

# War on Hunger

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*A Report from The Agency for International Development*



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COVER: This little Colombian girl was snapped with her daily cup of milk at school recess. Happily, better child nutrition is encouraging such radiant smiles in all parts of the world.

UNICEF Photo

BACK COVER: A loan from the World Bank helped finance this pumping station in Japan; farmer's wife (foreground) gets water for irrigation from the station.

Photo: United Nations

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WAR ON HUNGER

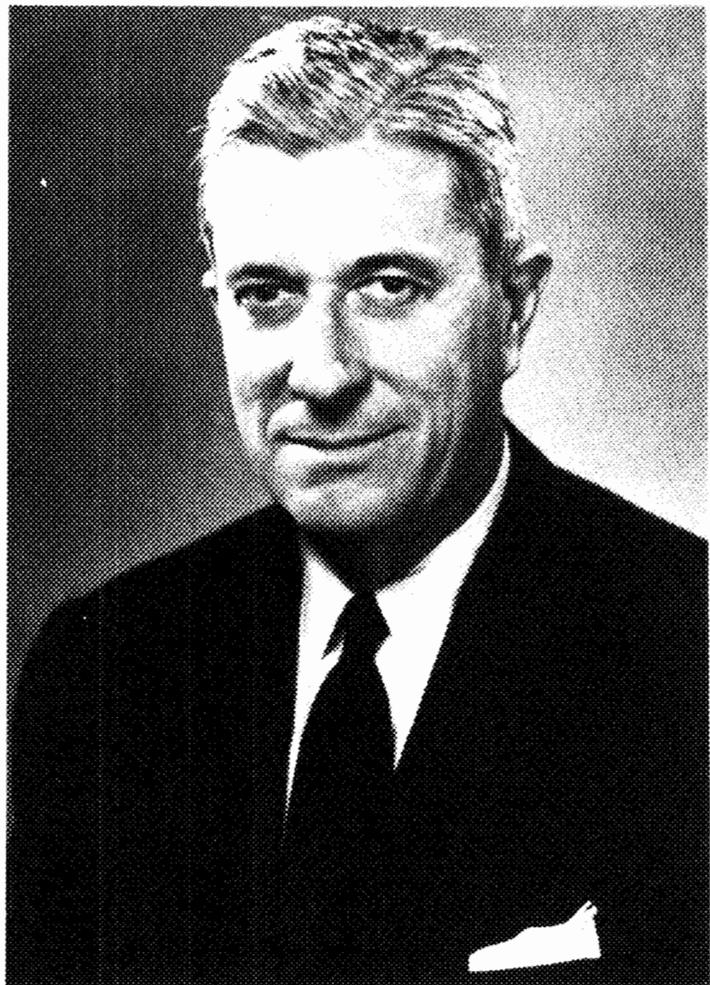
# War on Hunger

*A Report from The Agency for International Development*

Published monthly by the Office of the War on Hunger,  
Agency for International Development.

William S. Gaud, Administrator

H. Brooks James  
Assistant Administrator for War on Hunger



Henry R. Labouisse

Produced by the Reports and Information Staff,  
Room 2884, State Department Building,  
Washington, D. C. 20523.  
David C. Levine, Editor.

Readers are invited to submit news items, original manuscripts (including speeches) and photos on any aspect of the War on Hunger. Contents of this publication may be reprinted or excerpted freely.





*School gardens such as this one have done much to combat the chronic malnutrition that formerly plagued Paraguay.*

that only government-to-government programs could handle, UNICEF was able to provide crucial help, in cooperation with CARE, AID, and other agencies, through the provision of high-protein supplements, drugs, vitamins, well-drilling equipment, and vehicles to ensure better distribution of emergency supplies and better supervision of relief activities.

On this same visit, in other parts of the country, I saw some of the results of UNICEF's continuing, long-range assistance to grass-roots, village-level nutrition programs. Where these programs were going well, they were succeeding because the right kind of aid from the outside, in terms of supplies and equipment—whether these were common garden tools, seeds, or more complicated items such as poultry incubators and brooders—was combined with strong leadership. These village-level "applied nutrition programs" sometimes require people to alter basic food habits that have not changed in centuries. But they can and do work: especially when they are sparked by some dedicated person—it may be the leader of the local women's club, a government extension worker who is particularly keen on nutrition, or occasionally a volunteer from abroad.

### **On Right Track**

I am convinced that UNICEF and the agencies with which it cooperates—including AID, the Food and Agriculture Organization, and the International Union of Child Welfare and its affiliates—are on the right track. The nutrition programs we have helped launch are receiving increasing government support. Nutrition education is becoming part of the regular curriculum in more and more schools in the developing countries. From the village sewing circle to the highest level of government planning, people in the developing countries are becoming increasingly aware of the special nutritional needs of the growing child.

But we have a long way to go. It is estimated that in the developing countries today there are 300 million malnourished children in the pre-school (1-6 years) age bracket alone. These children are far more vulnerable to the common hazards of childhood than youngsters who are properly nourished; indeed in some developing countries, the death rate among pre-schoolers is 40 times as high as it is in the industrialized countries. Furthermore—and this is the most terrifying prospect of all to contemplate—there is growing evidence to suggest that malnutrition may impair the mental as well as the physi-



*A teacher in Orissa, India, pours milk for the children as part of their nourishing lunch at the school.*

cal capacity of those who survive. If we cannot find the means to provide these youngsters with the proper foods they need for growth and development, then all our other plans for a better, more prosperous world will rest on a foundation no more secure than shifting sand.

### **Children's Nutrition Needs**

One should, of course, note the obvious relationship between population size and the rate of population growth on the one hand, and food needs and food availability on the other. Much has been said recently about the population explosion and, happily, programs of family planning are now receiving increased attention by the countries most concerned. For its part, UNICEF is now authorized to give assistance to family planning (with the approval and technical advice of WHO) as part of a country's health services at the request of national governments and in the usual forms of aid such as training of personnel, provision of vehicles and supply and equipment of maternal and child health services. But no matter what progress is made by the world in moderating population growth, the needs of children for suitable nutrition will continue to require far more attention than they are presently receiving.

In the face of this challenge, what can be done? All I can propose—all anyone can propose—is a manifold intensification of the kind of work that has already been started. The practical obstacles are formidable. They must be met one by one, as best we can meet them. There is no other way yet, no "miracle solution." UNICEF's income has gradually increased year by year but is still short of our present target of \$50 million; and it can spend only a portion of its fund on nutrition projects proper. Other agencies, various government-to-government assistance programs, and the governments of the developing countries themselves channel considerably larger resources into nutrition work: but compared to what is needed (and compared to what the world spends on armaments in a single day) these resources still come to very little indeed.

The challenge of good nutrition for all the world's children can only be met through intensified efforts in every country and by the international community as a whole. It is a challenge none of us can afford to shirk if we hope to see a brighter future for the human race. National and world development begins with the child, and the child's development must begin with proper nutrition.



## AID Administrator Receives 'Green Revolution' Award

William S. Gaud, Administrator of the Agency for International Development, received an award from the American Freedom from Hunger Foundation on May 21 for his leadership in the "Green Revolution"—the upsurge of agricultural production in the developing nations brought about by new seed varieties and modern farming techniques.

Mr. Gaud accepted the award as "a tribute to the people of AID who are helping millions of men and women overseas achieve freedom from hunger."

The achievement of recent bumper crops in the needy nations, he said, is proof of more than good luck and good weather:

"It proves that the new seeds can work—not only in the laboratory but in the field. It proves that new agricultural policies in these countries are taking hold. It proves that the new emphasis on food production can pay off, and that our shipments of fertilizer and pesticides, and our technical assistance, can make a difference. It proves that the battle to feed humanity is *not* over, and that it *can* be won."

