



SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN
FOR THE
OPIUM PRODUCING AREAS OF PAKISTAN

GOVERNMENT OF PAKISTAN, PLANNING COMMISSION
ISLAMABAD
NOVEMBER 1983



26 JAN 1984

Telegram : ECONOMIC
Telex : ECDIV No. 05-834
SECRETARY-GENERAL,
Phone No. 20829.

Islamabad, the 25th January, 1984.

**SUBJECT:--SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN
FOR THE OPIUM PRODUCING AREAS OF PAKISTAN.**

Dear Mr. Rama,

You will recollect that Pakistan presented to the Special Consortium Meeting held in December, 1983 in Paris, a project entitled "Special Development and Enforcement Plan for the Opium Producing Areas of Pakistan" for financing by the members of the Aid-to-Pakistan Consortium. Most of the members who spoke on the subject endorsed the Special Plan for the Opium Producing Areas of Pakistan and indicated their willingness, in principle, to participate in the financing of this Plan. The representative of the United Nations Fund for Drug Abuse Control who was also present in the meeting welcomed the project and expressed the Agency's interest in participating in the execution of the Plan.

2. The Special Plan covers five poppy growing areas in the North West Frontier Province of Pakistan. This Plan complements some other development projects which are at present in hand in the poppy growing areas of the Province with external assistance.

3. Since the Paris Meeting, G. O. P. has been discussing with the potential donors the modality of implementing this Special Plan. The consensus with which the G. O. P. agrees, seems to be that the UNFDAC should be the coordinating agency for the implementation of this Plan, with other donors making their contributions to the funding of the Plan.

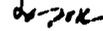
4. I shall be grateful if you will kindly contact the UNFDAC and request that agency to let us know if they would be willing to take up the implementation of this Plan under their umbrella and act as the coordinating agency. We would also require their financial and technical assistance in setting up the Special Development Unit for poppy cultivating areas of the Government of NWFP.

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5. If necessary, some officials from the UNFDAC headquarters may be invited to visit Pakistan in the near future to discuss in detail with the G.O.P. the modalities of implementing this Special Plan.

6. Needless to say that the G.O.P. attaches the highest importance and priority to the eradication of opium poppy cultivation in the country.

Yours sincerely,



(EJAZ AHMAD NAIK)

Mr. Himalya S. Rana,
Resident Representative,
UNDP,
Islamabad.

**SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN
FOR THE
OPIUM PRODUCING AREAS OF PAKISTAN**

**Section I
Framework for the Plan**

November 18, 1983

14

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SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN
FOR THE
OPIUM PRODUCING AREAS OF PAKISTAN

INTRODUCTION

The Government of Pakistan is firmly committed to the elimination of opium poppy production within its borders. All opium production has ended in the major irrigation systems. Three ongoing projects supported by donors are combining development initiatives with enforcement of the poppy ban in remote rainfed areas of the Northwest Frontier Province. There remain other isolated areas as yet unreached by development benefits where poppy remains the major or sole cash crop, or could easily be introduced or reintroduced. The Special Development and Enforcement Plan is intended to focus Government of Pakistan efforts, with donor assistance, to eradicate centers of poppy cultivation and to prevent the resurgence or introduction of opium production in non-producing areas.

The Special Development and Enforcement Plan (SDEP) for Opium Producing Areas complements the Special Development Plan for Tribal Areas which has been prepared for donor funding. The SDEP focuses on specific areas where poppy is or might be grown. Development activities will impact directly on farmers through support to agriculture extension, watershed management, access and feeder roads, small irrigation systems, health and education. A significant proportion of the total funding is designed to

support local development initiatives selected by elected district or union councils or appointed agency or tribal councils. Major infrastructure projects are reserved for the tribal areas special plan.

The SDEP is comprised of two sections. The first provides the framework for the Special Development and Enforcement Plan and presents a summary of the projects proposed for first phase funding. The second, bound separately, details development prospects for some specific locations of actual or potential poppy cultivation. Donors are invited to contribute to the formulation of more specific plans and to make onsite investigations of recommended or additional development initiatives.

**SECTION I. THE FRAMEWORK FOR THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN**

Background of Opium Poppy Production in Pakistan

While opium poppy has been grown in Pakistan for more than 80 years, it was not widespread until the end of the Second World War. Opium production was licensed in some areas and grown illegally in others. With the dramatic increase in the farmgate price of opium in the spring of 1978, the following year's crop produced an estimated record of 800 metric tons, produced on more than 30,000 hectares, all within the Northwest Frontier Province (NWFP). The drop in price resulting from this level of production coupled with unfavorable weather conditions and significant enforcement measures in settled areas, described below, reduced the 1979-80 crop to an estimated 100 tons.¹

Continued reduction in area under poppy cultivation has occurred as a result of development projects linked with enforcement in NWFP, substantially aided by a steady fall in the farmgate price. The 1982-83 crop was estimated to encompass approximately 3,000 hectares, sufficient to produce 75 tons at an estimated average yield of 25 kilograms per hectare.² In 1983,

¹ Pakistan Narcotics Control Board (PNCB), "Extension of Drug Abuse Control Programme in Pakistan (Priorities and Projections)", Islamabad, November 1980, (mimeographed) page 5.

² Hectarage figures for poppy cultivation are estimates. Utilizing data from PNCB and estimates from the Gadoon Amazai Project, Pakistan may have between 2,000 and 4,000 hectares under cultivation. Yields of opium well below 25 kilograms per hectare have been reported in some areas.

however, the price increased and weather conditions were excellent. Enforcement measures to deter planting of the 1983-84 crop will require considerable government resources. Thus, in spite of the success of past reduction efforts, completing the program of poppy elimination remains a formidable task.

It is also important to ensure that new centers of poppy production do not arise as presently existing centers are eliminated. Farmgate prices can be expected to rise as the government's program is successful in reducing available supplies. Areas of NWFP that are ecologically similar to existing production centers in Gadoon, Buner, Malakand and Dir exist in Mansehra Tribal Area, Chitral, Kohistan, and within the Federally Administered Tribal Areas. The Special Development and Enforcement Plan considers potential as well as actual poppy cultivation and includes as targets for development areas where the government has limited access and control.

Enforcement of the Ban on Opium Production

Pakistan ratified the 1961 Single Convention on Narcotics Drugs and the 1971 Accord. In 1973, the Pakistan Narcotics Control Board (PNCB) was created under the Ministry of Interior to coordinate, supervise, and execute Federal government policy in narcotics matters. PNCB has been active in encouraging special development projects in poppy growing areas, in supporting detoxification and health facilities for opium addicts and in the identification and apprehension of illicit drug traffickers.

In 1979, the Government promulgated the Prohibition

Ordinance (Enforcement of Hadd) which brings the drug laws of the country in conformity with the injunctions of Islam. This order was strengthened by a ban on poppy cultivation. Following the ban, the government took steps to end poppy cultivation in settled districts and in major irrigation systems. Within one year this enforcement, helped by weather and lower prices, reduced production by a factor of eight in Pakistan.

Enforcement of the ban in areas that are governed by special treaty arrangements in the Federally Administered Tribal Areas (FATA), within Provincially Administered Tribal Areas (PATA), and in ex-tribal areas that have been merged into settled districts, has been more difficult.³ Poppy flourishes at 500 to 2,000 meters, on mountains in NWFP (such as Gadoon and Malakand described below) or in high plains and northern valleys, as in Dir.⁴ In these remote and isolated regions there are few benefits of modernization. The population generally has access only to marginal non-irrigated land with limited economic alternatives. With its high labor demand at harvest and its value as a profitable and easily marketed and stored crop, opium has remained an important element, sometimes the basis of these local economic systems.

To develop alternative income opportunities and to ensure that enforcement of the opium ban can be carried out at reduced

³ See the Directory of Terms for definitions of FATA, PATA, and "merged."

⁴ Poppy can also be grown under irrigation in the settled plains, but this production has ended.

hardship to farmers and at reasonable cost, the Government of Pakistan is requesting grant assistance from donors. When such assistance has been forthcoming in the past, enforcement of the ban has taken place, or is scheduled to take place, in consonance with a schedule of development interventions.

Summary Description of the Three Ongoing Opium-Elimination Projects

The Buner Agricultural Pilot Project was officially inaugurated in 1976 and renewed in 1981. This joint effort of the Pakistan Narcotics Control Board and the United Nations Fund for Drug Abuse Control (UNFDAC), with the association of several other UN Agencies, began accumulating knowledge necessary to promote development in poppy-growing areas of NWFP. The implementing arm of the project consisted of specialists detailed to PNCB by the NWFP Government and supported by UN-provided expatriate experts. Located in the valleys of southern Swat District, the project included water development (tubewells and irrigation system upgrading), land leveling, crop substitution, agricultural credit, support for livestock and poultry improvements, a vocational training workshop, road improvements, and a treatment center for opium addicts.

While the development benefits were not as numerous or as widely distributed as hoped for, the government, in 1982, enforced the poppy ban. By 1983, in an area where at its peak 3,630 hectares had been cultivated by more than 14,000 farmers, poppy is no longer grown. The project continues to expand alternative economic prospects for the area's population to

lessen economic losses caused by continuing enforcement of the ban and to prevent the re-establishment of poppy cultivation.

The Malakand Agricultural Development Project is located in the Malakand Agency where opium poppy was well entrenched, with 240 to 325 hectares estimated to have been under cultivation in 1982. Supported by the International Narcotics Matters Bureau of the U.S. Department of State, in conjunction with PNCB and the Government of NWFP, this project was initiated in 1982. It is directed by a Federal and NWFP policy committee. Project designs are based upon identified needs of the area and plans for development activities submitted by line agencies of the government. Activities include improved and new road access, small bridges, school construction and repair, village electrification, land levelling, reforestation, support for open-well and tubewell irrigation, improvement of existing canals, credit, potable water, cash employment opportunities, and improved agriculture.

In its project agreement for Malakand, the Government committed itself to enforcement. During the first project year 80 hectares of poppy cultivation were destroyed. The Governor of NWFP decreed that no poppy would be grown in the agency in 1983, and several farmers preparing fields for poppy were arrested in November of this year. Significant enforcement presence remains in the area to help ensure the poppy ban will be carried out.

The Gadoon Amazai Area Development Project was initiated in August 1983. This project is sponsored by the U.S. Agency for International Development in conjunction with PNCB and the

Government of NWFP. A Project Coordination Unit is being established to ensure cooperation among the numerous line departments involved in implementation. Included in the project design are initiatives in crop substitution, watershed development (forest, animal, and range improvements), vocational training, off-farm employment, new road access, electrification, potable water systems, health, education, and cash employment opportunities through construction of small scale/self-help infrastructure projects under local government direction.

A phased enforcement schedule within the project includes some areas that are totally dependent upon poppy for a cash crop. By the end of 1986, all 2,420 hectares of poppy, estimated as of the 1982-83 season, are to be eliminated.⁵

The Development Model Proposed for the Plan

As there is no single solution that will return the income lost from abandoning poppy cultivation, a multifaceted approach will be followed. A specific development plan will be drawn up for each location that is now or could become a center of opium production. The tentative designs are included in Section II. Beginning with road access, which is considered necessary for the remaining development and enforcement initiatives to be effective, the following activities will be considered for each project area:

⁵ Agency for International Development, Project Paper, Pakistan, Gadoon Amazai Area Development, August 1983, p. 13

- o Local infrastructure, including donkey paths, roads, small bridges, potable water systems, small irrigation canals and checkdams, warehouses or other buildings necessary for complementary project activities;
- o Agricultural crop substitution, irrigated and rainfed;
- o Horticulture upgrading, through research, extension, production and marketing;
- o Processing of primary agricultural production;
- o Electrification;
- o Watershed development, including forest, animal and range improvements, reforestation, firewood lots, and fruit orchards;
- o Off-farm employment, including vocational training; and
- o Social infrastructure, including schools, and health units.

While not all activities will be appropriate for each project area, all (and others that can contribute to providing additional income to local residents) are candidates for support. The particular mix of interventions will be determined by the specific design of the individual project and tailored to the needs of the local environment.

