives.

Implications for Economic Development

Nepal's economy faced repeated disruptions toward the beginning of the 1990s, including the economic crisis of the mid-1980s, the 1989 trade and transit impasse with India, and the political disturbances of 1990. The net effect was an increased burden on Nepalese citizens. A USAID assessment showed that after the April 1990 revolution, "Nepal suffered a major reduction in tourism, food cost increases, a manufacturing / production decline, and reduced basic services because of strikes and other disruptions".

HMG and donors were being called upon to prevent further economic deterioration and to ensure sustained economic growth. Some of the principal constraints included low agricultural productivity, limited natural resources, environmental degradation, inadequate and deteriorating physical infrastructure, weak administrative and institutional structures, insufficient human resource development, and inadequate domestic resource mobilization. Population growth which continued to seriously undercut economic growth, demanded serious attention. In addition, though the International Monetary Fund pointed to some progress in meeting the Structural Adjustment Program targets, it also noted that Nepal had been slow to implement needed budgeting and expenditure controls, tax reforms, and public enterprise reforms.

Predictions regarding the course of Nepal's economic development were largely speculative at the beginning of the 1990s. While donors were encouraged by the prevailing liberal atmosphere, most continued to exercise caution. Both HMG and donors concentrated on maintaining ongoing development programs, while awaiting future political developments.

Donors and the New Development Environment

Nepal's 1990 political movement gave donors reason for optimism. Despite some progress in implementing the Structural Adjustment Program, by the end of the 1980s donors noted persistent project implementation problems, partly resulting from Nepal's rigid economic policy framework. Though the new political situation did not automatically offer solutions to these problems, donor activity and hopes were stimulated by the possibility of change.

Though lacking a mandate for major reforms, the interim government sought to redirect Nepal's development programs to make them more people-oriented. The government's actions complemented donor advocacy of more decentralized planning and budgeting to finance and sustain local initiatives.

At the October 1990 Nepal Aid Group meeting in Paris, the International Monetary Fund pledged its willingness to begin negotiations for an Expanded Structural Adjustment Program if political developments continued to encourage democratic and economic liberalization. At the same meeting, the Nepal Aid Group pledged over \$535 million for programs for FY 91 / 92, which would account for nearly 60 percent of Nepal's development expenditures, and approximately 40 percent of total HMG expenditures.

Besides acknowledging their support for multi-party democracy, donors stressed the need for continued adherence to the Structural Adjustment Program, including prompt implementation of economic reforms, restrained spending, and facilitation of private sector-led economic growth. Donors were unanimous in stressing the need to check Nepal's population growth rate. Policy dialogue between HMG and its donors improved as a direct result of the new trend towards democratic and economic liberalization.

U.S. Economic Assistance Strategies in the 1990s

In Nepal, as in Eastern Europe, the trend towards democratization and economic liberalization provided opportunities for AID to increase the scope of its assistance programs to include initiatives that had long formed basic tenets of the Agency's philosophy, namely political and economic pluralism. AID adopted four new

"initiatives" supporting work in Democracy, Business, Family, and Environment, in order to achieve these principles.

Under the Democracy Initiative, AID aimed to strengthen democratic institutions and develop AID's capacity to respond quickly to democratic breakthroughs of the type that occurred in Nepal in 1990.

The Partnership for Business and Development Initiative extended AID's traditional concern with private sector development to include U.S. business involvement, insofar as it related to AID objectives in host countries. The challenge was to determine the best use of U.S. resources to promote political, social, and economic stability in developing countries while simultaneously helping them to achieve broad-based economic growth.

The Family and Development Initiative highlighted the graduation of basic human needs concerns, from a nearly exclusive concentration on government programs to private sector approaches, and focused on the family unit as the axis of development. The family plays a principle role in shaping the abilities and desires of individuals to participate in and take advantage of opportunities in society.

The Environment and Natural Resource Management Initiative operated on the premise that sustained economic growth would be jeopardized by unsound management of natural resources. AID sought to assist at the national and local levels in achieving appropriate economic and environmental policies, and strengthening public and private environmental institutions. In Asia, AID concentrated on management of water and soil resources, energy efficiency and use, tropical forests and biological diversity, and urban and industrial pollution.

AID Initiatives in the Nepal Program

Recent political changes have led to new public fora to discuss economic, legal and administrative reforms. The changes have altered USAID's operating milieu and programming opportunities.

– USAID's Annual Budget Submission, 1991

Using AID guidelines as a foundation, USAID/Nepal developed four program goals for the 1990s which combined AID's global assistance strategies with Nepal's own developmental needs and priorities. These included:

- strengthening the development of sound economic policies which rely on competitive markets operating with a minimum of government regulation;

- increasing the range of choice, availability, and use of the most essential child survival and family planning services through complementary public, private, and NGO efforts;
- accelerating the process of endowing private groups and users with control over and capacity to manage Nepal's economically important, renewable natural resources;
- expanding access of farmers, rural groups, and agro-enterprises to market opportunities in order to increase their economic options and incomes.

These goals were supported by a commitment to increasing the role of non-governmental organizations and the private sector in the development process, and to expanding democratic initiatives in all spheres. The ultimate goal was to assist development to the point where Nepal could meet the needs of its people on a sustainable basis with its own resources. Increasing economic growth and productivity was crucial to this approach, as was development of human and institutional resources, a fundamental priority which had been addressed in some way by nearly every USAID project of the previous four decades.

USAID's program in 1991 had 10 ongoing bilateral projects, four centrally-funded activities, and one new project under development in direct response to Nepal's changed political atmosphere. Though it was a minor player in terms of financial contributions, USAID's long-term experience, strong field presence and technical expertise ensured a position of leadership among donors.

Reengineering and Reinventing USAID

The end of the cold war and concomitant changes in US foreign policy had a profound effect on the shape of USAID programs worldwide, in the 1990s. Responding to funding cuts in the early years of the decade, the agency made dramatic reductions in the number of overseas missions and personnel, both in Washington and in the field. After funds were cut again, in 1996, the agency implemented further reductions in force, and closure of additional missions. By 1997, 24 missions had been closed and the total workforce had been reduced from 1992 levels, by nearly 32 percent. These changes, and the need to re-think USAID's role in a post-cold war world, led to a top-to-bottom re-assessment of USAID's mission and the way it operated.

Reinventing USAID

In 1993, USAID's administrator volunteered the entire agency as a "reinvention laboratory". USAID established five strategic goals to meet its agency mission of pursuing sustainable development in developing countries:

- Achieving broad-based economic growth
- Building democracy
- Stabilizing world population and protecting human health
- Protecting the environment
- Providing humanitarian assistance

Reengineering

The process by which the agency transformed the operations of its overseas missions came to be known as "reengineering". Reengineering revolved around:

- Increasing customer focus
- Managing for Results
- Enhancing staff participation and teamwork
- Empowering and increasing the accountability of staff
- Valuing Diversity

Reengineering included reorganizing mission organizational structures, eliminating unnecessary administrative requirements, and including the participation of development partners and recipients in program planning. In 1994, USAID selected 10 missions to test these reengineering principles, concepts, and approaches, prior to deployment worldwide. Based on observations of the experiments and feedback from the participating missions, USAID initiated full implementation of its reengineering approach in October 1995.

At USAID/Nepal, reengineering was enthusiastically welcomed as a liberating innovation that helped to prioritize and focus mission activities, and opened the way for new synergies among programs, as well as among human and material resources.

Prior to reengineering, the Mission was organized into sectoral offices (Agriculture, Health, Education, Transportation, etc.), and support offices (Finance, Contracting, etc.). Each sectoral office was manned by specialist staff, and conducted activities in its particular field. When new activities were undertaken, or in the course of ongoing activities, a sectoral office would approach the various support offices with their requirements for procurement, payments, contracts, or other services. The process might have to be reiterated several times, because of differences in the functional requirements of sectoral and support

offices, or as a result of one office not completely understanding the needs of another.

With the advent of reengineering, the sectoral offices were replaced by dynamic “*strategic objective teams*”. In June 1995, the following *strategic objectives* were approved:

- Strategic Objective 1 (SO1): Increased Production and Sales of Forest and High-Value Agricultural Products
- Strategic Objective 2 (SO2): Reduced Fertility and Improved Maternal and Child Health
- Strategic Objective 3 (SO3): Increased Women’s Empowerment

The teams charged with accomplishing each of the *strategic objectives* were composed, not only of USAID specialist professionals, but also representatives from the support offices (which made operations far more efficient), as well as from USAID’s partners and customers: HMG counterpart agencies, contractors, and grantees. Programs and projects were no longer planned in isolation and then presented to the target beneficiaries, but were made with their full involvement and cooperation.

A *strategic objective* is a far more sophisticated, dynamic, and focused management concept than a sectoral office; it provides rational criteria for prioritizing activities, so that resources are not wasted on activities that are peripheral to the objective. Further, a *strategic objective* lends itself to managing for results, because it provides an objective basis for monitoring and measuring progress.

For example, SO1: Increased Production and Sales of Forest and High-Value Agricultural Products, is a very specific objective. A team charged with its accomplishment would probably not take up activities to improve subsistence farming because, although subsistence farming is an agricultural endeavor that might be within the purview of an agriculture office, it would be unlikely to advance the *strategic objective*.

A team pursues its *strategic objective* through a number of tactical interventions aimed at achieving *intermediate results* which will advance the objective. Taking SO1 as an example again – the team determined that “Sustainable Management of the Productive Resource Base” was an *intermediate result* that would contribute to its *strategic objective*. Interventions were then designed to support that result; they included community forestry activities and interventions to improve cropping patterns. The team then identified measurable *indicators* that could be monitored, to determine whether the *intermediate results* were being achieved. Some of the *indicators* were:

- The number of community forest and irrigation user groups formed with management plans in the target area
- Cropping intensity in irrigation areas
- Hectares of land officially turned over to user groups
- Hectares of land managed by user groups in Rapti districts
- The number of buffer zone conservation committees sharing in national park revenues
- Change in abundance of “keystone” species in parks and protected areas

Over time, a team might drop or modify some of the original indicators, or add additional ones, as experience suggested. Similarly, the *intermediate results* might be modified, in response to a changing environment or to the emergence of new opportunities.

Strategic Objectives might be added or dropped as well, in response to a range of factors, which might include: the availability of funds, new opportunities, lack of progress, or changed Agency-wide priorities. Such changes, however, require a great deal of planning and preparation, especially since the basis of a *strategic objective* is a *Strategic Objective Agreement* (SOAG) between the mission, and the host country government.

As of October 2001, USAID/Nepal will have 5 ongoing *strategic objectives*:

- SO1 Increased Sustainable Production and Sales of Forest and High Value Agricultural Products
- SO2 Reduced Fertility and Protected Health of Nepalese Families
- SO3 Increased Women’s Empowerment
- SO4 Increased Private Sector Investment in Environmentally and Socially Sustainable Hydropower Development
- SO5 Strengthened Governance of Natural Resources and Selected Institutions

Recollections of the Early 1990s

Kelly Kammerer, USAID/Nepal Director 1989 - 1993

I had the great good fortune not only to live and work in Nepal for four years, but to be there during a period of enormous change and transition (1989 - 1993). I arrived at Darsain in 1989, during the last months of the Panchayat era. The winds of change then sweeping across Eastern Europe and the

Former Soviet Union did not go unnoticed in Kathmandu. Demands for change following decades of political repression and the “partyless system”, and widespread perceptions of corruption at the highest levels of government, were becoming impossible to resist. In the age of the fax machine and satellite communication (ten years ago was before the internet age!) previous techniques for keeping “outside influences” out of Nepal were no longer possible.

After the “revolution”, and the formation of an interim government, USAID was instrumental in providing technical assistance and commodities to strengthen the Supreme Court and the commission drafting the new constitution. Our program officer, Mike Calavan, quickly found ways to support a rapidly emerging NGO sector. U.S. NGOs such as PACT, Save the Children/US, CARE and The Asia Foundation became conduits to an emerging civil society. Some of those programs continue today. We worked with DANIDA to help strengthen and refurbish the Parliament, and built on Stacy Rhodes’s earlier contacts in the legal community to develop and strengthen parliamentary watchdog organizations.

When the first elections were held, USAID was instrumental in providing not only technical assistance, but also in financing numerous election observers. USAID, the Embassy, and USIA made a formidable team, not only in helping to ensure free and fair elections, but in helping to educate, through study tours and other programs, an entire new generation of political leaders with no prior experience in government.

Sometimes I have thought we did our job too well, as I have watched Nepal over the past decade conduct election after election. Nevertheless, even though I am aware that the freedoms associated with the new constitutional monarchy have not produced all the economic and social developments expected in the heady days of 1990, and corruption has not been entirely eliminated, Nepal has an infinitely better political environment in which to work than it did when I first arrived in October 1989.

While political change dominated my tour, I would be remiss in not noting the fabulous work of our HFP office in bringing family planning to all 75 districts, and in improving maternal and child health in many ways. Rob Thurston and his team in ARD came up with a new concept in program assistance (SIRE) that was built on by his successor, Jim Gingerich, in the Rapti Zone to produce marked economic growth in a short period of time. The SIRE concept subsequently became a model for the entire agency. Mike

Calavan, in his role as program officer, devised an extraordinarily successful program of NGO grants that contributed much to the state of Nepal's civil society today. I would also be remiss if I didn't mention the seminal work of Mission economist Niel Cohen during this period, to strengthen and make more transparent the rules and procedures affecting the private sector, a program successfully carried on by Abe David after Neil's departure. There are many others I could name, including our fantastic team of FSNs. It was a unique period in time in Nepal's history and all of us felt privileged to be part of it through our work at Rabi Bhawan.

Agriculture, Natural Resource Management, Rural Development, and Conservation

“Focus” was USAID’s byword in the 1990s. The necessity to concentrate resources strategically was chiefly driven by demands from other parts of the globe on the agency’s limited resources and an ever growing awareness in USAID of what really works in Nepal, and what could be achieved in the era of newly restored democracy. In agriculture, as in other sectors, the focus was on democratization, decentralization, local control of resources, and strengthening the private sector.

It was evident that a commercially focused agricultural growth strategy for Nepal must:

- Be market-led and demand-driven;
- Be carried out by the private sector; and
- Expand the control of farmers, rural communities, and agroenterprises over productive assets and enhance their access to appropriate technologies and market opportunities.

Nepal’s Eighth Plan (1992-97), the first five year plan to be drafted after the restoration of democracy, was in many ways a very progressive document, not least in its approach to agriculture. The Plan endorsed a paradigm shift from subsistence, to market agriculture, as the way to achieve food security and growth. It recognized the link between agriculture and forestry, and emphasized the importance of seeing them, not as discrete sub-sectors, but as complementary-supplementary elements of an agro-ecological system. It supported the management of local resources by the communities that used and relied on them

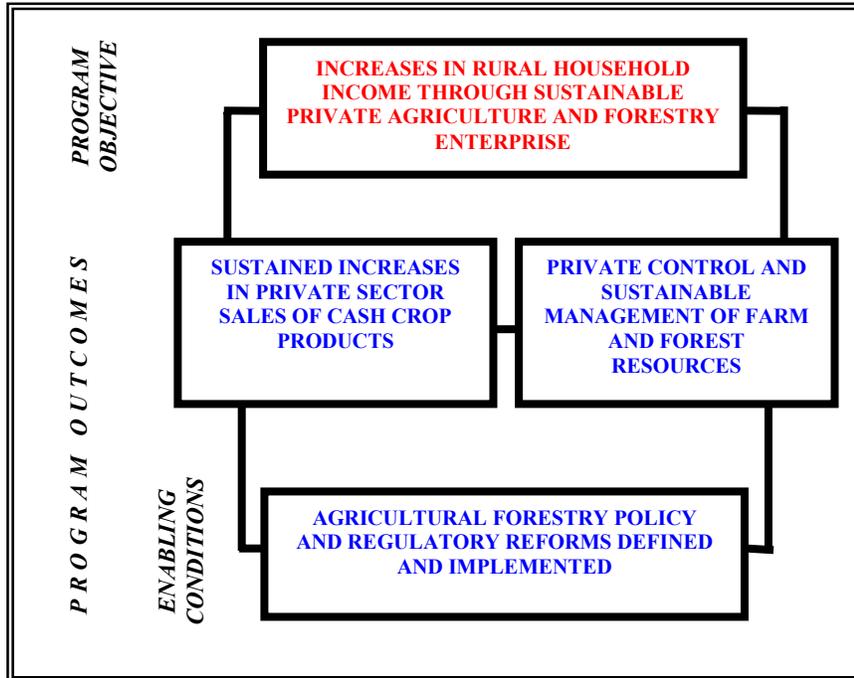
for their livelihoods. And for the first time, it recognized the role of private agroenterprise in input supply and market activities.

SIRE

The concordance between the HMG and USAID agendas was no coincidence, it was the outcome of 4 decades of cooperation and shared experience in the sector. The Eighth Plan became operational in 1992, within months of USAID's Sustainable Income and Rural Enterprise (SIRE) program.

SIRE, was a key innovation that was to guide U.S. - Nepal cooperation in agriculture, forestry, natural resource management, and rural development through the 1990s. SIRE was not an additional program, but rather an umbrella that subsumed projects administered by the Mission's Office of Agriculture and Rural Development (ARD) and focused them on one single objective: to increase rural household incomes through sustainable private sector agriculture and forestry enterprise. Over \$58.6 million was obligated under SIRE over six-years.

The objective reflected the broader Mission objective of "increased private sector contribution to income growth" and aimed to keep ARD focused on people-level impacts. It recognized a wide array of private sector functions associated with agriculture and forestry inputs, production, marketing, processing, storage, distribution, and export. While the primary and ultimate beneficiary of the program was the rural household, the program was also intended to improve the efficiency and responsiveness of small, medium, and large scale agribusinesses, even though, in some instances, their operations and owners were located in urban areas. It thus acknowledged that the well-being of farm enterprises and agribusinesses are inextricably linked.



Framework for the SIRE Program

SIRE defined 3 primary Program Outcomes as requisite to the Program Objective:

- Sustained increases in private sector sales of cash crop products
- Private control and sustainable management of farm and forest resources
- Agricultural and forestry policy and regulatory reforms defined and implemented.

The achievement of the Program Outcomes was taken to indicate that the Program Objective was being achieved.

In the program framework, one of the Program Outcomes, "Agricultural Forestry Policy and Regulatory Reforms Defined and Implemented", was

designated “Enabling Conditions”, to emphasize the causal relationship between the actions incorporated in that outcome and the other 2 outcomes.

This re-structuring of the Mission’s agriculture and rural development (ARD) program militated against the tendency for HMG and USAID resources to become dissipated in the myriad details of projects, by focusing scarce resources on a small number of high priority objectives. It provided specific performance-based indicators and benchmarks which clearly linked individual activities with overall program progress. This helped the joint USAID-HMG Program Steering Committee to review and evaluate progress, and legitimized program resource shifts from poor performers to strong performers. The umbrella structure allowed less cumbersome, more responsive procedures for amending the program and its activities, making annual financial obligations, and responding to a changing program environment. SIRE facilitated a more complete integration of USAID assistance and program activities, enhanced cross-fertilization of complementary elements in different activities, improved coordination with other donors, and improved access to and leverage on policy dialogue issues.

For various practical reasons, not all of the projects in USAID’s ARD portfolio came under the SIRE program at first. The four ongoing activities initially subsumed under SIRE were the Rapti Development Project, the Agroenterprise and Technology Systems Project, the Forestry Development Project, and the Institute of Forestry. Each one had associated strategic areas of emphasis which supported the achievement of the program objective:

Rapti Development Project

- Increased household incomes from expanded market-oriented activities.
- Increased production, marketing, and sales of cash crops.
- Increased private and community ownership, and improved management of productive forest and farm resources.
- Increased private distribution and sales of production inputs and marketing services, e.g. tree seedlings, fertilizer, vegetable seeds.

Agroenterprise and Technology Systems

- Strengthened private sector role in expanding markets for rural products and improving rural incomes.
- Public agricultural research system more responsive and accountable to needs of market-oriented farmers and agroenterprises in station

command areas.

- Public agricultural research system more cost-effective, decentralized, and autonomously managed.

Forestry Development Project

- Policies and programs resulting in increased forest user group management of community forest lands.
- Greater private sector role in supplying market with forest products.

Institute of Forestry

- Graduates trained to better advise on and work with community forestry and private resource management.
- IOF curriculum incorporating community and private forest management.
- IOF administrative system strengthened and more financially sustainable.

The projects that did not initially come under SIRE nevertheless contributed to the SIRE program objective. The Dairy Assistance Program, for example, increased farmer incomes and supported privatization of the dairy industry. The Irrigation Management Project directly supported the hand-over of public sector irrigation projects to private water user groups. The ARD-managed activities under the Mission's PVO Co-Financing Project promoted desired agriculture and natural resource policy change, addressed natural resource / biodiversity issues, and strengthened links to income generation.

There were also notable synergies achieved between SIRE and other elements of the Mission's agenda. SIRE focused on rural and sectoral aspects of the policy and regulatory reform agenda promoted at the macro-economic levels through the Economic Liberalization Project. SIRE and the Economic Liberalization Project jointly contributed to the Mission's strategic objective of increasing private sector contributions to income growth. SIRE's assistance to economic interest groups (producer associations, user groups, agroenterprise organizations) helped strengthen their stake in a more open and pluralistic political system; an objective supported directly by the Democracy Project.

In 1994, SIRE was amended to include several new activities. Among these were the Private Electricity Project, Policy Analysis in Agriculture and Related Resource Management, and Environmental Activities.

The Rapti Development Project

The Rapti Development Project continued as a sub-project under the SIRE program through July 1996, with \$1.36 million in SIRE funds added to the \$18.8 million already obligated. The Final Project Evaluation portrayed it as a success, not only in terms of its own objectives, but as a groundbreaking, pioneer endeavor that had proved to be central to the strategic priorities delineated in the Agricultural Perspective Plan.

Under the RDP, USAID and its partners pioneered an approach to community forestry that resulted in the Forestry Act of 1993 and its by-laws of 1995. This milestone legislation provided communities with secure tenure rights and the authority to manage and harvest forest resources. Community forestry was an especially successful element of the RDP: with the aid of the Departments of Forest (DOF) and Soil Conservation (DSC), more than 24,000 hectares of forest, ten percent of the forest judged appropriate for community operation, was handed over to user groups. The national average at the time was two percent.

By the end of the project, it was estimated that controlled management was allowing forest stands to put out added growth, which was previously being lost to over-harvesting and grazing. At the time, it was estimated that six to ten cubic meters of wood a year were being added per hectare as a result of protection management. At the 1995 price of US\$360 per cubic meter for quality sal roundwood, this was a significant and growing asset.

As a pioneer in the sector, the RDP solved first generation problems but, as the final report pointed out, its very success raised second generation ones: If the handover of that first ten percent of appropriate forest land to user groups took eight years, at 3,000 hectares per year, completing the task within the 20 year horizon of the APP would require quadrupling the effort to 12,000 hectares per year. What changes in administrative and implementing structures would be required to accelerate the process, and how could RDP success be emulated in other zones? How could the management skills of user groups be improved? Looking further into the future, there would be difficult issues related to harvesting, processing, and marketing trees and tree products. These would include questions about rates and purposes of cutting and investment in manufacturing. Such future problems were welcomed by USAID and its partners as challenging opportunities, earned through hard-won success.

The remarkable success of forest user groups (FUGS) encouraged the formation of user groups in other areas: agriculture, horticulture, livestock, irrigation, drinking water, the construction of schools and community buildings, and income generating activities.

A majority of farmer producers from the rugged hill areas were isolated from the outside world; thus, most farmer groups were loosely structured and formed only for production purposes. Soon after the RDP came under the SIRE umbrella the situation began to change. Market development workshops run by the Vegetable Fruit and Cash Crops program, brought user groups into contact with traders, and competition among the traders was encouraged. A farmers' group in Kapurkot became involved in marketing vegetables and ginger. At Barela, in Salyan, the vegetable seed production group began providing market services, quality seeds, and technical guidance to the farmers, as well as producing 14 metric tonnes of seed.

In Rolpa, an Agriculture Entrepreneur Association was established in 1993, by 13 member farmers. By 1994, twenty-two farmer-producer groups were associated with it and the Association had traded 70 metric tonnes of apples and 50 metric tonnes of vegetable seeds. By charging a four percent commission the association collected Rs.100,000 which it used to construct an office.

The widespread formation of user groups was an immense advantage in providing extension services. Targeting and working through user groups proved far more efficient and practical than trying to deal with individual farmers. Since about 12 percent of the user groups were exclusively women's groups, and since women were represented in several of the mixed groups, extension services began reaching that underserved 50 percent of the population that does most of the agricultural work and makes many farming decisions.

District Agriculture Development Officers (DADO) were the project's primary HMG agency partners. In horticulture development efforts, DADOs used the group approach in programs concerned with high value commodities such as fresh vegetables, vegetable seed, and potatoes. In the areas covered by the RDP, the farmer group approach became the major extension vehicle used by DADOs to develop livestock. During the project period, 204 livestock interest groups were established, although only 119 were found to be active and functional at the time of the final project evaluation. Among these, the 58 buffalo groups with 1,010 members managed to accumulate Rs.0.72 million in their savings program. They invested nearly 40 percent of it in local development works. The 48 goat groups with 992 members (a large number of whom were women) saved Rs.0.71 million and invested nearly 65 percent of it in socioeconomic development activities.

The Agroenterprise and Technology Systems Project

The Agroenterprise and Technology Systems Project (ATSP) was based on three assumptions:

- The production-focused, grain-based, public sector directed approach of the past was not sufficient to achieve the rapid growth in production, employment, and income required in the future. That approach, which had relied on direct government interventions and top-down planning, suffered from bureaucratic rigidities and inefficiencies, and weak farmer and private sector participation.
- Opportunities afforded by Nepal's diverse agroecology and its proximity to substantial markets in India and the region, had been inadequately exploited. There was significant potential for increasing higher-value crop, livestock, and commercial forestry product production for both export and import substitution purposes.
- There should be more emphasis on understanding market opportunities and diversifying farmers' options for market production. The key objective was not so much a matter of what (and how much) farmers can grow but whether the production meets the needs of the market in terms of volume, quality, form, taste, timeliness, and price.

The project's purpose was:

- To link private agroenterprise, farmers, and public resources, in order to achieve medium-term increases in farm incomes and in agriculture's contribution to economic growth.
- To strengthen the role of the private sector in expanding markets for Nepali farmer produce.
- To accelerate selection and adoption of production-increasing technologies and value-added services suited to the needs of Nepal's farmers, agroenterprises, and market opportunities.

The project interventions were organized into two components: the public sector agricultural research component, where the project provided assistance to the Nepal Agricultural Research Center (NARC) and the private sector agroenterprise component, where assistance was provided to the Federation of Nepal Chambers of Commerce and Industry (FNCCI), which had established an Agroenterprise Center (AEC).

The NARC component of the project had two objectives:

1. Support the implementation of major management reforms within NARC to give it the flexibility, incentive, structure, and decentralization needed to

make NARC more cost-effective and responsive to location-specific needs of farmer and agroenterprise clients.

2. Establish a client-oriented Research Outreach Program within the command area of each NARC Regional Research Station to give Nepali farmers a greater say in the development of NARC's research agenda.

It was expected that this would result in:

- A public agricultural research system that was more autonomous, decentralized, cost-effective, and better managed.
- A public agricultural research system that was more responsive and accountable to the needs of market-oriented farmers and agroenterprises in agricultural research station command areas.
- Policies favoring private sector / client interests reflected in decisions of the NARC Executive Board and other relevant policy-making units.

The main objective of the AEC component was to strengthen the private sector role in expanding markets for rural products and improving rural incomes. This was to be accomplished through the following activities:

- Services to producers, processors, and exporters.
- Support to commodity groups and associations.
- Support to agroenterprises.
- Support for contract research.
- Identification and analyses of policy problems for producers, agroentrepreneurs, and market entrepreneurs, and policy dialogue to solve these problems.

These activities were expected to generate the following outputs or indicators:

- FNCCI through the AEC would establish a marketing and technical information facility for agroenterprises.
- Simplified procedures for export of agro-based products to India and third countries would be enacted.
- The AEC would identify areas of agroenterprise business potential and find and encourage existing and potential clients for new business ventures. The AEC would actively promote eight to ten innovative agro-enterprises with a package of services including feasibility studies, business plans, support in getting bank loans, and organizing investors, technical and market information, training, and policy studies for lobbying. AEC staff and qualified firms would be trained to provide effective packages of services to new agro-enterprises.

- AEC would organize and /or strengthen several commodity associations to set their own action plans, obtain new technology, make new market contacts, and lobby HMG for any necessary changes in regulations and procedures.
- The AEC would facilitate export related contacts for agribusiness and assist in linking entrepreneurs with relevant expertise in production, processing, transportation and export of products.
- The FNCCI and AEC would work with NARC to obtain improved or new technical information for producers in new agro-enterprise areas. NARC would be invited to send a representative to the AEC Board, and the FNCCI would be invited to nominate a private sector representative to the NARC Executive Board.
- The AEC would recover a significant proportion of its costs through charges for its services and their applications.

Technical assistance to the project was provided by USAID through a contract with Chemonics.

ATSP commenced in 1990, and ran until 1997. By the mid-term evaluation in 1994, a pattern had emerged, that was to continue throughout the project's life: FNCCI's AEC pursued the project objectives with enthusiasm and some notable success, while NARC (apparently constrained by an entrenched, inward-looking institutional culture) progressed marginally, but was never able to assume the responsive, client-oriented role that the project envisioned for it. Nevertheless, there were some fruitful collaborative efforts between NARC and AEC. These included research that led to the introduction of superior varieties of sugarcane in the Terai, sunflower in the far-west, and beekeeping in the mid-west, as well as some industrial crops such as barley.

AEC's clients worked at an entrepreneurial pace. They needed solutions to their technological problems in a reasonably short time. NARC wasn't able to move quickly enough to satisfy their needs. It was never able to make use of the autonomy it was granted to motivate its staff, to generate revenues, or to carry out long-range planning. Despite the need for research and extension services appropriate to high-income and irrigated crops, hill farming systems, agro-forestry, and soil-conservation, NARC remained preoccupied with Terai-based field trials of cereals and legumes. The AEC eventually bypassed NARC, turning to private consultants who were willing and able to respond within a commercial time-frame for the right price.