The award was presented by Secretary of Agriculture Orville L. Freeman, who told a dinner meeting of the Foundation that "hunger is not a problem by itself, capable of a separate solution—it is part of the problem of poverty.



*AID Administrator Gaud receives award from Secretary of Agriculture Freeman as Mrs. Gaud looks on.*

"We can—and we should—treat the symptoms of hunger with doses of food, as much as we can and wherever we can, but that won't remove the cause. We cannot defeat hunger by concentrating only on food; our concern must be for more than calories, proteins, and vitamins. We have got to close the gap, or at least narrow the gap, between the well-to-do and the poor, here in the United States and all over the world," Mr. Freeman told the group.

Before the dinner meeting, the Board of Trustees of the American Freedom from Hunger Foundation selected Robert R. Nathan, president of Robert R. Nathan Associates, Inc., a firm of consulting economists, as president of the Foundation. Leonard G. Wolf, former Iowa Congressman who recently served as Chief of Operation Ninos in the Latin American Bureau of AID, was named executive director of the Foundation.



## Consortium Formed to Consult on World's Problems in Nutrition

Nutritionists and food technologists in the United States will volunteer their expertise in helping to solve the world food problems through a newly formed Consortium of six professional and technical societies which have banded together to form the "League for International Food Education."

The Consortium, known as LIFE, was formed following consultation between AID's Nutrition and Child Feeding Service and representatives of the six member societies. On June 12, the Consortium was incorporated in the District of Columbia and the Board of Directors held their first meeting. An AID grant is financing LIFE's first two years of operation.

The six member societies are the American Association of Cereal Chemists, the Institute of Food Technologists, the American Oil Chemists' Society, the American Chemical Society, the American Institute of Nutrition, and the Volunteers for International Technical Assistance.

The primary function of the Consortium will be to respond to requests for technical advice and informa-

tion which the Nutrition and Child Feeding Service is soliciting from many sources including AID Missions, the Peace Corps, voluntary agencies, international organizations, and foreign governments. The Consortium will act as a clearinghouse for these requests drawing upon the talents of the society or individual member of a society best qualified to provide the needed information. Information will be provided on all technical levels.

In addition to answering specific requests, the Consortium will prepare a monthly report of new developments in nutrition and food technology which will be distributed to the field. LIFE will also assist the Nutrition and Child Feeding Service in locating experts for short and long-term assignments overseas.

Announcement as to where requests should be directed will be made shortly in airgrams and circulars to field Missions, voluntary agencies, Peace Corps, etc., and will be published in the next issue of *War on Hunger Magazine*.



# AID Demonstrations Boost Bolivian Potato Crops

By Charles C. Brady and Marion H. Ford

*Mr. Brady is Chief of the AID Advisory Group to the National Community Development Program in Bolivia; Mr. Ford is his Deputy.*

Bolivian potatoes are getting bigger all the time, and more plentiful, as well, thanks to an Alliance for Progress demonstration program carried out in rural sections of Bolivia by the AID-assisted Bolivian National Community Development Program, the Agricultural Extension Service, the Peace Corps, and Bolivian farmers.

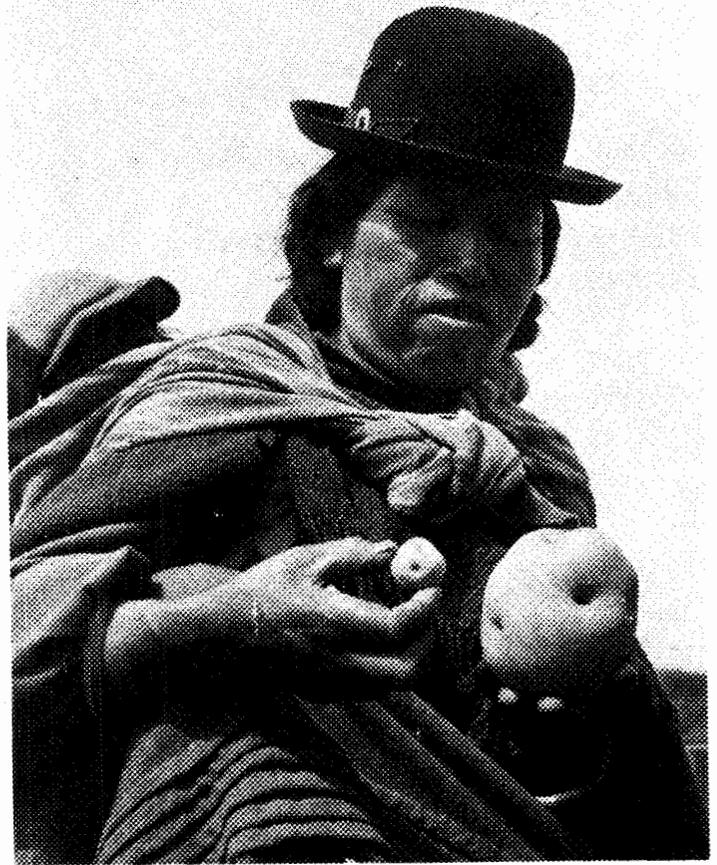
A series of potato planting demonstrations in 73 rural communities, started a year ago, proved to the *campesinos* (small farmers) that through more modern agricultural methods and a new seed variety they could greatly improve both the quality and quantity of their potato production and in turn increase their earning power.

The average production ratio for the 73 demonstrations was ten pounds of potatoes produced for one pound planted, as compared to a three-to-one ratio for the native potato. The difference in production was so obvious that the problem was no longer how to convince the *campesino*, but how to respond quickly and effectively to his interest. News of the results of the demonstrations spread to other communities and sufficient enthusiasm was generated to produce the new Sani-Imilla potato on a marketable scale.

After preliminary studies by the Community Development Program, the Peace Corps, the Agricultural Bank, the Agricultural Extension Service, and the Agricultural Experimental station, a credit official from the Community Development Program was assigned to the area. His job was to organize interested farmers into production co-operatives in order to obtain legal status and become eligible to receive credit from the Agricultural Bank. This credit was used to purchase seed, fertilizer, insecticide, disinfectants, and equipment.

During June, July, and August, 40 co-operatives were organized. In September, application was made to the Agricultural Bank for credit. After visiting each co-operative, representatives from the Agricultural Bank approved the credits to the amount for which each applied. In October, each co-operative received its credit—not in cash, but in kind: seed, fertilizer, insecticide, and disinfectant.

In September, over 1,300 farmers, all members of co-operatives, received approximately 120 tons of seed potatoes along with corresponding amounts of fertilizer, insecticides, and disinfectants. With technical assistance provided to each co-operative, the individual farmers



*"Small potatoes" means something insignificant—and that is just the way the small native potato looks next to the improved variety now being grown in Bolivia. An Alliance for Progress demonstration program helped to introduce the new Sani-Imilla potatoes to the Bolivian farmers.*

planted their potatoes in accord with modern methods and correct application of nutrients. By November all the planting had been done. With a ratio of ten pounds produced per one pound planted, the production of potatoes is expected to exceed 1,000 tons.

Although the projected crop of potatoes is striking, both AID advisors and Bolivian agricultural officials realize that such a harvest is only a promising beginning. Continued yield improvement depends upon a whole complex of improved farming practices.

As for the growth and advancement of the *campesino* himself, a primary goal of the National Community Development Program, that, too, is taking place. The concept of working together instead of individually has been demonstrated and already farmers have organized themselves into groups for the purpose of economic betterment. Several of these groups, for example, have purchased sprayers that they could never have afforded as individuals. Others have purchased fertilizer and insecticide for other crops and some are presently constructing "despositos" in which to store their produce.

More evidence of community spirit will come at harvest time. Marketing will be done co-operatively through a federation of all 40 co-operatives and, in order to take advantage of price fluctuations, marketing will be done throughout the year. Furthermore, each co-operative will have a "social fund" preventing the members from having to sell immediately, and credits have been extended through September.