The project will work within naturally-defined areas, such as valleys or mountain ridges. All inhabitants within this sub-project area will receive development benefits. This prevents major inequities from arising between growers and non-growers of poppy in the same valley. In a similar manner, although concentrating on opium producing centers, the project reserves some funds for geographic and administrative areas not involved in poppy cultivation. This will help avoid local backlash against the project and prevent non-growers from becoming

producers to attract development benefits.

Project activities in the field will be carried out by representatives of line agencies posted at local levels and by representatives of the local population--elected leadership in union or district councils or tribal leadership operating through jirgas. By using both routes into the remote areas (the government and local leadership), the prospects are greater that development benefits will be provided that are actually desired by the groups who will end poppy cultivation.

A particular feature of this design is support to local union and district councils for infrastructure projects of their own selection. These projects, often employing large amounts of labor, can help make up income differences in the early years of project activity before the full development benefits have been received but after poppy production has ended. However, self-help projects with volunteer local labor have a long tradition in many communities and careful balancing will be necessary to ensure that the advantages of added cash income do not outweigh the loss of a well-established community cooperative ethic.

Each project will be coordinated by a district and/or project level committee, as described in Section II. However, with the exception of Dir, the activities are not meant to be interwoven or necessarily require integrated implementation.⁶

⁶ A development project for Dir, to include ending poppy cultivation, will likely require an integrated plan involving one or at the most, a few donors. There is significant opium production in Dir that must be eliminated in a phased undertaking, necessitating an overall strategy and well-coordinated project implementation.

Thus a donor could support health facilities in one or several projects, while a second supports watershed development, and a third vocational training. Or a donor could elect to support integrated development throughout a well-defined valley or area. Insofar as the design of each project will have considered all activities to be undertaken, and implementation is coordinated to prevent duplication or counterproductive initiatives, each activity may proceed at its own pace and with its own support network.

The Enforcement Model Proposed for the Plan

While some farmers are willing to give up poppy cultivation, others may cling to their established income-earning routine. The SDEP will insure that adequate encouragement, education, warning, and enforcement are provided to end poppy cultivation, in accordance with plans that would complement each development project. Enforcement will begin in each area when development activity is apparent and will aim at complete elimination of poppy cultivation prior to the planned termination of the development project.⁷

The first attempt will be to negotiate the end of poppy cultivation with local leadership, either elected or traditional.

⁷ FATAs present special problems that will call for innovative solutions to end poppy cultivation. While the Government will continue to persuade tribal groups within FATAs to end opium production, an enforcement plan directly tied to development initiatives may not be not appropriate in the early stages of activity under the SDEP.

As there is a clear prohibition of this activity in the sanctions of Islam, the deeply religious population has a predisposition to alternative income sources. Additionally, information will be disseminated on the harmful results of drug addiction to fellow Pakistani citizens. As development benefits of importance to local areas can be arranged, negotiations will be considered with local leaders to agree to self-enforcement of the poppy ban. This negotiation is the responsibility of the Government of Pakistan, working through the established administrative hierarchy of the Provincial Government.

In the event intransigent groups insist on planting poppy, the method of applying effective enforcement measures has been well established, with temporary detention used to prevent planting, and field destruction used to prevent harvest. Action against traffickers is assigned to PNCB, Customs, and the police forces of NWFP.

The Organizational Structure for the Plan

The Special Development and Enforcement Plan will fall under the federal authority of PNCB, and will be executed by the Government of NWFP. The plan will be given policy guidance by a senior committee to be appointed by the GOP. Beneath this policy committee, two operational working groups -- a development group and an enforcement group -- will function to generate, approve, monitor, and supervise development and enforcement plans. Development activities will be controlled by a working group under the chairmanship of the Additional Chief Secretary of NWFP with a unit, described below, drawn from NWFP staff and

responsible for coordination of SDEP projects, with technical support provided by donors.

The projects under the Special Development and Enforcement Plan will be designed, coordinated, and evaluated by the Special Development Unit for Poppy Cultivating Areas of the Government of NWFP.⁸ This organization, to be headed by a senior administrator, will fall under the Planning and Development Department, NWFP. Pakistani specialists assigned by the NWFP government, complemented by a small group of expatriate advisors, will constitute the unit. Technical staff of the Special Development Unit (SDU) will coordinate and assist all SDEP projects, thus spreading the skills and reducing the costs of specialists. The SDU will bring the plans outlined in Section II to full-blown project designs and investigate new areas not yet surveyed in Kohistan and FATA for inclusion in the next phase of the SDEP. In addition to technical assistance, Donors are requested to fund the office facility, transportation, operating expenses, and other support costs of this coordinating office.

Enforcement activities will be controlled by a working group containing both federal and NWFP Government membership. Donor support for surveillance activities including aerial photography and assistance to local enforcement agencies with transportation, communications, training, and operational funds will be made available through PNCB, coordinated by this committee.

⁸ By federal charter, the Pakistan Narcotics Control Board will monitor progress toward eliminating poppy cultivation for all projects under the SDEP.

Funding of the Special Development and Enforcement Plan

Under the SDEP, donor grants may be channelled to the Government of NWFP through the Federal Ministry of Finance and PNCB. Funds could then be disbursed to the operating agencies or project offices involved. The Special Development Unit will ensure that financial control and accountability is maintained. A similar system has been approved for the Gadoon Amazai Area Development Project. Other mechanisms that accomplish the objective of rapid disbursement of funds with financial control will be considered.

Summary Proposed Projects for Donor Funding

The following projects are listed for consideration of donor support under the Special Development and Enforcement Plan. Additional details are provided in the project descriptions contained in Section II.

Summary**The Special Development Unit for Poppy Cultivating Areas**

A Special Development Unit (SDU) for Poppy Cultivating Areas will be established under the Planning and Development Department, NWFP, to ensure that the initiatives which fall under the SDEP are coordinated with ongoing activities funded under the Annual Development Plan or the Special Development Plan for Tribal Areas. The SDU will coordinate development activities in, and offer specialized technical assistance to, all narcotics-related projects. In the early stages of the SDEP, the SDU will bring the tentative designs presented for Dir, Chitral, Mansehra Tribal and FATA projects to specific plans for implementation. In later stages, development and enforcement initiatives for new areas and projects will be added.

The Special Development Unit, acting as an arm of the Planning and Development Department, will:

- o Coordinate donors' contributions with resources which will be required from line agencies of NWFP and have these requirements reflected in PC-1s, and the ADP.
- o Provide technical assistance to line agencies and local governments in the implementation of SDEP projects.
- o Accept development funds provided at the federal level and redistribute these to the operational units specified by the project design.
- o Ensure financial control with auditable accounting systems for all funds provided by donors and the Government of Pakistan under SDEP programs.

The SDU will be staffed by a senior administrator and technical personnel from the NWFP government. It will be assisted by a small cadre of expatriate specialists with support personnel, office facilities, allowances, operating expenses and transportation requested from donors. The costs of the project, shown below for five years, may be provided directly by bilateral funding and staffing, bilaterally through a UN agency, or through financial contributions made to a UN agency. Partial contributions will be welcomed. A table of estimated costs is given below:

<u>FUNDING CATEGORIES</u>	U.S. Dollars (000)		
	<u>UNIT COSTS</u>	<u>YEARS/UNITS</u>	<u>TOTAL COST</u>
Office Facilities	18.0	5	90.0
Vehicles	7.5	8	60.0
Operating Expenses	5.0	5	250.0
Office Equipment	10.0	1	10.0
Computers	20.0	1	20.0
Staff Allowances	15.0	5	75.0
Admin/Support Staff	40.0	5	200.0
Technical Assistance	150.0	15	2,250.0
TOTAL			2,955.0

Summary
Dir Development Project

The Dir Development Project concentrates on two traditional poppy growing areas in east-central and southeastern Dir. One area includes four Eastern Dir Valleys (EDV), Usherai, Nihag, Khagram, and Tormung. All are tributaries to the Panjkora River. The second area, east-northeast of Chakdara is the upper reaches of the Shewa Khwer Valley (SKV). Together, both areas cover an estimated 700 square kilometers and a population of approximately 150,000. The project also includes funds for other valleys in Dir which have been or might become poppy production centers.

Project components include livestock and crop improvement programs, watershed, range and forest management, and infrastructural investment in irrigation, roads, tracks, bridges, potable water supply systems, schools, health facilities, and electrification. Approximately 50 percent of the funding is to be used by local governments to support community-based self-help efforts.

The two project areas have been prepared as two sub-projects which would draw resources from and be coordinated by a District Management Unit headquartered at the district capital of Timergara. Sub-projects may be implemented together, or phased, with preference in timing given to SKV before the EDV because of the settled nature of the former area.

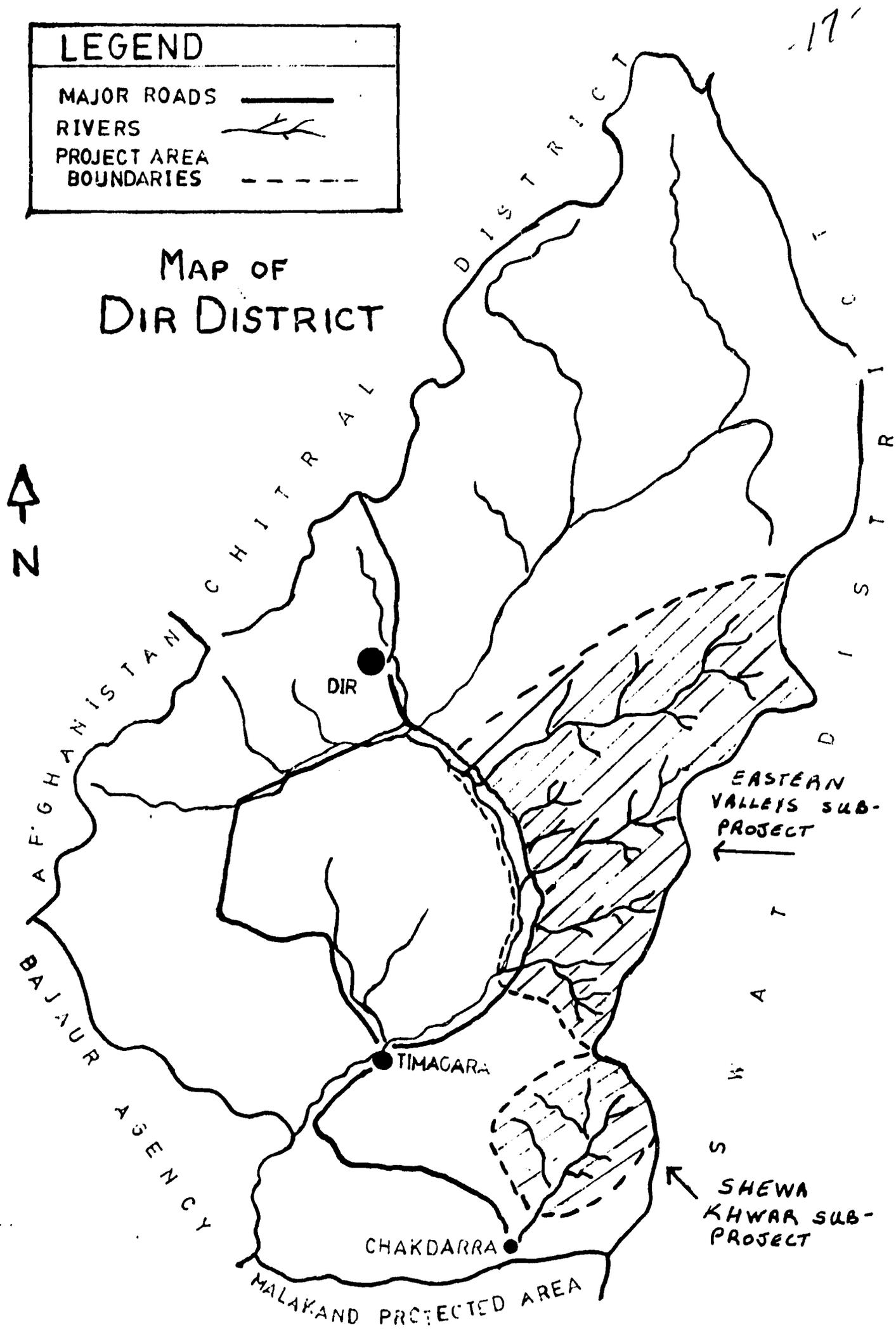
Costs are summarized by sub-project and by activity, showing funding expended through line agencies or district council (D.C.) or union councils (U.C.). Costs are exclusive of technical assistance which donors may wish to contribute to the project.