FNCCI established its AEC on January 1st 1992. By the mid-term evaluation, the AEC was publishing a monthly price abstracts bulletin which was sent to

commodity associations and Chamber of Commerce and Industry (CCI) offices. It had provided information from its data bank collection to 92 clients, and was giving agro-information to two or three non-member, walk-in clients a day, in addition to CCI members.

On the policy front, AEC successfully campaigned to prevent the Agricultural Marketing Act from being sent to Parliament. The Act would have established price controls for agroproducts, which would have hurt agribusinesses by ignoring free market price variation over the course of the year. By 1994, AEC and its Board members were routinely invited to participate in generating national plans for the agribusiness sector.

The AEC trained members of commodity associations in business methods and exposed them to market realities through business trips abroad. It also managed to interest entrepreneurs with money and connections to enter the agribusiness export market. About 80 percent of AEC's time was spent working with associations. Six national level commodity associations were started or substantially helped by AEC in its first two years, as well as seven district level and other associations.

After conclusion of the ATSP project in 1997, USAID worked with AEC as a partner in subsequent projects.

USAID/Nepal supported the ATS project with \$13 million, to which an additional \$3.5 million was added when the project came under the SIRE umbrella.

The Forestry Development Project

As part of a multi-donor effort to support the Forestry Sector Master Plan, USAID designed the \$5 million Forestry Development Project to run from 1990 to 1995. The project strengthened the capacity of the Ministry of Forest and Soil Conservation in three areas:

- training Planning Unit staff for policy implementation and planning activities;
- formulating legislation to transfer forest management authority to user groups and private firms; and
- developing a program to encourage local production and marketing of fuel efficient stoves.

The Planning Unit coordinated programs transferring forest land from the national government to user groups and the private sector.

When the Forestry Development Project came under the SIRE umbrella in 1992, USAID added an additional \$0.14 million to the original \$8 million already obligated.

**The Irrigation Management Transfer Project (IMTP)
(USAID/Nepal support for the largest irrigation system ever privatized in Asia)**

By the mid-1980s, the Nepalese government already owned and operated scores of irrigation systems commanding hundreds of thousands of hectares of irrigated land, but the performance of these systems was far from satisfactory. Water distribution was inefficient; many lands within the systems were not receiving water, and both farmers and government officials were eagerly looking for alternatives.

Based on the results of the USAID supported Irrigation Management Project (1986-1995) with its emphasis on managing existing irrigation resources more effectively, HMG and the Department of Irrigation (DOI) decided to try a bold new experiment in irrigation management. Rather than continue government operation of these irrigation systems, management and control would be turned over to the farmers, who had the greatest interest vested in their performance. In essence, this was tantamount to privatizing tens of thousands of hectares of irrigated land.

After a series of discussions with USAID and the Asian Development Bank (ADB), HMG gave formal approval to the Irrigation Management Transfer Project in 1995. USAID and ADB would co-finance the project, with ADB providing financing for rehabilitation of selected irrigation systems, and USAID supporting institutional and management innovations. USAID/Nepal provided \$2.73 million in support, over the life of the project. In a daring and forward-looking agreement, HMG agreed to establish and train formal Water Users Associations (WUA) in 11 government operated irrigation schemes covering 70,000 hectares, rehabilitate and physically improve them, and then turn over the management of these schemes to the WUAs.

Such an endeavor was almost unheard of in Nepal, and encountered substantial opposition from some quarters within HMG. Privatizing tens of thousands of hectares of irrigated land was thought, by some, to be impossible. Objections were raised farmers would not cooperate, that the WUAs would fail, and that farmers would not possess the necessary technical or management capabilities to run such large public enterprises. The list of doubts and condemnation was loud and persistent.

Yet a few far-sighted officials, assisted by USAID, were convinced that only by turning over the management of these irrigation systems to WUAs could Nepal's irrigated agriculture improve, and the lives and incomes of thousands of rural farmers be enhanced and enriched.

Early in the project, HMG and USAID/Nepal officials agreed on some key IMTP elements:

- Privatization - The management of large public enterprises (irrigation systems) would be transferred to organized WUAs. These groups would receive appropriate training and guidance, and the government would be available for future technical advice and assistance. But there was to be no ambiguity regarding who had the full responsibility and authority to manage the irrigation systems; the farmers would be the managers, not the government.
- Democracy - The WUAs were not to be rubber-stamp organizations, simply implementing policies and programs of the government. Farmer leaders were to be democratically elected in tangible demonstrations of grass-roots democracy. With all the potential turmoil and jostling that comes with democracy, the farmers had to be committed to organizing and managing their own farmers' groups.
- Decentralization - In the past, the irrigation systems were controlled from the top, following directives from the central government in Kathmandu. That would now change: local leaders, responding directly to local conditions, would manage and operate the irrigation systems. Local private organizations, the WUAs, would be directly accountable to the local people.

The size, ambition, and scope of this endeavor was startling. Forty thousand households and over 200,000 people in rural Nepal would be directly affected. The size of the irrigation systems to be turned over ranged from small (600 ha), to massive (25,000 ha), with a total target of almost 70,000 hectares to be privatized. The systems to be turned over stretched from one end of Nepal to the other, from east to west, covering over 700 km. For this reason, USAID/Nepal pledged its assistance to the Nepalese government from 1995 to 2001, with the understanding that due to the scope of the project, a reasonable extension past 2001 might be called for.

Throughout 1996 and 1997, USAID and HMG tested IMTP management innovations, while also training farmers in irrigation system operation, office establishment, and WUA constitution-building. By mid-1998, three years into the project, some key milestones had been achieved:

- Privatization of large public enterprises had taken place with initial success, (albeit with many questions still to be answered).
- Private local farmers' groups (the WUAs) had been established as institutionally and financially functional organizations in rural Nepal.

- The operation and maintenance of irrigation schemes turned over to the WUAs had initially improved, with related increases in area irrigated, crop yields, family income, and net financial benefits.

When IMTP was developed, project implementers agreed that management transfer of three government operated irrigation systems covering 14,000 hectares would constitute a pilot phase and a learning laboratory. The DOI realized that to effectively transfer the management of large public enterprises to local private farmers' groups would require a unique project approach and process, where farmers and the government viewed themselves as equal partners. Assisted by USAID and ADB, the DOI developed a four-stage privatization process, where farmers and government would have distinctive and special roles to play at each stage. As this would be a new set of procedures and processes, both farmers and government would have to engage in a learning process, where flexibility and pragmatism would outweigh traditional working arrangements.

By 1999, USAID had assisted the DOI to privatize three government-operated irrigation schemes covering 14,000 hectares. Farmers are now actively managing thousands of hectares of irrigated land, where a few short years ago their perspective was confined to their local village. One of the pilot irrigation systems turned over is the giant West Gandak Irrigation System, covering over 10,000 hectares, and populated by more than 40,000 people. Fed by one of Nepal's largest rivers, the Narayani, **West Gandak is the largest irrigation system ever privatized in Asia.**

The Policy Analysis in Agriculture and Related Resource Management Project

The first phase of the Policy Analysis in Agriculture and Related Resource Management Project, launched in 1989, was designed around the experience of previous research programs. Like its predecessors, it aimed at long-term development of Nepal's research capacity in the agricultural social sciences, and strengthening analytical capabilities within the Ministry of Agriculture and its associated institutions. In addition, the program was to give increased emphasis to the design and conduct of policy-related analysis, and strengthen analytical capability within other government and non-government institutions.

The second phase of the program, launched in 1995, was designed from the outset to reflect the new democratic atmosphere in which economic policy was analyzed, formulated, and implemented. In particular, it was to serve the training and analytical needs implicit in HMG's stated policy objectives of economic liberalization, popular participation, market-based development, adoption of an

enabling role for government, and a corresponding emphasis on creating conditions for full private sector participation in the development process. The overall strategy adopted in implementing the second phase of the project was to group all activities around two broad objectives and then target all program activities towards fulfilling one or both. The core objectives were to:

1. Increase the number and strengthen the professional capabilities of agricultural policy analysts in Nepal, and
2. Conduct, support, and effectively report on agricultural policy analysis using these resources.

The first (capacity building) objective was furthered by activities that centered on training and exposure in the field of policy analysis and implementation, particularly for staff of the MOA. Participants completed three Ph.D. and two MS degrees, while 25 thesis research grants were awarded. Under the In-country Women's Scholarship Program, 87 female students received scholarships to study agriculture and forestry. Other MOA staff received training in agricultural policies, computer skills, IMS, and proposal writing, while 33 professionals received support to attend and present papers at regional and international seminars.

One very significant contribution of the second (policy analysis) objective was the assistance provided to formulating the 20-year Agricultural Perspective Plan (APP). Some studies that were felt to be of critical policy importance were also carried out on a pro-active basis. The topics covered included both those of general policy concern and commodity-specific ones. Most dealt with problems related to the priorities established in the APP.

In early 1993 the MOA asked the project to find out why private companies in Nepal were reluctant to take advantage of the government's opening up of the fertilizer market to the private sector. This resulted in the first of five important papers on the topic produced between 1993 and 1996, when the project was completed. The studies were of immense importance in the very difficult process of liberalizing government fertilizer policy.

In January of 1996, the program collaborated with the Agro Enterprise Center (AEC) of the FNCCI to sponsor a consultative meeting to identify and promote policies to encourage the private sector to produce, process, market, and export high-value crops. The meeting brought together farmers, private traders and exporters, HMG officials, and donors for two days of intensive discussions. Subsequently, the Agricultural Development Bank was authorized (in the 1996/97 national budget) to grant credit facilities to producers and exporters in the sectors covered by the recommendations of the meeting.

Studies showing the importance of cold storage facilities for market-based development of high-value agricultural commodities resulted in reduced interest rates on loans for cold store construction as well as a cabinet decision to subsidize the electricity tariff for cold stores.

Other important policy issues that were influenced by studies undertaken by the project include:

- Reduced tariffs on agricultural packaging material
- Abolition of octroi
- Reduced service charge on agricultural exports
- Privatization of veterinary services
- Removal of restrictions on movement of agricultural produce and livestock
- Waiving of import duties and sales tax on selected agricultural machinery
- Nepal's decision to apply for membership in the World Trade Organization

The program has been closely involved in the introduction and popularization of the participatory approach to development, ever since it introduced this concept to Nepal through its 1990 Participatory Rural Appraisal training workshop, which was conducted by renowned international experts on the subject. Thereafter, the program continued to promote the approach, sponsoring a number of training workshops and policy analysis workshops, and publishing reports and briefing papers; all of which have encouraged its adoption. The participatory approach has now become part of HMG policy; the 1996/97 budget speech contained a commitment to adopt it in the areas of irrigation management and community forestry.

The Market Access for Rural Development Project

The Market Access for Rural Development (MARD) Project, which started in early 1996, is a follow-on to the Rapti Rural Development Project II. Like Rapti II, MARD has the strategic objective-level outcome of sustainable beneficiary income growth through increased sales of high-value crops. The Rapti Project Vegetable and Fruit Crop component became the model for the MARD intervention to commercialize small farm agriculture. MARD employs the strategy of helping small producers to group together in order to meet the wholesale market demands for quantity, quality and regularity of supply. In addition to market development, the MARD Project also supports technology extension through three partners: HMG, the grantee (CECI) and the contractor (Chemonics). Programs include improvement in nutrition and vitamin A consumption. MARD also includes program activities to develop the "bottom-up

planning and policy reform” capabilities of local producer/marketing groups and HMG line agencies.

MARD is a six-year Project with a USAID contribution of \$7.7 million and an HMG contribution of \$3 million. The project is located in Mid-Western Nepal, and was originally designed to cover a total of 15 districts. However, Maoist activity, beginning in February 1996, caused major disruption of Project activities in five of the Project districts. In July 1997, Maoists kidnapped one of the Chemonics team members, and the TA team was withdrawn from two of the Project districts. In May, 1998, a Chemonics team member was killed by Maoists. Since then, the team has been withdrawn from the five districts of the Rapti Zone, and relocated in the Gandaki and Lumbini zones. In the Bheri Zone where the CECI grant is operating, one of the three districts (Jajarkot) will receive no grant programs due to Maoist activity.

Currently, CECI focuses its activities in two districts in the Bheri zone, as well as in Nuwakot, while Chemonics operates in six districts of the Lumbini and Gandaki zones. HMG is supported financially by USAID to carry out MARD activities in six districts of Lumbini and Gandaki.

The Project runs several key market development activities. These include the production of high-value, off-season crops, the organization of production and marketing groups, and the creation of rural collection centers for the consolidation of the crops. In addition, the Project seeks to link the small traders who move the product from the collection centers to district markets, to larger regional markets.

CECI has been particularly successful in developing agro-enterprises that support MARD objectives. One example of this is in their mid-hills cabbage and cauliflower production pockets. In these pockets, farmers have nominated people from their own community to operate vegetable collection centers. The collection center operator/trader receives the produce from the grower, and transports it to district markets for sale. After the sale has been made, the trader returns and remits payment back to the farmer (less agreed-upon transport and brokerage fees). This arrangement allows farmers to sell their crops without having to make the arduous journey to the district markets themselves. The trader benefits because he/she is able to consolidate enough produce to rent tractor-trailers to haul the produce to market. This is much more cost-effective and time-efficient than individual farmers walking their produce to market in a *doko* basket.

Besides creating links to wholesale markets via farmer/traders, the Project has been able to draw in independent traders. One of Chemonics’ key activities in its work with farmer/traders, traders from the Butwal market, and local government, has been post-harvest handling training. When the Project introduced plastic

crates, losses from shipping damage were reduced by 20-30 percent for soft produce like tomatoes.

An evaluation team that interviewed the production groups, found several of them to be very enthusiastic and economically enlightened as to the benefits of off-season marketing, packing, and sorting, as well as sensitive to the need for volume production to achieve transport economies of scale.

MARD Case Study - Jhuparam Kasera

Jhuparam Kasera is a farmer living in Simesal village, Khadkabada VDC of Dailekh District with his family of eight. Five years ago, he was barely able to support his family for six months out of the year. Instead, he had to seek alternative sources of employment. He and other local farmers had trouble making ends meet growing traditional crops such as potatoes, rice, wheat, maize, and millet. In 1993 SAPPROS, a Nepali NGO, with the support of the USAID funded CECI/MARD project, initiated income generation activities, including savings and credit groups in Juparam's village. "The field project staff of SAPPROS came to our village and encouraged us to initiate a savings and credit program," says Jhuparam. He soon became a member of the newly created Sri Singha Savings and Credit Cooperative Organization, as well as the Sri Siddha Fresh Vegetable Production Group. Now, with the help of the project, he is growing cabbage, cauliflower, tomato, eggplant, peas, sweet peppers, chilies, and broad leaf mustard on his farm. With the production and sale of these products his income has risen tremendously. Jhuparam proudly explains that last year he sold vegetables worth Rs.40,000. Prior to the project he says that he could hardly have produced Rs.4,000-5,000 of maize and millet. "Before, we knew nothing about growing fresh vegetables," says Jhuparam.

According to Jhuparam, vegetable production is much more profitable than maize and millet. The return from one ropani of maize and millet is approximately Rs.500, compared to a gross return of Rs.6,000 from vegetables. In addition, the traditional method of cropping only allowed farmers to grow one or two crops per year, whereas with vegetable cultivation, three to four crops can be grown on the same piece of land.

Jhuparam's one concern is that the local farmers are not reaching their full potential due to marketing problems. He is confident, however, that the project will help them to develop a sound marketing system which will help them increase their sales.

The project started off on a small-scale, but has quickly expanded. In the beginning there were only two members in his vegetable production group, but membership has since grown to seventeen, thirteen of whom are women. The Savings and Credit Cooperative Organization has forty-four members, of which thirteen are women. The farmers have been so successful that most of the group members have switched from growing maize and millet to vegetable production and marketing activities. The project's group approach has cut across traditional caste divisions as well. Though Jhuparam is from a lower occupational caste, he was the chairperson of his vegetable and production group from 1995-1997. Due to his impressive leadership skills he has the support and respect of every member of the group, regardless of caste status.

Improvements in village life are visible. An irrigation system has been installed, which has increased the farmers' productivity even further. Through the project, linkages have been made with the Agricultural Development Bank of Nepal, which has allowed the group to take out a loan. With this money, a small hydroelectric generator has been installed, providing electricity for the entire village.

Since the project started, Jhuparam's life has improved substantially. He is now able to work full-time on his farm, rather than looking for other employment opportunities in order to feed his family. With his increased income he has paid off his outstanding debts to the local moneylender, and has even been able to buy a pair of bullocks and a buffalo. "Before, we did not produce enough to meet the requirements of the whole family." Now, his family eats more vegetables than ever before. He estimates that his family ate 1,200 kilograms of vegetables last year. Proudly, he says "We feel healthier. Our children get sick less compared to before. And now, my daughter and two sons are able to go to school."

The Institute of Forestry Project (IOFP)

Schools were the first institutions in the country to be impacted by the popular unrest that led to “The Movement For The Restoration Of Democracy”. The Institute of Forestry was no exception. Civil unrest in Pokhara and Hetauda abruptly and completely disrupted IOFP activities. There were frequent work stoppages, huge rallies, occasional rioting, and mass arrests by the authorities. One such mass arrest was exceedingly disruptive to the Institute. In February 1990, police moved on to the Pokhara campus in the middle of the night to arrest suspected communist student activists and took over 100 male students off to the Pokhara jail. That month, the campuses closed.

With the declaration of multi-party democracy in April 1990, the Institute reopened, but the disruption of IOF and IOFP activities did not stop with the end of the revolution and change of government. Agitation on campus to change the institution’s administrative leadership led to the departure of the dean. When his replacement was appointed by Tribhuvan University, there was increased turmoil; faculty and students protested against the new dean, and all IOF faculty resigned from their committees, forcing his resignation in September 1991.

As the result of this strife and faculty non-cooperation with the Project, it was decided to refocus the IOFP until such time as Tribhuvan University and the Institute could install a well-functioning administration under a full-time dean. During this period, the TA team concentrated its efforts on coordinating off-campus activities, training faculty in field research methods, and examining the possibilities of long term IOF institutional sustainability.

After the institution of certain administrative changes, calm returned. With increased autonomy given to the dean, progress was made towards improving the administrative management of the IOF. In less than six months, several faculty became on-campus leaders and moved to improve the IOF programs. During this period research and teaching continued, and several improvements were noted. Classes continued and the results of early IOFP influences were becoming apparent. For instance, students included rapid rural appraisal (RRA) in their field research and their presentations, and they began to participate in more field trips.

The IOF mid-term evaluation was held in December 1991. The evaluation recognized the constraints the IOF and the IOFP personnel were facing in their efforts to achieve IOFP goals:

Nepal’s move to a parliamentary democracy during the past two years has been accompanied by social unrest and political turmoil. Student agitation helped to catalyze the process of democratization but at the

same time this agitation has led to substantial disruption of academic life at teaching institutions across the country. . . .

. . . the IOFP has made considerable progress toward fulfilling its purpose despite the social, political, economic, and bureaucratic constraints that are a part of the current, but changing, context in Nepal . . . we believe that the project should be continued. With minor exceptions, we find that the original project design is sound. Our recommendations are for shifts of emphasis in terms of where major efforts should be made from here on, rather than any radical redesign.

The evaluation team recommended shifts of emphasis in the project's short- and long-term training components, and a shift in emphasis from project-sponsored research toward curriculum development:

The Institute should reduce its yearly enrollment and regularize admissions procedures to ensure equal opportunity for remote area and ethnic minority students. The TA team should work with the dean and Tribhuvan University to improve administrative management of the IOF and thus increase its sustainability.

Through Project support, several IOF faculty members obtained graduate degrees. Most other faculty and all staff members upgraded their skills through Project sponsored short-term training, research grants, and observation tours. The long-term benefit to the Institute was that these faculty and staff gained increased capability in executing their professional duties, which has enhanced the educational and management capabilities of the Institute as a whole.

The emphasis that IOFP placed on community forestry concepts and social science techniques led to changes in the IOF faculty's thinking about forestry and natural resource management. These changes were reflected in the new IOF curriculum, which lays heavy emphasis on community forestry.

The curriculum development and revision effort at the Institute was a complex process that required many steps before final implementation. The IOFP was highly effective in guiding the efforts of the IOF faculty in formulating a new IOF curriculum and writing the corresponding course syllabi. Through a series of Project supported curriculum development workshops and trainings, the IOF faculty developed a revised curriculum, redesigned old courses, developed new courses, and prepared new teaching materials. Through subject-area committees, faculty also designed more detailed course syllabi.

Ensuring the sustainability of the IOF was one of the main goals of the IOFP. Sustainability was achieved through Project assistance to the IOF in forming

linkages with other programs, building and improving IOF's physical infrastructure, and through helping the IOF improve institutional governance and management. The formation and implementation of the IOF Sustainability Plan was one step toward ensuring the continued development and success of the Institute after the Project's conclusion.

A major effort was made through the Project to help the IOF and its faculty to establish linkages with other organizations, institutions, personal contacts of the TA team, and individual natural resource professionals, both in the region and worldwide. The project has been extremely successful in this effort, and has greatly increased the sustainability of the Institute by expanding the ranks of those with vested interest in its future. The achievement of these linkages has also increased regional and international recognition of the IOF as a whole, and some of its faculty as individuals.

When the IOF came under the SIRE umbrella, USAID added an additional \$2 million to the originally obligated \$8.7 million. The Project played a crucial role in assisting the IOF in building and improving its physical infrastructure; providing funding as well as logistical and technical support to build its library systems, improve the management and utilization of IOF forests, and carry out construction and renovation projects on the two campuses.

The Nepal Coppice Reforestation Project / Nepal Resource Management Project

United Mission to Nepal (UMN), which took over management of the Nepal Coppice Reforestation Project in 1990 (through a grant from USAID's PVO Co-financing Project) was so successful that USAID extended its support, in two phases, through 1997. In 1991 the title of the project was changed to Nepal Resource Management Project (NRMP). A second expatriate UMN volunteer was added to the Project staff, the project area was expanded, and the focus of the project changed from coppice research, to general community resource development. USAID provided \$2.41 million over the life of the project.

Community forestry became a major activity, focusing on improved management of forests, formation of forest user groups, and handing over community forests to the groups. Other activities included health and family planning, basic education, income generation, women's empowerment, and improved quality of life for the poorest, most marginalized households.

UMN applied a management methodology that they developed over the years in previous projects, based on encouraging and responding to initiatives of the poor, marginalized, and oppressed living in the target areas, to improve their own

quality of life. At the time of project completion, user groups and committees were found to be functioning well, forest and drinking water systems were well managed and protected, and literacy rates had increased. Perhaps more importantly, villagers were motivated to continue taking responsibility for the development of their own villages.

NGO Environmental Management Program (NEMP)

One of the most effective modes for channeling development assistance to the community level that USAID/Nepal has found, has been to support local NGOs through grants to INGOs. The NGO Environmental Management Program (NEMP), funded through USAID's PVO Co-financing Project is a prime example. From 1992 - 1995, NEMP, under the management of the International Union for the Conservation of Nature (IUCN) contracted with 70 Nepali NGOs to implement environmental projects benefiting more than 120 communities. The range of projects that were successfully completed is extremely diverse, though all of them shared the objectives of improving the local environment and/or generating income in the community.

A Few Of The Projects Carried Out By Nepali NGOs Under The NGO Environmental Management Program

Conservation of Nag Daha (Taudaha) by National Human Welfare Center

The Nag Daha pond is a wetland in the Kathmandu Valley, critical to the survival of numerous migratory and resident birds. It has cultural significance as the residence of the legendary serpent king who ruled the valley in the mythological past. The project involved the removal of silt, building of a track and drain around the pond, selective plantation, and the introduction of birds and fish.

Renovation of Chhusya Bahal, Jyatha Tole, Kathmandu by Gunakar Mahabihar Conservation Committee

The project involved renovation of a historic courtyard, full of unique wood carving, that was in need of immediate repair.

Tengboche High Value Medicinal Plant Project - by the monks of Tengboche Gompa

The project helped to revive the ancient, but disappearing art of healing through the use of traditional herbs.

Sauraha Visitor Center Renovation

The project renovated and reorganized the Center that receives and provides information to 57,000 visitors to Chitwan National Park annually.

Environmental Art Workshop and Competition for School Children, by Nepal Centre for Women and Children Affairs

The project worked to raise awareness of environmental issues among school children through field trips and thematic exhibitions.

Environmental Camps for Conservation Awareness

The project aimed at generating conservation awareness among children under 14 years of age, through a two-tiered system of mobile five-day camps. At the higher level, university-age students were trained by professional subject experts. The trained university-age students then served as counselors, teaching young children about environmental/conservation issues.

Kathmandu Environmental Education Project (KEEP)

The project aimed to help minimize the negative impact of tourism on the environment and culture of Nepal, by establishing and operating the Travelers Information Center, a source for environmental, cultural, and safety information. The Center promoted a message of "minimum impact" and

The Makalu-Barun Conservation Project

In the late 1980s, USAID support was critical in assisting the Woodlands Mountain Institute and the Department of National Parks and Wildlife Conservation to carry out the research for a Management Plan to conserve the Makalu-Barun area of Eastern Nepal. then, from 1991 through 1996, USAID supported implementation of the plan, contributing more than \$1.13 million.

The Management Plan, which combined nature conservation with sustainable economic development, called for the establishment of a Makalu-Barun National Park in the pristine, uninhabited upper reaches of the Arun and Dudh Koshi Rivers, surrounded by a multiple-use Conservation Area inhabited by 32,000 people. By incorporating a buffer area between both the National Park and the major installation sites of the proposed Arun III Hydroelectric Project, the project worked to develop a new model of environmental management and sustainability, applicable elsewhere in fragile mountain ecosystems, particularly in Nepal.

Within the Conservation Area, the plan promoted:

- Joint management of natural resources by the project authority and local people,
- private enterprise, particularly among women, for more economically-sustainable use of non-timber forest products,
- identification of special pockets for biodiversity protection,
- conservation of cultural diversity, and
- increasing the reliance on local people for conservation management.

The Environment and Forest Enterprise Activity

The purpose of the Environment and Forest Enterprise Activity (EFEA) is “to facilitate local control and management of local resources in the Mid-western Development Region (MWDR), to improve forest productivity and sustain the environment”. USAID/Nepal is providing \$8.84 million in funding.

EFEA’s strategy is to improve forest/natural resource productivity and value-added processing of natural resource products to raise household incomes. Government forests in the Activity area have been over-used and open pasture lands over-grazed, resulting in a decrease in productivity and degradation of the landscape. Scarcity of fuelwood in the project area has driven many people to cook with animal dung and agricultural wastes. Consequently, this dung is not available for manure, resulting in decreased agricultural productivity. EFEA seeks to reverse this trend of environmental degradation and to improve forest and agricultural productivity by increasing local control over the natural resource base.

Community management of forests is expected to increase the production of both timber and non-timber forest products, while marketing and value-added processing of these products by local micro-enterprises will contribute to an increase in cash incomes of the local people.

Community forestry in the area provides an opportunity to increase participation in democratic decision making through the formation and institutional strengthening of user groups, which are means to achieve broad-based

economic growth and build a firm foundation for democracy at grass roots level. Women are expected to increasingly participate in user group formation and decision-making, including controlling management of natural resources and expenditure of financial resources.

The spectacular mountain scenery of the EFEA area attracts thousands of tourists every year. The Buffer Zone Management Amendment (1993) borrows on the success achieved through CFUG management of community forests in its creation of Buffer Zone Management Users Committees. These committee members participate in resource management decisions similar to CFUGs and benefit from tourism, since 30-50 percent of the revenues from entrance permits to the protected area are to be returned to local communities.

EFEA is implemented through four grants to partner organizations:

- CARE/Nepal Community and Private Forestry Grant Agreement: Forestry Partnership Project
- Biodiversity Support Project (BSP)/New Era Non-timber Forest Products Cooperative Agreement: Ban Udyam
- WWF Northern Mountains Conservation Grant Agreement
- US/Department of the Interior (DOI) Partnership for Biodiversity Conservation Agreement: Partnership for Biodiversity

The Forestry Partnership Project

The Forestry Partnership Project (FPP), a grant agreement between USAID/Nepal and CARE/Nepal, is a part of the broader EFEA effort to implement community and private forestry programs. Begun in 1996, the project is being implemented in the Mid- and Far-Western Development Regions (MWDR and FWDR), covering eight districts, five in the hills/inner Terai: Rukum, Rolpa, Salyan, Pyuthan, and Dang; and three in the Terai: Banke, Bardia, and Kailali.

***Ban Udyam* [Forest Enterprise]**

Ban Udyam, funded by USAID and managed by Biodiversity Support Project (BSP) and New Era under the Non-timber Forest Products Cooperative Agreement, implements the “forest enterprise” component of EFEA. The goal of *Ban Udyam* is twofold: a) to enhance livelihoods and b) to improve forest management. *Ban Udyam* works in two ways to accomplish its goals: by directly supporting pilot community-based forest enterprises and related forest resource management and indirectly by providing training, technical assistance and extension information to EFEA partners (GOs and NGOs).

Ban Udyam is working in eight districts of EFEA. The major focal areas are in three representative agro-ecological zones: high mountain (Dolpa), mid-hills (Rapti), and Terai (Banke and Bardia). The lessons learned from these zones are expected to be replicable in other project areas and even outside the EFEA area.

Ban Udyam aims to provide technical input to develop two to three community-based pilot enterprises in the EFEA area. It supports the development of a monitoring plan for the pilot areas and the enhancement of the capacities of the forest users, EFEA line agencies, and partners in sustainable forest management (Non-timber forest products in particular) through training and outreach activities.

Northern Mountains Conservation Project

The Northern Mountains Conservation Project (NCMP), funded by USAID and WWF, has been under implementation since 1997. The goal of the NCMP is to conserve biodiversity of Shey Phoksundo National Park and the Dhorpatan Hunting Reserve by:

- promoting sustainable economic growth that increases local incomes; and
- strengthening the capabilities of local users groups, NGOs, and Department of National Parks and Wildlife Conservation staff to carry out integrated development and conservation initiatives in the protected areas and buffer zones.

The main purpose of the project is to facilitate local management of natural resources and to improve living conditions of the local people while safeguarding the region's unique natural heritage.

Both Shey Phoksundo National Park and the Dhorpatan Hunting Reserve share similar conservation needs. The local people depend on forests and pastures of these protected areas for fuelwood, fodder, timber, and various non-timber forest products. Competition between wild ungulates and livestock for grazing is reported to cause habitat degradation. Both areas lack management plans. No adequate information exists on the status of endangered species for management purposes. The impact of tourism on the ecology and culture is insufficiently known.