# AGRICULTURE



Mexico improved four irrigation systems using a loan from the World Bank to cover foreign exchange costs.

The International Bank for Reconstruction and Development—more widely known as the World Bank—is one of three institutions known collectively as the World Bank Group. The others are the International Development Association (IDA) and the International Finance Corporation (IFC). They share the common purpose of providing and promoting a flow of capital into productive projects and programs, principally in the developing countries, but they function in different ways.

- The World Bank makes long-term loans at conventional interest rates; most of the projects it finances are large in scale.

- IDA lends for much the same kinds of projects, but deals with countries not fully able to bear the burden of conventional loans; its credits are made at very long term, and free of interest except for small service charges.

- IFC is concerned primarily with promoting investments in private industrial ventures.

For both the Bank and IDA, the criteria for making a loan or credit are the same: the project to be financed must make a significant contribution to the economy of the borrowing country and there must be a reasonable certainty that the loan will be repaid.

The following discussion of the World Bank Group's activities in agriculture was written for *War on Hunger Magazine* by the Bank's information staff.

## and the World Bank

No single aspect of economic development has risen so spectacularly in the World Bank Group's list of priorities in recent years as the need to increase agricultural production. Although the Bank had given considerable attention to the problem since its earliest days, three main changes have taken place during the 1960s. The first is that the emphasis on agricultural development in the developing countries themselves is much greater now than ever before. Secondly, the Bank Group's own lending for agriculture has steadily increased. Thirdly, the Bank Group has been vigorously exploring the possibilities for further lending; in the process, it has discovered and developed many more opportunities for profitable agricultural investment in many more parts of the developing world.

The incentive for the effort has come from the realization that agricultural progress is not only an important

prerequisite for balanced economic growth; in many countries, it is far and away *the* most important prerequisite in view of the serious neglect agriculture has suffered over the years. Allied to the realization is the fact that large numbers of the world's population live in conditions of extreme poverty, of which hunger is at once the ugliest feature and the surest test. For millions round the globe, economic progress has had little meaning since their most fundamental need, the need for food, has not been more adequately met.

In many countries, the economic consequences of the food shortage were for several years moderated by large-scale food aid programs, mainly those supported by the huge grain surpluses in the United States. But as those surpluses have declined, the disturbing realization has emerged that food aid is no solution to the longer-term problems of hunger in the less developed world. Those

problems are, on the contrary, being accentuated by the fact that the increase in the world's food supplies has barely exceeded the growth of population, with the result that there has at best been only a minimal improvement in living standards. What is worse, the growth of agriculture has generally been poorest in the countries where the population problems has been severest—thus raising the specter of large-scale starvation in years to come.

### Stepped Up Support

It was against this background that the World Bank Group decided some years ago to support agricultural development on a much larger scale. A broad measure of the extent to which it has intensified its efforts is reflected in the statistics. From the time the Bank opened its doors for business in the summer of 1946, until June 1962, around \$600 million or so had been lent specifically for agricultural projects. By March 1968, however, the total had risen to more than \$1,220 million. In other words, over the last six years or less, the Bank Group has lent more money for agriculture than in the previous sixteen. The trend in its lending to less developed countries underlines the point. In 1962, agricultural projects accounted for only 7.8 per cent of the total lending to such countries. In 1967, the proportion had risen to 32 per cent.

Yet even these proportions and totals do not tell the whole story. Apart from the loans provided specifically for agricultural development, much of the money given for transport, especially road transport, has gone to projects intended mainly or partly to serve the needs of farming communities. The same is true of many of the loans given for power development. Indeed, a substantial proportion of the lending in other sectors, such as industry or education, has also directly or indirectly helped agriculture.

The Bank's involvement in agriculture in the early years did not start with any preconceptions of what might be called "a grand design." Rather, it edged its way forward, picking and choosing projects of high economic priority, the aim being to concentrate on the crucial bottlenecks in a country's agricultural economy

*World Bank loan financed land improvement in Trinidad.*



that seemed particularly suitable for Bank financing. The very first agricultural loan was made as long ago as 1948; it provided \$2.5 million to Chile for imports of agricultural machinery. The loan was not untypical of what was to follow in those early years, in the sense that a large proportion of the lending, down to the late fifties, helped to finance the purchase of agricultural machinery. That was a period when there was a desperate shortage of such machinery, and of the dollars required to buy it from the main supplier of the time. The Bank's loans helped overcome the shortage and push forward the modernization of agriculture.

### Loan Scope Shifts

As the Bank's interest shifted later to the less developed countries, the scope for giving loans purely for the purchase of agricultural machinery decreased. And, in fact, no loans have been given specifically and exclusively for this purpose since 1957, although agricultural machinery continues to feature in other agricultural loans encompassing a wider range of purposes. In the second phase, broadly covering the late fifties and the early sixties, the increasing interest in the developing countries was reflected in the fact that the biggest proportion of the Bank's agricultural lending then began to go for irrigation and flood control projects. That is indeed the case even now. Irrigation has proved a particularly suitable subject for Bank Group lending, providing the farmer with what is often his most important input—a large, assured or regulated supply of water. The capital cost of irrigation projects is usually large; much of it is in foreign exchange; and that is where institutions like the Bank and the International Development Association (IDA) have found it possible to be particularly helpful.

But in irrigation, as in other spheres of agricultural activity, experience has shown that a single, narrowly-conceived project, by itself, is not enough. The idea that one has simply to build a dam across a river, and then sit back and wait for a spectacular increase in agricultural productivity, does not always work. The project has to be visualized in a broader setting, in the sense that a variety of supporting investments are required to make full use of the water resources the project might have created. Because this factor has often been neglected, many irrigation projects round the world were not giving the yields they could.

Irrigation, as such, does not always call for a fundamental change in traditional farming practices. But when new crops have to be grown, or more intensive cultivation has to be undertaken, or multiple cropping becomes necessary to make full use of new irrigation potential that has been created, radical changes from old farming methods are required. In the case of multiple cropping particularly, there may have to be a series of changes. Early-maturing crops have to be introduced. Field work has to be mechanized. The use of fertilizers and pesticides has to be encouraged. And, in support of it all, new marketing facilities have to be created, and

a larger supply of credit becomes necessary.

When such radical changes have to be organized, the knowledge of farmers becomes the limiting factor, along with the social, institutional and psychological factors governing their responsiveness to reform. So agricultural services have to be organized, and staffed with qualified personnel, to teach the farmers what to do and how to do it. The incentive to innovate has to be strengthened by providing a variety of services and facilities, and also by introducing policies that will enable farmers to see their own good beyond the risks of innovation.

The catena of changes illustrated here is of relevance not only to irrigation projects; similar changes, supported by appropriate effort and investment in related fields, are required in a variety of other agricultural projects too. The Bank Group's response to the need has, therefore, taken two main forms in recent years. The first is that it has increased its support for general agricultural development, by adopting a more comprehensive approach; while irrigation loans continue at a high level, greater emphasis has been given to other aspects of agricultural development, such as farm credit, livestock production, land settlement, seed improvement, grain storage, and training and extension work. Secondly, agricultural credit projects, in particular, have been supported more vigorously. The support is based on the realization that agricultural credit is vital for changes at what might be called the "grass-roots level" of the farmer: it can provide a large part of the resources required for the purchase of inputs such as fertilizer, as well as much of the capital required for investment on the farm itself.

The result is that agricultural credit is now the second biggest category of the Group's lending for agriculture, and its relative importance is growing. A variety of institutional arrangements have been made for channeling credit to the farmer. In Mexico, the credit has been routed through the central bank, which has then re-lent it through the commercial banks. In the Philippines, the money has flowed to the farmer through small rural banks. In Tanzania, the agricultural credit agency has relied on the strength of local cooperatives to distribute credit. A common feature, however, is that the program of lending to credit institutions does not provide them with only the money; it provides them also with extensive technical assistance for improving their organization and operations.