U.S. Dollars (000)

<u>ACTIVITY</u>	<u>LINE AGENCIES</u>	<u>LOCAL GOVERNMENT</u>		<u>TOTAL</u>
		<u>U.C.</u>	<u>D.C.</u>	
Agriculture	1,350.0	330.0	-	1,680.0
Irrigation	240.0	650.0	-	890.0
Roads	2,330.0	980.0	600.0	3,910.0
Water Supply	720.0	1,000.0	380.0	2,100.0
Education	360.0	140.0	800.0	1,300.0
Health	440.0	140.0	-	580.0
Electricity	680.0	40.0	100.0	820.0
Small Community				
Project Needs	-	1,000.0	200.0	1,200.0
LGRD	200.0	-	-	200.0
District Mgt. Unit	40.8	40.8	40.0	120.0
TOTALS	6,360.0	4,320.0	2,120.0	12,800.0

LEGEND	
MAJOR ROADS	—
RIVERS	~
PROJECT AREA BOUNDARIES	- - -

MAP OF DIR DISTRICT



17'

Summary
Chitral Development Project

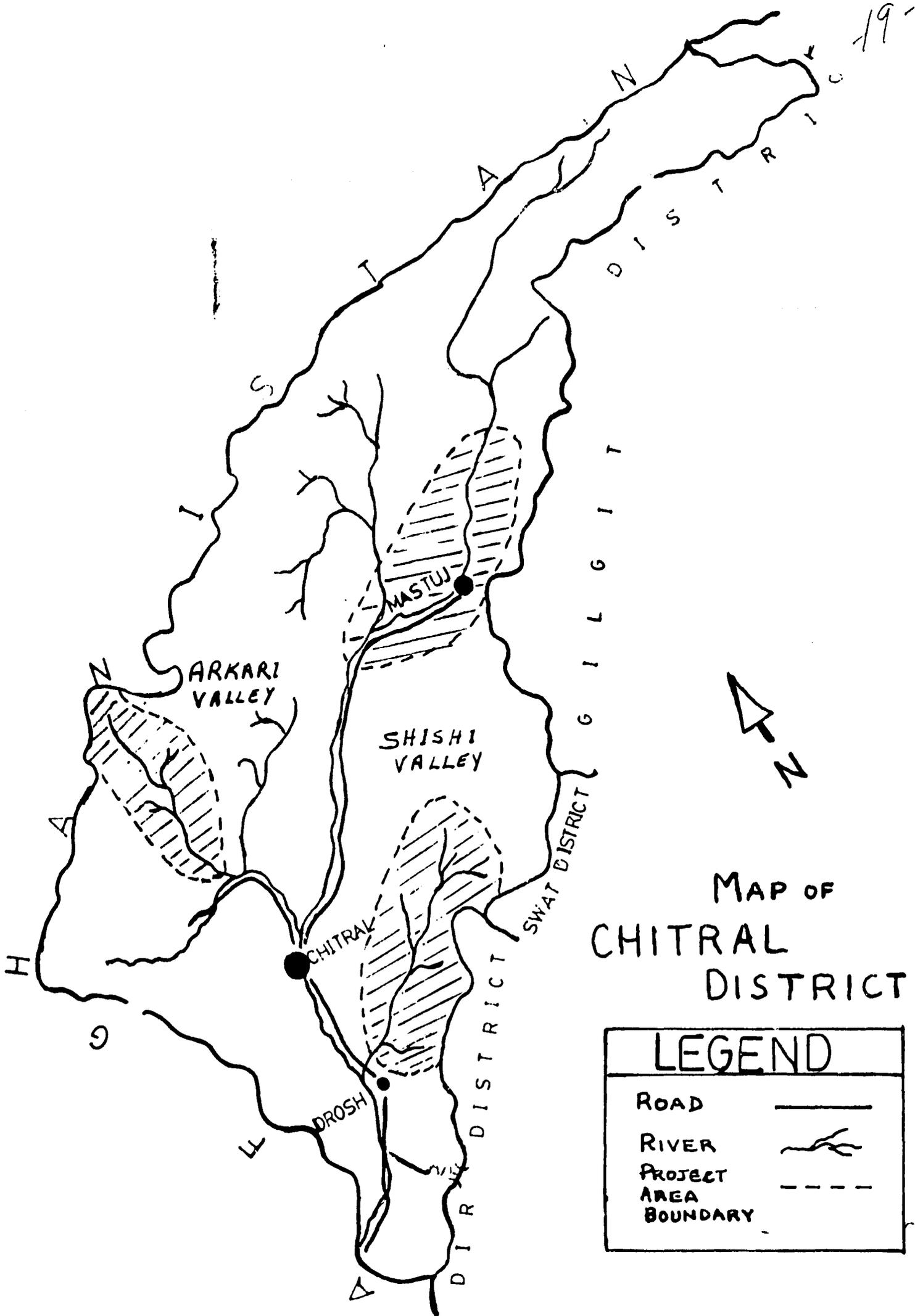
The Chitral Development Project encompasses Chitral District while providing special attention to three traditional poppy growing areas in southern and northern Chitral. Areas are the Shishi Valley, southeast of the town of Chitral, the Arkari Valley which lies northwest of Chitral, and the Mastuj Valley in the north. The population of Chitral district is 228,000 and its area is 14,850 square kilometers, the largest in the NWFP. The climate is arid with minimal rainfall for crop production.

Project components in the agricultural sector will include irrigation, livestock production, watershed, range and forest management. In addition, activities will be undertaken in the following areas: access roads, potable water supply, education, rural health, and rural electrification. Relevant line agencies will carry out these activities. A third area of funding will be to local councils to undertake the type of small-scale infrastructural projects, mainly irrigation channels, which they have the experience and capacity to execute. Local community cohesion and self-help activities have proven very successful in implementation of past projects.

Funding and execution of project activities will be coordinated by a District Management Unit (DMU) based at the district headquarters in Chitral. Funding for individual project components is appropriate, or large donors may elect to fund the entire package.

The following table presents estimated project costs.

<u>ACTIVITY</u>	<u>LINE DEPARTMENT</u>	<u>U.S. Dollars (000)</u>		<u>TOTAL</u>
		<u>U.C.</u>	<u>D.C.</u>	
Agriculture	780.0	40.0	-	820.0
Irrigation	-	230.0	1,190.0	1,420.0
Roads	90.0	200.0	1,140.0	1,430.0
Water Supply	70.0	220.0	80.0	370.0
Education	80.0	20.0	210.0	310.0
Health	350.0	20.0	40.0	410.0
Electricity	80.0	30.0	40.0	150.0
Small Community Projects	-	290.0	290.0	580.0
Dist. Mgt. Unit	20.0	20.0	10.0	50.0
LGRD	-	30.0	77.0	100.0
TOTAL	1,470.0	1,100.0	307.0	5,640.0



MAP OF
CHITRAL
DISTRICT

LEGEND	
ROAD	—————
RIVER	~~~~~
PROJECT AREA BOUNDARY	- - - - -

Summary
Mansehra Tribal Area Development Project

This project is within the Mansehra Tribal Area (MTA) located in the district of Mansehra. It has an area of 440 square kilometers and a population of 91,000. The area is made up of two geographical sub-regions, a third of the area to the west of the Indus River and two-thirds on the east side of the Indus. As a tribal area, MTA has little government presence and few services, but the government has recently undertaken to change the area's anomolous status and integrate it more fully by promoting development activities. Poppy has been grown in MTA, thus donor funding is welcomed.

MTA project components will include agricultural extension and construction in the areas of water supply, small irrigation schemes, schools, health facilities, roads, and electrification. Most of these activities will be undertaken by the line agencies but some funds will be set aside for use by the proposed agency council which will function through local participation.

A Tribal Area Management Unit will be established in Mansehra and will liaise with the SDU in Peshawar, providing coordination and support to line agencies and agency council activities. In addition, this unit will work closely with the District Commissioner's office which has overall responsibility for MTA.

Project activity will begin first in the southwestern portion of MTA (west of the Indus, contiguous to the Gadoon Amazai area) as it lies adjacent to other similar project areas and because poppy cultivation is thought to be more intense there. Project activity (yet to be designed) will begin later east of the Indus. Donors may fund individual components of the proposed project. A table of estimated costs for the first phase of the Mansehra Tribal Area is given below.

U.S. Dollars (000)

<u>ACTIVITY</u>	<u>LINE DEPARTMENT</u>	<u>AGENCY COUNCIL</u>	<u>TOTAL</u>
Agriculture	40.0	-	40.0
Irrigation	170.0	-	170.0
Roads	830.0	80.0	910.0
Water Supply	210.0	-	210.0
Education	280.0	-	280.0
Health	170.0	-	170.0
Electricity	370.0	-	370.0
Small Community Projects	-	50.0	50.0
Dist. Mgt. Unit	10.0	15.0	25.0
TOTAL	2,080.0	145.0	2,225.0

MANSEHRA TRIBAL AREA

21

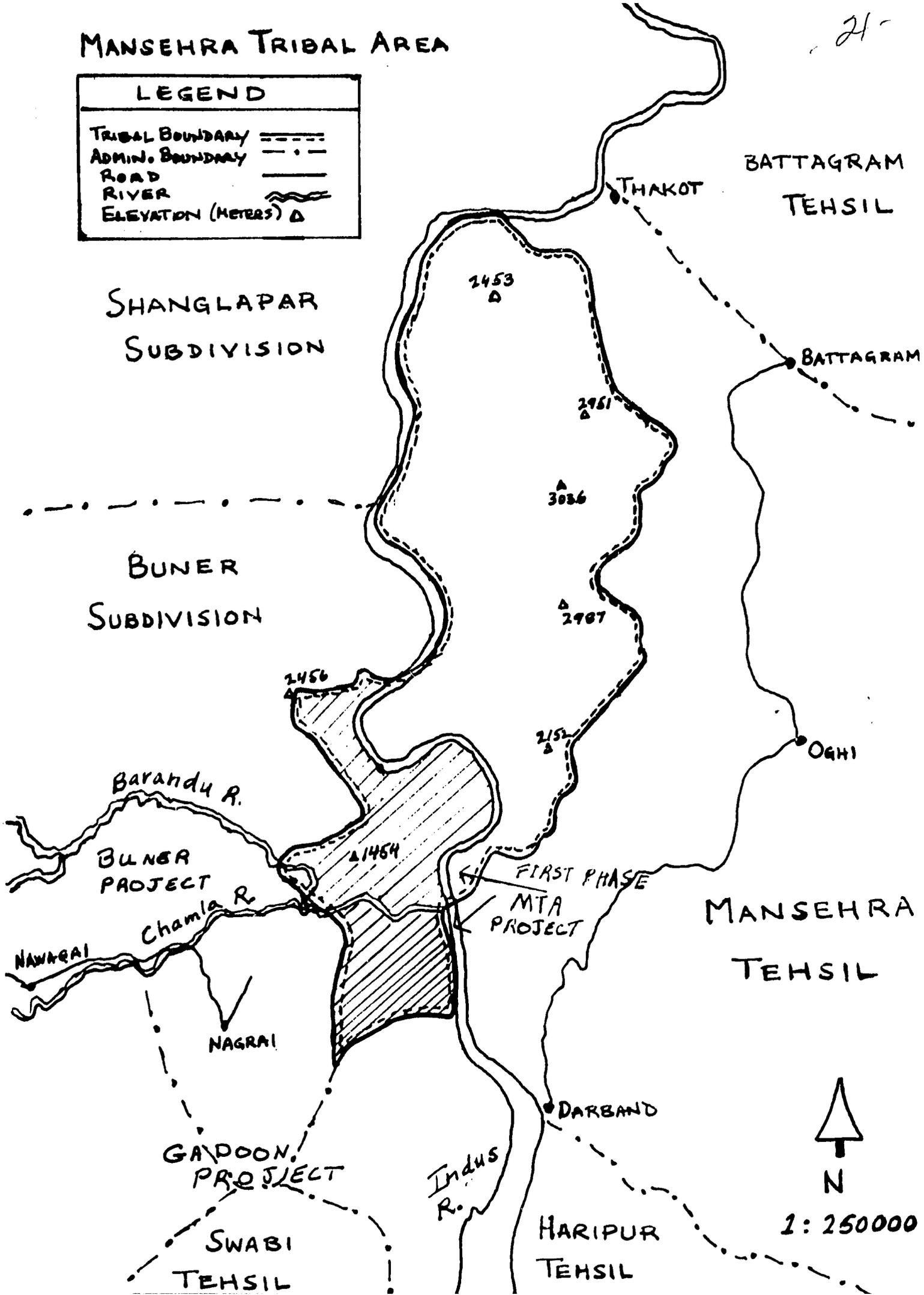
LEGEND	
TRIBAL BOUNDARY	-----
ADMIN. BOUNDARY	- . - . - .
ROAD	————
RIVER	~~~~~
ELEVATION (METERS)	Δ