Agriculture, pastoralism, and trade have been integrated in the livelihood of the local people. Although the number of visitors is being increased in recent years, the local people have not benefited much from tourism. Most of the tourists are organized in groups by trekking agencies in Kathmandu, who provide food, and support staff.

The Partnership for Biodiversity

The Partnership for Biodiversity is an initiative aimed at promoting biodiversity conservation in developing countries worldwide, through the joint efforts of USAID, the US Department of Interior, and the US Peace Corps. The partnership sites are selected protected areas with biodiversity of international significance. These sites are areas that have been designated as World Heritage Sites, Biosphere Reserves, or Ramsar Wetland areas. Others have potential to be so designated. The Partnership for Biodiversity, generally over a three year period, centers its assistance on addressing the key threats to biodiversity conservation in the area. The Partnership for Biodiversity works together with in-country partners, both GOs and NGOs.

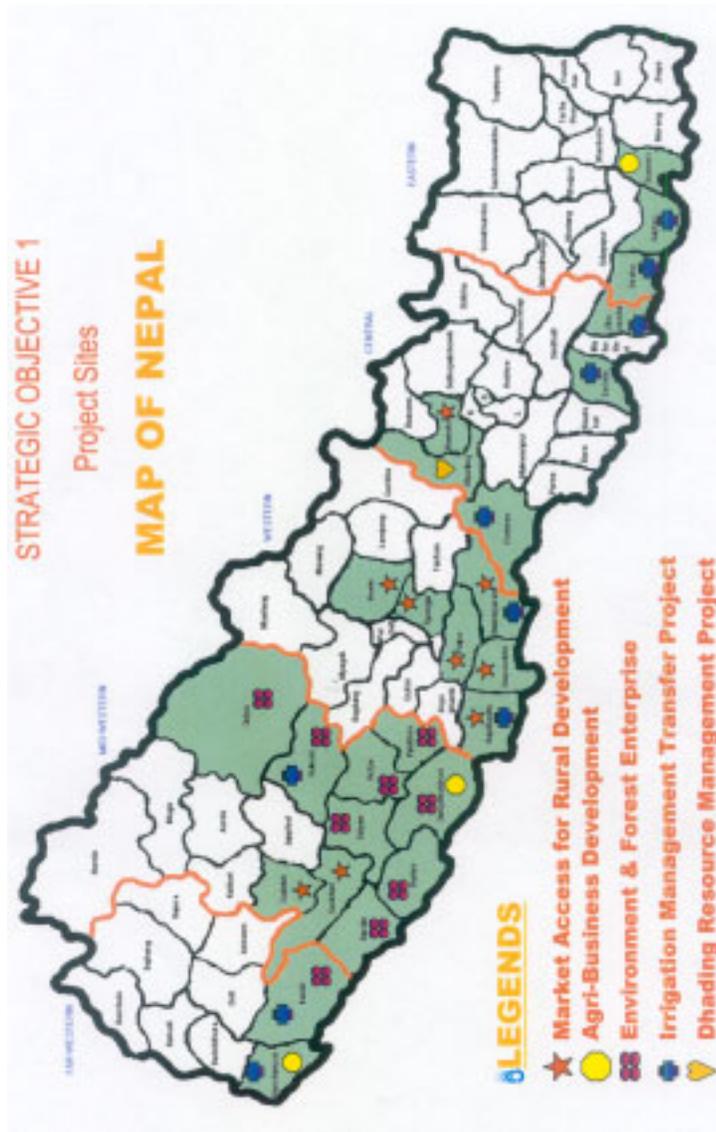
The Shey Phoksundo National Park is the partnership site in Nepal. The park was opened to tourism in 1989. Two threats to biodiversity within the park are unregulated tourism development and unsustainable resource use patterns, driven in part by increasing numbers of porters and outside guides. The goal at this partnership site is to ensure environmentally sensitive tourism development in the park. The Partnership supports community-based resource management in and around the park.

Strategic Objective 1

In June 1995, most agriculture, forestry, and rural development activities of USAID/Nepal were subsumed under Strategic Objective 1 (SO1), Increased Production and Sales of Forest and High-Value Agricultural Products. The objective is to be attained by pursuing two intermediate results:

- Expanded Market Participation, and
- Sustainable Management of the Productive Resource Base.

SO1 is discussed in the chapter “Reengineering and Reinventing USAID”, where it is taken as an illustrative example of a strategic objective. A map of SO1 project sites appears on the following page.



HEALTH AND FAMILY PLANNING

USAID's health and family planning strategy at the beginning of the 1990s supported and conformed to the development goals of the Government of Nepal. The Seventh Plan (1985-1990) specifically called for extension of health services beyond the health post, to the ward level. Full scale family planning services were to be provided wherever there was a demand, and demand was to be stimulated where there was none. Private sector health service providers were to be encouraged. Supply and logistics systems were to be upgraded, as was the quality of health care service provided to clients.

The brunt of Nepal's morbidity and mortality falls upon young children. A conservative estimate of the national infant mortality rate was 112 per 1,000 live births in 1990; in some areas, combined infant-child mortality rates were as high as 400 per 1,000. It was these shocking figures that led USAID/Washington to designate Nepal one of 22 "Child Survival Priority Countries".

The Child Survival/Family Health Services (CS/FHS) project, USAID's umbrella program in the first half of the 1990s, reflected the MOH's emphasis on basic needs, child survival and reduced population growth. USAID summarized its sector strategy to the MOH in terms of five basic themes, which were accepted as the basis for USAID support:

- **Services By and For Women:** Given the importance of changes in the perceptions and behavior of mothers for the success of child survival and family planning programs, the Mission stresses that women are the MOH's principal clients, and that the best way to get services to women (in a society where interaction between the sexes is culturally limited) is to provide them through other women. The Female Community Health Volunteer (FCHV) Program is a significant move in this direction.
- **Beyond the Health Post:** To counter a persistent preoccupation with staffing fixed facilities which rural people infrequently visit, the Mission emphasizes the need for village-level health services. The interventions most likely to reduce mortality and undesired fertility must be made available close to home, and additional staff, primarily volunteers, will be required to provide such assistance.
- **Full-Service FP/MCH Services:** To overcome what has been a nearly exclusive emphasis on sterilization and make Nepal's family planning (FP) program more effective in terms of both contraception services and improved maternal and child health, USAID emphasizes the balanced

motivation for, and provision of, temporary and permanent contraceptive methods, along with other priority Maternal and Child Health (MCH) services.

- **Decentralization and Regionalization:** The MOH is struggling to operationalize the complex processes of decentralization and regionalization. A reasonable start has been made, with USAID support, in the Central Region, to identify issues and resource requirements needed for the development of regional and district management systems.
- **"Don't Forget Malaria":** Given the long-term nature of the malaria problem, USAID has encouraged MOH procurement of insecticide (MOH has depended on donor-granted supplies for 35 years), an improved training capability for malaria control, decentralization of case detection and treatment, service expansion to include other vector-borne diseases (e.g. Japanese encephalitis), transmission, and sustained management, and political attention to ensure maintenance of a national malaria control capacity.

These five themes were emphasized in the Child Survival/Family Planning Services Project (CS/FPS), a \$43 million initiative by the MOH and USAID to reduce child mortality and undesired fertility by improving the quality and coverage of services, primarily in the Central Region. Initiated in August 1990 as a five year project, it was extended three times, until 1998. The CS/FPS program incorporated three major recommendations from the final evaluation of USAID's previous core health and family planning program of the 1980s, the Integrated Rural Health and Family Planning Project: a) focusing service delivery management efforts in a single geographical region, b) expanding successful efforts in family planning and major child survival interventions, and c) exploring greater involvement of private organizations (both NGOs and PVOs) in delivery of child survival/ family planning services.

Decentralization/regionalization efforts focused on the improvement of service delivery and management in the Central Region, in order to build a sustainable model which could be replicated in other regions. This component also supported short- and long-term training of a significant number of the country's health system managers.

Efforts to increase the appropriateness and effectiveness of family planning services aimed at increasing both the range of methods available, as well as the options for obtaining these services, through tapping the resources of the public and private sectors and NGOs/PVOs. Child survival interventions were expanded

through training, field studies to identify program improvements, and selected pilot activities.

The facilities of the National Research and Training Center for malaria control were expanded and renovated and the capacity of the Malaria Control Division improved.

The project focused on building effective service delivery systems, and strengthening personnel, logistics, management, and information functions. Basic management and supervision were key points in improving MOH capacity. Project design was pragmatic and flexible, to allow ready response to opportunities as they appeared in both the public and private sectors.

Mid-term Evaluation

The Mid-term Evaluation of the project in 1992-93 highlighted the progress that had been made in the first two years. The objective of increasing contraceptive prevalence in target districts by 20 percent, over the life of the project had already been surpassed by mid-1992. The project was to have trained ten private sector physicians in family planning - twice that number had been trained by September 1992. With respect to child survival, MCH service strengthening activities were underway in four districts and control of diarrheal disease (CDD) training and intensive supervision activities were being conducted in eight districts. The project was also supporting groundbreaking research: the testing of implementation strategies for acute respiratory infection (ARI) treatment and vitamin A supplementation. The results were expected to contribute to development of policy regarding those interventions. FCHV activities were being supported in all 19 districts of the Central Region, and 94 percent of the target malaria Passive Case Detection Volunteers (PCDV) for 50 districts had already been trained. The report noted that these outputs had been achieved in spite of the disruptions related to the national elections that were going on at the time.

During the first two years of the project, the MOH had shifted the focus of its decentralization process from regions to districts. The Mid-term Evaluation recommended that the resources that had been focused on the regions, be shifted to the national level, with district-level activities focused primarily on the 15 "institutionalizing" districts (i.e. those that had developed or were developing the capability to offer a full range of family planning services).

The evaluation emphasized the need to strengthen MOH management capability. District Public Health Officers were to receive training in general management skills as well as in program planning and implementation. Systems

development work was to focus on logistics and management information systems (MIS) and on developing quality assessment and supervision tools.

Continued support for the Female Community Health Volunteer (FCHV) program was encouraged. The FCHVs were seen to be an important resource for future improvements in family planning and health at the village level. Their continued existence seemed uncertain however, because their position in the health services delivery system remained unclear. Thus it was recommended that the project urgently assist the MOH in developing a clear policy on the future role of FCHVs. Among the policy questions to be addressed were:

- What are the precise expectations for FCHVs and what are their precise functions?
- How are FCHVs linked to VDCs, VHVs, and female MCH workers?
- Should FCHVs be supplied with drugs, including those for treatment of ARI?
- How and by whom would FCHVs be trained?
- What are the most appropriate support systems for FCHVs?

Research

The Mid-term Evaluation recommended continued support for testing implementation strategies for child survival. It went further, to state that,

“Existing work in CDD, ARI, and vitamin A supplementation should be completed and be linked to national level decision making. It is more likely that lessons learned from strategy implementation work in these areas will be incorporated into national programs if the MOH officers responsible are more closely involved in the planning and evaluation of implementation activities.”

To further that aim, funds were to be made available for joint MOH/USAID papers on control of vitamin A deficiency in Nepal, use of outreach workers for rapid diagnosis and treatment of ARI, and expanding the correct use of oral rehydration solution for acute diarrheal disease.

Combating Vitamin A Deficiency in Nepal: From Research - To Policy - To A Program That Works

USAID had been exploring child survival methodologies since the mid-1980s seeking simple, easily replicable interventions with the potential to save thousands of lives. When reports from USAID supported research in Indonesia and

elsewhere began showing reduced infant mortality among children who received vitamin A supplements, USAID sought effective ways to bring the benefit to the children in Nepal.

From 1988-91 the Nepal Nutrition Intervention Project (NNIPS) in Sarlahi, funded by USAID and implemented by Johns Hopkins University, looked at the impact of giving high dose vitamin A capsules to children between six and 72 months old. The study showed a 30% reduction in infant mortality among the children who received high-dose Vitamin A capsules. A control group of children representing a similar population received placebo capsules; there were no comparable results in that group. The study was published in The Lancet 13, July 1991. Six months later, the British Medical Journal published the results of another USAID funded vitamin A trial, conducted in Jumla in 1989. There, the risk of death for children aged between one and 59 months was 26% lower among children who received high dose capsules of vitamin A, than among children who did not.

Impressed by the results of the program, senior HMG health officials met with leading international vitamin A experts and in Kathmandu on February 11-12, 1992, to develop a national vitamin A policy. Participants included representatives from the Ministries of Health, Agriculture, Education, and Local Development, the National Planning Commission, the Nepal Research Council, UNICEF, WHO, USAID, and a number of other concerned national and international NGOs. Based on study results and the unacceptably high prevalence of vitamin A deficiency in the country, the Government of Nepal pledged its commitment to initiate a National Vitamin A Deficiency Prevention and Control Program (NVAP), with the goal of eliminating vitamin A deficiency in Nepal.

By November of that year the “Guidelines for Implementation of the National Vitamin A Deficiency Control Program” were adopted. The guidelines included a short-term strategy of capsule supplementation and a long-term strategy of nutrition education, adult literacy, and home gardening. A task force coordinated by the Public Health Division/Nutrition Section developed a strategy, focused on 32 districts, with the primary goal of reducing mortality.

In December 1992, USAID and UNICEF decided to financially support the NVAP. USAID provided its support through the Vitamin A Field Support Project (VITAL). With the completion of the VITAL contract in April 1994, USAID continued its support through the Opportunities for Micronutrient Interventions Project (OMNI). In March 1995, OMNI sub-contracted Helen Keller International (HKI) to provide technical assistance in Nepal. The technical support included: specific program planning, training in capsule delivery and vitamin A nutrition,

logistic support for implementation, the development of training materials, and annual monitoring. UNICEF provided vitamin A capsules, equipment, nutrition education materials, and costs for the intensive promotion activities prior to each campaign.

USAID and the Secretary of Health signed an agreement in January 1993. In February, the MOH/Department of Health Services called the first National Vitamin A Meeting. The following key elements were agreed upon:

1. Campaigns would be held on fixed dates: Baisakh 6th and 7th; Kartik 2nd and 3rd.
2. A capsule delivery system would be implemented as a part of the on-going primary health care (PHC) system by FCHVs during a semi-annual, two-day campaign.
3. A record keeping system would be established to ensure that every FCHV would go to each home in her village to register all children aged 6-60 months, and to inform their caretakers of the program before each capsule supplementation round.

To support the program, the Nepali Technical Assistance Group (NTAG) was registered as an NGO, and tasked with assisting HMG's National Vitamin A Program (NVAP). NTAG's work is funded by USAID, AusAid, and UNICEF.

Nepali Technical Assistance Group (NTAG)

NTAG had its start as a technical assistance group attached to the NVAP. USAID/Nepal encouraged them to form a permanent organization with its own separate identity and, in 1995, NTAG was registered as an NGO.

When the Ministry of Health identifies districts that it wants brought into the NVAP, NTAG begins its four stage cycle of support: Training, Promotion, Capsule Supplementation, and Monitoring. NTAG keeps up its support in a new district through two complete cycles, then the program is handed over to the local authorities. Thereafter, NTAG adopts a management-by-exception policy: a few phone calls are made to see if there are any problems - then it's hands-off, unless there is an emergency.

Ram K. Shrestha, the Director and founder of NTAG, was the recipient of the Global Health Council's Award for Best Practice in Global Health, in 2000.

The Council advised Mr. Shrestha of the award saying:

“You have been chosen for this award because many of your colleagues in the field recognize not only your ability to successfully deliver service, but also because you have successfully mobilized communities in non-traditional ways and created a truly sustainable program throughout Nepal.”

Among the words Shrestha himself uses when explaining how 38,000 (mostly illiterate) volunteers manage to give vitamin A to three million children in two days are “trust, support, empowerment, and ownership of the program”.

Under the National Vitamin A Program, children between six and 60 months old are given high doses of vitamin A twice a year. Among the first challenges faced by the designers of NVAP were 1) attaining a high rate of coverage and 2) delivering vitamin A capsules to the project area. It was known that less than 20 percent of families take their children to a health facility, even for problems like diarrhea and pneumonia. Instead of trying to persuade families to take their children to a health facility for vitamin A, which would probably have taken years to accomplish, it was decided to implement the program through campaigns conducted twice a year, on fixed dates. Capsules are administered by FCHVs.

Capsules are provided to MOH by UNICEF and by the Canadian International Development Agency (CIDA), through the Micronutrients Initiative. A great deal of effort goes into training, national and local promotion, and support prior to each distribution date, to ensure that as many households as possible are aware of the distribution date, that capsules are available at all distribution points, and that all service providers are aware of their responsibilities.



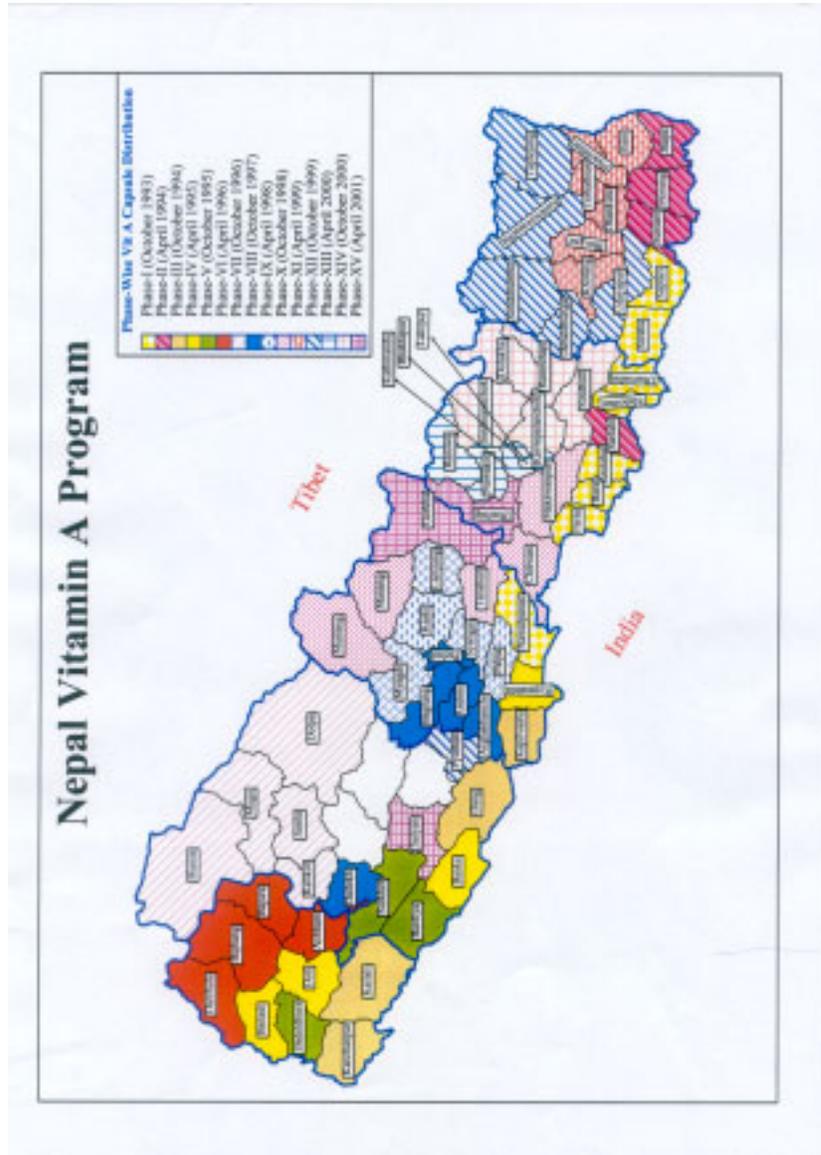
Volunteers Campaign to Promote Vitamin A-Rich Foods

Photo Courtesy of NTAG

The first campaign, launched in October 1993, targeted eight Terai districts, several of which had participated in vitamin A studies. These districts had active and accessible NGOs and trained FCHVs in place. Over the next two years, the NVAP covered all 20 Terai districts, where almost half the country's under-five population resides.

By the end of the decade, the program had been running continuously since its inception with extremely good results, adding between three and six new districts in each campaign. By the 15th campaign in April 2001, the program had expanded to cover 72 districts, and seemed close to achieving its goal of including all 75 districts.

Over 90 percent of the target age group are now receiving twice-yearly doses of vitamin A in the districts covered, and no district has had coverage below 80 percent since the program began. It is estimated that over 30,000 deaths are averted each year by the program. Three million children receive vitamin A capsules in each campaign; the goal is 3.5 million.



NVAP is recognized internationally as an outstanding success:

- Government policy was modified to accommodate the program and its somewhat unconventional implementation modalities.
- The original research findings quickly led to development of a program.
- The strategy for program expansion works.
- The logistics system provides a good supply of capsules when and where they are needed.
- A high level of coverage has been achieved and maintained.
- FCHVs have proven themselves capable of administering the capsules, recording the children who received them, and seeking out those who did not
- Community support has continued to increase.
- The program has become routinized and institutionalized at district and community level.

“The average cost per child receiving one vitamin A capsule through the NVAP in FY2000 was 19 (US\$0.29), and the average cost per child receiving two doses was 44 rupees (US\$0.67). This is a low cost, efficient program.”

“Vitamin A supplementation is regarded as one of the most cost-effective health interventions available. The NVAP’s cost per VAC [vitamin A capsule]-dosed child and its cost per averted death rank it among the most cost-effective health interventions in the world.”

The Nepal National Vitamin A Program: Cost Estimates for 2000 and Alternative Configurations of a Nationwide Program (March 14, 2001)
 Prepared by: John L. Fiedler, Ph.D., Partnerships for Health Reform

The vitamin A supplementation trials of the 1980s in Jumla and Sarlahi paved the way for The National Vitamin A Program of the 1990s. At the turn of the 21st century, research continues in Sarlahi, under the Nepal Nutrition Intervention Project, a joint undertaking of Nepal Netra Jyoti Sangh, The Center for Human Nutrition, and the Dana Center for Preventive Ophthalmology, at The Johns Hopkins University Schools of Public Health and Medicine, with technical and financial support from the Office of Health and Nutrition of USAID and Task Force Sight and Life, of Roche, Switzerland. NNIPS is mandated to conduct applied research to reveal how infant, child, and maternal mortality, morbidity, and nutritional blindness can be lowered through replicable public health interventions and to provide a basis for policy and program decisions.

Community Based Management of Acute Respiratory Infection

In 1991, a paper in The Lancet reported that the Jumla ARI Intervention Trial observed a 28 percent reduction in deaths from all causes, among children in the program. The USAID funded research had demonstrated that community health workers, with limited training, could reliably manage childhood pneumonia - considered to be the cause of up to 35 percent of deaths in children under five years old.

The project recruited and trained functionally-literate local men to diagnose pneumonia on the basis of respiratory rate. When a case of pneumonia was detected, these village health workers gave the parents, free of charge, a course of the appropriate antibiotic and instructions for treating the child. On follow-up visits, the health worker assessed the child's status and, if necessary, arranged for supplementary medication.

In remote Jumla, where 65 percent of men and 95 percent of women were illiterate, people did not have experience in seeking modern medical care and seemed to have a fatalistic view of their children's health. For that reason, the health workers went from house to house, seeking children with coughs, who might have pneumonia. The health workers were paid salaries commensurate with those in the public sector for their work.

The results of the Jumla trials encouraged HMG health authorities to include a community based component in the national ARI control program, and helped to overcome the medical establishment's initial reluctance to allow Female Community Health Volunteers (FCHV) to administer antibiotics. With assistance from WHO, UNICEF, USAID, and JSI the National Acute Respiratory Infections Control Program was established. "Technical Guidelines on the Control of Acute Respiratory Infections" were developed by these partners and approved by the MOH on 28th February 1994. One paragraph in the guidelines constituted a watershed policy decision that opened the way for community based ARI management:

From “Technical Guidelines on the Control of Acute Respiratory Infection”

“. . . In addition, the MOH recognizes the urgent need in Nepal for the availability of appropriate diagnosis and treatment of Pneumonia in young children beyond the Health Post, i.e. within their own communities. Therefore, in selected areas and in situations in which high quality supervision and program management are being carried out by MOH or NGO programs and can be assured, Village Health Workers (VHWs), Female Community Health Volunteers (FCHVs), and other community health workers may be trained in the Standard Case Management of Pneumonia and provided with first line drugs (pediatric Cotrimoxazole tablets).” [emphasis added]

The Acute Respiratory Infection Strengthening Program was initiated by the MOH with assistance from UNICEF, WHO, USAID, and JSI in 1994. Its objective was “to reduce pneumonia mortality in children under five years of age through direct case detection and timely and appropriate antibiotic treatment.”

FCHVs and VHWs were chosen to bring the program into their communities in four of the districts. They were trained to diagnose pneumonia using beeping timers to count respiratory rate as a basis for determining whether a child has pneumonia and should receive an antibiotic. Children with rapid breathing and chest in-drawing are considered to have severe pneumonia and referred to a health post. They were also taught home therapy rules for treatment of both pneumonia and non-pneumonia ARI. In two of the four districts, they were given a supply of pediatric cotrimoxazole tablets with which to treat children with pneumonia. Static health facilities in all four districts were provided with first line and second line antibiotics.

At the end of the decade the program covers 14 districts, serving about 28 percent of the population. There has been a 2-3 fold increase in the number of pneumonia cases treated where the program is implemented; a very significant increase, since most children who die of pneumonia in Nepal, never see a trained health care provider.



A Female Community Health Volunteer measures a baby's respiratory rate, using her battery powered timer.

Photograph: Fiona MacNab

Controlling Diarrheal Disease

Oral rehydration therapy (ORT) has long been recognized as the single most successful method for treating diarrhea in Nepal. Throughout the 1990s, USAID has supported control of diarrheal disease (CDD) through increasing the correct use of ORT.

The National Diarrheal Disease Control Program in Nepal was launched in 1983, with the objective of reducing morbidity and mortality from diarrhea in children under five years old. A major strategy of the program was "To promote standard case management of diarrheal disease among children under five, by

health workers at all levels of health facilities and by the community". This was to be achieved in a large part through training staff in government health facilities.

In January 1993, the MOH initiated a CDD Reactivation Program, which was to be implemented in each of the five regions of Nepal between 1993 and 1995, with support from UNICEF, WHO, and USAID through its contractor John Snow International (JSI). The reactivation targeted government health facilities, training personnel in standard case management for diarrheal diseases and increasing community based education activities by establishing oral rehydration therapy (ORT) corners in all health facilities as well as increasing availability of oral rehydration solution (ORS).

The reactivation program was initiated in the Eastern Region in January 1993, in the Far-Western Region in 1994, and in the Western and Mid-Western Regions in 1995. The experience gained in each region was used to modify the program in successive regions. In 1996, the program was introduced in six districts of the Central Region, with the following modifications:

- decentralized planning with more district level involvement;
- emphasis on program management, without neglecting case management;
- a combined child health package led by CDD, but also including ARI;
- expanded Program of Immunization (EPI), nutrition, and vitamin A;
- extension of health worker training to reach the community-level including VHWs, MCHWs, and FCHVs;
- orientation for district and VDC level decision makers on diarrheal diseases and other childhood illnesses, the potential role of the FCHV in the community, and possible areas where local leaders could promote and support health-related activities.

An innovative activity of the reactivation program was the Blue Plastic Cup (BPC) campaign, which distributed BPCs to each health facility and to all FCHVs. The directions for making ORS called for dissolving the powdered ingredients in six "tea glasses" of water. At the time the directions were disseminated, the size of a tea glass was fairly standard at 167 ml. and could be found at virtually any tea shop in the country, and in many homes. Since that time, the size of tea glasses had varied, generally becoming smaller, so that six glasses no longer measured the required one liter.

If the amount of water varies too much from the prescribed one liter, the solution is no longer effective. Too dilute a solution does not restore electrolytes, to correct the effects of dehydration, while too concentrated a solution may increase fluid loss and accelerate dehydration. The BPCs replicate the original tea

glass volume, allowing rural health workers and household members to accurately and easily prepare ORS.

The value of this simple low cost tool is easy to underestimate, until one recalls that a vast number of rural caregivers, especially mothers, are illiterate. The very concept of one liter may be alien to them, and they are not likely to own a measuring cup. An impact study of the BPC distribution activity conducted in 1999 indicated that the cups are highly valued by rural mothers. They are well cared for, seldom lost or damaged, and generally kept apart from ordinary household utensils.

In more than a few areas where BPCs were distributed to households, the local health facilities and FCHVs report that the cases of diarrhea brought to them for treatment are far fewer than before the distribution, suggesting that more cases of diarrhea are now being treated in the home.

But the BPC distribution activity has had other important benefits beyond the specific utility of the cups as a measuring tool. Grassroots organizations have mobilized to support the distribution. VDCs, NGOs, clubs, schools, government health facilities, mother's groups, forest users groups, and others make sure that households are aware of the time and place of the activity, and in some instances have contributed money to purchase the cups.

The occasion is used to demonstrate the correct preparation of ORS, as well as to explain other home therapies for diarrhea. Family planning, nutrition, and health messages are presented and clarified through talks and visual media. FCHVs are frequently active in BPC distributions, and use the occasion to meet mothers and to make themselves known to the community.



**Preparing To Distribute Blue Plastic Cups
(ORT and other health messages will also be communicated)**

Photo courtesy of JSI

The Evolution of Community-Based Integrated Management of Childhood Illness (CB-IMCI)

MOH, seeking a single effective mechanism to manage childhood disease, introduced Integrated Management of Childhood Illness (IMCI) in 1995, with support from WHO and UNICEF. The program focused on training the staff of government health facilities. In March 1998, the Department of Health Services, Child Health Division, CDD/ARI Working Group, along with some key INGOs agreed in principle to work together to expand the treatment model of the ARI Strengthening Program in combination with the CDD Reactivation Program. They merged the two programs under the Community-Based ARI/CDD Program (CBAC). The program was introduced gradually, in five districts, with support from four INGOs with proven capability in community health programs.

The experience acquired in those programs and the success in bringing health services to rural communities through FCHVs were brought together in July 1999 as Community-Based Integrated Management of Childhood Illness (CB-IMCI). USAID supports CB-IMCI and its goals:

- To reduce childhood mortality in children under five years of age from the five major killer diseases and conditions: ARI, DD, measles, malaria, and malnutrition, through timely and appropriate case management at health facilities and in the community.
- To improve family and community awareness and practices about the 12 key family messages for child survival, growth and development.