#### **Credit Requires Study**

The assistance has been used for strengthening the credit institutions, their direction, management, organization, staffing and operating policies and procedures. It has often been found, for instance, that lending programs have over-estimated the demand for credit, or the scope for using it effectively, by neglecting the shortcomings of the general agrarian structure or the conservatism of farmers. Alternatively, farmers have not been able to make good use of the credit because they could not get the proper technical advice. The Bank Group

has helped to fill these deficiencies in a number of ways. By arranging for expatriate assistance, it has helped to overcome the acute shortage of local personnel with experience of agricultural lending. In response to particular needs, the Bank has also in certain cases recently relaxed its policies so as to permit some local currency financing and the extension of short-term credit.

Technical assistance for pre-investment preparation or for project implementation is of course not provided with agricultural credit alone: it is offered as part of every capital aid project. Anticipating the need for it, the Bank started making arrangements some years ago with institutions already operating in the field. In 1964, an agreement was reached under which the United Nations Food and Agricultural Organization (FAO) cooperates with the Bank's Agriculture Division in helping governments bring new projects to the point where they can be considered for financing by the Bank or IDA. A special team established within the FAO for this purpose participates in the identification and preparation of projects, and in certain cases may be asked to provide technical assistance for their execution. Although project appraisal remains the final responsibility of the Bank, FAO staff members participate from time to time in Bank appraisal missions. The Bank has also been coordinating its work with the United Nations Development Programme (UNDP) and the FAO in cases where studies financed by the UNDP might lead to Bank Group financing. Similar cooperation has been established with the United Nations Educational, Scientific and Cultural Organization (UNESCO) for the preparation of educational projects, some of which are intended directly or indirectly for the benefit of agriculture.

The Bank Group has thus diversified the nature of its agricultural work in terms of studies, pre-investment surveys, project preparation, and lending. The work has also been extended to many more parts of the world than was the case a few years ago. Until recently, most of the Bank's agricultural lending was concentrated in a relatively small number of countries. Pakistan and

*(Continued on page 12)*

*World Bank affiliate financed irrigation in Pakistan.*



# SCARP I

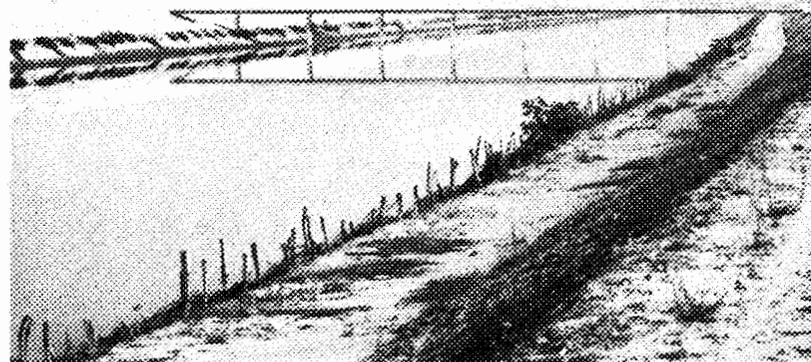


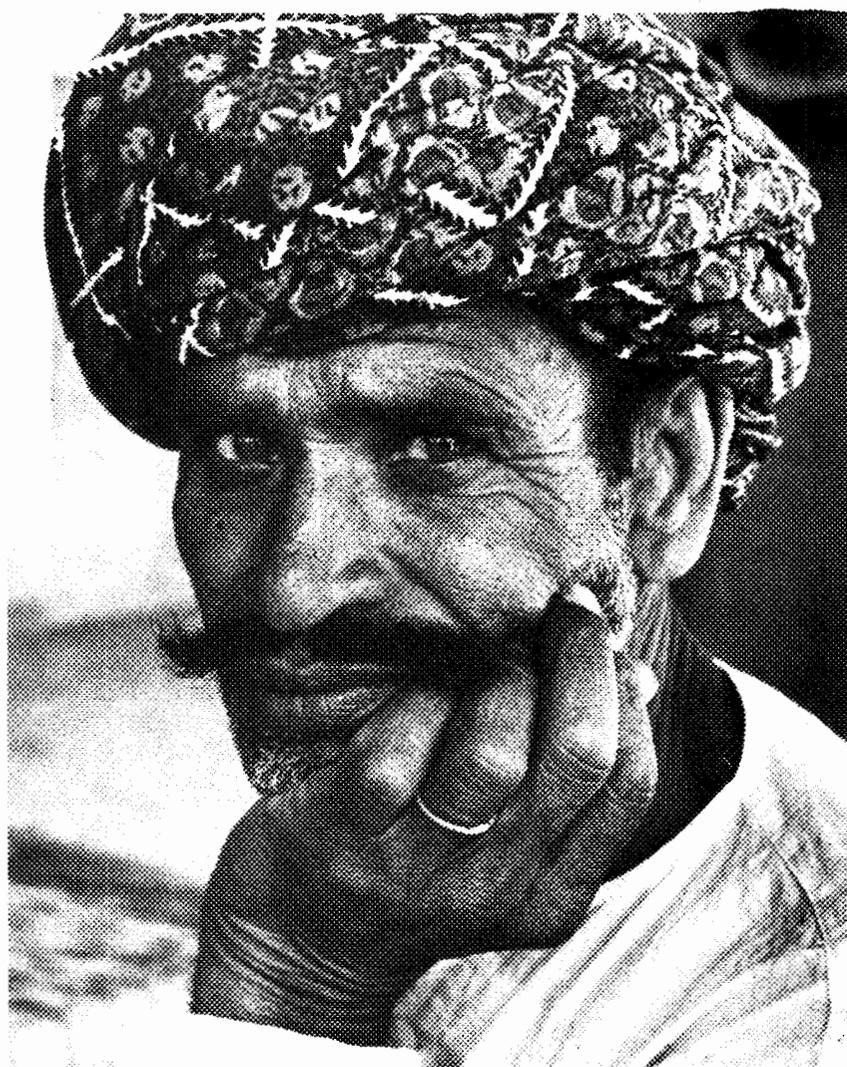
In the Indus Plain of Pakistan, where land was formerly lost at the rate of an acre every five minutes — or about 100,000 acres a year — the trend is now being changed by a Salinity Control and Reclamation Project.

The first of four such projects, SCARP I used a \$15.2 million AID loan to install and electrify some 2,000 tube-wells, thereby reclaiming 245,000 previously lost acres. The four SCARPs now under way cover a total of 4.6 million acres.

The photos on these pages give some impressions of life in the SCARP I area. Reading clockwise from upper left corner:

- Willet Keyser, AID area extension advisor for SCARP I, discusses cattle raising with a Pakistani friend. The cattle are tethered and fed at various points in the fields; when the fields are sufficiently fertilized they will be plowed and sown.





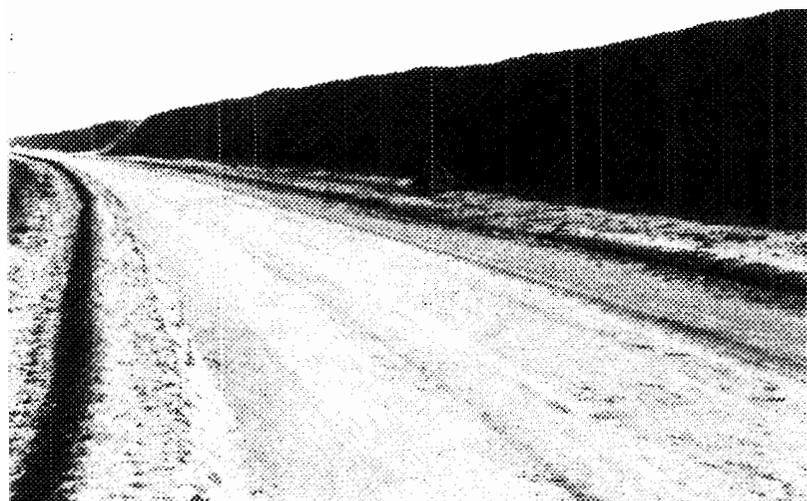
● These men, engaged in sawing a plank from a heavy beam, exhibit the ingenuity often displayed by artisans in developing countries who must work with their hands and the crudest of tools.