SHANGLAPAR
SUBDIVISION

BUNER
SUBDIVISION

BATTAGRAM
TEHSIL

MANSEHRA
TEHSIL



1:25000

Summary
FATA (Bajaur and Mohmand) Development Project

Two Federally Administered Tribal Areas (FATAs) have been designated as a project area within the Special Development and Enforcement Plan. These are Bajaur and Mohmand Agencies, the two northern-most agencies in the belt of seven that extend along the frontier with Afghanistan. The area of Bajaur Agency is 1,290 square kilometers with a population of 287,000 (1981), Mohmand Agency's area is 2,297 square kilometers with a population of 161,000 (1981).

FATAs present special problems of access by the Government of Pakistan, due to traditional as well as treaty guarantees of tribal authority. Regions that have accepted development are more easily persuaded to end poppy cultivation. The FATA Development Project intends to make inroads on farmers attitudes through the provision of benefits to his home, farm, and family.

Project components for these two agencies will be in agriculture, education, potable water supplies, and health. The relevant line agencies will carry out these project components. In addition, funds will be made available to the Agency Councils to carry out the type of development schemes with which they have experience and capability. These components have been chosen in part to complement the large-scale, more capital intensive projects that have been proposed for the Special Development Plan for Tribal Areas.

It is the intention of the FATA project to begin modestly and expand as project initiatives are successful. Additional funding for a second phase will be prepared on the basis of the experience of the first year of project activity. Donors are welcome to fund components of the project.

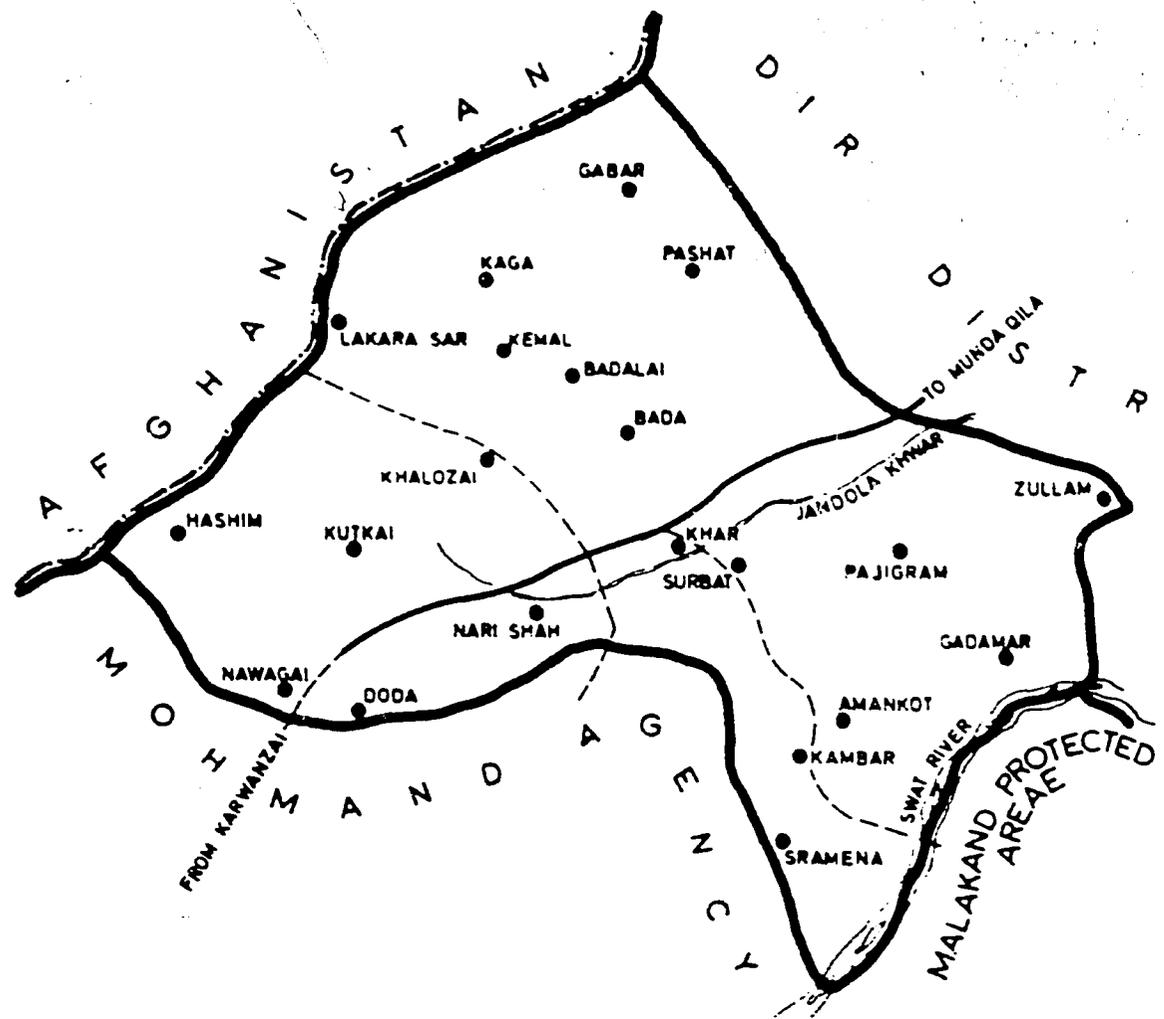
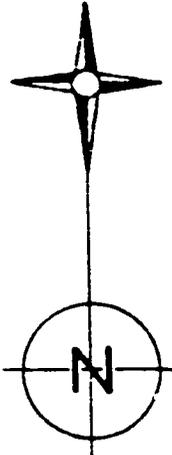
The following table presents estimated first-phase project costs.

U.S. Dollars (000)

<u>ACTIVITY</u>	<u>LINE DEPARTMENT</u>	<u>AGENCY COUNCIL</u>	<u>TOTAL</u>
Agriculture	520.0	-	520.0
Education	600.0	-	600.0
Water Supply	475.0	25.0	500.0
Rural Health	360.0	-	360.0
Small Community Projects	-	175.0	175.0
TOTALS	1,955.0	200.0	2,155.0

23

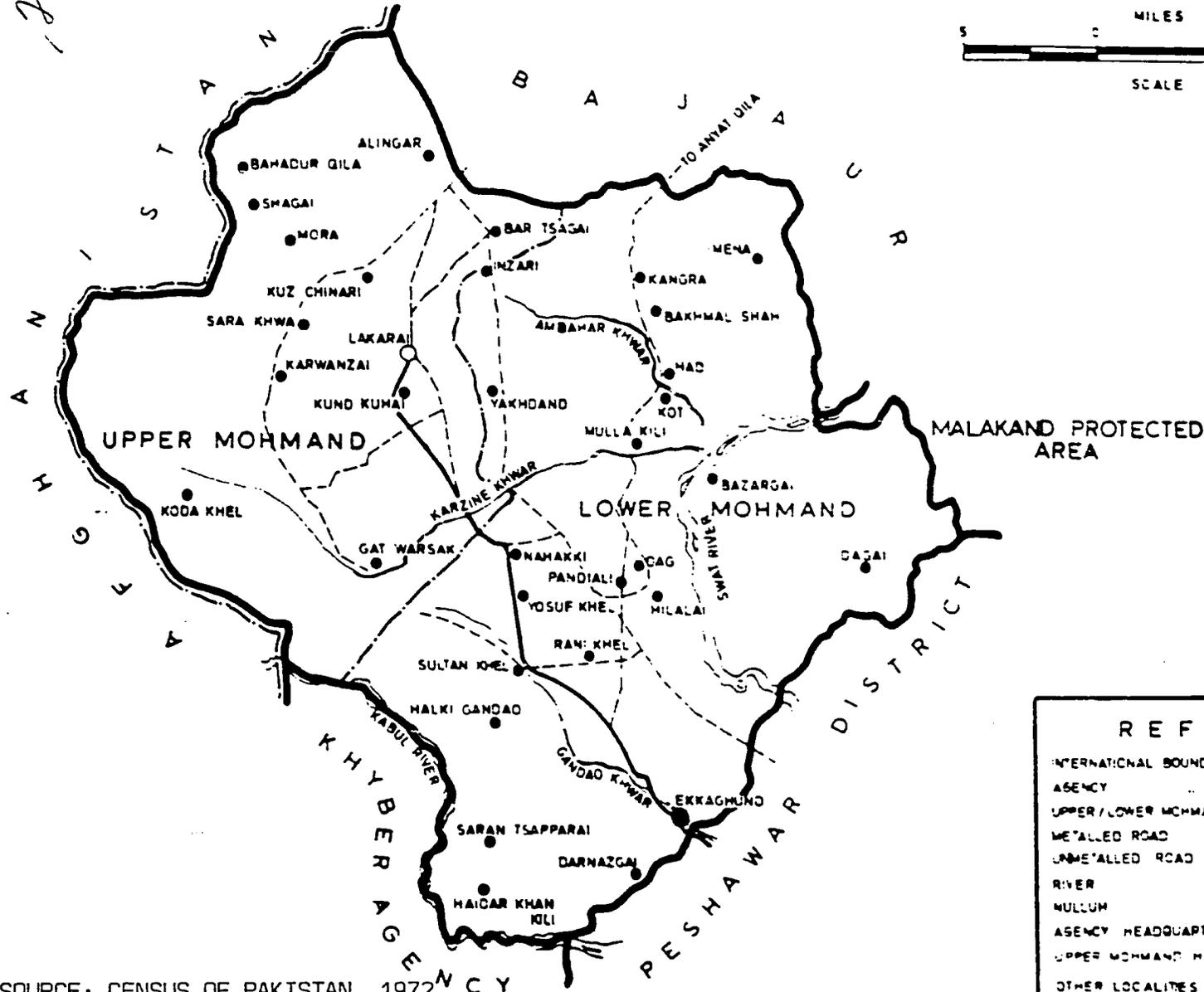
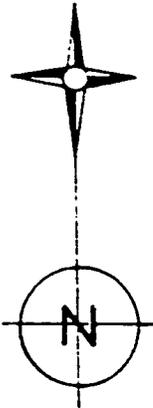
BAJAUR AGENCY



REFERENCES	
INTERNATIONAL BOUNDARY	— — — — —
AGENCY BOUNDARY	—————
METALLED ROAD	—————
UNMETALLED "	- - - - -
RIVER	~~~~~
MULLAH	~~~~~
VILLAGES	•

SOURCE: CENSUS OF PAKISTAN, 1972

MOHMAND AGENCY



REFERENCES	
INTERNATIONAL BOUNDARY	
AGENCY	
UPPER/LOWER MOHMAND BOUNDARY	
METALLED ROAD	
UNMETALLED ROAD	
RIVER	
MULLUM	
AGENCY HEADQUARTERS	
UPPER MOHMAND HEADQUARTERS	
OTHER LOCALITIES	

SOURCE: CENSUS OF PAKISTAN, 1972

Summary
Aerial Reconnaissance of Poppy Growing Areas

As Special Development and Enforcement Plan programs are successful in eliminating poppy cultivation in areas where it is presently grown, upward pressure on farmgate prices may encourage farmers to bring new areas into production. Aerial reconnaissance of mountains and valleys within NWFP where there is the potential for opium production (up to 2,500 meters) should be carried out on a regular schedule for the next five years.