Communicable Disease

In Nepal, as in most developing countries, infectious diseases are the chief cause of sickness and subsequent death. USAID has been assisting Nepal to control infectious diseases since the 1950s, when there were an estimated two million cases and 200,000 deaths per year from malaria alone. By 1970, there were only 2,500 malaria cases and kala-azar (visceral leishmaniasis), which had also been widespread, had virtually disappeared. The Terai, which was once considered uninhabitable due to malaria had become home to the majority of Nepalis.

By the early 1990s, malaria and kala-azar were again on the rise. Japanese encephalitis and filariasis had become serious problems, and dengue fever was a threat on the horizon. Moreover, there were an alarming indications that strains of malaria were becoming resistant to chloroquine and other traditional drugs. On the non-vector-borne disease front tuberculosis, the number-one killer of adults in the country, was increasingly resistant to treatment with antimicrobial agents.

Malaria control systems seemed to be breaking down for various reasons that included organizational fatigue, declining resources, and mosquito insecticide resistance. Deforestation, increasing cultivation, and shifts in population were altering the ecology of disease vectors, necessitating new approaches to vector borne disease control.

USAID's support for malaria control under the Child Survival Family Planning Services project shifted away from provision of grant aid for the purchase of insecticides, to support for environmental control measures, development of case detection and information systems, and development of skills in vector control. Initially, specific activities included:

- Decentralization of laboratory facilities to the ilaka health post level;

- provision of spraying pumps, spare parts and uniforms to the insecticide spraying program;
- provision of training fellowships for district and regional public health staff to receive two month revision courses in malaria in Delhi;
- training of passive case detection volunteers (PCDV) in 50 districts;
- renovation and upgrading of the National Malaria Research and Training Center at Hetauda.

The decentralization of laboratories relied on distribution of high quality microscopes to 450 ilaka health posts. Although (eventually) good use was made of the scopes, there is no denying that the idea was ill conceived. The Labophot-2 Nikon microscopes depended on electricity, which most ilaka health posts did not have.

Three-hundred-fifty-thousands dollars worth of pumps, spare parts, protective clothing, and other equipment were supplied to the insecticide spraying program. A project evaluation carried out in 1992 recommended against providing any further equipment of this type, until storage facilities and maintenance systems could be improved.

The passive case-detection volunteer program was one of the most successful parts of the malaria control effort. By 1992, 30 percent of all reported malaria cases were detected by the PCDVs.

With the implementation of the Ministry of Health's integration plan in 1993, a great number of staff from district public health offices and health posts needed to be trained in malaria control to provide them with the skills required to carry out routine malaria control activities in their respective areas. The Malaria Research and Training Center (MRTC) at Hetauda, established in 1979, was inadequate to train them adequately and efficiently. It had become difficult to attract students because of the poor conditions of the center, and all research was conducted either in the field or at the regional malaria offices. In 1992, USAID agreed to go beyond the original commitment to renovate the center, and agreed to finance the construction of an entirely new complex at the MRTC, including training facilities, offices, improved laboratory facilities, and an insectary, to meet current and future training and research needs. Construction began at the end of 1992. The center was completed in 1994 and subsequently inaugurated by the prime minister and the American ambassador. It was renamed the Vector-Borne Disease Research and Training Center, in recognition of its expanded mandate.

In 1994, USAID/Nepal requested technical assistance from the Washington D.C. based Environmental Health Project (EHP) to ensure the successful start-up of activities at the new center. During 1994-95, EHP provided assistance in

installing laboratory equipment and training staff in its use, establishing diagnostic technologies, and conducting team-building and training-of-trainers workshops. The development of an epidemiologic surveillance system was also started.

MOH and USAID recognized that the resistance certain microorganisms were acquiring to medicines that had previously been effective against them posed a great danger. An antimicrobial resistance (AMR) component in the infectious disease (ID) program aimed to develop a national antimicrobial resistance surveillance system and increase the rational use of antimicrobial drugs. Chief among these were the antibiotic and antiparasitic drugs used to treat dysentery, cholera, pneumonia, STIs, malaria, kala-azar, and tuberculosis. These were known to be widely over-prescribed, mis-prescribed, and mis-used.

Combating HIV/AIDS/STI

Statement by Secretary of State Madeleine K. Albright World AIDS Day – 2000

The Clinton Administration has properly identified AIDS as more than a public health crisis and a grave humanitarian challenge. It is also a peril to world security. That is why the United States has made countering HIV/AIDS one of its highest foreign policy priorities. Over the past decade, we have invested more than \$1 billion in prevention, education and treatment efforts overseas, and our commitment continues to increase. For Fiscal Year 2001, the President has requested, and Congress has appropriated, \$460 million for the international fight against HIV/AIDS and other deadly infectious diseases.

end of the 1990s, had no specific HIV/AIDS prevention program at the beginning of the decade. However, the Contraceptive Retail Sales Company Pvt. Ltd. (CRS) established under a USAID family planning program in 1978, was already providing condoms to 14,000 retail outlets in all 75 districts.

India reported its first full blown AIDS case in the late 1980s. In 1988 the National Center for AIDS and SDC Control (NCASC) reported the first known instance of HIV infection in Nepal. At the beginning of 1993, 124 cases were reported and by March of the same year 188. While no specific studies were

available at the time, to estimate the completeness, accuracy, or timeliness of the official reports, given the limited HIV/AIDS surveillance system at that time, the actual number of HIV infections might have been 20 to 30 times higher. HMG health authorities were well aware that there was a problem, but were unable to determine its scale.

At the request of USAID/Nepal, a team of experts from AIDSCAP, the USAID funded global AIDS control and prevention project, conducted a situation analysis and proposed a series of interventions for the USAID/Nepal program. The assessment highlighted the realities of an underground commercial sex industry in the areas bordering India, the high mobility of commercial sex workers (CSW), and client demand along Nepal's major transport highways leading to India. These findings focused the intervention strategy on a Central Region project area covering 435 kilometers of highway from Naubise to Janakpur and Birgunj – adjacent to the nation's primary access route and urban centers leading to and from India. The primary target populations were individuals at highest risk: women engaging in commercial sex and men engaging in high-risk sexual practices, particularly transport workers, migrant laborers, businessmen, military, police, and campus students.

AIDSCAP - USAID's First Phase Attack on the HIV/AIDS Pandemic: 1993-1997

In August 1993, a Memorandum of Understanding between USAID, National Aids Prevention and Control Project (NAPCP), and Family Health International's (FHI) AIDSCAP project was signed, launching USAID's commitment to support a series of prevention interventions in Nepal, to be managed through AIDSCAP. The goal of the project was to reduce the rate of sexually transmitted HIV infection in the Terai through the following HIV/AIDS control strategies:

- reducing Sexually Transmitted Infections (STIs),
- increasing the use of condoms among the risk populations,
- reducing high-risk sexual behaviors through behavior change,
- communications and outreach services.

The interventions were planned to be integrated and coordinated with HMG's Medium-Term Plan and implemented primarily through a series of sub-agreements with NGOs, professional associations, and private sector firms. In addition to the project's primary interventions, the strategy called for policy and condom initiatives which would have a national impact. The strategic plan was initially supported by USAID, with special HIV/AIDS program funding from USAID's

Asia Near East Bureau, and later support coming directly from USAID/Nepal Mission funds.

Strengthening the Capability and Role of Physicians

Working with the Nepal Medical Association (NMA) as a sub-contracted partner, one of AIDSCAP's first challenges was to change attitudes among medical professionals. Some doctors were reluctant to become involved with HIV/AIDS because of fear of infection and the social stigma attached to the disease. Others were reluctant to deal with the populations who were perceived to be at highest risk: commercial sex workers (CSW) and injecting drug users (IDU). Programs were run to train doctors in syndromic management for sexually transmitted infections (STI). Syndromic management, developed by WHO, performs diagnosis on the basis of the patient's reported symptoms, without a physical examination. Advantages of the method are the reduced risk of infection, and its acceptability to conservative women who are often unwilling to undergo physical examination. The trainings also encouraged doctors to treat HIV/AIDS patients gently and with respect.

After developing and pre-testing the training curriculum, two-day workshops for general practitioners were conducted at Chitwan, Birgunj, and Janakpur. Fifty private clinic practitioners participated. Supporting activities, to reach a wider audience of physicians, included publication of two informative articles in the NMA's quarterly journal, and a program on "STIs in Nepal" at NMA's 17th All Nepal Medical Conference.

Medicine Shops as a Source of Advice

For many Nepalis, "medicine shops" are the first and only source of medical advice and treatment. The Nepal Chemists and Druggists Association (NCDA) was, therefore, a very important partner. The NCDA conducts an orientation training program for drug retailers and wholesalers, but the training did not address STIs. Work with chemists/druggists comprised four major activities.

1. June 1994 - April 1995 - a baseline study to assess the quality and quantity of services provided by chemists and chemist shops to STI customers was carried out.
2. Throughout 1995 and 1996, a curriculum for chemists and health providers on STDs/HIV/AIDS was developed, tested, refined, and presented.

3. September 1996 - June 1997 - a follow-up quantitative impact evaluation of chemists' dispensing practices after the implementation of the NCDA training was conducted.
4. February - May 1997 - Follow-up trainings and workshops and refresher trainings were carried out, incorporating the lessons learned from the evaluation.

Trainings took place along the major truck routes. Although chemists expressed some initial resistance to attending the trainings – since time away from the shop could mean lost income – they soon became very popular when it was seen that attendees learned valuable skills and became better drug sellers.

Trainees were taught not to sell the wrong medicines. They learned to recognize the symptoms of STI and to prescribe appropriately. They were trained to counsel their customers, advising them to complete their courses of treatment, rather than stopping as soon as their symptoms subsided; advising them to protect their partners by using condoms and asking them to seek treatment themselves; and to generally promote condom use. They were trained to refer customers to a physician when appropriate. They were also given guidelines and other materials that they could refer to, after they returned to their shops.

Findings of the impact evaluation study indicated that the training program was quite successful:

- After training, approximately 45 percent of the chemists suggested the correct medications and correspondingly correct dosages for STI symptoms, compared to 0.8 percent in the baseline study.
- In the baseline survey only 14 percent of chemists suggested condom use to their patients. This increased to 23 percent in the impact evaluation study.
- In the baseline study, only five percent of chemists suggested partner referral for STI treatment. This increased to 21 percent in the impact evaluation.
- In the baseline survey, only 2.5 percent of chemists recommended that the patient consult a physician if not cured by the prescribed medicine. This increased to 15.6 percent following the training.
- The average cost of the suggested medication dropped from Rs.193 in the baseline survey to Rs.168 in the evaluation study.

Reaching Commercial Sex Workers

CSWs are one of the highest risk groups for STI/HIV/AIDS infection. The illegality of their profession and the social stigma attached to it make it very

difficult for intervention programs to reach them. They are naturally very wary about discussing their work-related problems. AIDSCAP found a solution to this difficulty by working through the Family Planning Association of Nepal (FPAN) the largest NGO in the country. FPAN had family planning clinics in Dharan and Biratnagar, two strategically located towns with significant CSW populations. AIDSCAP convinced FPAN to offer STD services at these clinics, using the syndromic management approach. This enabled CSWs to get advice and treatment for STD/HIV/AIDS under the cover of seeking family planning advice. Because FPAN staff had been trained to treat CSW patients gently and with respect, CSWs initial reluctance to seek advice and treatment was eventually overcome.

The Great Condom Campaign

Contraceptive Retail Sales Company Pvt. Ltd. (CRS) was established with assistance from USAID. Since its beginning, in 1978, its focus had always been family planning and contraception. One can easily understand CRS's initial resistance to promoting condom use to protect against STD/HIV/AIDS: the issue was poorly understood and somewhat taboo in Nepal in the early 1990s and the company feared that linkage with STD/HIV/AIDS could impair the company's hard won success.

CRS eventually became an active and willing partner in the program with the result that, far from declining, condom sales increased from about 700,000 in 1993 to over 4.27 million in 1995. At the suggestion of AIDSCAP, CRS began to go beyond their traditional marketing strategy of selling only to medicine shops. They now began convincing cigarette stalls, bars, pan shops, hotels, tea shops small general stores, and other non-traditional retail outlets to sell condoms. There, they met with initial resistance; shopkeepers themselves were embarrassed by the idea of displaying condoms, and were afraid that they would embarrass and drive away their customers. This difficulty was overcome in time, through an innovative campaign. CRS sponsored condom display contests. Shops were given condom boxes with which to create their own displays; prizes were awarded to the best ones. By mid-1997 CRS was marketing condoms through 2,149 new non-traditional outlets.



Condom Display in a Small Shop

Photo Courtesy of Stimulus Advertisers

In order to change attitudes about condoms and to raise public consciousness about HIV/AIDS, it was necessary to convey a simple message: “Use Condoms – Treat STDs”, and to repeat the message many, many times. An external adviser worked together with a local advertising firm, Stimulus Advertisers, to create a focal image for the campaign. Their brainchild, “Dhaaley Dai” was a friendly, tall, and powerful condom; he carried the traditional Nepali warrior’s shield. Dhaaley Dai soon gained instant recognition, and became associated with the desired message.



Dhaaley Dai

Photo Courtesy of Stimulus Advertisers

Dhaaley Dai was soon at work on posters in shops, on TV, in magazines, and perhaps most importantly, on signs and billboards along major highways and truck routes: it had been found that truckers, because they work far from home and tend to patronize CSWs, are an especially vulnerable group. A simple catchy jingle was broadcast on Radio Nepal, and a one-minute advertisement appeared on Nepal TV.

In 1995, a short film was produced by the Nepali film-maker Dipendra Gauchan and Stimulus Advertisers. The film “Guruji and Antari” featured Guruji, a wise, mature truck driver and his young assistant, Antari. Guruji’s advice about safe sex to his protégé helped spread the urgent and serious message about condom use and safe sex, in an entertaining format.



Guruji and Antari

Photo: Courtesy of Stimulus Advertisers

Taking the Show on the Road

CRS, working with a local NGO, General Welfare Pratisthan, outfitted a large Landrover utility vehicle for use as a Video Van. The Video Van, equipped with a VCR, a large screen, a generator, and loud speakers, as well as a large supply of condoms and printed material traveled the highways, showing the movie and spreading the message in towns, schools, villages, and other key locations. The evening shows were advertised several days in advance, through posters, word-of-mouth, and mobile loudspeakers mounted on rickshaws. A four-meter tall Dhaaley Dai was inflated hours before show time, which immediately brought the children running. Shows were often staged outdoors in fields, where they were attended by crowds, sometimes numbering in the thousands, including truck-drivers, migrant workers, police and military personnel, as well as the general populace. After the video, condoms and printed promotional materials were distributed to the audience. Discussions and question-answer sessions often followed.

A street drama ensemble from Hetauda worked with GWP to produce a live version of the film “Guruji and Antari”. The company toured towns, villages, and schools, making use of their ability to improvise and adapt the play to suit each particular audience: school-children, truckers, etc.

Changing Attitudes Through Education and Training

To help change prevailing attitudes, as well as to spread the safe sex message, the program sent journalists abroad for training in how to report on HIV/AIDS issues. This brought about positive changes in the press, where insensitive, negative, and sensationalist reporting had previously been the norm. Members of GWP, NCDA, and NMA were sent to Thailand for training in STDs and communication.

High-level experts from the Thai Ministry of Health were brought to Nepal, to participate in workshops with Nepali counterparts. There, they were able to share their experience and to urge Nepali officials to not repeat Thailand’s mistake: waiting too long to acknowledge and take action against the pandemic.

Behavioral Surveillance

Nepal was one of the first countries to carry out Behavioral Surveillance Surveys (BSS). Surveys were conducted each year in the same towns, villages, and points along truck-routes. Each year, the same types of groups: truckers, CSWs, police and military personnel, migrant workers, and other high-risk groups were asked questions about their knowledge of STD/HIV/AIDS, condom use, etc. By comparing responses from year to year the effectiveness of the public information campaigns were verified.

IMPACT - USAID’s Second Phase Attack on the HIV/AIDS Pandemic: 1997-2002

FHI continued to administer USAID’s HIV/AIDS prevention and control program when it moved into phase two in 1997. The second phase built on the successes and the lessons learned in the first four years, and the program was expanded from 9 to 16 districts.

Feedback from BSS indicated that the program’s mass communication campaigns about the use of condoms to prevent aids had successfully increased awareness of condom use for infection prevention among CSWs and clients. CSWs reported that use of condoms with their last client had risen from 35 percent in 1994 to 70 percent in 1999. A second generation campaign, launched in September 2000, stresses sexual health.

New Data Signals Unmet Needs And Gaps

By mid -2000, surveys were indicating that Nepal faced a larger HIV epidemic than originally expected and that areas and target groups thought to be adequately covered by interventions were in need of more concentrated interventions and technical guidance. Just five years earlier Kathmandu had been advertised in international HIV journals as a success story in keeping HIV prevalence low among injection drug users (IDU). However, a more recent survey of IDUs showed a national average of about 40 percent HIV positive, with the city of Kathmandu reporting 50 percent. A survey in Kathmandu supported by USAID in 2000 indicated that HIV prevalence had risen to 17.3 percent among CSWs, up from 8.7 percent in 1996 and 2.7 percent in 1995.

Temporary migration to India by Nepali males, for employment, had long been thought to carry a degree of HIV risk because of potential exposure to CSWs in India, where HIV/AIDS prevalence is very high, especially in Mumbai. Recent data suggests that this scenario may, in fact, be occurring in the impoverished far West Region of Nepal where large numbers of men migrate to India, including Mumbai, for temporary work. Villagers report an extraordinarily high rate of deaths by HIV in the area and the term “Mumbai Disease” has already become part of the village vernacular in the region – a chilling reminder of the phrase “Slim Disease” that accompanied the spread of HIV/AIDS in sub-Saharan Africa.

At the start of the new millenium, seroprevalence studies establish that Nepal has gone from a low-prevalence country to one in which a concentrated epidemic is firmly established in one or more high-risk groups, e.g. urban sex workers, returning sex workers from India and IDUs nationally.

Current estimates indicate that there are between 30,000 and 60,000 HIV/AIDS infected persons in Nepal. In the absence of effective public health interventions HIV prevalence in Nepal may increase to one to two percent of the 15-49 year old population by 2010. For Nepal, this means 100,000 - 200,000 young adults would become infected by the end of this decade, and 10,000-15,000 annual AIDS cases and deaths may be expected. This would make AIDS the leading cause of death in the 15-49 year old population. These estimates may be very conservative.

Meeting the New Challenge

Other donors agree that Nepal is faced with a genuine emergency. DIFID, USAID, and UNAIDS are collaborating with USAID, to address the epidemic in the Kathmandu Valley. USAID is supporting activities by CARE and other organizations to deal with the emergency in Far-Western Nepal. Twenty percent

of USAID/Nepal's health budget goes to combating HIV/AIDS and other communicable diseases.

Despite the seriousness of the situation, Nepal's opportunities for successfully coping with HIV/AIDS at the dawn of the twenty-first century are greater than they were when the first cases appeared in 1988. To a great extent this is due to the courage and honesty of the Nepali people. Over the last decade, the country has moved from a situation in which public discussion of sexually transmitted infections was virtually taboo, to one in which His Royal Highness the (late) Crown Prince, speaking at the National Convention Center on December 6th 2000, called upon all sections of society to unite in the fight against the killer disease.

Family Planning

At the close of the 1980s a Nepali woman bore an average of nearly six children in her lifetime. Nepal's population was increasing at about 2.7 percent each year. At that rate, it would double from 18 to 36 million, by 2016. The high rate of births was said to be driven by the desire of most couples to have a son to care for them in their old age and, in the case of the Hindu majority, to fulfil their socio-religious obligations. Nepal's high child mortality rate drove couples to produce at least two sons, to increase the likelihood that one would survive.

Contraceptive prevalence was a mere 15 percent, 86 percent of which was through surgical means. The virtual absence of knowledge about temporary contraceptive methods (outside the biggest cities) contributed to 20 percent of births occurring less than two years apart, with consequent negative impacts on the health of both mothers and children.

The family planning component of the Child Survival/Family Planning Services project aimed to help the MOH in its efforts to provide high quality, full service family planning services to its clients. Voluntary surgical contraception (VSC) which had been provided mainly through seasonal "camps" was to be made available throughout the year, at district and zonal hospitals. Equipment, facilities, supplies, and systems at the hospitals all needed upgrading, to make this possible.

The new emphasis, however, was on *temporary* contraceptive methods, as the most effective way to reduce unwanted pregnancies. VSC clients tended to be older couples approaching the end of their reproductive years, who already had all the children they wanted. The new focus was on younger couples at the beginning of their reproductive years, who wished to space or limit pregnancies.

Making temporary contraception available is, in many ways, more difficult than providing VSC. VSC is a one-time event, that requires limited follow-up and

support. Temporary methods are on-going and require sustained counseling, support, and follow-up if quality service is to be maintained. Similarly, the information management and data collection system for temporary contraception is on-going and therefore more complex.

The aim of providing a full range of family planning options necessitated training at all levels, so that health care providers could provide responsive counseling and match the available methods to the specific needs and preferences of each client. Information about each method had to be provided to clients in a private, non-coercive atmosphere. Medical screening for contraindications had to be routinized and both providers and clients had to be informed about possible side-effects.

Logistical requirements also increased: the new knowledge would be of little value if the necessary supplies were not where and when they were needed. The MOH logistics system was found to be inappropriate and chaotic. A top-to-bottom logistical system was instituted, beginning with a major effort to dispose of old useless equipment; rusted, long defunct vehicles; and out-of-date medicines and supplies that were cluttering warehouses, store-rooms and hospital compounds across the country. It was necessary to devise methods to carry out this task within HMG's strict regulations for the disposal of property. Technical expertise was brought in from the USA. Store-rooms were refurbished and MOH staff were trained in inventory-management, monitoring, and accounting methods. "Pull-driven" systems were put into place, that allowed health facilities to order the specific supplies needed in the communities that they served, rather than receiving "push-driven" shipments that often included many low-demand items and not enough of the supplies that they actually required. Logistics was decentralized, to the extent that district warehouses kept a three month stock of supplies, while back-up inventories were kept in central stores. A private Nepali firm, Management Support Systems Pvt. Ltd. (MASS) was contracted to provide logistical support.

In addition to giving clients a wider range of family planning methods to choose from, the project aimed to increase the availability of family planning services. Specifically, the private sector was to be involved. Doctors in private practice received training, as did pharmacists. The initial project design envisioned the establishment of family planning clinics at privately owned factories. This proved impractical however, since most factories had too few employees and too few of those were women.

Surveys indicated that over 30 percent of Nepali women of reproductive age wanted to space or limit their children, but were not practicing family planning.

Chief among their reasons was the fear of unpleasant or dangerous side effects. In other instances mis-information and lack of information kept them from using contraceptives, as did poor and inadequate interaction with family planning service providers. In 1993 USAID invited Johns Hopkins University, Center for Communication Programs (JHU/CCP) to study the situation and determine whether an information, education, and communication (IEC) program could help to address this unmet need.

The outcome was the Radio Communication Project (RCP). Radio is an efficient, cost-effective way to reach people in a country with rugged terrain and low literacy levels. One study claims that 67 percent of Nepali households own a radio. The RCP produces two weekly radio programs; one for family planning service providers and one for potential and actual clients. The programs apply sound behavior change theory in an entertainment-education package.

“Service Brings Reward” is a distance education program for service providers. Its protagonist is a model health worker. Her dramatized strivings to meet the challenges of her job, provide lessons in inter-personal communication and counseling, as well as in technical subjects. “Cut Your Coat According to Your Cloth” is a soap-opera that addresses such issues as husband-wife communication about family planning, and seeks to promote positive images of both family planning clients and of service providers.

Printed materials are used to reinforce the programs’ messages. Service providers who formally register are awarded certificates if they pass examinations based on the program content. The examinations (in combination with tests given before enrollment) also serve to as tools to monitor the effectiveness of the program.

Into the Twenty-First Century

Forty years of assistance to Nepal's health and family planning sector had given USAID the perspective and experience necessary for an accurate understanding of the situation in the early 1990s. The atmosphere in newly-democratic Nepal was conducive to ambitious and innovative undertakings for national development. Thus, the decade was a time of strengthening and solidifying responses and of consolidating accomplishments. A "lesson learned" in this sector is the need to maintain direction beyond the short term in order to achieve sustainable successes.

The increase in contraceptive prevalence, the reduction in total fertility, and the reduction in under-five mortality that have been achieved in the 1990s are evidence that the investments made by USAID in Nepal’s health and family planning programs are paying substantial dividends. The success with which

Nepal's Female Community Health Volunteers have brought life-saving services to the door of millions of citizens, and the increasing support they are winning in their communities is another indication of progress.

USAID enters its 6th decade of partnership with Nepal, with the strategic objective, "Reduced Fertility and Protected Health of Nepalese Families. The strategy builds on past successes and focuses resources on critical issues where the Mission's particular experience and expertise can be expected to produce four concrete, measurable intermediate results by mid-decade:

- Increased use of quality family planning services
- Increased use of selected maternal and child health services
- Increased HIV/STI prevention and control practices by high-risk groups in targeted areas
- Strengthened capacity and programs to control selected infectious diseases

Increased Use Of Quality Family Planning Services

Activities in support of this result will yield increased use of contraceptives and a decrease in the total fertility rate by 2005. There is high awareness of family planning in Nepal, but a substantial unmet demand. Family planning use can be increased by improving access and availability of services, and by increasing demand through Information, Education and Communication (IEC) and through satisfied clients making peer referrals. To ensure that the quality of services will remain high, programs will be adding competency-based in-service and pre-service training, appropriate monitoring and supervision of health care providers and services, and will create a cadre of informed consumers empowered to demand high quality services. The word "quality" is included in the formulation, to reflect the importance of maintaining a prescribed level of quality as services expand and as use increases.

Increased Use Of Selected Maternal And Child Health Services

The aim is to further reduce the maternal and infant mortality rates by 2005. USAID's new initiative in Maternal and Neonatal Health will expand USAID contributions to safe motherhood in Nepal. In collaboration with GON and other donors, USAID/Nepal will focus on an enhanced policy environment for safe motherhood; better coordination among partners implementing safe motherhood programs; improved quality of services and training curricula in emergency obstetric care; and increased access to, and demand for, quality services. In addition, USAID will continue to support the Safe Motherhood Network providing

effective grassroots communication and advocacy to address maternal health issues.

USAID has been a leader in achieving progress in child health and will continue to support priority child health interventions including vitamin A capsule supplementation and nutrition education, community-based Integrated Management of Childhood Illness, and Polio Eradication. Assuming reasonable funding levels, many of these programs will expand to nationwide coverage by 2005. To maximize coverage, ensure access for all children, and enhance sustainability of these interventions, particular attention is being given to strengthening service delivery at the community level. USAID/Nepal believes that the country's 46,000 Female Community Health Volunteers are critical to the success of national child health and nutrition programs and will continue to devote resources to their training as well as promoting local support for their activities.

Increased HIV/STI Prevention and Control Practices by High-Risk Groups in Targeted Areas

Interventions to this end will result in decreased transmission of HIV/AIDS by 2005. The program will continue to focus on primary prevention activities (condom promotion, STI treatment), targeted at high-risk groups in the border areas. The Mission has chosen to expand these activities into the Kathmandu valley where the incidence of HIV/AIDS cases is increasing. USAID/Nepal assistance can help control the spread of the disease from high-risk groups into the general population.

USAID is the largest donor for HIV/AIDS/STI prevention activities in Nepal. USAID/Nepal has supported studies for the GON's strategy development and guided the GON response to the epidemic. Given USAID's leadership in responding to the HIV/AIDS problem and the Mission's experience working in cross-border areas, reliance on USAID expertise in establishing regional programs is evolving rapidly.

As the risk of contracting HIV/AIDS/STIs is high amongst trafficked persons, the mission will continue to use HIV/AIDS-designated resources to support anti-trafficking of women and children activities. These activities will be concentrated in border areas, and closely linked to and mutually supportive of other USAID and US Mission anti-trafficking programs in Nepal and in the region.

Strengthened Capacity and Programs to Control Selected Infectious Diseases

It is expected that the continuation of the infectious diseases program to 2005 will result in improved control of infectious diseases in Nepal and within the region. The infectious disease program has two components: vector-borne diseases and anti-microbial resistance. Currently the program is being implemented through five USAID/Global Bureau projects. Under the strategy, the Mission will investigate creating a bilateral program to form a more cohesive working unit and reduce costs.

The program will continue to strengthen Nepal's Vector-Borne Disease Research and Training Center as a national and regional institution, and enhance its capacity for vector-borne disease surveillance, reporting, response, and control. The Mission's infectious disease program will be closely linked to the proposed regional infectious disease program to develop initiatives to coordinate efforts to combat emerging and re-emerging infectious diseases. With mechanisms well advanced and the capacity of Nepalese institutions improved, Nepal will have the expertise to provide leadership to an organized regional initiative in infectious disease control.

Growing antimicrobial resistance due to irrational drug use is a global public health concern. Without a system in place to monitor antimicrobial resistance, Nepal is particularly vulnerable. In the new strategy, the infectious disease program will continue to provide the GON with technical assistance to develop a national antimicrobial resistance surveillance system and improve rational management of antimicrobial drugs.

Policy

USAID will continue to play an important role in health policy and policy reform. Although the macro policy level is not the primary program focus, the mission will continue to be engaged through high-level policy dialogue with the GON, support for multi-donor efforts, and targeted short-term technical assistance. The mission will also support efforts to implement GON's recent Local Governance Act at the district and community levels, for improving local capacity to plan and manage effective programs.



ECONOMIC LIBERALIZATION

The role of the government in the Nepalese economy was dominant at the end of the 1980s; directly, through state-owned enterprises and indirectly, through excessive regulation and administrative procedures. The government reserved to the public sector most medium and large scale industrial development. The regulatory framework placed a significant burden on operation of private enterprises and jeopardized their ability to compete in the international market. The legal structure inhibited full utilization and development of the financial institutions which mobilize private sector capital.

By the early 1990s, deregulation, privatization, and local ownership of productive resources had long been keywords in many of USAID's programs. Irrigation projects worked to put the ownership and management of irrigation systems into the hands of those who depended on them for their livelihoods. The Rapti Development Project assisted the formation of local business groups and enterprise-oriented private community organizations, supported private sector agribusinesses, and worked for de-regulation and privatization of agricultural inputs. USAID funded forestry projects focused on community forestry, and the transfer of local forests to local users' groups.