● A Pakistani farm worker caught the photographer's eye because of his "interesting blend of the Oriental and European, with dark hair and blue eyes."

● SCARP will make land like this once again capable of bearing crops for Pakistani farmers.

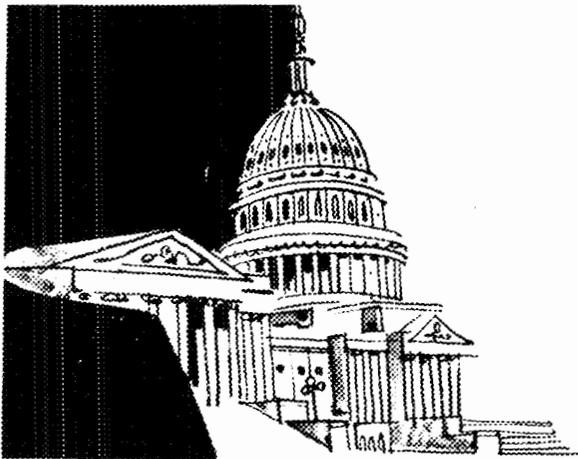
● Canals like this one furnish the water that is bringing the Indus Plain back to life.

● Willet Keyser visits the site of a well drilling rig in West Pakistan. These farmers are putting down a modern tube well. In SCARP I areas where such wells have made water available for the first time, increases in agricultural production up to 300 percent have been achieved.



Photos: Carl Purcell for AID.

# WAR on HUNGER on the HILL



Three leaders in population and family planning activities were heard by the House Committee on Foreign Affairs on April 24, 1968. Testifying on the Foreign Assistance Act were General William H. Draper, Jr., National Chairman of the Population Crisis Committee; Dr. Louis M. Hellman, Chairman of the Department of Obstetrics and Gynecology at the State University of New York in Brooklyn, and Chairman of the Food and Drug Administration's Advisory Committee on Obstetrics and Gynecology; and Dr. W. M. Myers, Vice-President of The Rockefeller Foundation for Agricultural Sciences and Medical and Natural Sciences.

#### GEN. DRAPER:

The last year has shown a real awakening on the part of governments, private organizations, corporations, and individuals to the terrible and growing threat of the population explosion, together with a new willingness to do something about it. . . .

But the problem is still far from solved. Population growth averages 2.5 percent each year in the developing countries and up to 3.5 and 4 percent in parts of Latin America. Food production in this decade has been increasing by barely 1 percent.

Death rates are still falling in many developing countries as disease eradication and better health knowledge spread. Unless birth rates can fall even more rapidly, the so-called Development Decade of the 60's may well give way to a Decade of Starvation in the 70's. Or, equally alarming, the human race may face a future in which a large percentage of its members will face permanent mental and physical retardation because of constant, inescapable malnutrition and protein deficiency. . . .

Family planning as a part of our overall economic assistance to developing countries has been given a very high priority both by the Congress and by the Executive Branch. There is no question in my mind that substantially lower birth rates are a necessary element or catalyst in bringing about satisfactory rates of economic

development. However, lower rates of population growth cannot by themselves solve the many agricultural and industrial problems faced by the "have-not" nations, nor will they alone bring about satisfactory economic progress. It is essential that programs for improved education, agriculture and industrialization also be carried out if the developing countries are to share in the prosperity that modern technology makes possible. While population programs must continue to have high priority and to expand steadily, I nevertheless believe that our national objectives throughout the developing world can only be achieved with a strong program of overall economic assistance.

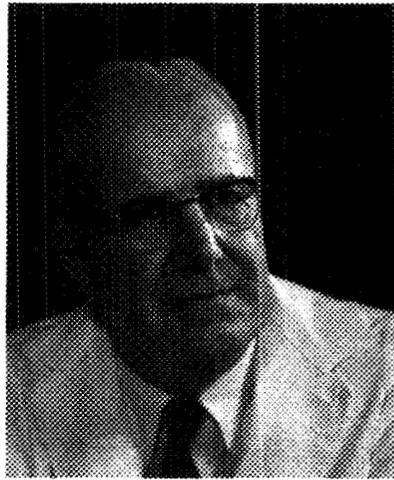
#### DR. HELLMAN:

The development of modern contraceptives during the last decade has fostered a vastly accelerated interest and acceptance of family planning. From the split levels of American suburbia to the ghettos, from the rural huts of India to the nomad tribes of Iran, many, many parents want better control over their family size. Especially in developing countries, there is awakening realization among the people that each small advance in the standard of living is cancelled by uncontrolled fertility.

. . . We live in a world where half the population and two-thirds of the children are not properly nourished. As epidemic diseases are controlled, population pressure builds up. . . . High fertility adds to the economic and social stresses of life, while at the same time, high fertility subtracts from the physical and mental ability of mother and child to handle these stresses. A new baby every year or two usually means an anemic, chronically debilitated mother and a malnourished, neglected, and unhealthy infant. Whether the permanent physical and growth retardation found in malnourished children also carries over to permanent mental retardation, we are not yet sure. The evidence suggests that it does. In my own judgment, at any rate, the potential benefits of widespread family planning using the methods presently available to us plus the willingness of women in developing countries to accept family planning when offered



*Gen. William H. Draper*



*Dr. Louis M. Hellman*  
© Karsh, Ottawa



*Dr. Will M. Myers*  
*Rockefeller Foundation Photo*

through a sympathetic and well administered program adds up to a very clear justification for more activity in this field.

. . . Family planning programs offer tremendous health and economic benefits. I strongly urge that the Congress provide adequate funds to assist family planning programs at a meaningful level now.

DR. MYERS:

Population and food are the two most crucial problems which face mankind today. Unless these problems are solved, all other efforts to build a better world in which to live will come to naught. What we do on these problems, on a worldwide basis, during the next decade will be a critical determinant of the kind of world our children and our children's children will have to live in. Certainly uncontrolled and explosive population increases place a growing and potentially intolerable burden upon world resources, upon social organization and maintenance of law and order, upon educational institutions and public health systems, upon the extractive processes which ultimately provide consumer goods, and most immediately upon food supplies. The evidence is clear that the battle can be lost if growth in population continues unabated. . . .

Contrary to general belief, millions upon millions of women in disadvantaged areas seize with great eagerness opportunities to plan their families in a rational and safe fashion. In the more industrialized nations, women of all nationalities and faiths have, on their own initiative, practiced contraception in accord with their own choice. It is the disadvantaged who are the last to receive the benefits of family planning and this is true both within and among nations. In desperation, undue numbers of such underprivileged women have turned to abortion—self-induced or at least illegal—with detrimental and often lethal results.

It would be a mistake to take comfort and become complacent because of the fact that there are now available newer and better methods of contraception such as the intra-uterine devices and the contraceptive pills. Although these developments have added a new

dimension to population control programs, they are by no means the whole solution to the world's population problem. It is clear that, in addition to extensive and intensive efforts to gain general understanding of the population problem and to extend the usefulness of the currently available contraceptives through family planning programs, we must expand research efforts that will lead to the development of even better techniques for population control which can more easily be extended on a mass basis.