Following a pattern which begins in the project areas within the SDEP and adds those locations known to be growing poppy in the 1983-84 cropping season, aerial photography will be flown each year in March and April beginning in 1984. The photography will be at the scale of 1:10,000, in color, with the resolution necessary to identify poppy areas and fix hectarage measurements.

Aircraft, pilots, equipment and photo interpreters will be furnished by the Government of Pakistan. Donors are requested to assist with expendible commodities and supplies, computer-assisted technology for mapping and measurement, and special training for analysts in low-level, high-precision interpretation.

Details of the area to be covered and the flight schedules have yet to be completed. Tentative estimates of costs requested from donors are approximately \$200,000 per year, totaling \$1,000,000 during the life of the Special Development and Enforcement Plan.

Requests for Donor Assistance to the Special Development and Enforcement Plan

During the Paris meeting, donors are requested to provide general expressions of interest for the summary projects listed or any other contribution believed to assist in the elimination or prevention of opium production in Pakistan. In initiating the Plan, it would be helpful if foreign assistance would be available to establish the Special Development Unit for Poppy Cultivating Areas, NWFP, and to fund the detailed designs for each project identified to date. The Government of Pakistan welcomes formal or informal discussions on prospective donor support and will facilitate onsite investigation required to obtain data for completion of project design.

Expressions of interest made following the Paris Consortium Meeting should be addressed to the Economic Affairs Division (EAD) of the Ministry of Finance.



SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN
FOR THE
OPIUM PRODUCING AREAS OF PAKISTAN

Section II
PROPOSED PROJECTS

November 1983

SUMMARY OF CONTENTS

SECTION II: Detailed Project Descriptions

Introduction	[SDEP Section II]*
The Special Development Unit for Poppy Cultivating Areas	[Special Development Unit]
The Dir Development Project	[Dir Development Project]
The Chitral Development Project	[Chitral Development Project]
The Mansehra Tribal Area Development Project	[Mansehra Tribal Area Development Project]
The FATA (Bajaur and Mohmand) Development Project	[FATA Development Project]

* The brackets indicate the short title used to identify each project at the left-hand top corner of every page.

SECTION II. PROJECTS PROPOSED FOR FUNDING UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN

INTRODUCTION

The projects identified for the first phase of the Special Development and Enforcement Plan are in several stages of preparation. While the Special Development Unit which would coordinate the program is well defined and proposed activities in Dir and Chitral are outlined in some detail, development initiatives for the Mansehra Tribal Areas (a PATA) and for the Mohmand and Bajaur Tribal Areas (FATAs) are in very early stages of design. This reflects differing levels of access as well as an absence of development plans in the tribal areas, which have been completed for Dir and Chitral districts.

Information for the proposed projects makes full use of the well-established system of forward planning which takes place in line agencies and district and union councils, aggregated into the Annual Development Plan (ADP) by the NWFP government. The proposed project interventions are indicative; further design will be required before implementation can begin. The purpose in presenting the projects is to show that there are viable opportunities for development, complete with funding channels, management systems, and participation of the local

population, which would make a difference to those present or potential growers of the opium poppy.

The Special Development Unit (SDU), to be established under the Planning and Development Department of the Government of NWFP, will bring each of the designs listed below to implementation, whenever and wherever possible with the active participation of donors who have expressed an interest in a particular project. In addition, the SDU will identify and bring forward for donor review new areas of opium production which have not been included in this initial plan. Using aerial photography and ground surveillance by those agencies chartered to undertake these activities, the remaining centers of opium production will be brought under the Special Development and Enforcement Plan.

**THE SPECIAL DEVELOPMENT UNIT OF THE
PLANNING AND DEVELOPMENT DEPARTMENT, NWFP**

Introduction

The Special Development Unit of the Planning and Development Department, NWFP, will ensure that the initiatives which fall under the Special Development and Enforcement Plan are coordinated with ongoing development projects in the same areas and executed in harmony with activities supported under the Annual Development Plan. The SDU will also provide an institutional base within NWFP for narcotics-related development projects supported by donors and help spread the costs of specialized technical assistance over several active projects. In the early stages of the SDEP, the SDU will bring the tentative designs presented for the Dir, Chitral, Mansehra and FATA projects into specific plans to be implemented.

At present, the Planning and Development Department (P and D) is not staffed or funded to provide the design (to prepare projects for implementation) or the integration and coordination (for ongoing projects) called for under the SDEP. To overcome the absence of P and D capability to provide direction and coordination functions for a project crossing several district boundaries, the Gadoon Amazai Area Development Project is supporting a Project Coordination Unit and a technical assistance team dedicated to one project. As more donors combine their resources and individual projects are more modest in scale, there are obvious economies to having one central institutional

base to perform these tasks for all SDEP projects. The SDU will be formed to satisfy this function.

The Responsibilities of the Special Development Unit

The Special Development Unit, acting as an arm of the Planning and Development Department, will:

- o work with donors to bring the projects outlined below to full design which will allow implementation;
- o coordinate the donor's contributions with resources which will be required from line agencies of NWFP and have these requirements reflected in work plans, PC-1s and the ADP inputs from the particular district or agency;
- o provide technical assistance to line agencies and local governments in the implementation of SDEP projects;
- o accept development funds provided at the federal level and redistribute these to the operational units specified by the project design, in accordance with the work plan approved by P and D;
- o provide financial control with auditable accounting systems for all funds provided by donors and the Government of Pakistan under the SDEP program;
- o ensure that knowledge gained and prospects identified by other development activities operating in the mountains and high valleys of NWFP are available for use in the SDEP projects.

Staffing of the Special Development Unit

The SDU will be headed by a senior Government of Pakistan official who will be complemented by technical specialists provided by the Government of NWFP and administrative and support staff as described below. A small cadre of experts who would have general responsibility for technical assistance to all SDEP projects is suggested for donor funding. Donors may also wish to accredit and place expatriate specialists assigned to any one

project under the auspices of the SDU, based in Peshawar. The suggested staffing pattern of the SDU is as follows:

NWFP Detailed

SDU Director (1)
 Technicians: (1 each)
 agriculture
 marketing
 irrigation
 livestock
 forestry
 community participation

Administration:
 Senior Administrator (1)

Donor Provided

Senior Advisor: economist (1)
 Technicians: (1 each)
 watershed management
 off-farm employment
 short term specialists

Communications (1)

Administration:
 accountants (3)
 clerks/bookkeepers (3)
 computer operators (3)

Support:
 drivers (8)
 other (8)

Support for the Special Development Unit

The SDU will require support for staff positions as identified above, office facilities, vehicles, communications equipment, office equipment, micro computers, staff allowances and operating expenses. Estimates of costs for these items for a five-year period are presented below.

Donor Funding for the Special Development Unit

Donors may provide direct bilateral funding and staff to the Government of Pakistan to support the SDU. Alternatively, donors may contribute staff and expenses to the SDU through a United Nations agency, should such arrangements be formalized, on a bilateral basis. Donors may also elect, should the U.N. agree, to make contributions directly to an agency which would then place U.N.-hired staff in the technical assistance positions.

Estimated Costs of the Special Development Unit

Over the five-year life of the project, the estimated costs of the SDU, exclusive of the contributions of the Government of Pakistan, are as presented in the table below:

Project Costs for the SDU

FUNDING CATEGORIES	U.S. Dollars (000)		TOTAL COSTS
	UNIT COSTS	YEARS/UNITS	
Office Facilities	18.0	5	90.0
Vehicles	7.5	8	60.0
Office Equipment	10.0	1	10.0
Computers	20.0	1	20.0
Staff Allowances	15.0	5	75.0
Operating Expenses	50.0	5	250.0
Administrative/ Support Staff	40.0	5	200.0
Technical Assistance	150.0	15	2.250.0
TOTAL			\$2,955.0

PROVISIONAL DRAFT

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**THE DIR DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN**

Detailed Project Description

November 24, 1983

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THE DIR DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN

INTRODUCTION

The Dir Development Project proposed under the Special Development and Enforcement Plan covers two areas within Dir District which are presently cultivating opium poppy and a number of valleys which have in the recent past been, or easily could become, poppy producing areas. The project is focused on poppy growing areas without neglecting the remainder of the district, where improved agricultural outreach and local council infrastructure projects are to be supported.

Project design is organized in three sections. The first provides background which explains how Dir came to exist within Pakistan, a district created in 1969 from a princely state. This history is important in understanding how the government administers the area and why the elimination of poppy is a demanding task, more so than in a "settled" district. Information is also provided on the administrative structure of the government and the past and planned development activities of the line departments and elected councils. The second section summarizes background on the physical resources, present agriculture and existing infrastructure. The third section outlines a proposed project, with development plans targetted and costed for donor consideration. The design is tentative and will

require further on-the-ground investigation to ensure that the plans, method of organization, and technical solutions proposed are appropriate to the remote and difficult environment of Dir District.

I. BACKGROUND OF DIR DISTRICT

History

Dir District, a northern district in the NWFP province, borders on Chitral District to the north, Afghanistan to the west, Bajaur Agency to the southwest, Malakand Agency to the south and Swat District to the east. (See the map of Dir District.) Though Dir was designated a district in 1969, (at the same time that the neighboring states of Chitral and Swat were made districts) in reality it is not as settled a district as those south of the Malakand pass. Hence, Dir District is also designated a PATA, a provincially administered tribal area.

Presently, the administrative authorities informally divide Dir into two areas: lower (southern) Dir and upper (northern) Dir. Lower Dir is considered by the authorities to be "settled", a designation reflecting the extent to which the codified laws of Pakistan are followed and enforced. Upper Dir, on the other hand, is considered to be more a "merged" area than a settled area as the tribes located there still command considerable influence and authority, (for example, arms flow freely).

Until 1960, Dir was a princely state ruled by a figure known as Nawab. This state resembled the other sovereign princely or native states which existed during the period of

British rule in India. After the creation of Pakistan in 1947, these states continued to exist much as they had before, but gradually they were one by one merged into the state of Pakistan. Dir, along with its neighboring states of Chitral and Swat, was among the last to be integrated.

During the period of the Nawab's rule, the ruler was assisted by a prime minister titled Wazir-i-Azam who was appointed by the ruler. In 1960, the government appointed its own officer, a political agent, to serve in place of the Wazir-i-Azam. This system of dual rule with the ruler and the political agent holding separate responsibilities lasted until 1969. In that year the rule of the Nawab was formally ended and Dir was integrated into the state of Pakistan.

Since 1969, life has been relatively peaceful in Dir except for incidents which have occurred between certain tribal elements and the government. The most notable outbreak of violence took place in 1976 when the Bhutto government attempted to take control of forest lands (jungilat) in certain valleys in Warai sub-division. Armed conflict, which included bombardments, broke out between the tribes and the army which resulted in losses on both sides of 88 lives. This conflict demonstrated the fierce resistance the tribes can marshal when they believe their traditional rights are threatened.

Social Composition

The majority of the people of Dir belong to a major Pushtun tribe, the Yusufzais, who are predominant in Swat and Mardan districts. Though the origin of the name, Malaizai, is not

known, it is applied to the Yusufzais in Dir as a name with a geographical connotation, much as someone from Swat is referred to as a Swati or someone from Bajaur as a Bajauri.

The Yusufzais proper are said to be concentrated in such places as Adenzai, Timergara, and Balambat Tehsils, and Dir and Warai Sub-divisions. In the latter sub-division, two sub-tribes that are dominant and have been troublesome are the Painsa Khel (to which the former Nawab belonged) and the Sultan Khel. The brother of Yusuf, the Yusufzai's chief ancestor, was named Tarkhan and his descendants are concentrated in such places as Barawal, Maunda, Samarbagh, and Lal Qila Tehsils.