Democracy and Economic Liberalization

“The advent of multi-party democracy in Nepal on April 9th 1990 provides USAID with a long-awaited opportunity. The new government has already publicly recognized the inappropriateness of past government and palace interference in the economy and politics as the principal causes of slow growth and pervasive corruption. Business, labor, government, and NGOs are seeking sound, justifiable policies to replace existing ossified concepts of how a national economy should work. Newly legal political parties are open to alternatives to archaic, statist programs. USAID/Nepal can help the reform processes move in the right direction through timely support to groups and individuals firmly committed to open markets and pluralism. But time is of the essence.

With active USAID, IMF, and World Bank encouragement, the previous

government has adopted reasonably sound macro-economic policies. The private business sector, however, remained almost completely stifled as have virtually all social and political activities not directly supportive of the *panchayat* system. The Mission proposes to make [the Economic Liberalization Project] its center-piece for promoting economic, political, and administrative reform and creating an atmosphere conducive to private-sector led development. Projects in our existing portfolio will continue to significantly assist policy dialogue and program formulation in agriculture, agribusiness, natural resource management, health and family planning. The Mission recognizes a programmatic opportunity to foster an administrative and policy environment more conducive to investment and entrepreneurship – development of an open, fair, competitive, and transparent market with supportive policies – is a prerequisite to sustainable development. . . .”

USAID/Nepal, Annual Budget Submission, July 1990

The Economic Liberalization Project

The Economic Liberalization Project (ELP) was designed to support the development of a strong, self-sustaining, private sector-led economy. The project used a two pronged strategy. In the policy arena, it pursued a policy framework that supported private sector-led economic development, through a carefully analyzed, comprehensive policy-dialogue process. To strengthen the private sector, the Project directed training, technical assistance, and other forms of support to the business community, to enable it to use the opportunities opened up through an improved policy environment.

ELP was approved and launched as a five year project in September 1991 with planned funding of \$5 million. An amendment in June 1993 expanded the scope of the project, increased the total funding to \$12 million, and extended its duration by two years, to September 1998.

At the center of ELP were two executive steering committees: the Policy Dialogue Committee (PDC) and the Business Development Committee (BDC). The PDC was chaired by the National Planning Commission Member in charge of macro-economic and industry policy. Other permanent members included officials from the Nepal Rastra Bank, the Ministry of Finance, the Ministry of Industry, the Ministry of Commerce, the BDC, and USAID. The BDC was chaired by a representative of the Federation of Nepalese Chambers of Commerce and Industries (FNCCI), and consisted of representatives from various commodity

associations, the PDC, and USAID. Invitees were brought into these committees as and when needed. Both Committees worked with USAID to review, assess, and decide on what initiatives were to be undertaken by the project.

Policy

Privatization of Public Sector Enterprises

Privatization was the centerpiece and driving force of ELP. In order to understand how important privatization was to the economic development of Nepal, it is useful to compare the losses of the public sector enterprises (PSE) to other important economic figures. According to Ministry of Finance figures, the net annual losses of the PSEs in the period 1990-1992 were approximately 1.25 percent of the GDP. Gross losses came to about three percent of GDP. These costs are even more striking in comparison with the resources Nepal has available for economic development. In 1991/1992 net reported losses of PSEs were 13 percent of total fiscal revenue, 17 percent of gross domestic savings, 110 percent of foreign grants, and about 60 percent of the domestic public deficit (domestic borrowing by the public sector). PSE losses in the early 1990s were a crippling burden to Nepal's economy, more than offsetting the total grant contributions of all foreign aid, and accounting for more than half of the government's domestic borrowing requirements. The gross amount transferred to shore up loss-making PSEs in the early 1990s was more than what the government spent on education and health combined.

This, however is not the end of the story. The reported financial losses tend to understate the true economic costs of the mismanagement of the PSEs. The privatization process revealed large, hidden financial liabilities which did not appear on the books of the PSEs. These hidden liabilities included unpaid taxes, un-funded pension and redundancy liabilities, unrecorded accounts payable, un-collectable and nonexistent accounts receivable, and liens against the enterprises' equipment and other assets. Inclusion of those items would give a more accurate estimate of the true financial losses of the PSEs, but it would still not reflect the full economic cost of PSE mismanagement.

Part of the economic cost was the failure of the PSEs to pay an adequate return on their capital in the form of dividend payments to the government. In 1992, dividend payments of the public enterprises, exclusive of the central bank, were only 0.02 percent of the GDP. Thus, even when profits were made, the PSEs did not pay adequate dividends to the government. Failure to pay an adequate

return on capital represented the most direct form of economic cost, in excess of financial cost, resulting from PSE inefficiency.

Beyond direct economic costs, opportunity costs were also high. Privatizations that took place in the early years of ELP showed that PSEs were not maintaining their equipment, were not responding to market demand, were not operating near full capacity, and were not prepared to expand so as to supply market demand and create productive new jobs. The potential for expansion was shown by the example of a paper company that was privatized in late 1992. By 1996, the new owners had expanded capacity from ten tons a day to 128 tons, increased employment from 350 to 1000 within the firm, and most importantly, raised employment opportunities for their (mostly women) suppliers of raw material inputs from 1,500 to 30,000.

The financial position of the PSEs was deteriorating by the early 1990s, and the government was faced with the choice of funding their open-ended need for cash payments from the budget, or privatizing as many PSEs as possible. Privatization would end the long-term PSE drain on public resources and possibly provide some short-term revenue gain from the net proceeds of the sale.

These problems had already been recognized in the 1980s and efforts had been made to reform some of the PSEs. As in many other countries at the time, Nepal was not successful in reforming its PSEs and reducing their drain on scarce public financial resources. The failure to rationalize and reform the PSEs in the 1985-1990 program, and the restoration of democracy in 1990, opened the way for USAID's assistance to the government's new privatization plans.

Technical assistance to HMG for privatization activities under ELP was provided by Price Waterhouse/Intrados Management Consulting Group, under a contract that ran from 1991 - 1996. As part of its technical assistance activities, the contractor conducted seminars on privatization for government officials and business leaders, assisted in selecting enterprises to be privatized, conducted valuations and analyses, developed an action plan, drafted documentation related to the sale and negotiations, and strengthened the technical expertise of the government's privatization cell.

The Nepal national budget for 1991-1992 began the implementation of HMG's privatization program. The High Level Privatization Commission (HLPC), headed by the Minister of Finance was set up, and the Privatization Act was promulgated by the parliament. To provide staff support, a privatization cell was established within the Ministry of Finance (MOF). This group was responsible for implementing the entire privatization process and was strongly supported through technical assistance funded by the ELP. The HLPC established

program guidelines and priorities, and the staff of the privatization cell carried out their directives.

The first phase of privatization, completed in 1992, involved the sale of 100 percent public ownership in three companies: Harisiddhi Brick and Tile Factory, Bhrikuti Pulp and Paper Mills, and the Bansbari Tannery and Shoe Factory. The privatization cell was supported in these divestitures by UNDP, the World Bank, and USAID. The actual transfer of ownership was contracted out to a local firm of chartered accountants. By 1996, seven additional PSEs had been privatized: Balaju Textile Industries, Nepal Film Development Company, Raw Hide Collection and Development Company, Nepal Bitumen and Barrel Industries, Nepal Lube Oil, Nepal Foundry Industry, and Ragupati Jute Mills. Two other PSEs were liquidated: the Tobacco Development Company, and the Jute Development and Trading Company.

Public Opinion

“Reform has also to be publicly acceptable for it to attain sustainability. In the case of Nepal, not much was done to educate the public and bring about a strong national consensus on the reform process. Privatization of public enterprises (PEs) is a case in point. Despite one of the most successful privatization programs in South Asia, the Government found itself always hounded with criticism. Two of the most often heard criticisms were under-valuation of assets, and sales to foreigners (Indians). And yet, all ten privatized PEs were sold at values considerably higher than those assessed by professional appraisers. On the issue of sales to foreigners, only one (Bansbari Leather and Shoe Factory) of the ten firms was sold to a non-Nepali. And in this, the Government had very little choice: the only valid offer came from Leather Age India, an Indian firm.”

Praveen M. Dixit; Economic Policymaking: The Nepal Experience; 1995, Center for Institutional Reform and the Informal Sector, University of Maryland at College Park

Taxation Reform

The problems inherent in the Nepali tax system were wide ranging and well known. The most critical shortcoming was the low buoyancy of tax revenues with respect to nominal income. A well designed and administered tax system will

generate faster growth in tax revenues than in nominal incomes. In 1990s Nepal, this had not occurred. From 1987/88 to 1992/93, the ratio of tax revenue to GDP declined from 10.5 percent to 9.9 percent, while nominal GDP rose 170 percent. This was a very critical problem for a government as chronically short of resources as Nepal's. A second serious problem that contributed to low buoyancy was poor administration, leading to widespread tax evasion and to inefficiency and corruption in tax collection.

A third problem was reliance on types of taxes which interrupt the flow of commerce and thus magnify the burden of the revenues collected. These taxes were customs duties levied at the border with India, and the octroi tax. The latter was a toll type of tax levied by municipalities and districts on commerce and traffic transit in their jurisdiction. This was a profoundly inefficient tax which interrupted traffic on the highways and provided scope for corruption. In addition the octroi tax did not encourage accountability on the expenditure side because the tax payers were typically in-transit and didn't receive the local services the tax was intended to finance. The local residents, on the other hand, did not pay the tax and had little sense of how much was being collected. To make matters worse, many municipalities had farmed out the collection of this tax to individuals who took a share off the top, before turning over the remainder to the local authorities.

Technical assistance for tax reform activities under ELP were provided by the Harvard Institute for International Development/Consulting Assistance for Economic Reform (HIID/CAER), under a contract that ran from 1993 - 1996. The role of HIID/CAER in the tax reform process was to provide high-level technical assistance relating to the design, administration, and codification of the new tax system. HIID/CAER worked directly with and in the National Tax Office. Activities included developing the regulatory and procedural framework for VAT, providing training and organizational structure, computerization, and developing a public relations and media campaign for Nepal's revenue administration cadre.

In addition to the work done by HIID/CAER, and Price Waterhouse/Intradas, which worked in the same area, but at a more technical level, The Institute for Reform and the Informal Sector (IRIS) provided support for reform at a strategic and policy level. IRIS provided long-term technical assistance through the MOF, across the whole spectrum of issues covered by the Policy Dialogue Committee (PDC). IRIS helped move reforms from the identification and conceptualization stages in the PDC, straight through to adoption into the government's program and finally enactment into law.

The first major taxation reforms were made in the 1993/94 budget. Introduced in 1993, they included:

- removal of the majority of excise duties and a simplification of those remaining;
- streamlining the sales tax and a beginning of the movement toward a value added tax (VAT);
- expansion of the income tax base, adding 3000 new tax payers in Kathmandu alone;
- strengthening income tax withholding procedures; and
- cutting customs duties significantly, with the top rate falling to 40 percent (except for liquor and a few other items).

The effect of these reforms was quickly evident as tax revenues in 1993/94 grew by an estimated 31 percent, as compared with nominal income growth of about 16 percent. Further reforms were part of the next budget, introduced in July of 1994. They continued the pattern established in the previous year.

- Excise taxes were removed from all but 6 types of goods.
- Customs duties were further simplified and cut, with the top rate brought down to 30 percent for most goods.
- Sales tax was both extended to cover more goods and services, and rationalized, in anticipation of a future VAT.

Financial Sector Reform

Economic development and liberalization require the development of a healthy financial market and of a capital market in particular. Strategies and programs are required to mobilize scarce financial resources to promote and sustain the process of industrialization. Both primary and secondary markets must be functioning to facilitate this process and to encourage the private sector to finance its operations, provide employment, and compete in world markets.

The financial structure of Nepal in the early 1990s was heavily dominated by the two state-owned banks, which controlled some 75 percent of the financial sector's total resources. The region's, and especially India's, move towards economic liberalization in the early 1990s provided strong motivation for Nepal to proceed along the same road.

As part of ELP, IRIS was funded to engage foreign and Nepali short-term consultants to assist HMG with financial market reforms to strengthen the banking and capital market institutions, so that the economic opportunities unleashed by liberalization would not be stifled by lack of financing. Following its first democratic elections in May 1991, HMG initiated a comprehensive structural reform program focusing on economic liberalization and deregulation. One of the principal areas that required attention was the financial sector; HMG recognized

the need to develop a smoothly functioning and efficient financial system to facilitate the growth of a healthy private sector.

Financial sector reform was initiated in 1992 by opening the banking sector to increased competition through the issuance of additional operating licenses and easing regulations for establishing new financial institutions, including foreign banks and finance companies. These steps were followed by the elimination of controls on interest rates. As a result of this process three new banks began operations in the following year, and several non-bank financial intermediaries were formed. HMG also proceeded to revise the securities market to encourage secondary trading activities and to make the stock exchange (which had just recently been established) fully operational.

In February 1992, India introduced partial convertibility of its currency for current account transactions. Nepal, in order to prevent loss of export competitiveness and capital flight, followed suit almost immediately. With the sudden implementation of partial rupee convertibility, local commercial banks, particularly the state-owned banks, found themselves at a loss as to how to operate in this new environment. The state-owned banks were at a great disadvantage with respect to the joint-venture institutions who had more experience and could readily draw on their head offices for financial and technical support. As a specific example of ELP's ability to respond quickly to facilitate the liberalization process, in September 1992 USAID/Nepal contracted with Citibank N.A., to provide both theoretical and practical foreign exchange training assistance to Nepal Rastra Bank, Rastriya Banijya Bank Ltd., Nepal Bank Ltd., and Himalayan Bank.

In mid-1993, as part of HMG's financial sector reform, IRIS provided technical assistance to examine trading and other operational aspects of the Nepal Stock Exchange, in order to identify actual and potential problems, and make suggestions regarding possible solutions or improvements. IRIS's recommendations were incorporated in revising the Securities Exchange Act, 2040, which led to its being replaced by the Securities Exchange Regulation, 2050, converting the old Securities Exchange Centre, established in 1976, into the Nepal Stock Exchange Ltd. (NEPSE).

Public response was electrifying! Immediate interest was shown by investors and some 133,000 applied for the shares that were initially offered in the recently privatized state-owned enterprises. The demand for shares exceeded supply by a factor of 15. With the establishment of NEPSE, several financial institutions launched a variety of mutual funds/investment savings schemes to tap into the small savers market, which previously had no means to save other than the banks.

Regulatory and Legal Reform

An appropriate legal and regulatory framework is an indispensable precondition for the successful development of a private sector. Experience in other Asian countries, where the government played a major role in the economy, revealed that the plethora of conflicting laws and regulations were utilized by government officials to manipulate activities in the government's favor and to delay reform.

At the start of the 1990s, private sector activity in Nepal was hampered by complex and burdensome regulations, ineffective and uneven administration of regulations, and a lack of private sector participation in policy formulation. In late 1990, IRIS, with the cooperation of Nepali professionals and business organizations, identified major legal and regulatory bottlenecks hampering the establishment and growth of the private sector. Three major areas were identified as needing attention:

- business registration procedures,
- access to credit,
- taxation impediments.

A USAID funded study revealed that it could cost as much as \$14,000 in official payments just to get a firm registered. A typical businessman needed to visit eight officials more than 45 times before obtaining a license to open a new business. To get bank loans approved, an average entrepreneur had to see eight bank officials 49 times and had to wait 93 days just to get a loan approved by a commercial bank. In spite of all those efforts, chances of getting a firm registered were only 58 percent and a bank loan approval 75 percent.

Another study (by the Trade Promotion Center) showed that an exporter, on average, had to spend nine hours preparing documents and 41 hours making 20 separate visits to offices to collect 122 different signatures. Similarly, import transactions involved 42 different steps, a cost of Rs.1,225 for a license fee, and the signature of 88 different officials. The importer spent an average of 13 hours on documentation and 29 hours calling on the officials. It is not surprising that many businessmen got their work done by going around the system, rather than by following the procedures.

USAID/Nepal contracted IRIS to assist HMG in addressing these issues. Several areas of policy reform were identified as requiring priority handling, including the "one window system", the Company Act, the Consumer Protection Act, and the Bankruptcy Act.

The Private Sector

To strengthen the private sector, ELP directed training, technical assistance, and other forms of support directly to the business community to enable it to take advantage of the opportunities opened up through an improved policy environment.

Executive Expertise

USAID/Nepal provided a \$895,390 grant to the International Executives Services Corps (IESC), to fund a four year volunteer executive program to assist private Nepali businesses. Under the grant, IESC provided the services of highly qualified, retired American executives as short-term consultants, to improve Nepali companies' expertise in production, finance, marketing, management, and related areas.

Services were provided to a range of firms, which included: Harisiddhi Brick & Tile Factory, the Jyoti Group of Companies, Nepal Film Development Corporation, Nepal Airways, and the Hotel Association of Nepal.

Assistance to the Carpet Industry

In the early 1990s, Nepal's carpet industry was the nation's largest exporter as well as the largest industrial employer of women. At that time, the industry's market was concentrated in a few European countries. USAID/Nepal contracted with International Management Consulting Corporation (IMCC) to provide technical assistance to help Nepali carpets penetrate the potentially lucrative American market, and to improve the management capabilities and productivity of Nepali carpet producers.

In addition to establishing contacts between Nepali manufacturers and American buyers, IMCC provided design samples, and assisted in development of a line of carpets suited to the American market, which required different designs, colors, and textures from the ones popular in Europe.

The Federation of Nepalese Chambers of Commerce and Industry

To support activities focusing on strengthening and promoting Nepal's private sector, USAID/Nepal sub-contracted the Federation of Nepalese Chambers of Commerce and Industry (FNCCI) to provide technical assistance in several areas.

The Business Development Consultancy Program

FNCCI is the only large Nepalese business association. The 10,000 firms under its umbrella in the early 1990s mainly represented the country's small and medium

sized traders and industrialists. Most of those small and micro-enterprises lacked basic knowledge of business principles, such as preparing a business plan, applying for financing, and marketing.

Initiated in January 1994 as a pilot project, the basic objective of the Business Development Consultancy Program (BDCS) was to assist private business enterprises in developing and strengthening their operations by accessing and providing professional consultancy services. Its beneficiaries were entrepreneurs and private businesses of small and medium size, with priority given to firms located at the district levels and to women-owned enterprises.

BDCS, one of FNCCI's most important activities, was offered through the district chambers of commerce and industry. One of its innovative activities was making expertise available through a pool of experienced management consultants listed with ELPS. In addition, FNCCI enlisted a pool of businessmen on a voluntary basis, to serve as mentors to client firms.

Strengthening of District Chambers of Commerce

Technical assistance under this activity focused on strengthening the 65 district chambers of commerce, and several national trade associations. The program financed training programs to assist them to understand the economic liberalization taking place in Nepal, and the impact it would have on their members. Some district chambers were provided with basic office equipment: typewriters, duplicating machines, photocopiers, computers, and printers. A workshop was held to make government officials aware of the problems faced by businesses, and a three-day industrial exhibition was held in Kathmandu, featuring handicrafts, agricultural, and industrial products from 22 districts.

Business Literacy

The Business Literacy Program was another activity promoted by FNCCI at the district level, for micro-and small-scale industries and future entrepreneurs, with special emphasis on women. The program aimed to assist them in developing the necessary skills, attitudes, and knowledge to operate and manage their businesses. Two training modules were presented: Basic Business Management Training (with emphasis on functional areas of business) and New Business Creation.

Training Managers for the New Economy

In the early 1990s, there was a scarcity of trained managers in Nepal. In early 1992, BDC identified management training as one of the top-priority issues that needed to be addressed. A private sector training-needs assessment was conducted

by IESC volunteer executives in mid-1992. Subsequent to the assessment, proposals were requested from several Nepali educational institutions, for conducting seminars for middle and senior level executives. In September 1993 BDC contracted with the two successful bidders, Tribhuvan University (TU) and Kathmandu University (KU).

Management Training for Business Executives-I and II, courses developed and conducted by TU, helped mid-level managers acquire skills in managerial decision making in the areas of general management, marketing, accounting, finance, and human resource management. Forty participants enrolled in the seminars, most of whom expressed the desire that this type of course be continued.

KU developed and presented *Management Training for Business Executives III*. This course, aimed at senior managers, was delivered in three two-day sessions by visiting scholars and consulting professionals from the Institute of International Management, Ahmedabad. Among the subjects covered were:

- strategic management and modern management practices,
- the need for change in managers' attitudes and beliefs,
- leadership roles and styles, and
- implications of information technology for management.

Although the course was well attended, it was not evaluated highly by most of the participants, who felt that it did not adequately address their current needs.

Assistance to the Trade Union Movement

The role of the Asian-American Free Labor Institute (AAFLI) in ELP, was to help support the rights and the voice of Nepali workers. AAFLI worked with the Nepal Trade Union Congress (TUC) to advance the development of a free, democratic, and vigorous trade union movement. AAFLI also addressed specific labor issues, such as child labor in the carpet industry.

Disseminating Current Economic Information

With the restoration of democracy in April 1990, USAID/Nepal quickly realized that Nepali decision-makers and other concerned parties would benefit from a source of current economic information. The free and open atmosphere of the "Kathmandu Spring" inspired the publication of a monthly newsletter, "ECONews", which the Mission's Economics Division published for about five years.

ECONews carried articles on a wide range of economic issues of importance to a new democracy. Among these, were the economic views of political parties and of leading political figures, the state of various industries, prices of

commodities around the country, decisions taken by bi- and multi-lateral donors, and the impact that global and regional economic issues were having on the national economy.

ECONeWS

Volume 1, Number 4
वेद्यार १७, २०४७ April 30, 1990

Prepared for USAID by
USAID/Nepal's Economics Division

Economic Views of Congress and the ULF

CAVEAT: Prior to assuming office the two parties in the Interim Government issued public documents which gave their views on the economy. We have supplemented these documents with discussions and reviews of books and manuscripts on the history and policies of the parties. The information presented here is based solely on material that is part of the public record. It is not intended to be definitive. We have tried to present the politically expressed views of the two groups without distortion or comment.

There are likely to be changes in policies as the parties determine what can be done in a coalition government with limited financial and human resources.

As a coalition the parties have issued a 14-point directive to govern their policies. This emphasized political issues like the constitution, elections, and free press. However, there are a number of economic elements. Specifically,

continued on page 2

The Nepali Congress

Summary

The last time the Nepali Congress (NC) formally adopted an economic platform was in the 1950s. At that time the Party played a formative role in developing an Asian Socialist Alliance. Its economic views included nationalization, control of the leading industries and banks, regulation and equality of opportunity. Those views have not been formally changed over the years.

It is, however, more continued on page 2

The United Leftist Front

The United Leftist Front published its manifesto prior to the Nepali Congress National Conference in January 1990. The ULF is comprised of seven factions of the Nepal Communist Party. The ULF's manifesto indicates where there is agreement. Differences remain on other issues and with factions which decided not to join the Front but to form a rival National Peoples' Liberation Movement.

continued on page 4

Prepared by Neal P. Cohen and Shubha Banskota.
The views in this newsletter are not necessarily those of the U.S. Government.

Environment-Friendly Public Transportation

In the early 1990s, over 60 percent of vehicular emissions in Kathmandu were generated by 3,500 three-wheelers, popularly known as “tempos”, that accounted for 25 percent of all vehicular traffic in the city. Most of them were on the road for up to 15 hours every day. The most notorious and visible polluters were the 1,500 diesel powered three-wheelers, popularly called “vikram tempos”.

In 1993, the Municipality of Kathmandu requested Global Resources Institute (GRI), a U.S.-based environmental NGO, to introduce electric vehicles to Kathmandu as one approach to reducing its serious air pollution. The U.S. Asia Environmental Partnership (USAEP) provided a modest grant to GRI to convert one diesel tempo to run on electric power. Following a successful demonstration, USAID/Nepal provided additional funding to develop seven more electric tempos, and to demonstrate the technical and economic viability of operating the vehicles for public transportation. The new electric three-wheelers were painted white and named “*safa* tempos”, *safa* is a Nepali word meaning “clean”

At the beginning of the program, there was very little awareness or support for *safa* tempos in HMG. Early media coverage treated them as a joke. There were no mechanics familiar with electric vehicles, or workshops capable of assembling them. Government agencies had to be made aware of their benefits and capabilities. In order to establish electric vehicles as an economically viable alternative and to put them on a sustainable basis, considerable effort was given to encouraging the government to reduce duties and establish incentives. The private sector also needed encouragement to invest in locally created electric vehicle companies.

A workshop was established in a compound that served as the depot, where batteries were charged and from which the *safa* tempos were operated. Four Nepali mechanics worked with 2 expatriate consultants to build the demonstration vehicles. After building 7 of them, one of the Nepali mechanics was able to supervise both construction of the eighth, as well as maintenance of the fleet.

The eight *safa* tempos operated on fixed schedules, carried a maximum of 10 passengers, and stopped only at designated points along their routes. This was a completely new phenomena in Kathmandu, and although it took a while for the public to get used to it, the arrangement was eventually very well accepted. The electric three-wheelers soon became the vehicle of choice for many of the city’s commuters. They willingly paid the slightly higher fare (30% more than diesel tempos) for a cleaner, quieter ride. It was not unusual for passengers to

come to the charging depot to board a safa tempo before it reached its first stop, to be sure of getting a seat.



The First SAFA Tempo

Kathmandu residents developed a sense of pride in the safa tempos. The environmental superiority of these clean silent vehicles over the noisy smoke-belching diesel tempos was immediately obvious. To many, they seemed the harbinger of a longed-for cleaner greener Kathmandu. In September 1999, HMG banned the polluting diesel tempos from operating in the Kathmandu Valley.

The private sector did not take long to catch the new wave. In early 1996, when the project ended, the original fleet of safa tempos was purchased by the newly formed Nepal Electric Vehicle Industry, a private consortium of Nepali

firms and business leaders who saw the potential for electric vehicles in Nepal. By early 2001, there were about 600 *safa tempos* operating in Kathmandu – all manufactured locally by 4 private firms, who also operate fleets. Other firms and private owners operate between 1 and 30 *safa tempos* each. One of these is owned and operated entirely by women. Local industries now manufacture battery chargers, forward/reverse switches, and other components. A new industry has come into being, creating numerous employment opportunities. Further, Nepal is now well placed to export electric vehicle technology and products to other countries in the region.

Although tiny compared to many of the other projects funded by USAID/Nepal in the 1990s, its impact has been enormous. The very fact that so small an input had so great an effect, establishes it as a model of development engineering. Most of the credit must go to the Nepali entrepreneurs who had the vision to see the economic potential and the benefit to the people and environment of Nepal, in those first eight little electric three-wheelers.



Women's Empowerment

At the dawn of the 21st Century, USAID/Nepal is unique in being the only USAID mission in the world to have a specific Women's Empowerment Program. Why?

Nepal is the only country in the world in which female life expectancy is lower than male; it has one of the highest maternal mortality rates in the world. Although the legal minimum age of marriage is 16 years for females (earlier with consent of parents), it is estimated that almost 40 percent of women are married by the age of fourteen. Women are largely uneducated, un-represented, isolated and uninformed. They are severely limited in their rights to inherit property. Women are responsible for 63 percent of all subsistence farm labor in Nepal, and work on the average three hours more a day than their male counterparts, yet they have a disproportionately small say in how family income will be spent.

The literacy rate in Nepal is amongst the lowest in the world. Adult literacy is estimated between 35-40 percent, however this figure masks female literacy which is estimated between 18-25 percent. The gender gap in these percentages is the greatest in the world, surpassing those of sub-Saharan Africa.

Increasing the number of literate women and girls in Nepal is a prerequisite for gains in nearly every development sector. Research and evaluations in Nepal have demonstrated that literacy classes can serve as an effective mechanism for transmitting knowledge and influencing attitudes in health, family planning, ecology, and agriculture. The Nepal Fertility, Family Planning and Health Survey of 1992 provided clear evidence that educated women tend to marry late, want fewer children, are better acquainted with modern methods of contraception and are more likely to use contraceptive methods. As a result, the total fertility rates of educated women tend to be lower than those of women with no education.

A successful democracy depends on the rational and responsible actions of informed citizens who vote intelligently and independently, who exercise their constitutional rights, who respect the rule of law, who support peaceful transitions of power, and who are committed to legal representation. None of the aforementioned duties and responsibilities of citizens in a democracy can be effected without an educated populace. Citizens must be able to read and write in order to comprehend the nature of the system of government under which they live. An illiterate population cannot make independent decisions, since it is unlikely to have access to more than one source of information. An illiterate constituency cannot vote for representatives based on careful selection for the best

platforms, since it does not have access to information. An illiterate population cannot protect itself from abuses of power when individuals cannot determine for themselves the boundaries of power. An illiterate population cannot defend itself from violations of constitutional, human, and civil rights, since they cannot read and understand the constitution and the laws of the country.

USAID/Nepal has long been aware of the importance of literacy to all of its development activities; as early as 1983 the Mission began collecting baseline data on literacy and its relation to the status of women in Nepal. In the mid- 1980s it supported PACT in the development of *Naya Goreto* (New Path) a non-formal curriculum for illiterates. The importance of women as participants in development became an explicit target within all of the projects, and 50 percent of USAID funded NGO activities were designed specifically for women. The extent to which illiteracy was linked to non-participation, however, became more clearly recognized with the advent of democracy in Nepal. As development initiatives began to reach out into the countryside, whether they were in family planning, forestry, agriculture or income generation, they were blocked by the lack of education and receptivity to change. Participation in development had a built-in gender bias because of the relatively low stature of women and their illiteracy.

As a result of recognizing the literacy constraint, nearly every local initiative introduced literacy classes using the *Naya Goreto* series as the basis for training, adding additional materials which were related to each particular project, as they went along. The introduction of literacy clearly assisted projects in attaining their development goals, regardless of the sector.

USAID supported several projects to increase female literacy in the early 1990s. These included two PACT administered grants: the NGO Strengthening Project, which ran from 1988-93 with \$350,000 in USAID support, and the Democratic Pluralism Initiative, which received over \$1.05 million in USAID support from 1993-1997. World Education Inc. (WEI) increased the Ministry of Education and Culture's capacity to deliver non-formal education classes, under the National Literacy Expansion Project, which USAID supported with over \$1.5 million from 1990-1997. The USAID funded Health Education and Adult Literacy (HEAL) project which ran from 1991-1994 developed and implemented a comprehensive health curriculum combined with a literacy program for Female Community Health Volunteers (FCHV) and members of the Mothers' Groups that they serve, in 77 villages of Makwanpur district.