Even if current efforts in family planning and population control are increased manyfold, it is to be expected that a considerable period will elapse before there is a substantial lowering of birth rates worldwide and certainly before a stabilization of population numbers has been attained. With the most optimistic assumptions regarding control, it is probable that food production, worldwide, will have to be doubled in the next two or three decades simply for people to be as well-fed as they are now. Today we face a paradox of growing numbers of those who are better fed than before but still larger numbers whose diets are totally inadequate to support health and energy. Per capita food production has increased very little on a worldwide basis, and in many nations there has in recent years been actual decrease. The gap between the per capita food supplies of the developed countries and those of the lesser developed countries is widening.

. . . We do now know how to double and perhaps even treble the food production of the world in the years ahead. In some cases the technological basis is already available. . . . If we can double or treble food production over the next two or three decades, we will be buying time for population control programs which, as we have already pointed out, are equally urgent to stabilize world population. If we do not push ahead on both programs—population control and food production—with greatly increased resources from public and private sectors, both of the developed and the developing countries, the battle may yet be lost.



## **World Bank from page 7**

India (including the Indus Basin Development Scheme) headed the list. The others included Mexico, Malaysia, Thailand, Morocco, Peru, Brazil, Colombia and Iran. But the Bank Group now has some kind of agricultural work in progress in sixty countries.

### **Africa Work Increases**

A notable feature is the increase in its work in Africa. In 1965, permanent regional missions were established in Nairobi and Abidjan, primarily to assist governments in East and West Africa in the identification and preparation of agricultural and transportation projects for presentation to the Bank and IDA. Members of these missions are available to advise governments both on general policy issues in connection with projects and on practical problems that arise in their preparation. The mission in Abidjan also offers assistance to the African Development Bank. The Bank's Agriculture Development Service (ADS), based in Nairobi, is helping to overcome the shortage of qualified managerial personnel by making managers available to governments for agricultural projects on a reimbursable basis. Elsewhere, notably in the Western Hemisphere, the Bank has employed on contract a number of technical managers who have been seconded to governments to help implement projects which the Group is financing. The demand for such services has been substantial, and is increasing. A special mission organized by the Bank has recently finalized a long-range study of experiences with the development of agriculture in tropical Africa. The study has endorsed the concept that the Bank should in certain circumstances be prepared to finance recurring expenditures as well as capital investments.

It is a sign of the Bank Group's efforts to increase its contribution to agricultural development that at the end of 1963 nine agricultural projects were being appraised or negotiated, and another 19 were in various stages of identification or preparation. The corresponding figures now are 34 and 47. There was a time, not long ago, when agricultural lending was restricted by the fact that not enough sound and well-conceived projects were forthcoming. Although the shortage has not been eliminated, the situation today is that a number of projects are held up by the lack of suitable financing facilities, such as those which could be provided by the replenishment of the International Development Association's resources.

### **Stress Put on Fertilizer**

An important aspect of the Bank Group's interest in agricultural development is the much greater emphasis given in recent years to the need to increase fertilizer production in the developing countries. The Bank Group has helped finance a number of fertilizer ventures, particularly through the International Finance Corporation (IFC), which is concerned with promoting the flow of investments into private productive enterprises. In addition to four ventures in the fertilizer field, the IFC has taken part in financing nine private ventures directly involved in the production and proc-

essing of food. It has put its money into cattle-raising, grain storage, sugar production, sugar refining and flour milling, as well as into several food canning and processing activities aimed at production for both domestic and export markets. These ventures, together with the four fertilizer projects, include all the lower income regions—Latin America, Africa and Asia. Fertilizer is occupying more and more of IFC's attention. In 1966/67 it got more of the Corporation's money than any other business.

Stronger emphasis is being given to fertilizer manufacture because, with an adequate water supply, fertilizer yields results quickly and on a sustained basis; it also has a marked demonstration effect. Used in conjunction with other inputs, such as the high-yielding plant varieties, it promises major increases in farm productivity. This is an area in which the less developed countries lag far behind North America, Europe and Japan. The amount of fertilizer used by farmers in developing countries is generally very low; their agricultural productivity, consequently, is also low. But as a result of the investments in irrigation, drainage and flood control, the area of land which can be intensively cultivated is increasing. The demand for fertilizer promises to rise rapidly as intensive farming methods are adopted—with more adequate water supplies, multiple cropping, and the introduction of plant varieties which are responsive to the application of fertilizer. At the same time, the prospects for producing more fertilizer more cheaply are improving, for two main reasons. One is that the fertilizer industry has made major technological advances over the past decade and more. The second is that new sources of raw materials for fertilizer manufacture have been discovered within the developing countries themselves.

The Bank Group has taken the position that if the fertilizer needs of the developing countries are to be met, they will need to supplement their own resources by drawing on the capital, the technical skills, as well as the marketing and management know-how, of the major international oil, chemical and fertilizer companies. Their experience in establishing fertilizer manufacture on a profitable basis, and their knowledge of distribution and marketing techniques, are directly relevant. In an industry involved in more or less continuous change, such companies can provide access to the latest technology. And through training programs, they can make possible the transfer of valuable skills to the developing countries. Finally, the risking of their own funds by direct investment ensures careful appraisal of the economic and business soundness of the projects. Given full cooperation between private investors, government and the international financing agencies, there is a strong possibility that the developing countries could over the next ten to fifteen years produce the fertilizer they need to increase their food supplies. That is a task to which the Group as a whole, and IFC in particular, is now devoting a large part of its energies.

# A Visit to India

## Food for Freedom Officer Reports on Huge Operation

The objectives of Title II of the Food for Peace Act are being reached in a steady and encouraging fashion, Mrs. Gladys M. NaDeau, an AID Food for Freedom Program Officer, reported recently.

On her return from a temporary assignment in India Mrs. NaDeau said that food shipped from the United States is reaching the needy, that the source of the food is recognized, and that the recipients are most grateful for this help extended by the people of the United States.

"From the infant to the aged," she wrote in a report on her assignment, "Title II foods are helping to build sound bodies and stave off hunger and disease. For the needy who are able to work, food is helping to build a better life through self-help projects in community and economic development. Despite the pockets of administrative and operational problems, I feel that both the American voluntary agencies (CARE, Catholic Relief Services, etc.) and the local cooperating governments are taking their roles seriously and are doing commendably well under all sorts of odds."

Of the AID Mission in New Delhi she writes, "I was unprepared for the ever-mounting size of the Delhi workload. The phones rang, the mail piled up, and voluntary agency representatives and Indian officials came and went—all with problems that required immediate attention."

Mrs. NaDeau's report continues:

Before leaving India, I had an opportunity to observe some of the food distribution programs. Arriving in Madras, I met the CARE representative who showed me the port operation all the way from off-loading from ships, checking, storing and accounting, to trucking out to distribution centers. This was an amazing operation. From the salvage of damaged commodities to the final discharge to distribution point by truck, there is next to perfect handling of this enormous task. Loss is comparatively nothing. It is only a few water-soaked bags, leaky cans, weevils and the like that Washington hears about. These millions upon millions of pounds of food that flow freely around the world without damage or loss are simply taken for granted. There is no report required on 'mission satisfactorily completed.'

### Lunches for 11,500

At a school kitchen about 15 miles from the center of the city, I observed U. S. food being prepared centrally for trucking later to individual schools to serve lunches

to 11,500 children. This pilot operation was being carried out by CARE in cooperation with the local government.

Under the supervision of a Peace Corps worker, the food was cooked in large vats, then scooped into large insulated cans in sufficient quantities to feed the number of needy children at each school. It was then loaded on trucks and sent out in time to be offloaded at each school, hot and ready to serve. When the driver reached the end of the line he rested and retraced the route to pick up empty cans. The cans were returned to the kitchen, washed, drained and stored away for the next day's operation.

The Central Kitchen idea is working. The extent to which it can spread successfully to other areas is yet to be determined. Phil Johnstone, the Madras CARE representative, has put a lot of "sweat and tears" into the idea and deserves credit for the foresight and ingenuity to mount the trial program.