After the Yusufzais, the next largest social group in Dir are the Kohistani. They have separate traditions from the Pushtuns and their language is somewhat different. They may have come from present-day Kohistan, just east of the Indus.

The Kohistanis are concentrated in the Kohistan area of Dir, northeast of Dir town, and in the same area are found Gujars, another non-Pushtun people with their own separate language, Gujri. Rough estimates put their numbers at 20-25,000. Their common occupation is animal herding.

Census figures do not provide a breakdown along tribal or ethnic lines, but they do record religious affiliations. The population is overwhelmingly Muslim - 762,778 of a total of 767,409. The largest religious minority in the district are Christians - 3,080, followed by Ahmadias - 1,430, then Parsis - 53, Hindus - 34, Sikhs - 16, Buddhists - 8, and others - 10.

Population and Labor Force

The following table summarizes several population variables by tehsil, sub-division, and district.

Table 1 Population Variables for Dir District

	AREA (km ²)	POPULATION (PERSONS)	POPULATION DENSITY (PERSON/ km ²)	HOUSE- HOLDS	AVERAGE HOUSEHOLD SIZE (PERSONS)
Timergara		70,000		9,200	7.7
Adanzai		110,500		14,500	7.6
Balambat		80,400		11,700	6.9
Maidan		74,700		10,800	6.9
Sub-Division: Timargara		336,300			7.3
Barawal		44,500		6,500	6.9
Dir		165,300		25,400	6.5
Kohistan		41,000		7,100	5.8
Sub-Division: Dir		250,800			6.5
Khal		66,700		10,300	6.5
Warai		91,500		14,300	6.4
Sub-Division: Warai		158,200			6.4
Munda		40,300		5,700	7.1
Samarbagh		80,400		11,700	6.9
Sub-Division: Jandool		120,700			7.0
DISTRICT	5282	865,300	164	127,250	6.8

NOTE: Population from 1981 census projected to end-1983 at 1972-1981 growth rates.

The population is scattered in about 1,800 settlements ranging in size from 40-50 persons up to about 4,000. Of the 1,800-odd settlements, about 52% have populations less than 300 persons, about 70% have less than 450 persons and 80% have less than 600. The modal settlement size falls in the range of 150-

300 persons. Only 56 settlements (3%) have populations over 1,500 and the largest of these, Timergara town (the District seat) has a population of around 4,000.

According to 1981 census data, the district labor force consists of 188,700 persons of whom 142,500 (70%) are employed in the agricultural sector. Within this sector, 95% of the labor force consists of self-employed persons and unpaid family labor. The percentage of women in the labor force (other than housekeeping) is only 3% of the total. By industrial classification, 76% of the work force is employed in agricultural activities, about 7% in services, 4% in construction, 4% in the retail and wholesale trade and only 2% in manufacturing.

Over the past ten years 11,600 persons from the district have gone abroad for employment or other purposes. The district labor force seems reasonably mobile. Seasonal labor shortages for non-farm work (e.g., road building) occur in the north, but payment of higher-than-average daily wage rates is sufficient inducement to obtain the necessary manpower. "Normal" daily wage rates for unskilled labor are in the range of Rs. 20-25 (\$1.50-\$1.90) but rise to Rs. 30-35 (\$2.27-2.65) during the main harvest season.

Land Registration

The government is only now undertaking land surveys and registration in Dir: measuring fields, establishing titles of ownership and setting assessment rates. This process is taking place at a pace determined by tribal and law and order considerations. In the absence of land registration, it has not

been possible for the government to collect revenue from farmers; hence, there has been no revenue structure of officials such as the tehsildar, the kanungo and the patwari with their established record of land use rights and practices.

Previously, when the government tried to establish its control and use of land in Dir in the area of jungilat or forest lands, armed conflict resulted (mentioned above) with the tribes in the Warai sub-division valleys, particularly in Nihag Valley. The outcome of the fighting was to establish that the land in the valleys of Tormung, Khagram, Nihag and Usherai would remain under the control of the tribes, mainly the Painsa Khel. When timber was sold from these lands, 80% of the sale price would be to the people and 20% would go to the government. In jungilat under government control 60% of the sale proceeds would go to the residents and 40% would go to the government.

Administrative Structure

The administrative pattern in Dir District resembles closely that found in other settled districts in NWFP except that an additional level is included in keeping with the structure that existed in the days of the Nawab. Instead of having a district level and then a tehsil level below as in a standard settled district, in Dir there is an intermediary level - the sub-division - which lies between the two. The sub-division level, however, resembles the settled district's tehsil level in that the line agency officers found at the sub-division level are the same as those found at the settled district tehsil level.

The following table shows the administrative structure of

Dir District including the Union Councils. Two lists are given for union councils: one prior to the September 1983 election that operated from the inception of the local bodies scheme in 1979, and the second showing union councils which were established prior to the 1983 elections. The first set totaled 19, the second 35. In 1983 the number of union councils was increased by dividing the councils to conform with representation in settled districts (i.e., one union council has 8 to 10 members with each member representing a ward of 2,000 to 2,500 people). Previously some Dir union councils had twenty or more members.

Table 2 Dir Administrative Structure

SUB-DIVISION	TEHSIL	UNION COUNCIL (1974-1983)	UNION COUNCIL (1983-)
Dir	Barawal	Barawal Bandi	Barawal, Shahikat
	Dir	Dir Larjan Urtha Sindh	Dir, Chukiatan, Darora, Sheringal, Usherai, Sawnai
	Kohistan	Kohistan	Patrak
	Munda	Khazana Munda	Khazana, Munda
	Samarbagh	Mayar Miskini Samarbagh	Mayar, Drangal, Miskini, Samarbagh
	Adenzai	Khadakzai Mir Hassan Khel	Khadakzai, Abazai, Chakdara, Ouch, Mir Hassan Khel/Babu Khel, Asbanr
	Balambat	Balambat	Balambat, Hayaserai, Munjai
	Lal Qila	Barmaidan Lar Maudan	Lal Qila, Zaimdara, Bishgram
	Timergara	Timergara	Timergara, Talash, Bagh-Dushkhel
	Khal	Sultan Khel	Khal
	Warai	Painda Khel	Akhagram, Tormung Kotkai, Sundal, Warai

Local Development Activity through Elected Councils

In the four years since the establishment of district and union councils under the NWFP Local Government Ordinance of 1979, these councils have been active in undertaking numerous development projects (schemes) in Dir District in such sectors as roads, drinking water supply, small-scale public works, irrigation and school construction.

As is the case in other districts, the local councils in Dir

are assisted in the design and implementation of schemes by administrative and technical staff from the Local Government and Rural Development Department (LGRD). In the case of the District Council it has an additional technical staff recruited through LGRD to assist in the design and construction of schemes.

The officials in Dir are proud of the record established by the local councils and they claim that their district leads the province in the number of schemes carried out and completed. Since 1979, a total of 620 development projects have been carried out in Dir District by the District Council and the 17 Union Councils at a cost of Rs. 11,188,612 (\$860,000).

During 1982-83, the District Council undertook ten schemes under the Rural Works Program funds in the major poppy growing valleys, located in four tehsils. These projects which represented almost 50% of the schemes undertaken (23 total) were all in the sector of communications and included construction, extension or improvement of roads and construction of suspension bridges. Total costs amounted to Rs.1.28 million (\$97,262) or approximately 76% of the total Rs.1.68 million (\$127,493) spent by the District Council throughout the district. This pattern of funding suggests the District Council's intention to direct development benefits to areas which may cultivate poppy in an effort to induce farmers to desist.

In these four tehsils, eight union councils carried out projects during 1982-83 in the sectors of irrigation (24 schemes); village improvements: flood protection, bunds, and street pavements (19 schemes); drinking water supply (12

schemes); and communications (2).

The following table displays schemes undertaken by union council by sector.

Table 3 Schemes by Sector Cost and Union Council: 1982/83

U.C.	Number of Schemes/Cost (Rs. 000)					U.S.\$ (000)
	Irr	Village Imp.	Water Supply	Roads	Total	
Utmanzai	2/11.50	6/83.80	1/3.60	1/3.60	10/102.26	7.75
Dir	2/33.00	2/35.00	5/41.43	-	9/110.43	8.37
Painda Khel	8/111.00	-	-	-	8/111.00	8.41
Khadakzai	6/44.84	2/56.00	-	-	8/100.84	7.64
Larjam	4/67.00	1/28.00	1/7.26	-	6/102.26	7.75
Mir Hasan Khel	1/6.00	2/34.00	2/34.00	1/28.00	6/102.00	7.75
Urtha Sind	1/7.00	2/56.00	2/35.00	-	5/98.00	7.42
Kohistan	-	1/89.80	1/10.00	-	1/99.80	7.56
TOTAL	24/280.34	19/383.60	12/131.06	2/31.6	57/826.61	62.62

II. RESOURCES, AGRICULTURE AND INFRASTRUCTURE

Resources

Topography

The terrain is hilly to mountainous. Highest elevations, around 4,500 meters, are found in the sparsely populated extreme north, and lowest elevations, around 650-700 meters are found in major river valleys in the extreme south. Most cropping is carried out between elevations of 1,000 to 1,500 meters. Maximum elevations in the interior are typically 3,000 to 3,300 meters.

District boundaries to the north, east and west are delineated by the watershed of the Panjkora River system which consists of four major tributaries. General drainage is from north

to south. The major branch of the Panjkora has its origins in the permanent high-elevation snow field in the extreme north (Dir-Kohistan).

Major river valleys are typically 5-10 kilometers wide. Side valleys formed by minor tributaries are rarely more than three kilometers wide.

Climate

The climate of Dir may be classified as modified continental. Summers are hot and winters are cold. In the south, mean maximum summer temperatures are around 38 C (June) and mean minimums around 2 - 3 C (December to January). Snowfall occurs in the north, and only at higher elevations (2,500-3,000 meters) elsewhere.

Rainfall is bi-modal. Winter rains are concentrated in the period January through March, and the southwest monsoon brings summer rains in the period July through September. Roughly equal amounts fall during these two periods and account for about 75% of the annual total which in the south is around 700 millimeters. In the north near Dir town, the average annual rainfall increases to 1,100 millimeters.

Water Resources

The district, in aggregate, is in a water surplus condition; there is more water available than there is land which could feasibly be irrigated. In general, large-scale irrigation development along the larger rivers would not be feasible because of high infrastructure costs and relatively small command areas. Small private and community irrigation schemes are numerous along

the larger rivers, utilizing open intakes. Smaller streams have only seasonal flow as there is no perennial snow pack in their upper catchments except in the far north.

Land Use

Dir District consists of approximately 528,000 ha. The area considered to be in farms is 267,000 ha of which 95,000 can be cultivated and the remainder in pasture. Range or forest occupies 162,000 ha leaving 100,000 ha in the unproductive-land category. Of the farm land, approximately 72,000 ha or 27% is considered irrigable and the remainder rainfed. Farm size is small, with 66% of the farms in the one ha or less size category.

Population pressures on agricultural land resources are high. On average there is about 0.9 ha cropped area per farm family. There is little or no additional land that could be brought under permanent cropping although the cropping intensity on existing cultivated land could be increased somewhat through irrigation development.

In hilly areas away from the Panjkora and Swat River valleys, the area under irrigation and farm size are less than that indicated above. In these areas, the majority of the cultivated land is salvaged from steep hillsides by terracing. Here, both productive land and water resources are in extremely short supply, but all that a farmer has to meet his family's subsistence and cash income needs. It is in these areas that poppy cultivation flourishes.

Agriculture

Cropping

Depending on rainfall and/or availability of irrigation, two crops, summer and winter, may be sown. Table 4 below lists areas for principal crops together with estimated yields under both rainfed and irrigation conditions.

Rice, maize, and wheat are the principal grains grown for subsistence needs. Dir District is a net importer of grain, in 1981-82 producing approximately 92,000 metric tons or approximately 120 kg/capita/year, two-thirds of the estimated requirement. Major vegetables and fruits - potatoes, onions, tomatoes, chillies, apricots, apples, pears, persimmons, plums, walnuts and almonds - meet both subsistence needs and provide a portion of the farm cash income.