Between 1991 and 1997, The Asia Foundation (TAF) provided over 12,000 scholarships to girls in grades six through ten in Banke District, under the Female Education Scholarship Program (FESP), which USAID supported with over

\$450,000. The over-arching objective of the program was to keep girls in school. At the end of the program, 408 girls had completed grade ten - the highest number of girls to ever reach grade ten in their district.

Enthusiastic for Change

Thirty-five thousand dollars of the FESP grant was used for a Young Women's Legal and Economic Training program, to provide the grade ten girls an opportunity to learn about their legal rights and economic opportunities, since most would not be able to continue their formal education.

Initially, most of the girls were interested in the economic component, primarily because they had little or no idea about legal rights or what it meant. However, once the program began, their excitement and enthusiasm for the legal rights component quickly grew. The program had barely begun when the girls began forming advocacy groups and identifying action programs in their community. TAF had to link up the girls with mature women's groups to coordinate their community action programs, as some of the girls needed a moderating voice, lest they get themselves into trouble with the community.

USAID's Basic Education Support: Female Literacy (BES) project was a massive escalation in the campaign to bring women into the mainstream of social, political, and economic life. Between 1994 and 1998, the Mission invested over \$6.8 million to increase the number of literate Nepali women by 380,000.

Initially, BES was a two-pronged assault on female illiteracy: a grant to the Ministry of Education Culture and Social Welfare (MOECSW) in support of non-formal education activities in three pilot districts, with the goal of training 30,000 women, while a second grant aimed to bring literacy to 350,000 women and girls, through training and sub-grant support to Nepali NGOs. The \$1.36 million Ministry grant funded WEI's work to support the MOECSW's Non-formal Education Council (NFEC). The \$4.85 million NGO support grant was administered by PACT.

By the mid-1990s, USAID's quest for greater efficiency, synergy, and impact in its programs led to a whole new way of thinking about development, that replaced the old, static concept of "sectors", with dynamic "Strategic Objectives". Henceforth, USAID/Nepal's projects to bring women into the mainstream of

development would come under the umbrella of Strategic Objective 3 (SO3): Empowerment of Women. SO3 was to be revised and fine-tuned over the years, but it continues into the Twenty-first Century as the organizing principle for promoting women's interests.

In 1995, the second year of the BES project, USAID provided \$300,000, to support WEI's replication and extension of the earlier, extremely successful HEAL project. WEI worked through local NGOs in 15 districts, helping them to deliver a three-month post-literacy course, followed by a twelve-month continuing education program for women who had completed the six month basic literacy course. Post-literacy course materials focused on health and family planning.

By 1994 USAID had determined that changes in current law, particularly with regard to inheritance and property rights, was an important indicator of progress towards women's empowerment. In 1995, four leading women advocates brought suit against the State in the Supreme Court, seeking remedy on the basis that this gender bias violates the 1990 Constitution's guaranteed right to equality for women under the law. The Court agreed. The decision was subsequently published, giving the government one year to bring a bill to Parliament to amend the legislation.

Women's rights organizations in Nepal, headed by the Legal Aid Consultancy Center, drafted the requisite bill, with full funding from USAID. It was largely due to previous legal policy reform work by USAID that HMG was openly accepting bills drafted by outside agencies for consideration and passage in Parliament. In 2001, by an act of parliament, the women's property rights bill became law.

In 1995, 1,300 women sought legal redress through USAID-supported free legal counsel, mediation, and representational services. Polygamy, share of property, assault, and divorce were most often the issues. In the previous year only 103 women were reported to have used these services. Community mediation centers were established in four pilot areas, offering faster grassroots level conflict resolution, and community leaders were trained and equipped to provide community dispute resolution services.

Legal literacy has made a very substantial contribution to women's empowerment. Legal awareness and literacy skills help women feel confident enough to assert their rights. As a result of SO3 activities in 1995, 4,200 women from 31 districts all over Nepal participated in legal awareness fora, promoting greater advocacy and popular support at the grassroots level for laws favorable to women. Twenty-five advocacy NGOs were registered, whose aim was to advance issues relevant to Nepali women and other disadvantaged groups: increased civic

participation, increased basic and legal literacy, promotion of women in politics, and prevention of girl-trafficking.

Poor Nepali women rarely have title to assets that can be used as collateral to secure a loan. Without access to credit, opportunities to improve their economic situation are extremely limited. In 1995, USAID assisted two Grameen-like NGOs, Nirdhan, and the Center for Self-Help Development, to increase the number of loans issued to women, from 2,000 to 5,200 (an increase of 160 percent). In the same year, USAID was instrumental in establishing over 300 village-level savings and income-generating groups in predominantly low-caste, disadvantaged areas. These groups provided small interest-bearing loans to their members, as well as training in basic literacy, income generation, legal awareness, advocacy, and community development.

One of the important lessons that USAID and its partners have learned over the years is that women's literacy programs are most successful when their subject content relates to issues that the participants perceive as important for themselves and their families, while general community development efforts are more successful when linked with literacy programs.

The current manifestation of USAID/Nepal's SO3, the Women's Empowerment Program (WEP), looks back at the projects completed by 1997 as the first generation in legal rights, literacy, and economic opportunities initiatives. Those projects achieved extraordinary results: over 200,000 women learned to read, write, and count through basic literacy programs; more than 41,000 of those who acquired basic literacy skills also learned about their legal rights in post-literacy classes; and almost 1,000 advocacy groups were formed to enable women to advocate for their rights and for positive social change in their communities. In addition, 23,800 women became active account holders in savings and credit groups and development banks, 20,300 took a first or second loan, and over 5,600 women either established or expanded microenterprises.

USAID/Nepal and its partners took the lessons learned in the first phase of SO3 as a starting point, as they set out to create WEP a new, fully integrated package on empowerment assistance.

SO3: The Second Generation

The Women's Empowerment Program (WEP)

In the autumn of 1997, USAID/Nepal and HMG signed the historic Strategic Objective Agreement for Strategic Objective Three: Women's Empowerment. USAID defines empowerment as a process by which women define, challenge,

and overcome barriers in their lives and ultimately change their life circumstances. In order to achieve SO3, HMG and USAID agreed to support activities which would achieve the following results:

- an increase (in target areas), in the degree of women's influence over household decision-making;
- increased number of households spending more on family well-being;
- an increase in the number of collective actions for social change initiated by women in target areas.

SO3 focused on already-existing women's economic groups (making economic growth the anchor of WEP) in 21 districts, extending from east to west, all across the Terai; HMG and USAID agreed that empowerment would take root best in already fertile soil.

Two of USAID's longstanding partners: PACT and The Asia Foundation (TAF) play key roles in implementing SO3. PACT focuses on two SO3 components: Increased Women's Literacy, and Strengthened Women's Economic Participation. TAF is taking the lead in the rights, responsibilities, and advocacy (RR&A) component of the program. All three components of the program are literacy-led.

Employing innovative collaboration arrangements, PACT and TAF operate under separate Cooperative Agreements with USAID, signed in December 1997 for a 45 month period, through September 2001. Their work on curriculum development during 1998 led to the publication of PACT's five-book series "Women in Business" and TAF's "Rights, Responsibilities and Advocacy Participant's Workbook". That year, they also undertook an initial assessment to select intermediary partners, launched a baseline survey, established shared field offices, and designed and began implementing an impressive joint management information system.

Women in Business

First Installment



OUR GROUP

These careful start-up activities yielded impressive outcomes: by the end of the year, PACT and TAF were working with 245 intermediaries to provide over 130,300 women in 7,357 economic groups throughout the Terai with information and/or skills related to the three components of the program. The economic groups include a range of microfinance models: Nirdhan, Grameen replicators, and (for the first time in Nepal) Village Banks.

By the end of 2000, 129,000 women had completed the initial literacy intervention (with a pass rate of over 95 percent) and went on to the other, literacy-based components of the program. All were actively depositing savings at least once a month, accumulating a fund of more than \$1.5 million. Furthermore, 57,678 women took out over \$2.5 million in small loans (the figure for loans is higher than that for savings because a) some loans were repaid and the money loaned out again, and b) some women have accessed external sources of credit). A total of 83,758 women completed the legal rights and advocacy intervention in 2000 and took the Rights, Responsibilities and Advocacy test. The pass rate was a very impressive 96 percent.

An excerpt from Village Bank Entrepreneurs, the fourth installment of PACT's combined literacy and micro-enterprise series: Women in Business

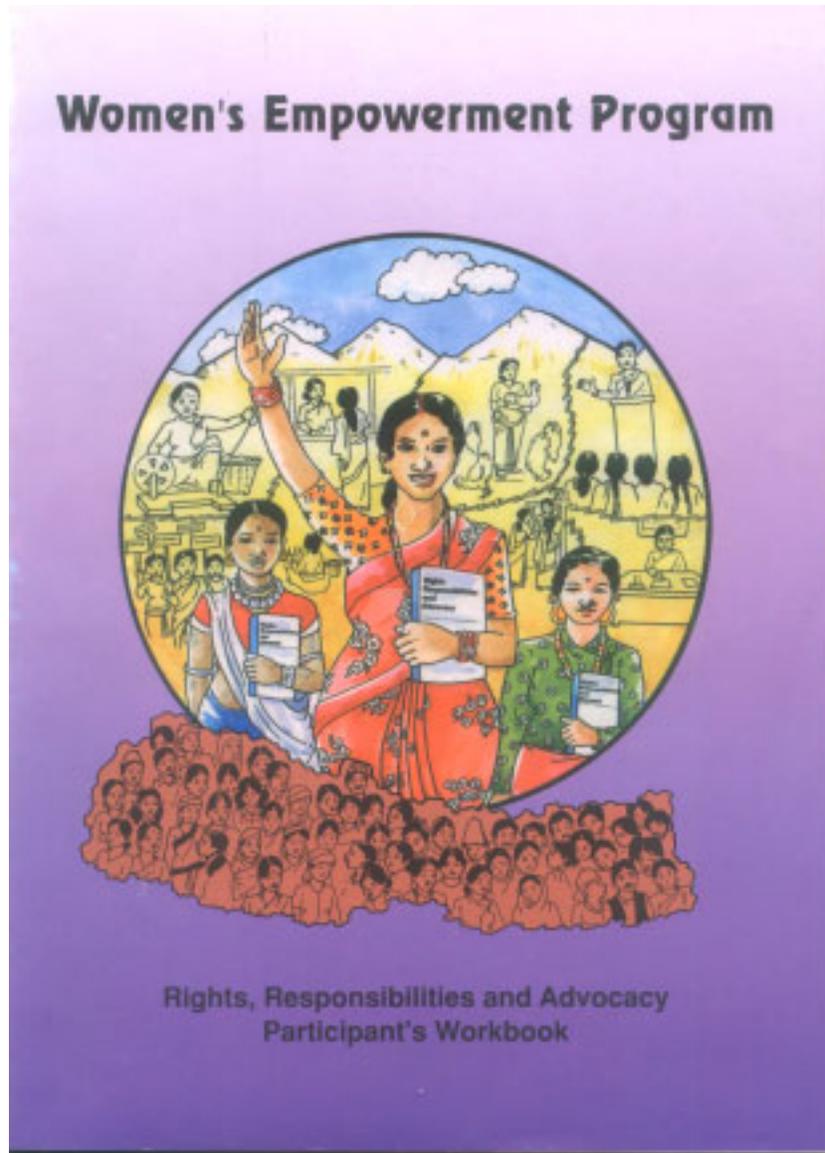
Ways to Add Value

“There are many ways to add value to your product,” Sita continued. “For example, I guarantee my products. If the oranges are sour or if the mangoes have worms in them, I take them back and return the money to my customers.

“There are others in our group who have developed their own selling advantages. One way to add value is by processing foods. People pay more for beaten rice than for regular rice. In our group there is one woman, Bimala, who makes jams and jellies and chutnies out of fruit. She buys the fruit cheap, when it is in season. She also makes candies out of the fruit.

“Another way to add value is by grading your produce. If you separate out the biggest and best ones, you can sell them at a higher price. Otherwise you have to sell everything at the price of your worst product. I always grade my fruit. People who are looking for quality will pay more for the better fruit. People who are more concerned about price will go for the fruit that is not so good, but is cheaper. In the same way, Bimala has two grades of candies. She rolls some of them in grated coconut and wraps them individually. Those cost more. Then she also sells candies in bulk, by weight. Those are cheaper.

“You can also add value by packaging. Look. I sell Bimala's candies here in my shop. You can see the little sign she has made and how nicely she has wrapped the candies and put them in a basket. She also writes the date they were made so people know how fresh they are. And she writes the price on them, too, so people don't think I'm overcharging them. Bimala's candies are not like anyone else's in the market. So she can set her own price on them. When you sell the same thing as everyone else you just have to accept the going market rate. Since her candies are different from anyone else's, Bimala can be a price-maker, not a price-taker. . . .”



Empowered Women of Chhahari Saving and Credit Cooperative Take Action

Mukundanpur VDC, a farming community in the eastern part of Nawalparasi District, had acquired a reputation for excessive manufacture and sale of alcohol. For years, the families of Mukundanpur suffered from domestic violence and all of the other problems that accompany heavy drinking.

In 1998, 14 local women's economic groups that comprise the Chhahari Saving and Credit Cooperative, whose (approximately) 300 members had completed basic literacy training, participated in the Rights, Responsibilities, and Advocacy (RRA) program. There, they learned that it is within their power to change conditions in their society. At their meetings, they identified the local alcohol industry as the source of their misery, and decided that they could do something to change the situation: they would stage a campaign to end drunkenness in the community.

Ms. Durga Koirala, Coordinator of one of the 14 economic groups (The Srijana Saving and Credit Group) took the lead, sending letters to invite nine ward-level offices to participate in the program. The women approached the Village Development Committee, local NGOs, and other organizations, requesting funds and support.

When they achieved a consensus among all the participants, they staged a rally with loud speakers mounted on a tractor, posters, and pamphlets. Four-hundred-fifty people from all walks of life participated in the rally: NGO members, VDC officials, teachers, local policemen, and ordinary citizens. Since the rally, there has been a significant reduction in sale and consumption of alcohol in Mukundanpur.

And the campaign continues; notices and wall posters continue to raise the community's awareness (especially the men's) about the social consequences of drunkenness. A committee has been formed to continue the campaign, with a watchdog sub-committee to monitor the situation. Civic leaders and educated members of the community have praised the women's groups for their positive impact on the community. They are seen as an example of what can be done in other VDCs, if the people work together to improve their society. That's the lesson they learned in the RR&A program.

Canadian Centre for International Studies and Cooperation (CECI) and The Center for Micro-Finance

In 1997, USAID signed a grant agreement with The Canadian Centre for International Studies and Cooperation (CECI) entitled “The Women’s Economic Empowerment Project” (WEE). The WEE Project comprised a national component and a local component. The national component focussed on identification of best practices for community-based savings and credit organizations (SCO), development of training curricula, revision of the national policy framework, and support for savings and credit federations or networks.

The local component of WEE had a target of mobilising savings, accessing loans, and establishing viable micro-enterprises. Both components of the project were highly successful: all of the numerical targets for the local component were exceeded, and the successful work by the national component led to USAID proposing that the project be both broadened in focus and “institutionalised” in the form of a national center for micro-finance (CMF).

The purpose of CMF is to promote awareness of, and commitment to micro-finance best practices in Nepal within the community of micro-finance practitioners, promoters, policy-makers and funders. The Center, now a completely independent entity, is registered as a local not-for-profit company that offers a rich mix of programs and services designed to meet the emerging needs of individual micro-finance institutions, as well as consultation to the sector as a whole. These services are designed to address the needs of the full range of micro-finance models found in Nepal.

Save The Children/USA - Empowering Women Through Sustainable Credit Delivery

In October 1997 Save the Children US (SC/US) was awarded a \$939,792 grant from USAID to strengthen the microfinance delivery capability of Nirdhan and to establish 30 Community Based Financial Organizations. The objectives of the program were to extend women’s access to microfinance services and promote women owned microenterprises in identified areas of Nepal.

By September 2000 the program had exceeded its targets, reaching 28,429 poor women with microfinance services for the direct benefit of 142,145 poor family members.

Success Story: Ms. Devaki Thapa

Ms. Devaki Thapa (19 years) of the Dupcheswor Saving and Credit Cooperative of Rautbesi VDC offers a daring case of women's empowerment through SC/US programs. Devaki met a miserable fate at an early age after the death of her mother, leaving her alone with her one-and-a-half year old brother. She spent her childhood looking after her brother and gave up schooling. Devaki's urge for learning came into reality after she joined non-formal education classes run by SC/US. After completion of a non-formal education class in 1995 she joined a women's group formed from non-formal education participants. She also enrolled in school in class eight.

She played a leading role in forming Dupcheswor Saving and Credit Cooperative in 1998 in her VDC. She is the treasurer of the cooperative. She borrowed Rs.3,000 from the cooperative for goat raising. She was able to save one goat from her first loan. She took a second loan of Rs.2,000 for education for her and also for her brother. She repaid the loan on time. In spite of the hardship, she continued her study and passed the School Leaving Certificate (SLC) examination in 2000. She is the first woman from her ward to pass the exam. The Sundara Yuba Club, the local NGO of her ward felicitated her on her success and hard labor. At present she is teaching primary school.

Devaki's aim is to run the cooperative successfully and she devotes her time in cooperative activities and advocating for women's rights. She says the cooperative has inspired her to be independent.

From "Prime Progress Report; End of Project Report", September 2000.

Women's Political Participation

The National Democratic Institute for International Affairs (NDI) a US based INGO undertook a USAID funded program called Promoting Women's Political Participation in Nepal, from November 1996 through June 1998. The program was launched in eight Terai districts.

The program had two components. Women Candidates Training (WCT), focused on increasing the number and effectiveness of women leaders and activists

who sought to run in the 1997 local government elections, which included municipality, village development committee (VDC) and ward elections. The WTC program resulted in 710 women running for local government office, of whom 362 were elected. After the elections, the Women Representative Training (WRT) program developed materials to support newly elected women representatives, and conducted trainings for 130 of them in 24 VDCs and one municipality of Chitwan and Nawalparasi districts.

...I would cite the progress the USAID program made in its “Empowerment of Women” strategic objective, the only one of its kind in all of USAID, as the most significant achievement of my three and one-half years tenure as Mission Director. The exhilaration one would experience in seeing these all too undervalued and under-appreciated women express their enthusiasm and hopes for the future was the highlight of my time in Nepal.

Dr. Fredrick E. Machmer Jr., Director, USAID/Nepal 1995 - 1998



ENERGY

Introduction

Although Nepal's economically feasible hydroelectric power potential (42,000 MW) is considered among the largest in the world, at the beginning of the 1990s, less than 0.6 percent was being utilized. A mere 13 percent of the population had access to electricity. Over 95 percent of the nation's energy needs were met by burning fuelwood, a situation that was contributing to reduced soil fertility and destruction of forests. Forty percent of Nepal's export earnings were being spent on fuel imports. And throughout the previous decade of the 1980s, the demand for electricity had been increasing at the rate of ten percent each year.

Nepal lacked the resources to develop its hydroelectric potential, and there were serious obstacles to attracting outside finance:

- There was no legal or regulatory framework to attract private investment.
- Electricity was being indirectly subsidized, which made it difficult to attract private investment.
- The lack of coordination among the agencies involved in the power sector prevented proper planning of projects.
- Ineffective review methodologies for studies of hydroelectric projects, particularly for environmental and social assessments, resulted in a lack of commitment by donors and the private sector.
- No single agency was responsible and accountable for the study and implementation of hydroelectric projects.

USAID's earliest involvement in the energy sector was with small rural projects. As USAID gained experience, the program focus shifted to policy/regulatory reform and institution building, and larger projects were supported.

The Private Rural Electrification Project

The Private Rural Electrification Project (PREP) a micro-hydro project which ran from September 1990 through September 1994, was USAID/Nepal's first experimental exploration in community self-reliance, self-financing, and local management of private and community-owned electricity systems. The project matched contributions by villagers and loans obtained by user groups (from the Agriculture Development Bank) with \$393,000 of USAID funds.

Micro-hydro projects were constructed at three villages: a 24 kW system was constructed at Purang, in Mustang District; a 100 kW system at Sikles, in Kaski District; and a 16 kW system at Seema, in Rukum District. The systems were owned and operated by users groups, who received training in the operation, maintenance, and management of the systems. The experiment was fruitful, demonstrating that users groups, if properly trained, can indeed take responsibility for small rural electricity systems. Valuable experience was gained through this early exploration.

The Andhi Khola Hydel and Rural Electrification Project

The Andhi Khola Hydel and Rural Electrification Project (AHREP), initiated in 1990 and assisted by USAID/Nepal (under the Private Electricity Project) from November 1995, was conceived as an integrated rural development project and not solely as a scheme to provide electricity to the national grid. The project's implementers, United Mission to Nepal (UMN) and Butwal Power Company, saw the project as an opportunity to test innovative approaches that could reduce the significant costs typically incurred in rural electrification projects.

The implementers also believed that by promoting demand for and providing affordable electricity, more rural people would put it to more diverse uses than simple lighting. These uses could include drinking water schemes, lift irrigation to improve agricultural production, and agro-processing enterprises that would generate rural employment and improve farm incomes. In addition, the implementers saw the possibility that, with the widespread adoption of electricity, Andhi Khola area households would substitute electricity for wood as cooking fuel, and thereby reduce pressure on local forest resources.

USAID support enabled AHREP to extend electrification to rural households well beyond the original project area. In addition, USAID support enabled the project's implementers to establish an Enterprise Development Program to promote the development of local electricity-based agro-processing industries. This program also promoted the conversion of fuelwood and fossil fuel-based enterprises to electrical power.

With its multi-purpose objectives, innovative engineering, minimal environmental impact, and positive social and economic results, AHREP represented a model of sustainable small-scale hydropower development. A highly successful and innovative aspect of the project was its policy of establishing and dealing with user's organizations (UO), rather than with individual customers.

Participatory Rural Electrification in the Andhi Khola

A major factor in the success of rural electrification efforts in the Andhi Khola project area has been the involvement of community-based electricity users' organizations (UO). Butwal Power Company (BPC) has supported the formation of 25 UOs averaging over 200 households each, since the inception of the project. The responsibilities of the UOs include:

- gathering and submitting applications for household electrical connections to BPC;
- organizing the contribution of local labor and materials for the construction of the electrical distribution system;
- collecting periodic service and maintenance fees from members;
- assuming responsibility for routine operation and maintenance of the distribution system within the UO's area; and
- serving as a liaison between the community and BPC management.

The formation of the UOs has been the responsibility of a BPC staff of "motivators". Motivators visit each household in the village being scheduled for electrification to discuss the roles of the various project entities, the responsibilities of UO membership, and how electricity can be used safely and productively.

After visiting all households in a village, the motivators schedule a public dance, drama, and slide program to reinforce awareness about electrical safety inside and outside the home. Motivators also promote the use of electric cookers and explain the concept of peak demand, the cost of electricity and the need for a tariff, and the options available for house wiring.

The UO organization and motivation efforts have yielded very positive results including:

- a reduction of the cost of the distribution system construction;
- a reduction of maintenance and administration costs, especially the collection of monthly fees; and
- a strengthening of community unity and commitment to the project

Experiences in the Andhi Khola area indicate that through community participation and the application of appropriate technology, electrical service

can be provided to remote rural consumers at higher quality and more competitive cost than conventional rural electrification efforts.

Adapted from: "Success stories in Environmentally and Socially Sound Hydropower Development : The Andhi Khola Hydel and Rural Electrification Project"; February 1999

Nepal Hydropower: Strategy and Options

USAID undertook a study of the hydropower sector in 1992. Recognizing that an adequate, dependable supply of electricity is paramount to economic development, HMG, the US Embassy/Nepal, and USAID/Nepal agreed that a current assessment of Nepal's ability to provide electricity and develop its hydroelectric resource would be a valuable undertaking. USAID/Nepal commissioned a small team of experts to conduct a short analysis of the Nepal energy sector to identify areas of critical need and propose recommendations to meet that need.

The objectives of the study were to:

- assess Nepal's current electric energy situation;
- assess the strategic options for adding short/medium term capacity to the Nepali energy system;
- identify, and prioritize where possible, specific projects which could be developed during the next ten to twelve years (pre-Arun);
- assess potential for involving the private sector in developing specific hydro opportunities;
- develop a strategy for attracting international (including U.S.) financiers and developers to participate in Nepal's hydroelectric sector.

The report went on to recommend strategies to address these conclusions. Among the recommendations were policy and regulatory changes, distribution and load management improvements, supplementary power generation schemes, and the development of schemes to export electricity to India. The overriding recommendation that permeated all of the others however, was that hydropower development be opened up to private sector developers.

Private Sector Development of Nepal's Hydro Potential

“...the best, perhaps only, opportunity to ... develop Nepal's hydroelectric potential is to attract private developers to finance the projects. Government to government financing of these large projects is no longer an option. Normally this is done within government established regulations and the power is sold either directly to large industrial users or is sold to utilities for resale to consumers. Worldwide, private hydro development is a growth industry. In the U.S., there are now hundreds of private companies producing power. Private development of Nepal's hydro resource presents the only opportunity to immediately bring in additional capital, reduce lead time for construction and provide the opportunity to export power.”

“Nepal Hydropower: Strategy and Options”, September 1992

At the time the report was issued, HMG saw itself and international donors as the principal players in the hydropower sector. All eyes were on the proposed Arun III project which was then still under consideration for World Bank funding. Consequently, although Parliament had recently enacted a series of policies that supported private sector involvement in hydropower projects (the Foreign Investment and One-Window Policy, the Industrial Policy, the Hydro-Power Development Policy, and the Electricity Act) the report's chief recommendation was received well, but only as a stop-gap measure, until completion of Arun III.

The Private Electricity Project

The Private Electricity Project (PEP) ran from October 1995, through August 1998, with \$3.16 million of funding by USAID. The purpose of PEP was to promote private investment in, and management of, the hydropower sector. The project comprised two elements, one focused on expanding the capabilities of the Electricity Development Center (EDC) of the Ministry of Water Resources (MOWR), while the other assisted the Andhi Khola Hydel and Rural Electrification Project to extend electrification beyond the original project area.

Expanding the Capabilities of the Electricity Development Center

The consulting firm Acres International, was contracted by USAID to implement the EDC component, which specifically aimed to:

- strengthen the institutional structure;
- broaden the regulatory framework;
- provide advice in financial , legal, and monitoring issues;
- procure commodities and provide administrative support; and
- carry out formal training and promotional programs.

Although the World Bank's 1995 cancellation of Arun III was a major setback for the sector, it launched the private power effort at a far faster pace than was originally envisioned. Parliament's ratification of the long awaited Mahakali Treaty with India, in July 1996, opened the way for joint development of power and irrigation projects, bringing Nepal a step closer to development of larger, export oriented, hydroelectric projects.

The scenario had changed: HMG and the power sector had shifted to strategic planning and market-driven decision making. PEP and EDC, (the mandated implementing and regulatory agency for private power development) were no longer operating in a project-driven environment, where private sector investment was seen as a stop-gap measure, until Arun III came online. The new imperative was to attract private investment in environmentally sound hydropower.

Although Arun III was out of the picture, the Bank did agree to set aside \$175 million for development of Nepal's hydropower. With assistance from PEP, the Power Development Fund (PDF) was being developed as a vehicle for managing the funds. The PDF earmarked \$75 million for electricity transmission/distribution, which would probably be carried out by HMG, and \$100 million for generation, which would assist private or private-public initiatives. PEP assisted EDC in preparing the terms of reference for selecting a fund administrator and a borrowers implementation plan.

By late 1996, the success of PEP in strengthening EDC was already evident in the fact that two private power projects (Bhote Kosi and Khimti Khola) which were expected to add 40 percent to the national generating capacity, had been brought to financial closure, and numerous other projects were being offered to meet Nepal's domestic electricity requirements. Working within the framework of the Electricity Act of 1993, PEP was very successful in attracting the interest of private power developers to Nepal and in helping EDC adopt environmental, engineering, and competitive contracting guidelines which are needed for private

power to become operational. PEP helped establish EDC as the “one Window” for reviewing and approving private power proposals.

But EDC’s additional responsibilities: export related projects, Mahakali administration, and secretariat for the PDF, led EDC to define areas of additional assistance for PEP to provide. This led to the design of USAID’s subsequent hydro-power program, Special Objective 4.

Special Objective 4:

Increased Private Sector Participation and Investment in Environmentally and Socially Sound Hydropower

By the mid-1990s, Nepal’s efforts to develop its hydropower potential had acquired substantial momentum, and the time was ripe to exploit the opportunities that came with the recent regulatory changes, the signing of the Mahakali Treaty (in 1996), and the Power Trade Agreement (in 1997), with India.

Of paramount importance were the review and changes needed in the hydropower policy of 1992, to address the export related projects in terms of taxes, royalties, the impact on the environment, and added benefits associated with the larger projects: water control, irrigation, and other non-power concerns.

Determined to continue supporting Nepal’s progress in this critical sector, the Nepal Mission and Agency headquarters found the means to extend PEP several times. In 1997, USAID/Nepal obtained \$5 million to establish a special objective in the hydropower sector. Special Objective 4 (SpO4) was *Increased Private Sector Participation and Investment in Environmentally and Socially Sound Hydropower*.

The Private electricity Project ended in August 1998, with a smooth transition to SpO4. The International Resource Group (IRG) began implementation of the program, for which the previous contractor, Acres International, had laid the groundwork. Several important milestones were achieved in the following year, most notably HMG approved agreements to construct two additional hydropower plants valued at \$40 million, which would produce an additional 25 megawatts of power.

Through IRG, USAID provided assistance to the EDC to:

- streamline the review and approval of investment proposals,
- monitor investor compliance with social and environmental mitigation requirements,
- increase use of competitive contracting procedures, and

- improve Nepal's capacity to negotiate and sign equitable power purchase agreements and power supply contracts with international and local private power developers.

Although much work remains to be done, the improved environment for private investment in Nepal's hydropower has already borne fruit:

- The number of private sector companies progressing towards hydropower investment has increased from two in 1997 to six in 2000.
- Private financial commitments for environmentally and socially sound hydropower investments increased from \$238 million in 1997 to \$319 million in 2000.
- Two new public hearings for hydropower projects were conducted in 2000, with stakeholders and NGOs, bringing the total to eleven. Concerns expressed at these hearings are incorporated into mitigation plans.
- HMG issued 29 survey licenses for various types of hydropower projects, to private firms in 2000.