### Food-for-Work Results

Later, in Madras, I was joined by Mr. Samuel Isaac for a briefing on the work being carried out in Madras State by the Church World Services. Accompanied by CWS representative, D. W. Dorairaj, I took off for about a 40-mile ride into the barren countryside to visit food-for-work projects.

With little more than their hands the villagers had dug 45 wells, built 108 miles of roads, built a school with a protective rock wall around it, and for once in their lifetimes were seeing some hope for a future. All of this had cost the United States about one million pounds of food for 1,500 needy beneficiaries. For the workers it had meant many long days of sweat and toil—but most of all it meant hope, because with water and roads they can now enjoy a better existence.

As I arrived back at the desk in New Delhi, that pile of paper took on new meaning. I could even see as far as the desk piled high in Washington. The Food for Freedom Program, despite all its administrative problems, was really reaching people in need. Multiply Madras by the rest of India and then multiply India by some 100 other countries receiving food aid and try to visualize the results. It certainly makes a few weevils here, a little diversion over there and poor management here and there seem infinitesimal.

India was a real eye opener both from the standpoint of need and accomplishment.



# Progress . . .

Under this heading, *War on Hunger* presents from time to time reports from the field on the status of AID

programs and projects. The three following reports were prepared by AID's Africa Bureau.



*AID Entomologist Channing Frederickson (wearing peaked cap) watches sprayer being loaded to fight tsetse flies in Hadeja River Valley, Nigeria.*

## Eradication of Tsetse Flies

AID-sponsored programs to control the tsetse fly, which spreads disease to thousands of Africa's cattle, have scored significant successes in Nigeria and Uganda.

Improved spraying techniques introduced by AID technicians have eliminated the disease-carrying flies from the 150-mile long Hadeja River Valley in northeast Nigeria. Observing that the tsetse flies concentrated on high ground when the river flooded during the rainy season, the technicians advised the Nigerian government to spray the high ground during floods. This new approach made the spraying program much more effective; and after four years, in 1967, the valley was free of flies.

In Uganda, where the flies are brought into grazing areas by wild animals, AID helped the Ugandans

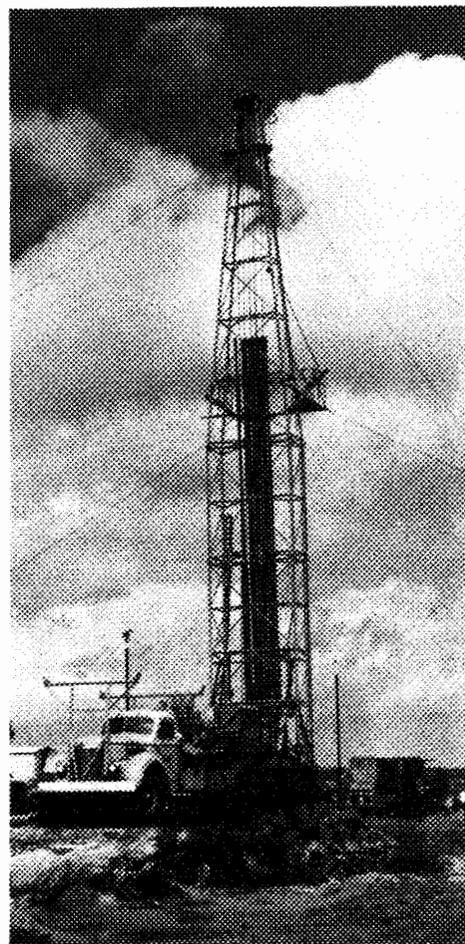
to clear 230 square miles of brush in the southwest part of the country, and make brush barriers to keep the wild animals out of the area. By 1967 control of the flies was so effective that the 1966 cattle population in the protected area had doubled, to nearly 9,000 head.

Control of the tsetse fly is of special importance in Africa, where the average farmer, with a yearly income of less than \$125, will probably never own, or even have the use of, a tractor. In the protected areas, farmers can now use cows to pull their plows—something that disease made impossible before. These farmers can increase their crop output, gaining higher incomes and more food for their families. They can also raise cattle for food, vitally needed for people whose daily diet includes only about two ounces of meat, fish, or poultry.

## More Wheat in Tunisia

Water from 50 wells dug with AID assistance is enabling Tunisian farmers to irrigate their wheat fields for the first time. Without irrigation, farmers in northern Tunisia earned an average of \$30 per acre in dry-wheat farming; irrigation increased earnings eightfold.

AID has demonstrated improved farm techniques to hundreds of wheat farmers at 32 test plots scattered through Tunisia. Next year AID and Rockefeller and Ford Foundation advisors will supervise the growing of improved wheat varieties from Mexico on more than 30,000 acres. In five years farmers using the new seed are expected to grow three bushels of wheat for every two their land produced before. The increased output will end the country's dependence on imported wheat. Tunisia produced 500,000 tons of wheat in 1967, but had to import 100,000 tons.



*This heavy-duty rig was used to drill 50 wells in northern Tunisia, providing water to irrigate wheat fields.*



*Bodie A. Wilson, AID Soils Advisor, shows members of the Western Nigeria Ministry of Agriculture and Natural Resources techniques used in soil conservation.*

### Better Farm Methods in Nigeria

Improved agricultural methods demonstrated by AID to more than 200,000 farmers in northern Nigeria have resulted in increased production of several major crops.

The main crop of the area, peanuts, reached a record one million tons in 1967, up 7 percent from 1965-66, and 17 percent over 1962-63. Use of fertilizers increased from 8,000 to 65,000 tons in four years.

The average income per acre with the improved agricultural practices showed these increases per acre over control plots where the new methods were not utilized: peanuts, \$20; sorghum, \$10; rice \$10; millet, \$5.50.

Not reflected in the statistics has been the impressive success of AID-trained Nigerian technicians in instilling a progressive outlook in farmers in remote villages. Key elements in this success have been (1) positive support by local authorities; (2) the use of cheap, easy-to-handle "packages" containing small quantities of improved seed and fertilizer in demonstrations on the land of individual farmers; and (3) the personal day-to-day direction of the program by six AID advisors residing in the provinces.

## In Print

### Recent Publications of Interest

*The Population Challenge*, Agency for International Development. Available from the Reports and Information Staff, Office of the War on Hunger, AID. 16 pages, illustrated.

A general pamphlet describing in non-technical language the population problem in the less-developed countries, AID's policies and assistance programs, and efforts of several key countries to reduce their population growth rates.

\* \* \*

*U. S. Foreign Aid and the Alliance for Progress*, 84 pp.

*U. S. Foreign Aid in the Near East and South Asia*, 44 pp.

These two booklets, published by the Agency for International Development, are extracted from AID's *Program Presentation to the Congress* outlining the President's foreign aid request for Fiscal Year 1969 by regions. Two additional booklets, on U. S. Foreign Aid in East Asia and in Africa, will be published shortly. Available from the AID Information Staff.

## IN BRIEF

### Workshop in Djakarta

A panel of 27 U. S. scientists participated in a workshop on food in Djakarta, Indonesia, May 27-June 1. Co-chairmen were Frederick Seitz, President of the National Academy of Sciences, and Sarwono Prawirohardjo, President of the Indonesian Institute of Sciences.

Other agricultural leaders taking part in the workshop came from Japan, the German Federal Republic, Australia, the Philippines, Malaysia, The Netherlands, and India, as well as representatives of various international organizations.

The workshop was conceived by the Indonesians to study how their country's scientific and technological resources could best be mobilized to support the highest priority goal—food production—in their five-year plan scheduled to begin in January. The report of the President's Science Advisory Committee, published by the White House last year, was selected by Indonesian scientists to serve as the basic guideline for the discussions.