Yields of the principal crops shown below are low by developing country standards. For example, irrigated rice and maize grain production is on the order of 1.6 t/ha whereas the local potential is considered to be on the order of 6 t/ha for experiment stations, and 3 t/ha for farmers fields. While irrigation results in a 50-100% yield increase over rainfed production, full benefits from irrigation are not being realized, either because of insufficient irrigations, a lack of complementary inputs such as fertilizers and improved seed, and/or both. Thus, there appears to be considerable latitude for a doubling of production through technology transfer and an increased use of inputs.

Table 4 1981-82 Area Cropped and Yield of Principal Crops

<u>Summer</u>	<u>Irrigated</u>		<u>Rainfed</u>	
	Area (ha)	Yield (kg/ha)	Area (ha)	Yield (kg/ha)
Rice	16,351	1,650	-	-
Maize	9,162	1,590	5,262	1,020
Potatoes	1,300	8,300		
Orchards	774	Varies		
Vegetables	229	Varies		
Pulses			3,150	Varies
<u>Winter</u>				
Wheat	16,802	1,240	23,757	670
Barley			7,409	1,070
Rape			5,300	540
Orchards	467	Varies		
Pulses			215	Varies
Vegetables	195	Varies		

Agricultural Extension Staff

Department of Agriculture staff in Dir consists of 30 professionals and technicians. This includes 16 field assistants (FA), or extension workers, who provide contact with farmers. The FA to farmer ratio is 1:5,800, inadequate for outreach purposes. No research station exists in the district, nor has the Training and Visit (T & V) system been introduced.

Use of Inputs

Improved Cultivars: High yielding varieties (HYV) of wheat make up 8% of the land planted to that crop. In general, farmers save their own seed relying on traditional varieties of wheat, rice, and maize. Where HYVs have been demonstrated, yields are still well below their potential. Thus there appears to be a need for additional testing of HYVs under district conditions to determine constraints in achieving performance

potential of improved varieties.

The Agriculture Department maintains nurseries at Timergara, Gandigar, Kaskoto, and Jandool and distributes improved varieties of fruit trees free of charge to interested farmers.

Fertilizers: District-wide use of fertilizers is on the order of 400 nutrient tons per year, mostly in nitrogenous and phosphatic fertilizers. Based on production from 95,000 ha, this equates to an average application of 4 kg of nutrients per hectare, well below optimum. Nitrogen and phosphorus deficiency symptoms can be commonly observed.

Equipment: There are 88 tractors/cultivators in the district with their use confined to gently sloping lands along the Panjkora or Swat Rivers or in the vicinity of Chakdara and Ouch. In these areas, the number of privately owned tractors is increasing rapidly. Most of the tractors are hired out for custom land preparation. Typical custom rates are Rs. 50-60 (\$3.79-4.55) per hour, using tractors in the 35-45 HP range. Spring-tooth harrows are used for land preparation. Farmers in hilly areas or side valleys use animal traction for land preparation.

Irrigation

Approximately 70,000 ha are irrigated in Dir through private initiatives, typically, simple gravity diversions from the Panjkora River and through capture and use of spring water. Little is known about irrigation in the poppy-producing side valleys that are tributaries to the Panjkora. Other than in the Usherai Valley, which drains a large watershed backing up to snow

capped peaks, these valleys do not have a late-summer snow pack and water availability, which is limited, appears to be from springs. For these valleys, hydrologic information about water resource availability is needed before new irrigation schemes are planned.

Four government-sponsored schemes have been initiated which together offer the potential to irrigate 1860 ha.

- o Bardwan in Lower Dir consisting of a headworks, 21 km of canals and 52 turnouts. The system is sized to deliver 560 liters per second to an area of 590 ha.
- o Balandzai approximately 15 km north of Dir and serving an area of approximately 210 ha.
- o Usherai Valley in the Darora and Gandigar areas, covering an estimated 1060 ha.
- o Groundwater development on the outwash plain west of Ouch where four government and six private tube wells provide water to 120 ha.

Livestock

Numbers of livestock reported by the 1976 census were as follows: goats 424,550, cattle 268,337, sheep 167,597, buffalo 19,803, horses, donkeys and mules 13,472, and poultry 941,709. Most families keep a mixed group of livestock principally for food needs but also to be sold, and as work animals. While residents of smaller valleys, such as Nihag, have expressed keen interest in herd improvement and artificial insemination, the exclusive focus of government-supported programs in livestock remains animal health. A government-sponsored livestock extension center has been established at Warai and provides veterinary outreach to portions of the district. It also offers veterinary care to livestock that are brought down from the

mountains in October and November, returning in the spring.

Forestry and Watershed Management

The Forestry Division has responsibilities in afforestation, soil conservation, policing and enforcement. A watershed management group both distributes and plants trees. Government-sponsored programs include distribution of both forestry species such as Alianthus, Robinia, Eucalyptus, Poplar and Chir pine, and fruit trees including walnuts, almonds, apples, and persimmons. Nuseries are maintained at five locations: Sharingal, Surbat, Warai, and Trai (2). Support for three of the nurseries comes from UNHCR and the World Food Programme. In the higher elevations of Warai and Dir Sub-divisions, trees can be established without irrigation; in lower Dir, irrigation is necessary for successful establishment of trees. Proceeds from the harvest of government-controlled forests (with the exception of the special agreements within EDV mentioned above) accrue 60% to the grower or village, and 40% to the government. Villages often treat the forest as communal property and permission to cut trees for housing or firewood is through communal consent.

Infrastructure

Roads and Communications

The length of the all weather road network in the district is about 600 km, of which about 90 km is asphalt surface and the remainder gravel surface. Approval has been received and work is ongoing to construct an additional 38 km of gravel road in fiscal year 1983/84. Approval is expected in 1984/85 for the

widening and asphaltting of 42 km of the main Chakdara-Timergara road. The District Council has received approval to undertake construction of an additional 28 km of which 10 km will be asphalt surface.

The central road network adequately serves all major population concentrations and requirements are for improvements of some sections through widening, reduction of grade and surface upgrading as traffic density warrants. The main need in the District is for vehicular access roads to a number of side valleys, many of which are densely populated and some of which are poppy cultivation areas. Both the District Council and the C & W Department are presently engaged in constructing access/penetration roads of this type.

Regular bus service is available along the major road network. Passenger fares Timergara-Peshawar are Rs. 20 (\$1.52). Freight transports costs, Peshawar to Timergara, utilizing large trucks are in the order of Rs. 1,000-1,300, assuming a full load of around 10 tons. The distance is 175 km, giving an approximate ton/km cost of Rs. 0.75 (\$.06). The driving time, Timergara-Peshawar, by passenger vehicle is around three hours, and from Dir town to Peshawar, around five hours.

The District is not served directly by either rail or air.

A recently completed microwave system provides improved telephone service within the district and to outside points. There are about 400 telephone connections in the district.

Rivers are not used for transport and communication except in the upper reaches of the Panjkora River in Kohistan. tehsil where some timber is floated down during peak flow in the summer

months.

Energy and Power

Some electric power is supplied to the district from the Malakand hydro-electric scheme. There are no known small hydro schemes in the District. The 1980 Housing Census reported that 13% of all households used electricity as a source of light.

WAPDA is upgrading the grid system which serves the district. Upon completion of this project more power in total will be available to support rural electrification and other power-consuming projects. At present, rural electrification is largely restricted to villages near major towns with service, and to those along main transmission lines. WAPDA policy is to provide free hook-up to the first fifty connections in a given village, first come-first served. In selecting areas to be served, WAPDA specifies a density of 100 households per 1.5 linear kilometers of transmission line. The Asian Development Bank is financing a project to extend rural electrification in western Dir.

A sum of Rs. 0.5 million (\$38,000) has been requested to conduct feasibility studies for mini/small hydro schemes in Kohistan Tehsil in northern Dir where there are numerous fast-flowing perennial streams.

The energy sources for cooking and heating are wood, brush, and dry cattle dung. Firewood is scarce in all areas except the far north. Many hills have been denuded, especially in the southeast, by firewood gathering.

Education

Existing educational institutions in the district are summarized below:

Table 5 Existing Institutions by SUB-DIVISION

INSTITUTION	DIR	TIMERGARA	WARAI	JANDOOL	DISTRICT TOTAL
Mosque School	36	48	21	17	128
Primary School (M)	109	172	87	53	421
Primary School (F)	16	25	6	5	52
Middle School (M)	12	28	5	6	51
Middle School (F)	-	3	-	1	4
High School (M)	10	21	7	5	43
High School (F)	1	3	-	-	4
College	N/A	1	N/A	N/A	2
Vocational	N/A	N/A	1	N/A	2

Source: District Education Office, Timergara.

The level of illiteracy is high in Dir; 88% among males age ten and above, 99% among females. The active labor force is 91% illiterate. According to census data only 23% of males between the ages of 5 and 14 years are attending school (1981), and only 2% of the females in the same age group are attending. The total number attending educational institutions of any kind and for all age groups, male and female, was 31,828 (1981).

For the Sixth 5-Year Plan for the District, it is proposed that Rs. 105.8 million (\$8 million) be spent on education by all agencies, including the District Council. Current activities for which funding has been approved includes the following:

Table 6 Approved New Educational Facilities in Dir

Activity/Item	Cost (Rs. 000)
Construction of 10 primary schools	1,230.0
Renovate one girls high school	530.0
Upgrade two primary to middle schools	716.0
Upgrade two middle to high schools	980.0
TOTAL	<u>3,456.0</u> (\$262,000)

The estimated cost of projects for which approval was requested but not received in FY 1983/84 was Rs. 24.6 million (\$1.9 million).

Approval has been received to construct an additional vocational institute at Chakdara (Rs. 4,985 million, \$378,000).

Water Supply, Health and Sanitation

Eighty-six percent of housing units obtain domestic water from springs, rivers, and streams. Only 7% of the households have access to piped water. A large number (106) of domestic water supply schemes have been proposed for the Sixth 5-Year Plan, but to date only five have received funding approval. The 101 schemes not yet approved have an average cost around Rs. 400,000 (\$30,000). These schemes would all be under the responsibility of the Public Health Engineering Department. The District Council would also undertake similar schemes, as would Union Councils. To date, about 300 domestic water projects have been constructed by PHE, the District Council and Union Councils.

The provision of domestic water supply is especially important for hillside villages which do not have easy access to perennial streams or springs.

Basic health facilities in the district consist of 49 BHUs

(Basic Health Units), seven Rural Health Centers (RHCs), 35 dispensaries and two hospitals with a total of 50 beds.

Approval has been received to build five additional BHUs, at an average cost of Rs. 922,400 (\$70,000), to convert one BHU into an RHC and to build four doctors residences. The approximate cost of health schemes requested under the 5-Year Plan is Rs. 62.15 million (\$4.7 million). Under the plan, 16 BHUs and six RHCs would be added, residences would be provided for a number of BHU, and equipment would be provided for the Timergara Hospital.

Industry

There is very little industrial activity in the district. Persons employed in manufacturing constitute less than 2% of the actively employed labor force. There is some small cottage industry involved in the fabrication of basic farm implements, and the making of blankets, clothing and household items.

Mining and Quarrying

There is no known mining activity in the district. Quarrying is carried out in small scale for local building materials.

III. THE DIR DEVELOPMENT PROJECT

Introduction

Project activities are organized into three sections. First, project objectives, strategy for both development and enforcement plans, and management requirements are addressed.

The latter includes establishment of a management unit at the district level, the necessary upgrading of the line agency staff of the Local Government and Rural Development Department in Dir, and development support for areas outside the two selected sub-project locations.

The second section focuses on sub-project activities in the Eastern Dir Valleys, following, in order, support to agriculture and irrigation, roads and communication, community water supplies, education, health services, electric power and program funding for small infrastructure projects selected by the Union and District Councils.

The third sets forth the sub-project activities for the Shewa Khwar Valley in lower Dir, with the same order of activities as listed in the second section. A summary cost table completes this component.

Objectives, Strategy and Management

Project Objectives

The Dir Development Project will provide sufficient development benefits to persuade the majority of farmers to end their cultivation of opium poppy and to allow the enforcement of the poppy ban on those who persist, with minimal use of coercion. It will also provide benefits to those who have grown or might grow poppy and convince them to not to plant or replant the crop.