This indicates a tremendous (and growing) interest, by the private sector. Thanks to private sector investment, Nepal is currently able to meet its peak electricity demand. Load shedding stopped in November 2000, when the first private sector project, Khimti-I, came on line.

SpO4 activities also include a U.S. Energy Association (USEA) partnership program, through which USEA helps U.S. utility companies develop long-term cooperative relationships with the Nepal Electricity Authority (NEA). This activity promotes the transfer of the U.S. energy industry's best technologies to Nepali utilities as well as providing long-term business opportunities for U.S. companies. NEA and potential partners have exchanged visits in preparation for the agreements, and partnership activities have started in the areas of tariff restructuring; understanding of, and improved cooperation with independent power producers; and energy efficiency through reduction of systems losses. The partnerships have introduced NEA to new concepts in utility management and helped it in its computerization efforts.

Strategic Objective 4:

Increased Private Sector Participation in Environmentally and Socially Sustainable Hydropower Development

SpO4 is scheduled for completion in September 2001. At that time, it will be replaced by USAID's new Strategic Objective 4: *Increased Private Sector Participation in Environmentally and Socially Sustainable Hydropower Development*, scheduled to run through the year 2005.

From lessons learned from SpO4: promoting greater transparency, predictability, accountability, and participation in Nepal's energy sector, SO4 will support greater private investment in hydropower development - leveraging resources from USAID regional and global energy initiatives, to support institutional reform and improve competitiveness in Nepal's energy sector.

SO4 will also stimulate greater levels of public participation in hydropower development, and support the sharing of the benefits derived from hydropower revenues (i.e., rural electrification, and investments by local communities of their share of revenues). Through SO4, USAID/Nepal will be able to build capacity for sound development of Nepal's hydropower potential for both domestic use and export, through greater private sector participation.



DEMOCRACY AND GOOD GOVERNANCE

While Nepal's movement toward democracy presents both USAID/Nepal and the USG [United States Government] with a substantial opportunity, the difficulty of the task at hand must not be underestimated. Nepal's progress toward the establishment of a democratic society that assures its people the right to direct their own destiny both economically and politically may be slow and difficult. It is possible that there will be periods of stagnation, minimal progress, and even reversal. This is demonstrated only too clearly by transitions to democracy in other developing countries throughout the world.

Nonetheless, the opportunity to assist the Nepali people in their dream of establishing a society that guarantees civil rights and political liberties, promotes ethnic understanding and tolerance, and places government in the hands of the governed is a challenge that A.I.D. and the USG cannot ignore. The stakes are too high and the Nepali people deserve no less.

"The Nepal Democracy Strategy, Final Report"; June 1991

The success of the *Jana Andolan* (People's Movement), which culminated in the King's assuming the role of constitutional monarch and the restoration of multi-party parliamentary democracy, infused the Nepali people and their friends with immense hope, as they entered the final decade of the 20th century. The early 1990s were a time of euphoria, when it was easy to imagine that the perennial obstacles to Nepal's development would soon be overcome and the nation would emerge into the new millennium, no longer one of the world's least developed countries.

The thrilling atmosphere of hope and opportunity ran through Rabi Bhawan like an electric current. In every office USAID staff were meeting to discuss ways to protect and nurture Nepal's hard-won fledgling democracy. Despite the euphoria, everyone was aware that the road would not be easy; there would be pitfalls and hazards ahead. Aside from overtly anti-democratic forces that wished to discredit the movement and re-assert their power, there were less visible obstacles: the vestiges of a long history of inequality and repression.

Rapid Humanitarian Response

During the movement to restore democracy, a significant number of demonstrators and activists were killed, leaving several dozen children orphaned. In response to a proposal by the Nepal Woman's Association to provide assistance to those children, USAID/Nepal provided \$25,000 in grant assistance for their support, education, and training.

Educating Voters for the First Democratic Election in Thirty Years

During the run-up to the May 1991 national elections, Nepal's first multi-party elections since 1960, USAID provided \$123,000 for a Voter Education Program, which was undertaken by the non-partisan NGO, SEARCH (Service Extension and Action Research for Communities in the Hills).

SEARCH designed a voter education campaign to be implemented in 30 districts in the mid-hills. After they completed their training, thirty teams of four to five young Nepali men and women, armed with copies of the new constitution and voter information materials, set off into the hills to carry out voter education in almost every VDC in each district. They were also responsible for consultations with all district level political groups, officials, teachers, informal leaders, and development project personnel.

During their 75 days in the field, the 145 educators were able to reach thousands of Nepali villagers, giving them critical information about their new political system, and the means by which they could use their precious votes to elect a government that would represent their interests.



April 1991: In the remote mid-hills, citizens of the newly democratic Nepal learn how to cast their votes.

Photo Courtesy of SEARCH

The Democratic Pluralism Initiative

From August 1990 through July 1994, the Democratic Pluralism Initiative (DPI), implemented through a \$748,159 grant to The Asia Foundation (TAF), aimed to assist Nepal in consolidating the gains made during the movement for the restoration of democracy and establishing a more open, just, and democratic society. A second phase of the program was funded with a grant of \$1,590,000 from USAID/Nepal's Democratic Institutions Strengthening program, from April 1993 through September 1998. This two-phase umbrella project comprised a number of activities grouped under four general headings: Representative Government and Constitutionalism, Administration of Justice and Human Rights, Development of a Free Press, and support to a federation of NGOs.

Representative Government

With USAID/DPI funds, TAF supported a cluster of research and education programs that documented the election for future generations and provided a basis for voter education programs. In all, six sub-grants were given for elections-related programs. Among these was a study by Integrated Development Studies on voter attitudes in different regions of Nepal. The study indicated that voters were informed about issues, not just personalities, and that above all, they wanted change from past political practices.

The largest sub-grant was for a non-partisan, voter education film commissioned by the Nepal Election Commission, and produced by the Royal Nepal Film Corporation. The public education film explained how this election differed from previous ones. Now that sovereignty was vested in the people, what would be their responsibility in choosing their leaders, what would be the actual process, and finally what should they expect after the elections? The film was well produced and was shown in cinema halls throughout the country and, with generator-run projectors, at agricultural and health posts in more remote regions of the country. It is estimated that the film reached between a quarter- and a half-million people.

In August 1990, when the DPI grant agreement was signed, Nepal was gearing up for the first democratic elections in 30 years. It was a heady and exciting time, as the donor community came together to offer coordinated support for the new democracy. The interim government fully appreciated the challenge of ensuring the first free, fair, and multi-party election in over three decades, but did not have the resources to educate the 19 million people of Nepal about their rights and the voting procedure. Fears that violence would erupt, that corrupt forces would intercede, and that the populace did not have an understanding of the

election process pervaded the political center of Kathmandu Valley. Ultimately \$110,000 in DPI funds were provided to support election education programs.

At that time, the government and the donor community were focused on ensuring a free and fair election. Little attention was being paid to the potential needs of a newly elected legislature. Although the staff of the Parliament secretariat had also served the disreputed National Panchayat, they quietly but eagerly awaited the changes that a new election would bring. The small staff was committed to serving their new leaders and wanted to prepare the Secretariat in the best way possible. Unlike the Election Commission, which had attracted substantial assistance, the Secretariat was not able to garner donor support. Yet it was clear that new legislators would arrive without any experience in legislative process, without any infrastructural support, meeting space, library, or research services unless external support could be provided. TAF established a relationship with the Secretariat officials and began to respond to requests for assistance to gear up for the first multiparty legislative session since the 1950s.

Over the course of the grant, the Parliament increasingly became the center of the DPI program. The first traunch of DPI support to the Parliament provided infrastructure and services to support the people's chosen representatives. The previous National Panchayat met only two or three weeks a year and had no use for a library, or meeting space. Even its printing press was turn-of-the-(twentieth)-century vintage. Publications had historically taken two to three years to be printed and were rarely distributed. The second injection of support to the Parliament focused on human resource development; both for Secretariat staff and for the membership itself.

Six weeks after the election, the newly elected legislators entered their legislative chambers at Gallery Hall for the first multiparty bicameral session, to be opened by the King. Each member was handed a set of booklets on rules of procedure for the lower house, the upper house, and joint sessions, and one on general parliamentary practice and etiquette. A video was shown on how this legislature differed from those in the past, the services available to members in the library and throughout the Secretariat, and what committees would exist. Members were given tours through the newly furnished committee meeting rooms, the library, the research unit, member reading rooms, and the computer room. A series of in-house seminars was conducted with outside expertise. These included the rules for electing the upper house, an orientation to budget analysis, and the American and British committee systems. The seminars, publications, the library, the new printing press, the computers, and furnishings were all provided with USAID/DPI funds.

The three most senior Secretariat officials visited Thailand, Pakistan, and India to observe how other working secretariats in the region served their legislatures. This observation program successfully exposed this senior group to new ideas and means of serving legislators. From their input and lengthy discussions, TAF drafted a development plan for a new Secretariat that would serve a bicameral parliament. The Secretariat officials were able to take this plan to other donors and to HMG, to request coordinated support for the new legislature. Ultimately all components of the plan, including training assignments, were implemented in a coordinated fashion by TAF, USAID, DANIDA, and the British Embassy.

Once the Parliament had been outfitted with basic modern infrastructure, emphasis shifted to member education and Secretariat staff development. A management information specialist was hired to work in-house at the Parliament Secretariat to assess information needs and blockages and to provide training and technical assistance to respond to these needs. A mix of resources was made available to provide information and learning opportunities to the members themselves. These included the procurement of both English and Nepali books on economics, legislative process, social issues, and current events; support for a leadership colloquium on issues of policy and procedure for the committee chairs, party whips, and speakers; training in legislative research for Secretariat staff; an observation tour of SAARC parliaments for several members and staff; and a Parliamentary Service Internship Program for graduate students from Tribhuvan University.

The Administration of Justice and Human Rights

The cluster of activities under the heading of The Administration of Justice and Human Rights was perhaps the least coherent of the activities supported by the DPI grant. Nonetheless, discrete projects were successful.

Equipment was provided to the Law Books Management Board of the Ministry of Law and Justice, to enhance its publishing capability. Support was provided to the Legal Research and Development Forum (FREEDEAL) and its arbitration project, under which the Nepal Center for Arbitration was incorporated, arbitrators were trained, and the Nepal Arbitration Act was drafted and forwarded to Parliament.

USAID/Nepal joined with TAF in funding the Supreme Court Central Law Library, which was initially envisioned by the Chief Justice of Nepal who was frustrated with the number of small, incomplete law libraries that existed in Kathmandu. One of the most challenging aspects of the legal system in Nepal is

that the law itself is so inaccessible to the public, to lawyers, and to judges. By housing Indian, British, American, and UN legal systems under one roof, a first step could be made in developing Nepal's legal research system.

Development of a Free Press

Prior to 1990, the press in Nepal was subject to rigid government control. Investigative journalism was out of the question. There was little reporting outside the Kathmandu Valley, and to open a press outside the Valley was to court imprisonment.

Among the most tangible changes in Nepal since 1990 has been the vastly increased freedom of the press. While it may take time for the full range of democratic institutions to become established in Nepal, one of the first fruits of democracy, an independent media, ripened quickly. The early 1990s witnessed the proliferation of hundreds of newspapers and magazines. Anyone who wanted to could start a newspaper and many did. Although a few good independent newspapers were established in Kathmandu, most were partisan and sensationalistic. Few papers were published regularly outside Kathmandu and there was little coverage of issues of concern to the rural population. Women comprised only a tiny fraction of professional journalists in Nepal, and women's issues received little attention.

In response to the increasingly apparent need to professionalize and diversify the media, in March 1993, USAID added an additional \$115,000 for DPI grants to develop professionalism in the press. This was for continued support to the Nepal Press Institute (NPI) and its rural fellowship program, a regional conference on "The Press and Pluralism", support to the Center for Women and Development for training young women journalists, and institutional support for the Nepal Forum for Environmental Journalists (NEFEJ). The objective of increasing the grant was to increase the reach of Nepal's media by offering support for female and male journalists who might cover issues outside Kathmandu.

Both NPI and NEFEJ responded impressively to the support. The rural fellowships were successful in getting journalists out into the field investigating stories of interest and concern to rural people. NPI held several forums, where government officials met with journalists in groundbreaking dialogue. NPI collaborated with the Singapore-based Asia Media Center to organize a seminar with participants from the SAARC region, on media and pluralism, and the Director of the East West Center's Department of Journalism worked closely with the director of the Press Institute to develop a five-year plan.

During the last year of the DPI grant, NEFEJ became a meeting place of ideas, not only for young journalists, but also for environmentalists, local government officials and those concerned with the environmental and media challenges confronting Nepal. The grant provided institutional support, partial funding for a Berkeley Media Fellowship, support for the NEFEJ radio programs broadcast across Nepal, and for a science writing workshop which included journalists from outside Kathmandu Valley.

The NGO Federation

The last funds obligated in the DPI grant were to build the capacity of the NGO Federation, which grew out of an NGO movement that had been developing since pre-democracy days. Before 1990, the Social Services Coordinating Committee controlled all NGO activity in the country. All donor funding to NGOs had to be funneled through it, to groups that were approved by the Queen and her staff. The committee was eliminated with the advent of democracy.

Just as newspapers proliferated with new freedoms of the press, NGOs proliferated with new freedoms of association. Many were more entrepreneurial than service oriented in spirit. Many were partisan. More committed community leaders became concerned that NGOs were developing a bad reputation in Nepal. Several attempts to coordinate NGOs were tried, but usually failed due to partisanship. At the same time, the new government was wrestling with how it would monitor NGO activity across the country; this caused many in the legitimate NGO community to fear a return to the old forms of control.

The NGO Federation was unique in that it was non-partisan, committed to maintaining the integrity of the NGO community, and advocated for the protection of NGO rights. It was not interested in becoming a coordinating body for funding. This seemed to be a formula that would allow for trust among the NGO community. With USAID and TAF funding, the NGO Federation was able to move beyond its volunteer work to incorporate over 400 NGOs into its membership and to develop an advocacy and training plan.

Training Judicial Officers

From May 1990 through June 1995 TAF implemented the Strengthening the Judicial Services Training Center (JSTC) project, under the DPI. The \$145,903 grant was funded from USAID/Washington's Human Rights Fund and the USAID/Nepal PVO Co-financing Project. The aim of the grant was to upgrade the skills of judges, government attorneys and other judicial officers, through assistance to the Judicial Services Training Center.

Under the grant, members of the JSTC and the Ministry of Law, Justice, and Parliamentary Affairs (MOLJPA) took part in an observation tour of various Asian countries. Internships in the USA were arranged for JSTC section officers and training programs were conducted for judges. An American judicial expert consulted with the MOLJPA on long-term plans for the JSTC, and the center's library and training resources were upgraded.

Focusing on the Fundamentals of Democracy

Potential Revised Strategy

While bolstering central government institutions such as the Supreme Court and Parliament might well make sense during these first few years of Nepalese democracy, over the longer term the Mission should consider phasing out such support . . . and grappling with more fundamental constraints on Nepal's democratic development. These are: 1) the centralization of revenue-generation and decision-making that help perpetuate rural poverty by denying resources to outlying areas, and 2) the domination of government by high caste males in a manner that excludes women, lower castes and most ethnic groups from effectively participating or having their most important concerns addressed. . . .

This suggested shift in emphasis springs from a view that democracy in Nepal will be confined to elite competition and deliberation unlikely to adequately address the needs of most citizens unless those citizens begin to possess the sophistication, organization and political and economic independence necessary to exert influence over their elected representatives. . . .

Perhaps most fundamentally, many members of Parliament, DDCs and VDCs may be unlikely to act contrary to narrow interests and their own attitudes unless constituent-imposed accountability makes them do so. This reality is not unique to Nepal or even to developing societies. It is, in fact, rooted in the rational calculation that any legislator in any society must make in assessing his or her chances of electoral success. To the extent that the electorate holds the legislator accountable for acting honestly and responsibly and for trying to address constituent needs, that individual is more likely to act accordingly. To the extent that constituent attitudes, ignorance and political behavior

(including but not limited to voting) tolerate corruption and poor performance, the legislator is more likely to indulge in conduct that benefits relatively few.

Of course, altruism and devotion to duty can and should affect public officials' performance. But just as a merchant acting in his or her own self interest is far likelier to conform to the laws of supply and demand if subjected to market forces, a legislator is likelier to act responsibly if subjected to scrutiny by an informed, assertive electorate. To bring the implications of this analysis down to a more concrete level, the long-term growth of awareness and activism by Nepalese women (or ethnic groups, or low caste populations) will better contribute to improving their status than will training elected officials and refining parliamentary processes."

From: "A Reassessment of the Nepal Democracy Strategy"; Bureau for Global Programs, U.S. Agency for International Development; March 1994; Prepared for USAID/Nepal [and other USAID divisions]; by Coopers & Lybrand (consultant); pp7-8

In June 1995, USAID/Nepal refocused its democracy activities to increase democratic participation at the grassroots level. This focus complemented the Mission's strategy to increasingly engage Nepal's predominantly rural population in economic development.

Strengthening Local Government

LOGOS, a Local Government Strengthening project was carried out for a three year period beginning in September 1993. The project worked in Gorkha and Siraha districts, focusing on five VDCs in each district. LOGOS was implemented under a cooperative agreement by Clark Atlanta University in association with MetaMetrics Inc., with \$1,716,090 in funding from USAID/Nepal's Democratic Institutions Strengthening Project.

To achieve its objective of strengthening institutions with the greatest potential for achieving effectiveness and sustainability in supporting democracy and development, LOGOS employed two tactics:

- enhancing the capability of DDCs and VDCs, and
- supporting democratically run local groups.

Activities to develop DDC and VDC capability included study and observation tours to other districts and distribution of VDC acts, rules, and regulations to all VDCs in both districts. The primary and most extensive activity

though, was training. Numerous training programs were conducted to help government officials carry out their duties in a more efficient and transparent manner, and to make local bodies more responsive to the expressed needs of their constituencies. A non-exhaustive list of topics covered includes:

- Orientation for newly elected representatives
- Conflict resolution
- The role of local government in local development
- Project management
- Local government rules and guidelines
- Project cycle training
- Planning and setting priorities
- Local resource mobilization
- Proposal writing

Although the capability of individual DDC and VDC members was enhanced by these activities, there was little evidence of change in the ways in which the local government bodies carried out their business, and only a slight improvement in their ability to mobilize local resources.

It was in its work with local democratically run groups that LOGOS had its big successes. Numerous local literacy and economic groups, as well as youth clubs were formed, and existing groups were supported. The project insisted that every group receiving support frame and adopt a constitution, and conduct its business in a transparent and democratic manner. LOGOS managed to extend its services to the most disadvantaged groups in the project area, providing matching grants and training for income generating activities.

Democratically organized groups (especially women's groups) were empowered with specific advocacy skills including leadership training, public speaking, speaking to male audiences, proposal writing, and methods for making local government bodies address issues of concern to them.

LOGOS also organized Civic Awareness Days four-times-a-year, to make citizens aware of how local government institutions could assist them in specific ways and how they had the right to get development and technical services from local government.

LOGOS Helps Democratic Women's Groups to Find Their Voice

In Siraha District, Hanuman Nagar VDC, LOGOS-supported women's groups became so articulate that the VDC began routinely inviting representatives to attend ward advisory committee meetings.

In Gorkha District, Bungkot VDC, women's groups were proliferating. They decided to form a coordinating body to consolidate and amplify their voice in local decision making. LOGOS assisted them in framing a constitution for the umbrella organization. They then approached the VDC with a request for funds to construct a women's meeting hall, for which the Bungkot VDC allocated Rs.25,000.

Women's Participation in Local Government

From November 1996 through July 2000 USAID supported the National Democratic Institute for International Affairs (NDI) through three grants (totaling \$549,321) focused on promoting and empowering women in local government.

During NDI's successful 1997 Women's Candidate Training program, NDI trained approximately 4,000 women candidates and staff volunteers in preparation for local elections. NDI conducted training for women candidates on topics that included: functions of local government, election laws, attaining party tickets, message development, campaign planning, voter contact, campaign financing, and public speaking. The material was presented through a variety of training methods, including presentations, group discussions, public speaking exercises, role playing, small working groups, panel discussions, and question and answer periods. Participants engaged in public speaking exercises including practicing how to organize a political speech, how to speak in front of a crowd, and how to become accustomed to speaking in front of a male audience. NDI also distributed a campaign manual entitled "Women Can Win!"

In 1998 and 1999, following the 1997 local elections, NDI conducted a training program for elected women representatives which assisted 1,732 elected officials to understand their roles and improve their effectiveness in carrying out their responsibilities; to identify and articulate community needs; to develop, manage, and monitor projects; and to work with other representatives on the ward committee and in women's caucuses.

The NDI Women Representatives Training Program had two objectives:

- To build the capacity of women local government representatives to govern effectively in four target districts in Nepal.
- To promote sustainable women's political caucuses in the four target districts.

After two cycles of training, the program successfully met its two program objectives; 90-100 percent of the women representatives participated in the program.

Participants in the NDI Women Representatives Training Program began actively working in local activities in ways they had not done prior to the program:

- All women visited the households in their constituencies to identify the needs of their constituents. Some compiled the data they collected and presented their findings in ward committee meetings.
- Some women began participating in ward committee and village council meetings, taking part in the discussions and signing the meeting minutes after reading them (or having someone read the minutes to them). At the meetings, some women demanded that more literacy programs for women be conducted in their villages and that the budget allocation process be more transparent.
- Some women spoke more often to other ward committees representatives, including the ward presidents, VDC chairs, vice chairs and secretaries. Naturally, after the women began communicating more often, they learned more about how their local government functions and of opportunities to bring development projects to their communities.
- Some women involved themselves in community development projects by helping to plan the time line of the project, supervise the implementation of the projects (by visiting the sites and talking to the people involved in the projects) and evaluating the projects effectiveness. The women representatives involved themselves in water supply projects, road construction graveling projects, child/adult literacy projects, school

construction projects and electricity projects.

- Some women brought new development projects to their communities including savings and credit programs, women's and children's literacy programs, health/sanitation programs, sewing and cutting programs, and school construction programs.
- All women worked through a women's caucus to share ideas with each other and provide support to their female colleagues.
- Some women complained to higher level officials about the misuse of government funds within the district. For instance, a woman complained about a VDC chair holding on to money meant for elders in the villages. This money was subsequently distributed properly.

Excerpt from WRTP Success Stories

Combating Corruption Through Legislative Oversight

Since the restoration of democracy in Nepal in 1990, Nepalis have made positive strides towards increasing the accountability and transparency of their political institutions and consolidating democratic practices. But the work is not yet complete, Nepalis continue to struggle to curb widespread corruption at all political levels. Some government officials have been involved in serious financial irregularities, fraudulent practices and misuse of resources. Politics in Nepal have been characterized by weak governments, frequent changes of alliances and votes of no confidence.

In 1999, USAID provided a \$50,000 grant to NDI for activities aimed at assisting Nepali voters, elected officials, and civil servants to eliminate corruption in public life.

Project Clean & Conscious Voter

In January 1999 NDI launched Project Clean and Conscious Voter, a voter education program leading up the May 1999 parliamentary elections. The program stemmed from concerns over a history of rampant vote buying and uninformed balloting. The program heightened voter awareness of these problems and

encouraged behavioral changes through street dramas, posters and wide scale radio programming.

Codes of Conduct for MPs and Ministers

Nepal is one of the few remaining countries that has not implemented codes of conduct for MPs and cabinet ministers. Codes of conduct are used in other legislatures to consolidate the law in a way that enables members to fully understand their obligations and responsibilities in public service and to the institutions to which they belong.

On November 29, 1999, NDI/Nepal co-sponsored a roundtable discussion at the conference hall of the Parliament Secretariat to discuss draft Codes of Conduct for Members of parliament. NDI worked in coordination with the Parliament Secretariat and the newly formed ethics committees of both the Houses to organize this event. In March 2000, the National Assembly passed the Codes of Conduct, an achievement reached after over two years of work by NDI.

Code of Conduct for Civil Servants

Currently there are approximately 100,000 civil servants in Nepal. Although entry-level civil servants receive three months of orientation, no specific component of their orientation focuses on ethical conduct. Working in consultation with members of the Public Service Commission, the Ministry of General Administration and the Nepal Administrative Staff College, NDI developed a training module focusing on ethical issues as they pertain to civil servants for inclusion in the orientation.

Constitutional Bodies

NDI worked to strengthen the effectiveness and independence of the watchdog constitutional bodies which include the Auditor General's Office, the Commission for the Investigation of Abuse of Authority (CIAA), the Public Service Commission and the Election Commission (EC), who are all appointed by the Constitutional Council. The program focused on working with the Parliament to make the appointment process more transparent. The resignation of the CIAA Chief Commissioner in January 2000 provided NDI with an opportunity to highlight the problems in this process. Working with Pro-Public, a local good governance NGO, NDI co-sponsored a public hearing on February 6, 2000, featuring potential appointees to the vacant post. More than 200 civic leaders and interested citizens attended the event. At the request of the Chief Election Commissioner, NDI co-sponsored another interaction forum on June 25, 2000 to

discuss solutions for electoral reform. This interaction was attended by high-profile leaders from parliament, the EC and civil society.

Parliamentary Committees

To strengthen parliamentary committees, NDI worked with the State Affairs Committee of the House of Representatives. NDI co-sponsored a forum at the Parliament on April 21, 2000 to discuss the roles and effectiveness of parliamentary committees. This workshop was attended and actively participated in by the Speaker, Deputy Speaker, the National Assembly Chair, Minister for Parliamentary Affairs, parliamentary committee chairs and senior leaders and officials from in and outside the parliament. Valuable suggestions to both the government and to parliamentary committees for increased effectiveness have resulted.

Parliamentary Awareness at the Local Level

NDI/Nepal jointly sponsored a parliamentary awareness program with the Ministry of Law, Justice and Parliamentary Affairs in December 2000. The event took place in Pokhara and was attended by district and local officials of the Western Development Region, as well as MPs representing this area. The program focused on increasing local government's understanding of the workings of parliament as well as the role of ethics in a democratic system.

Civic and Voter Education

In an effort to strengthen democracy at this critical time in Nepal's history, USAID provided a grant of \$388,000 to support a Civic and Voter Education Program, implemented by NDI from June 2000 through July 2001.

The Civic Education Program

This program intends to enhance Nepali teaching professionals', students', political leaders' and civic representatives' understanding of their newly formed democratic institutions and their responsibilities as citizens in a democracy. The curriculum used during this program, entitled *Contemporary Society*, covers topics such as the content of Nepal's Constitution, the decentralization process, methods of good governance, gender and caste discrimination, the role of civil society in democracy, Nepal's electoral process, the role of political parties in the parliamentary system, and human rights.

As a result of initiatives taken by Nepal's Ministry of Education, Higher Secondary Education Board and interested academics, *Contemporary Society* was recently introduced as an elective subject for social science students in a large

number of schools throughout the country. The Nepal Foundation for Advanced Studies, with funding from Friedrich Ebert Stiftung, a non-governmental organization based in Germany, developed the *Contemporary Society* textbook. These parties have asked NDI assistance in disseminating the *Contemporary Society* textbook and other civic education materials throughout the country as well as in orienting Nepali teachers, political leaders and civic representatives in this new curriculum.

In response to this request, NDI is coordinating the drafting of a teaching manual for the *Contemporary Society* textbook.

The Voter Education Program

Access to information about the election process is limited. Due to a lack of understanding on the part of local political leaders on how to file and follow-up on election related complaints, violations of the Election Code of Conduct are largely ignored. Many party leaders tasked with implementing election reforms are unaware of the new regulations. As the country prepares to hold local elections in 2002, a better-informed Nepali public would improve the quality of the elections and better secure the stability of democracy in Nepal.

NDI is conducting a 12-month nation wide voter education program to enhance citizens' understanding of the basic norms of democracy and the electoral process. This program aims to assist Nepalis to become more aware of their rights and responsibilities as voters, and to raise local leaders awareness of electoral procedures and the electoral process overall.

Under the program, a voter education booklet aimed at the general public has been developed and 20,000 copies will be distributed through District Election Offices (DEO) and NGOs in 15 districts. These booklets contain easy-to-understand summaries of election laws, the role of the DEO and reasons why citizens should vote in a democratic society. The booklet is filled with illustrations, which convey messages to semi-literate voters.

NDI, in close coordination with the DEOs, conducted two-day district level forums in eight Districts. The main objective of these forums was to bring together district level political party leaders, civic leaders, and other government officials and to provide them with an opportunity to learn about their legal and civic responsibilities during election periods. All targeted participants attended the forums, which were covered by national television and radio and were featured in a number of local newspapers.

On May 5th 2001, national and local radio stations began broadcasting the first of twenty mini-dramas, in Nepali and nine other local languages. These five-

minute programs, produced by NDI, will be aired once a week for a 20 week period. The programs will communicate messages about:

- citizens' constitutional rights regarding elections
- citizens' rights and responsibilities in a democratic society
- the contents of the Election Code of Conduct, including protest and claims procedures
- the voter registration and identity card process
- voting procedures.

Justice Delayed is Justice Denied: Case-Management Assistance to The Supreme Court

With a USAID grant of \$150,000, the National Center for State Courts (NCSC) completed a review on the Procedures of the Supreme Court (SC) of Nepal in September 2000. The main objective of this review was to identify corrective measures to make timely disposition of cases in the SC and “contribute to improved management of caseload and provide training guidance for accomplishing similar results in the lower courts of Nepal”. NCSC consultants conducted a management audit of the SC procedures and provided recommendations to speed up the case disposition with a short training to the court officials. In a follow up evaluation conducted after six months, it was found that the recommendations and the training have substantially helped the SC to improve its caseload management system and to initiate some measures for reform.

Some of the Reformative Initiatives Undertaken by the Supreme Court

- Increased commitment of Government: A decision to appropriate an annual judiciary development budget of NRS 50 million over and above the funds appropriated for the regular operation of the judiciary.
- The Supreme Court has begun negotiations with Asian Development Bank (ADB) for a long-term loan to establish a Judicial Academy and Research Center. ADB has reportedly agreed to provide a “soft loan” of \$3 million.
- A government task force has been established under the leadership of the Attorney General to review the criminal justice system, including investigations, prosecution, some aspects of hearings, and penal laws.