Support for the workshop came from the Agency for International Development and a number of other U. S. government agencies, private foundations, and the Government of Indonesia.

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### Indus River Dam Site

The world's largest earth and rock-fill dam will be built on the Indus River, West Pakistan, to supply the country with irrigation water and electric power.

An international agreement setting up the Tarbela Development Fund to provide nearly \$500 million of external financing for the project has been signed by representatives of Canada, France, Italy, Pakistan, the United Kingdom, the United States, and the World Bank. The Tarbela Dam Project is scheduled for completion by early 1976. Total cost is estimated at \$827.5 million.

## IN BRIEF

### Disaster Relief

Victims of the eruption of Mayon Volcano, in the Philippines, have received 1.3 million pounds of U. S. Food for Freedom. The food was distributed by the Catholic Relief Services, the Church World Service, and the Seventh Day Adventist Welfare Service.

Mayon, on Luzon Island, had been inactive for almost 21 years. Area residents were forced to leave their homes by sulphuric ash thrown up to heights of 40,000 to 60,000 feet. Officials designated a five-mile circular area as the danger zone. About 19,000 persons took refuge in evacuation centers after the eruption in April.

In Burma, the AID Mission arranged for the airlift from Boston of 25,000 cotton blankets for victims of a cyclone that struck in the Pauktaw area in May. Latest figures from the disaster area showed 862 known dead, at least 400 other persons feared dead, and 36 villages and 6,000 head of cattle destroyed.

### 3-3-3-33 for Families

Dr. Chou Lien-pin, deputy director of Taiwan's Health Department, advocates a 3-3-3-33 formula for marital bliss and planned families.

The formula is based on marriage at what Dr. Chou considers the ideal age—24. The best time for a first child is after three years, and the second and third should come at the same intervals, with the third and last child arriving in the mother's 33rd year.

Dr. Chou believes 3-3-3-33 could reduce Taiwan's birth rate from 3.2 to 1.2 percent.

\* \* \*

### AID Buys American

In Fiscal Year 1967, 96 percent of all commodities financed by the Agency for International Development were purchased in the United States, AID has reported.

Foodstuffs and feeds and fertilizers for War on Hunger programs in developing countries accounted for \$153,666,000 for the period. These

commodities do not include Food for Freedom. Of the amount, \$135,158,000—about 90 percent—was spent in the United States.

The overall figure of 96 percent of foreign-aid commodities purchased in the United States is a record high, a gain of six percent over the previous fiscal year. AID funds paid for \$1.4 billion in commodities in FY 1967, of which \$1.35 billion was from the United States.

\* \* \*

### Hybrid Barley

The first successful hybrid barley has passed field tests in nine locations in Arizona, the U. S. Department of Agriculture and the University of Arizona have announced.

Agricultural scientists called the development a research breakthrough that promises greatly increased yields per acre. The new breeding technique is considered to be even more significant, since it makes possible the hybridization of two of the world's important food crops, rice and beans. Department of Agriculture scientists estimate that application of the new technique to such crops could boost the world's food supply by as much as 10 percent.

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## Quotes

"These days it's a rare pleasure to meet an optimist, and William S. Gaud, Administrator of the U. S. Agency for International Development (AID) certainly qualifies as one of those with his prediction . . . that India and Pakistan soon may be able to raise all the wheat they need to feed themselves. \* \* \*

"This rates as good news, if true, even though providing gift wheat (paid for by the American taxpayers) for Pakistan and India has been an important source of business for Pacific Northwest farmers and shippers. An industry based on charity and total public subsidy can never

be a completely sound one. Northwest wheat farmers themselves have done an outstanding job in developing a cash market for wheat in Asian countries, like Japan and the Philippines, that can afford to pay for it. . . . Over the long haul, the more gigantic market of India and Pakistan might become an even larger outlet for American products—if not of wheat, then of other things. But not if starvation keeps them on the ragged edge of bankruptcy and revolution."

Oregon Daily Journal  
April, 1968

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"In the less developed world, change is the fundamental fact of our time. The developing countries have determined to fight their old enemies: hopelessness and poverty. They can have no hope of success in this fight, no matter how great their efforts, without adequate assistance from the wealthy nations of the world. We must choose between providing that assistance or destroying the hope of peaceful change.

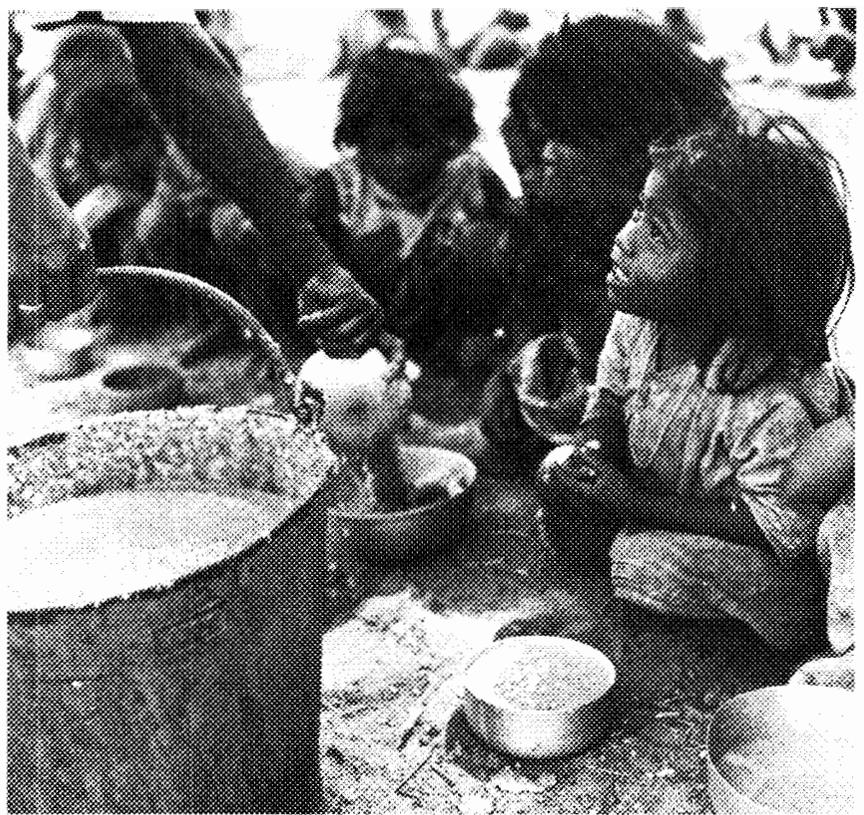
"Some say we should postpone or eliminate foreign aid because of the cost of our efforts to help defend freedom in Southeast Asia. But the freedom and progress of hundreds of millions of other Asians, of 250 million people in Latin America, and of 260 million people in Africa also engage our concern and are directly related to our own security and well-being.

"I find it hard to accept assertions that we cannot afford to devote a fraction of one percent of our Gross National Product to building a safer and more prosperous world by helping other nations to make peaceful progress.

"In many of the less developed countries, development has been gaining in momentum. If that momentum is reversed, the consequences for our prosperity and for the peace of the world could be disastrous."



Dean Rusk  
Secretary of State



## UNICEF Fights Malnutrition

Malnutrition can exist even where soil, sunshine, and rainfall make good crops possible — if the people do not know how to use their resources. In South America, UNICEF has helped local governments in their campaigns against malnutrition. Photos at left show some of the results “in the field” in Paraguay (above) and in Ecuador (below), where children are learning to raise nourishing food for themselves and their families. In India, relief work by UNICEF and other international agencies and church groups enabled millions to survive the drought of 1966-67. Above, a little girl receives her daily bowl of CSM, the nourishing blend of corn, soya and milk. Below, a little boy revels in fresh, clean water as a UNICEF drilling rig finishes its work.

—UNICEF photos.