- The number of cases pending in the Supreme Court has been reduced by 24%.
- All writ petitions and revision cases are now referred to a bench the next day after registration.
- Introduction of a new calendar system for assigning cases to justices sitting on the different benches. Under this new system cases are assigned each day in sequential order.
- Introduction of regular meetings between court leaders and the bar association every two to three months. In a recent meeting, judges and advocates agreed that an advocate filing a writ petition should attach an additional page summarizing the basic legal issues in the case. This practice enables the judges to quickly learn the legal issues at stake thereby reducing their time to hear arguments from advocates.
- With the appointment of a permanent registrar, the process of delegation of power, authority, and responsibility has begun.
- The Supreme Court has appointed a committee to oversee preparation of job descriptions. So far the committee has prepared job description for each section of the court and preparation for individual staff is in progress.

Counting Votes

To conduct democratic national elections in a country with extremely rugged terrain and limited transportation and communications infrastructure is a difficult undertaking. Several of Nepal's elections, since the restoration of democracy, were hindered by poor control, distrust, and fraud, and resulted in a prolonged tally of votes and untimely dissemination of results.

A USAID grant in 1999, enabled the International Foundation for Election Systems (IFES) to help the Election Commission of Nepal (ECN) in establishing a trustworthy centralized vote tally and results transmission system. IFES supported the Nepal results transmission system by procuring computer equipment and helping to develop, test, and implement a system with the ability to receive, tally, and count election results accurately and efficiently.

The Nepal election law does not permit counting of votes at the polling stations. After the closing of polls, ballots are transported directly to the constituencies, and from there to the districts' centralized counting centers. The ballot totals are subsequently sent by fax to the Central Results Receiving Center at the Election Commission's national office, in Kathmandu. While preparing the cumulative statement of the vote for constituencies that have been counted, and for the entire counting center, progress reports are also prepared by constituency.

The Results Receiving Center receives interim results by constituency from the district offices on an hourly basis. The hourly results received for a particular constituency replace the previous results transmitted. All results are tallied (by political party and candidate) and publicized as soon as possible. The results are posted on the ECN internet site <www.election-commission.org>, which the ECN constructed with IFES assistance.

Checks and balances have been incorporated into the system to detect any faulty calculations, data entry errors, or loss of data that can seriously compromise the conduct of election results. Balancing figures ensures that output results are consistent with inputs. Rigorous testing and several simulations were performed to ensure that the systems worked flawlessly before being put into operation. The system's ability to handle vote tally problems at the constituency or district level was tested during the May 31, 1999 elections and proved to work well within its current capacity.



USAID and Private Voluntary Organizations

PVO Co-financing II (PVO Co-fi) was a follow-on to the original PVO Co-financing project (1981-1988). The agreement for the second phase, which was signed in 1987, extended the project until 1995, and it was subsequently extended again until July 1997. Total USAID funding for Phase II was \$19,543,600.

The repeated extension of the project indicates the high priority that USAID gave to strengthening the ability of Nepali NGOs to work for Nepal's development. It also indicates the success of USAID funded NGO activities, even in the days when NGOs were strictly regulated by the Social Services National Coordinating Committee (SSNCC). After the restoration of democracy in 1990, the SSNCC was dissolved; the scope for NGO activity increased and numerous new Nepali NGOs were formed.

PVO Co-fi was a unique umbrella project. It allowed USAID to fund activities across several sectors, and provided a vehicle for getting development assistance to the grass roots level. Most often, grants or cooperative agreements were signed between USAID/Nepal and major American NGOs, operating regional or nation-wide programs. These umbrella NGOs acted as trainers, grant makers, and monitors for smaller, indigenous NGOs who implemented project activities in their local area. In addition to assisting local NGOs to carry out development activities, the project aimed to strengthen their technical, managerial, and administrative capabilities, including their ability to design projects and apply for and obtain funding.

In the 1990s, activities, under the PVO Co-fi umbrella were carried out in the fields of health and family planning, natural resource conservation, rural development, democratic pluralism, literacy training, and micro-finance. A total of 29 grants and cooperative agreements were under implementation in the 1990s, some of which had commenced in the previous decade. The individual activities and sub-projects are described in the sections of this book, that correspond to their particular sectoral focus.

USAID Assistance to PVO Activities in the 1990s

Project Title / Name of Grantee	Duration		USAID Funding (\$)
	Start	End	
Save the Children (Rural Development in Siraha)	07/20/1990	09/30/1994	450,000
The Asia Foundation (Democratic Pluralism Initiative)	08/23/1990	06/30/1994	748,159
The Asia Foundation (Strengthening the Judicial Services Training Center)	09/05/1990	06/30/1995	145,903
World Education, Inc. (National Literacy Expansion Project)	09/14/1990	07/15/1997	1,505,326
Institute for Integrated Development Studies	09/26/1990	07/15/1997	334,211
Nepal Women's Association	09/26/1990	09/30/1991	25,000
SEARCH (Voter Education)	02/01/1991	04/16/1991	123,005
The Asia Foundation (Female Education Scholarship Program)	03/04/1991	06/30/1996	451,326
Woodlands Mountain Institute (Phase II)	08/16/1991	09/30/1996	1,136,675
Save the Children (Assistance to Orphans)	09/27/1991	09/30/1997	1,979,565
SEARCH (NGOs and Development)	09/26/1991	09/30/1992	13,561
Society for Constitutional and Parliamentary Exercise	09/27/1991	09/30/1994	241,000
International Union for Conservation of Nature	07/17/1992	12/31/1995	520,875
United Mission to Nepal	08/21/1992	07/15/1997	818,550
Himalayan Institute of Development	09/24/1992	04/20/1994	147,000

Project Title / Name of Grantee	Duration		USAID Funding (\$)
	Start	End	
Private Agencies Collaborating Together (Democratic Pluralism Initiative Phase II)	05/13/1993	07/15/1997	1,054,729
Canadian Center for International Studies and Cooperation	09/27/1993	09/28/1996	332,830
CARE/Nepal (Agriculture & Rural Development)	08/22/1994	06/30/1997	1,195,343
CARE/Nepal (Health & Family Planning)	08/22/1994	07/15/1997	466,036
Save the Children (Health & Family Planning)	08/22/1994	07/15/1997	1,041,990
The Asia Foundation (Health & Family Planning)	08/22/1994	07/15/1997	1,289,409
Adventist Development and Relief Agency	08/22/1994	07/15/1997	1,005,184
Nepal Red Cross Society	09/28/1987	06/15/1997	164,027
World Wildlife Fund (ACAP/NECTARI)	08/29/1989	03/31/1991	150,000
Private Agencies Collaborating Together (NGO Strengthening)	06/06/1988	03/31/1993	350,000
Center for Development and Population Activities	09/14/1988	07/15/1997	741,385
Winrock International Institute for Agricultural Development	08/02/1988	07/31/1995	2,000,000
Save the Children (Rural Development in Gorkha)	09/14/1988	08/24/1992	400,000
CARE/Nepal	09/14/1988	10/31/1993	899,700



Participant Training

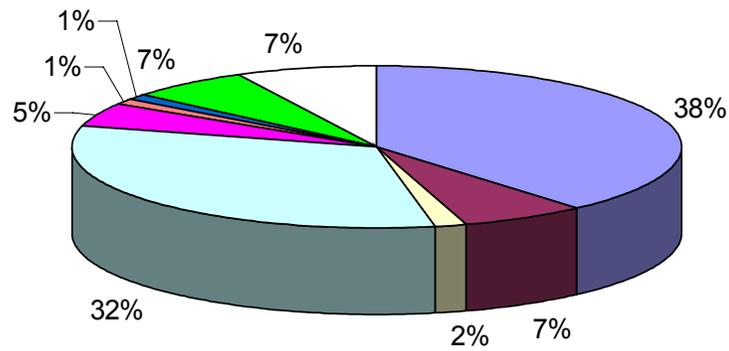
Training continued to play an important role in USAID/Nepal's activities in the 1990s. The Development Training Project (DTP), originally scheduled to run from 1985 to 1994, was extended 3 times, through September 2000. Over the course of the decade, 1,282 Nepalis, representing both the public and the private sectors received training under the DTP and 25 other projects and programs.

Training included short courses, seminars, and study tours, as well as bachelor's and graduate level degree programs. Participants received training in India, Philippines, USA, Indonesia, Bangladesh, Thailand, Italy, Israel, Sri Lanka, Pakistan, Malaysia, and 15 other countries.

Subject Areas in Which Participants Received Training in the 1990s

Subject Area	Number of Trainees
Agriculture, Forestry, & Natural Resources	493
Health / Family Planning	89
Education & Human Resources	19
Public Administration Management & Planning	414
Energy, Engineering, Industry & Mining	60
Communication & Transportation	16
Women's Empowerment	13
Democracy	83
Miscellaneous	95
Total	1,282

Participant Training 1990 -- 2000



- Agriculture, Forestry, & Natural Resources
- Health / Family Planning
- Education & Human Resources
- Public Admin. Management & Planning
- Energy, Engineering, Industry & Mining
- Communication & Transportation
- Women's Empowerment
- Democracy
- Miscellaneous

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INTERVIEWS

Dr. Bijan Acharya, Charles H. Antholt, Dr. Kokila Baidya, Sribindhu Bajrachharya, Asha Basnyat, Tara Bhattarai, Dor Bahadur Bista, Lyndon Brown, Samuel Butterfield, Richard Calnan, Wilda Campbell, Anthony Carvalho, Dr. Neal Cohen, John Cool, Larry Cowper, Dr. Edward Crippen, Christopher Cross, Jon Darrah, Dr. Abraham David, Dale Davis, Penny Dawson, Ramesh Dhungel, Azza El-Abd, Mark Freeman, Adam Friedenshon, Molly Gingrich, Judy Hollander, Carter Ide, Tika Karki, Wendy King, Mohini Lama, Steve LeClerq, George Like, Anita Mahat, Dr. Don Paige, Joy Pollack, Y.M.S. Pradhan, General Rabi Shumshere Rana, Nigel Roberts, Ashok Shrestha, Hem Chandra Shrestha, Ram K. Shrestha, Rameshwor Shrestha, Christa Skerry, Dianne Sommers, Cathy Thompson, Joseph Toner, Dr. Jayanti Tuladhar, Troilokya Nath Upraity, Fr. Gene Watrin S.J., Dr. Hugh B. Wood.

APPENDICES

MISSION DIRECTORS

USOM

Paul Rose, 1952-58

Russell Drake, 1958-59

USAID

John Roach, 1960-64

Joseph Toner, 1964-66

John Benz, 1966-68

William Carter Ide, 1969-74

Charles Grader, 1974-76

Samuel Butterfield, 1976-80

Dennis Brennan, 1981-85

David Wilson, 1985-89

Kelly C. Kammerer, 1989-93

Philip Michael Gary, 1994-95

Dr. Frederick E. Machmer, Jr., 1995-98

Joanne T. Hale, 1998-

Types of U.S. Assistance

Types of U.S. Assistance to Nepal

Type of Assistance	U.S.\$ (millions)
Bilateral Assistance	647.6
Multilateral Assistance	690.0
Humanitarian Assistance	36.0
Total	1,373.6

U.S. Assistance to Nepal - by Sector

1951 – 2000

Sector	US\$ (millions)
Agriculture, Agricultural Research and Production, Environment, Irrigation, Dairy Development	109.5
Health, Population and Family Planning	180.0
Rural Area Development	44.6
Technical and Administrative Support	19.3
Public Health and Malaria Eradication	30.6
Industry	17.6
Transport and Communications	35.3
Education	50.1
Forestry Development, Resource Conservation and Utilization	70.7
Panchayat and Public Administration	8.9
NGOs/INGOs	34.0
Economic Liberalization, Privatization	12.0
Rural Electrification, Hydropower Development	7.9
Strengthening Legal/Judicial System	6.0
Women's Literacy, Legal Rights, Economic Participation, Microenterprise	15.8
Other (Miscellaneous)	5.3
Total	647.6

U.S. Assistance to Nepal by Period/Year

1951 Through	Years Covered	Amount Committed During the Period Covered (U.S.\$)	Total Through Years Covered
1972	22	136,800,000	136,800,000
1976	26	12,200,000	149,000,000
1981	31	53,000,000	202,000,000
1986	36	88,000,000	290,000,000
1991	41	161,000,000	451,000,000
1992	42	16,607,505	467,607,505
1993	43	21,146,735	488,754,240
1994	44	17,518,494	506,272,734
1995	45	25,758,056	532,030,790
1996	46	23,420,300	555,451,090
1997	47	27,702,350	583,153,440
1998	48	27,598,390	610,751,830
1999	49	18,517,994	629,269,824
2000	50	18,307,818	647,577,642
50 Year Total = \$647,577,642			

I. Capital Assistance

A. Bilateral Assistance

Since 1951, U.S. bilateral assistance to Nepal has totalled \$647.6 million, all in the form of grants.

B. Multilateral Assistance

Complementing its bilateral assistance program, the U.S. has contributed \$690 million assistance to Nepal through such multilateral agencies as the World Bank, the International Monetary Fund, the Asian Development Bank, the United Nations Development Programme, and various United Nations line agencies.

II. Selected Centrally-Funded Projects and Buy-Ins to Global Programs

A. Humanitarian Assistance: 116(e) of the Foreign Assistance Act

In 1976, the Carter administration established a special fund to provide "a positive approach to human rights by encouraging increased promotion of civil and political rights. Legislation directed AID to carry out programs and activities in developing countries to enhance adherence to the provision of basic human rights. The legislation was particularly appropriate to AID programs because the U.S. recognizes personal liberty as the engine of economic growth. In Nepal, the legislation resulted in several projects initiated in the 1980s.

B. AID Program in Science and Technology

The Program in Science and Technology Capacity was mandated by Congress in 1981, in response to the need for innovative collaborative research with developing nations. Approximately 13 projects were designed to help develop research capabilities in Nepal, most focusing on agriculture. U.S. contributions in the form of grants through the Science and Technology Program total nearly \$1.2 million.

C. U.S.-Israel Cooperative Development Research (CDR) Program

Based on the Program in Science and Technology Capacity, the CDR was developed in 1985 to make Israeli expertise available to developing countries through collaborative research.

D. Central Contraceptive Procurement

Purpose: To provide an efficient mechanism for consolidated USAID purchases of contraceptives based on the transfer of all funds from all USAID accounts that support contraceptive procurement to a single central procurement account at the beginning of each operational year. This project was established in FY 1990 to provide an efficient central contraceptive procurement mechanism for all USAID offices whose programs require contraceptive supplies.

E. DELIVER

Purpose: DELIVER is a five year, worldwide technical assistance support contract focused on providing health commodity logistics support to the PHN sector. DELIVER provides commodity management support to the Agency's family planning, HIV/AIDS, child survival and other health initiatives. The efforts are intended to improve the availability of health commodities including essential pharmaceuticals, contraceptives, vaccines, and other essential drugs at service delivery points.

F. Population Leaders Program (PLPII)

Purpose: To improve management and leadership of selected family planning/reproductive health programs by: 1) increasing technical capacity within the PHN sector through the placement and support of Fellowships; 2) improving leadership and management practices of PHN professionals through non-training and training interventions; 3) improving work processes that will target individuals and teams.

G. Training in Reproductive Health III

Purpose: The purpose of the TRH project is to strengthen the provision of high quality services through improving the performance of RH professionals and providers. The new Training in Reproductive Health (TRH) III Project establishes integrated training systems for family planning and reproductive health by developing, disseminating and implementing national policy and service delivery guidelines; developing a network of trainers to provide expert technical and training support in the pre-service and in-service arenas; and helping ensure management support for the entire training system.

H. Market Strategies (CMS)

Purpose: To increase the use of quality family planning and other health products and services through private sector partners and commercial strategies.

I. Program for Voluntary Surgical Contraception and Related Services

Purpose: To increase use of sustainable, client-oriented services in hospital and clinic settings through technical and programmatic assistance in voluntary sterilization and other long-term methods, postabortion care, integration of STI/GIV prevention into family planning programs, and in practical quality improvement approaches that address client rights and provider needs.

J. MEASURE DHS+

Purpose: Within the context of MEASURE's coordinated effort to collect data, improve monitoring and evaluation, and disseminate information on population, health and nutrition, MEASURE DHS+ seeks to improve information through appropriate data collection, analysis, and evaluation; and to strengthen the data collection and utilization capabilities of host-country institutions.

K. Contraceptive Technology Research (CTR)

Purpose: To develop, evaluate, and introduce a range of safe, effective, and acceptable contraceptive methods and reproductive health technologies to enhance the capacity of family planning and reproductive health researchers and programs in developing countries to evaluate and provide these technologies.

L. Basic Support for Institutionalizing Child Survival II (BASICS II)

Purpose: The Basic Support for Institutionalizing Child Survival Activity (BASICS II) is a major component of G/PHN's global work to implement USAID's Child Survival program. BASICS II will develop innovative and improved policies and program approaches, provide technical leadership within the Agency and the international Child Survival program community, and enter into technical partnerships with field missions and other bureaus to improve the technical quality and effectiveness of programming in USAID-assisted countries.

M. Child Health Research ICDDR,B: Centre for Health and Population Research, Bangladesh

Purpose: ICDDR,B focuses on the development of cost-effective child health and survival programs by enhancing the understanding of the major causes of childhood morbidity and mortality. The ICDDR,B conducts research, maintains active training programs, develops rapid response protocols and programs and tests cost-effective public health interventions through operations research.

N. Micronutrient Operational Strategies and Technologies (MOST)

Purpose: The Micronutrient Operational Strategies and Technologies (MOST) Cooperative Agreement has as its primary purpose expanded and enhanced delivery of micronutrients to vulnerable populations through supplementation and food-based strategies, including fortification and dietary diversification. MOST will provide leadership in elevating micronutrients on the global health agenda, strengthening policies and programs, and sharing lessons learned about the most cost-effective technologies and delivery systems for alleviating micronutrient deficiencies.

O. Environmental Health Project (EHP II)

Purpose: To reduce environmentally-related mortality and morbidity in both urban and rural settings.

P. Implementing AIDS Prevention and Control Activities (IMPACT)

Purpose: Family Health International was awarded this cooperative agreement for the design, development, management, monitoring and technical support to regional and/or country specific HIV/ AIDS program interventions. This project builds on over ten years of experience by the FHI team in program design, management and evaluation of HIV/AIDS programs in developing countries around the world including the recently completed AIDSCAP project.

Q. Health and Child Survival Fellows (HCSF) Program

Purpose: Identification, placement, and supervision of Health and Child Survival Fellows and University Affiliates in field assignments and USAID/Washington.

R. Technical Advisors in AIDS and Child Survival (TAACS)

Purpose: Under this activity, CEDPA and the Department of Health and Human Services, Office of International and Refugee Health and subagreement with the Centers for Disease Control and Prevention administer the placement of approximately 60 technical advisors in USAID Missions and USAID Washington to support activities in child survival, family planning and population, HIV/AIDS control and prevention, infectious disease control and prevention, and basic education.

S. ANE Regional HIV/AIDS Program

Purpose: To support the implementation of HIV/AIDS prevention activities from a regional perspective. The program also supports innovative pilot projects that may be replicated throughout the region and cross-border activities. The ANE (Asia/Near East) program operates through a variety of Global Bureau Projects.

T. 116(e) Funds: Humanitarian Assistance

Strengthening the Legal System of Nepal, 1983-89

Women's Legal Services, 1988-93

Nepal Law Society Study of Supreme Court Decisions on Habeas Corpus and Election Law Cases, 1988-91

Nepal Women's Association, 1990-91

Judicial Services Training Centre, 1990-95

U. Program in Science and Technology Cooperation

Studies in Late Blight of Potatoes and Tomatoes in the Chitwan Valley of Nepal

Research on Citrus Greening Vector in Pokhara Valley

Design, Construction and Installation of Two Thermosyphons Solar Water Heaters for Public Demonstration

Improved Management of Important Fodder Tree in the Terai and Mid-Hill Regions of Nepal

The Prospect of Vegetable Cultivation in the Chitwan Valley

Propagation of Mahaseer in the Himalayan Water of Nepal

Scientific Instrumentation Unit: A Unit for Repair, Maintenance and Innovation of Scientific Equipment

Clonal Propagation of Pine Trees by Methods of Tissue Culture

Pathogenic Variability of and Bacterocin Production by *Xanthomonas Campestris* PV. *Oryzae* in Nepal

Reducing Livestock Degradation Losses in the Nepalese Himalaya

Exploitation of Genetic Yield Potentiality of UWA Germplasm in the High Altitude Himalayas.

Exploitation of Genetic Yield Potential of Common Buckwheat Ecotypes in Different Regions of Nepal

Sex Determination of *Choerospondias Axillaris* Roxb. Seedlings

V. The Biodiversity Support Program

BSP is a consortium of World WildlifeFund, The Nature Conservancy, and World Resources Institute, funded by USAID, promotes conservation of the world's biological diversity and maximizes the impact of U.S. government resources directed toward international biodiversity conservation.

W. The Partnership for Biodiversity

The Partnership for Biodiversity is an initiative aimed at promoting biodiversity conservation in developing countries worldwide through the joint efforts of USAID, the U.S. Department of the Interior, and the U.S. Peace Corps.

III. Humanitarian and Disaster Assistance

Since 1951, the U.S. has provided \$36 million in humanitarian assistance to Nepal. The U.S. has a long history of providing assistance for victims of natural disasters in countries all over the world. In 1964, the Agency for International Development established the first Office of Disaster Relief Coordinator, which evolved into the current Office of U.S. Foreign Disaster Assistance (OFDA). OFDA is responsible for providing and coordinating disaster assistance worldwide. Following is an overview of U.S. disaster assistance to Nepal:

- 1954: In response to a series of devastating floods, the U.S. contributed \$2 million in cash and food commodities for emergency relief and reconstruction.
- 1956: The U.S. contributed \$2 million in cash and food commodities for famine relief.
- 1987: The U.S. provided assistance for reconstruction after floods and landslides damaged portions of the Central and Terai regions of Nepal. OFDA contributed \$25,000 and USAID reprogrammed \$200,000 in local support funds to rebuild transportation infrastructure in Myagdi and Mustang districts.
- 1989: The U.S. provided \$25,000 in cash, and tents and blankets for emergency relief after an earthquake measuring 6.1 on the Richter scale caused widespread damage.
- 2000: A grant of Nrs. 31,813,920.00 awarded to N-SET to provide support for a program entitled "Kathmandu Valley Earthquake Risk Management Action Plan Implementation Project". The project is designed to reduce the risk posed by a potential earthquake in the Kathmandu valley.

IV. Food for Peace Public Law 480: Agricultural Trade Development and Assistance Act

PL 480 was enacted in 1954 to promote economic development through agricultural trade. In Nepal, Food for Peace assistance (Title I and Title II) totals approximately \$140 million.

Title I allows the financing of sales of U.S. agricultural commodities to developing countries on credit terms. In some cases, the sale of commodities is payable in local currency. Surplus rupees generated from the sale of agricultural commodities to India have been used since 1960 to support USAID's economic assistance program in Nepal, and for training Nepalese in Indian institutions.

Title II provides emergency relief to food deficit areas of developing countries in the form of food commodities: In Nepal, this type of assistance is channelled through the World Food Program.

USAID's PROJECTS 1952-2006**(as of October 2001)****Agriculture, Irrigation, Rural Development, Environment, and Natural Resources**

Village Development 1952-59
Mineral Resource Development, 1958-67
Food Grain Technology, 1957-78
Forest Inventory, 1958-69
Agricultural Credit and Co-Operatives, 1960-72
Panchayat Development, 1963-72
Hydrologic Investigation, 1961-68
Groundwater Survey, 1969-73
Groundwater Investigation, 1969-77
Agricultural Education Planning, 1972-73
Institute of Agriculture and Animal Science, 1974-84
Integrated Cereals, 1975-85
RAD/RCUP Design Project, 1978-81
Seed Production and Input Storage, 1980-85
Rural Area Development-Rapti Zone, 1980-87
Resource Conservation and Utilization, 1980-89
Agriculture Resource Inventory, 1980-85
Institute of Agriculture and Animal Science II, 1984-91
Agricultural Research and Production, 1985-91
Annapurna Conservation Area, 1989-91
Natural Resource Management (Mustang), 1988-93
Irrigation Management, 1985-95
Nepal Coppice Reforestation, 1987-92
Forestry Initiative, 1987-92
International Executive Service Corps Consultancy, 1991-92
SCF/USA Gorkha Rural Development, 1988-92
SCF/USA Siraha Rural Development, 1990-94
Review Natural Resource Conservation and Management Problems in Nepal (MOF), 1993-94
NGO Environmental Management, 1992-95
Institute of Forestry, 1987-95
Rapti Development, 1987-96
Forestry Development, 1989-95

Makalu Barun Conservation, 1991-96
Increased Income for Disadvantaged Rural Communities, 1993-96
Agro-Enterprise and Technology Systems, 1990-97
Promoting Community Capacity in the Forestry Sector, 1992-97
CARE/Nepal Agriculture and Rural Development, 1994-97
Small-Scale Environmental Activities, 1994-98
Policy Analysis in Agriculture, 1994-99
Sustainable Income and Rural Enterprise (Core Program), 1993-2002
Analytical Studies, 1995-2002
Environment and Forest Enterprise Activity, 1995-2002
Irrigation Management Transfer Project, 1995-2002
Market Access for Rural Development, 1996-2002
Strategic Objective 1: Increased Sustainable Production and Sales of Forest and High-Value Agricultural Products, 1997-2002

Democracy

Public Opinion Survey on Constitutional Issues, 1990-91
Voter Education, 1991
Public Opinion Survey on Local Government, 1991-92
Democratic Pluralism Initiative, 1990-94
Strengthening Institutions in Support of Democracy and Development, 1994-96
Democratic Pluralism Initiative Phase II, 1993-97
Society for Constitutional and Parliamentary Exercise, 1991-94
Local Government Strengthening, 1993-96
Promoting Activities to Constitute a Human Rights Commission by Act of Parliament, 1994-96
Legal Rights of Kamayias, 1994-96
Strengthening Democratic Institutions, 1993-97
Democratic Institutions Strengthening, 1992-98
Strategic Objective 5: Strengthened Governance of Natural Resources and Selected Institutions
Strategic Objective 5: Strengthening Governance through Citizen Participation in Political and Economic Affairs, 2001-06

Education and Human Resources

Cooperative Program for Education Activities, 1954-58
Teacher Training and Related Activities, 1954-58
Education Development, 1958-60

Education Administration, 1958-64
Education and Training, 1962-68
Education Materials Development, 1964-67
Teacher Training /Higher Education, 1964-65
Teacher and Technical Education, 1968-72
Teachers and Materials Utilization and Development, 1972-81
Manpower Development Training, 1973-80
Education Skills Training, 1976-81
Radio Education Teacher Training, 1977-84
Radio Education Teacher Training II, 1984-90
Improving the Efficiency of Educational Systems (IEES), 1991-93
Radio Education Learning Technology for Basic Education, 1991-93
Literacy Expansion Project, 1990-97
Self-Reliant Development for Marginal Women, 1990-97
Nepal-India Participant Training, 1991-97
Women Reading for Development (PACT), 1994-97
Non-formal Education Council, 1994-1998
Health Education and Literacy, 1995-97
Development Training, 1985-2000
Basic Education Support, 1994-2000

Economics

Economic Liberalization, 1991-99

Energy

Power Development Integration, 1960-67
Private Rural Electrification, 1990-94
Private Electricity, 1994-99
Special Objective 4: Increased Private Sector Participation and Investment in Environmentally and Socially Sound Hydropower, 1997-2001
Strategic Objective 4: Increased Private Sector Investment in Environmentally and Socially Sustainable Hydropower Development, 2001-06

Health, Population, and Family Planning

Malaria Eradication, 1954-74
Public Health Administration, 1954-67
Assistance to Public Health Services, 1954-64
Bir Hospital Assistance, 1959-65

Health Education, 1962-65
Nurses and Other paramedical Workers Training, 1962-66
Public Health Administration, 1962-67
Medicinal Plants, 1967
Population/ Family Planning, 1967-79
Integration of Health Services, 1971-76
Integrated Health Services, 1976-81
Malaria Control, 1975-80
Population Policy Development, 1979-85
Integrated Rural Health/Family Planning Services, 1980-90
Jumla Acute Respiratory Infection Project, 1987-97
Family Health Project (Bajura, Solukhumbu, & Mahottari), 1994-97
Empowering Women for Family Planning and Reproductive Health in Siraha District, 1994-97
Family Planning Program Through Community Based NGOs, 1994-97
Child Survival and Family Planning Services, 1990-98
Strategic Objective 2: Reduced Fertility and Protected Health of Nepalese Families, 1996-2006

Industry

Nepal Industrial Development Corporation, 1956-72
Industrial Pre-Management Training, 1960-67
Cottage and Small Industries and Craftsmen Training, 1960-67
Industrial Districts, 1960-69
Private Voluntary Organizations
PVO Co-Financing, 1981-88
PVO Co-Financing II, 1987-97

Public Administration

Governmental Budgeting and Accounting Systems, 1960-67
Institute of Public Administration, 1960-67
Statistics Development, 1960-72
General Public Administration, 1962-68
Management Improvement and Training, 1962-73
Administration and Management, 1972-77
Local Development Training Institute, 1990-91
Developing District Profiles, 1992-94

Transportation and Communications

Regional Transportation Facilities, 1958-62
Suspension Bridges, 1958-75
Aviation Development and Airport Development, 1959-74
Ropeway, 1959-64
Rural Transportation, 1958-68
Nepal-India Telecommunications Network, 1959-64
Road Development Project, 1962-67
Western Hills Penetration Road, 1968-74
Landslide and Slope Stabilization, 1979-83
Trail Suspension Bridges, 1979-83

Women's Empowerment

Women's Legal Support, 1989-93
Center for Women and Development, 1990-92
Status of Women Update, 1992-94
Legal Aid for Woman Victims of Violence, 1994-95
Female Education Scholarship, 1991-96
Legal Rights Education for Nepali Women, 1990-97
Strategic Objective 3 Limited Scope Grant Agreement: Increased Women's Empowerment, 1996-98
Strategic Objective 3: Increased Women's Empowerment, 1997-2001

Other

Technical Support, 1952-76
Development and Support Cost, 1974-77
Development Support, 1982-83
Regional Narcotics Education, 1987-90
NGO Strengthening, 1988-93
Rural Services Delivery Review (with GTZ & World Bank), 1991-92
NGOs and Development, 1991-92
SCF/USA Orphans, 1991-97
Support for a Geographic Information System Analysis of the Mid-Western Region, 1995-98