The Development Strategy

This project will employ an area development approach

which concentrates resources within a defined geographic location and offers multiple opportunities for farmer benefit. A coordination unit under the auspices of the District Council and Deputy Commissioner will help insure the many activities are coordinated and complementary. Strengthening of local line agency staff, mobility, operational funds, and commodity support will bolster the capacity of the government to make positive improvements in the project area. Strengthening the advisory and technical staff which supports the elected councils will allow the sub-projects selected by local community and elected representatives to be implemented effectively and efficiently. By mobilizing the energies of the government line department staff and obtaining the participation of the local population, the project has the greatest possibility of achieving its objective.

The design for project components is tentative and will require further field investigation. Project proposals must be accepted as indicative, with the design of the project under continual revision as implementation proceeds. Work Plans will be reviewed each six months, with changes expected as experience is gained in working in the two sub-projects in Dir.

Project activities are designed to:

- o Provide physical works such as roads, public health facilities, and schools increasing the quality of life for rural residents while opening the area to government enforcement. Construction of infrastructural works is designed to be carried out largely by rural residents, thus providing them with a source of cash income that, over the short term, is substitutable for poppy income;

- o Provide income opportunities from sale of primary and processed agricultural and forestry products thus providing residents with a source of cash income over the longer term which is a partial substitute for poppy income;
- o Upgrade the level of subsistence by increasing the amount of arable land and the production potential from existing farmland, through improvements in livestock types and range carrying capacity, and by making sources of fuelwood more available through social forestry programs; and
- o Strengthen the capacity of local government institutions to plan and manage development initiatives of their own choosing.

The Strategy for Enforcement

Poppy Cultivation in Dir District

Reports of poppy growing areas in Dir District focus on two areas:

a) The side valleys to the east of the Panjkora River, specifically the valleys of Usherai, Nihag, Khagram and Tormung. This area is inhabited by the Painsa Khel and Sultan Khel tribes who, though subject to the authority of the district officials, enjoy a certain degree of independence that makes the laws more difficult to enforce. The Usherai Valley is in Dir sub-division; Nihag, Khagram and Tormung are in Warai sub-division.

b) Areas of lower Dir in Timergara sub-division, Adanzai Tehsil, in an area north and east of Chakdara, the Shewa Khwar Valley. Key towns mentioned as centers of poppy production include: Badwan, Kotigram, Aspanr, Khanpur, Bar Tihn, Siah, Bahramkai, and Bushakai Kili. This area is under control by the district authorities.

Estimates of poppy hectareage in these two areas are from two sources. The Pakistan Narcotics Control Board estimates for 1982

cite production on 536 ha. Figures provided by the Extra Assistant Director of Agriculture (EADA) for Dir District for 1982/83 are 132 ha. Estimates by the EADA were as high as 5,645 ha in the period 1977/78 with size of production area varying directly with market price. People familiar with Nihag Valley have described poppy cultivation as at times more extensive in area than wheat, both crops being sown during the winter season.

The two poppy growing areas are two hours apart by road and while certain development activities, for example, agriculture, can serve both areas out of central direction from Timergara, other development activities, for example, roads and other infrastructure, can be conveniently divided between areas. For purposes of this presentation, and perhaps its implementation, the Dir Development Project is divided into two sub-project areas: a) the Eastern Dir Valleys (EDV), and b) the Shewa Khwar Valley area (SKV). Additional funding is sought for other areas in Dir that were past centers for poppy cultivation, so that these areas, having complied with the ban, can also receive some development benefits.

The enforcement strategy calls for one or very few donors to undertake the project to insure that activities are phased and integrated with a well-conceived enforcement plan. Since SKV is under more effective control by provincial authorities than is EDV, development and enforcement programs would be phased to begin in Shewa Khwar at an earlier date than in EDV. In addition, the benefits accruing to the lower Dir valley may become clear to the residents of the Eastern Valleys and the likelihood of a negotiated agreement for self-policing will be

higher. Added access from new feeder roads and the added stake in the development benefits provided by the government will help ensure effective enforcement of the opium production ban in all areas prior to the completion of project activities.

Managing the Project at the District Level

To manage and coordinate project activities at the district level, a District Management Unit (DMU) will be established at Timergara. The DMU will coordinate and be responsible for project activities in the two sub-project areas, making efficient use of resources between sub-projects. This unit will be headed by a Grade 17 Officer with the rank of Assistant Commissioner and he will be designated District Project Director. This officer should have experience as an Assistant Commissioner and should also be development-oriented so that he is able to combine the two requisite perspectives of administration and development.

The functions of the Project Director will be:

- o To liaise with the SDU based in Peshawar and to receive and implement policy direction;
- o To provide policy guidance and coordination to the line agencies carrying out project activities. This function will require coordination mechanisms at the district level such as the District Coordination Committee and the Agricultural Coordination Committee; and
- o To provide overall management of the various functions that will take place at the DMU office.

Short-term technical assistance specialists will be based at the DMU as will be certain line agency personnel working directly on project activities.

The DMU office will have two sections: administration, and

monitoring and evaluation. The administration section will be headed by an administrator whose responsibilities will include general administration, logistics and procurement and providing support in these areas to line agencies carrying out project activities. An accountant will be responsible for maintaining expenditure records for audit purposes. Section support personnel will be provided.

Headed by an economist, the Monitoring and Evaluation section will be responsible for detailed implementation scheduling and reporting. This section will be responsible for certain studies to be undertaken such as in marketing and processing.

The following table presents life-of-project costs for the DMU.

Table 7 Estimated Costs for the District Management Unit

COMPONENT	Rs. (000)	\$
Staffing	757.7	57.4
Office and Equipment	377.5	28.6
Vehicles, including operation and maintenance	479.4	36.3
TOTAL	1,614.4	122.3

Institutional Strengthening of the Local Government and Rural Development Department in Dir

Given the present administrative, technical, and supervisory capability of the Dir District LGRD cadre, there is some room to absorb more funds for the planning, design, and implementation of small development projects. However, the project will provide substantial funding increases to elected local governments, especially Union Councils, and these bodies will need additional

technical assistance and support. To deliver the necessary support, staff with transportation, office/work space and miscellaneous basic office supplies and equipment will be required. Estimated costs for staff, mobility and supplies and equipment are detailed below:

Table 8 Additional Support for the LGRD Department, Dir

COMPONENT	Rs. (000)	\$
Staff	998.4	75.6
Mobility	1555.0	117.8
Equipment	50.0	3.8
TOTAL	2603.4	197.2

General Development Support

In addition to providing funding for specific sectoral activities detailed in the following sections, financial support for strengthening LGRD and funding (partial) the establishment of a District Management Unit, the project will also provide financial support for general development activities undertaken by elected councils outside the specific areas in which SDEP project activities are concentrated.

The purposes of this program funding are:

- o To reduce inequities in development funding within districts;
- o To enable visible, recognizable, increased development activity in areas where farmers have voluntarily ceased to grow poppy.
- o To make it more politically expedient for District Councillors to approve major funding for poppy growing areas; and
- o To extend additional project assistance to minor poppy growing areas not specifically treated under SDEP.

Program funding would be provided to the District Council and Union Councils to enable them to increase and improve their development program activities which typically consist of small, labor-intensive, community self-help-oriented projects which reflect village-level priorities.

In Dir, this program funding assistance will be extended to the District Council and the twenty-eight (28) Union Councils which do not receive direct project assistance under the area-specific projects detailed in the following sections.

The annual program funding grant would be: District Council Rs. 2 million (\$151,500) and Union Councils (28) Rs. 325,000 (\$24,600) each. Thus, over a five-year period, District Council would receive Rs. 10 million (\$757,600) and each Union Council Rs. 1.6 million (\$123,000). Total cost of the funding program over five years would be Rs. 55.5 million (\$4.2 million).

The additional funding for Union Council activities would be made with the understanding and agreement that, whenever possible, priority for development implementation would be given to locations within Union Councils where small areas of poppy may be cultivated and where farmers have voluntarily ceased to grow poppy. The same agreement would be obtained from the District Council.

Eastern Dir Valleys Sub-Project (EDV)

Introduction

This sub-project area consists of four poppy-cultivating valleys: Usheri, Nihag, Khagram, and Tormung. The valleys all

have their headwaters in the range of hills that forms the Swat-Dir district border. In a straight-line distance, the valleys range in length from 15 km (Tormung) to about 30 km (Usheri). The total area of the four watersheds is about 600 square kilometers.

Project location according to administrative units is shown below:

Table 9 Administrative Units in the EDV Sub-Project

VALLEY	SUB-DIVISION	TEHSIL	UNION COUNCIL
Usheri	Dir	Dir	Larjan
Nihag	Warai	Warai	Painda Khel
Khagram	Warai	Warai	Painda Khel
Tormung	Warai	Khel	Sultan Khel

The population of the combined valleys is estimated to be 122,000.

Agriculture and Irrigation

Livestock Production

A livestock center which focuses on animal health has been established at Warai, at the west end of the Nihag Valley. Project support to the center would enable it to undertake activities in two related areas; herd improvement and range management, as detailed below.

Herd improvement will include:

- o Survey of animal type and recommendations made for importation of improved stock;
- o Importation and distribution of improved stocks together with monitoring results from introductions; and
- o Provision of artificial insemination services.

Range management, to be undertaken in collaboration with the watershed management activity, will include:

- o A survey of range ecological conditions in EDV;
- o The establishment of pilot range improvement schemes in each of the major ecological zones. Schemes may involve introduction of new vegetative types, rotational grazing, changes in stocking rates, and others; and
- o Plans, based on the above experience, to be developed for range improvement programs in other areas of Dir.

Physical improvements to the Warai complex will include a stock detention yard, a storage shed, and housing and office space for two professionals, a livestock breeder and a range management specialist. Assistance for improvements to the Warai center and for program design and ongoing technical assistance would be provided by short term expatriate staff. In addition to these professionals, funding is sought for four field assistants. One pickup truck and four motorcycles will be provided.

Funding for this activity is to be channeled through the Animal Husbandry Department.

Hydrologic Survey, Irrigation and Water Management

If used properly in concert with improved agronomic practices, irrigation can make a profound difference in land productivity and farmer income. Although irrigation is widely practiced along the Swat and Panjkora River Valleys, little is known about the availability of water or its use in EDV where poppy is cultivated. If in these valleys irrigation can be developed, it may offer farmers improved levels of subsistence

and opportunities for cash income from traditional and newly introduced crops and enable them to turn away from poppy cultivation.

The following activities will be undertaken with SDEP support:

Phase 1 (covers a period of two years.)

- o Conduct a hydrologic survey of water availability and offtakes in the Usherai, Nihag, Khagram, and Tormung, valleys and influent tributaries. Survey information is required for water resource planning because resources do not appear to be overly plentiful and excessive offtakes at one level in the valley may be prejudicial to potential users at lower elevations;
- o Determine extent of traditional water rights agreements, if any, between villages in a valley. Estimate extent of present and potentially irrigated land. Determine interest in irrigation from village leaders for selected villages;
- o Prepare reconnaissance-level layouts of proposed irrigation channels, determine cultivable command area, and estimate costs and projected benefits;
- o Determine willingness of villagers to provide organization and labor for irrigation channel construction, and for follow-up land reclamation activities such as terracing that facilitates use of irrigation; and
- o Assist the EADA and his agricultural extension staff (AOs and FAs) in devising improved water management practices and appropriate outreach delivery systems to obtain higher yields and more productivity from irrigated land.

The services of one irrigation engineer will be required, along with four field assistants. Field assistants will live in the project areas; the engineer will be based in Timergara with frequent travel to the field. One jeep and four motorcycles will be required. Under SDEP, funding for Phase I will be provided to the Irrigation Department for implementation of the activities

specified above.

Phase II (covers years 2-5, and during year 2, overlaps with Phase I)

Irrigation schemes recommended under Phase I will be constructed and associated water management activities initiated. Phase II implementation, will depend upon water availability and village interest. If these are positive, staffing levels for Phase II will remain as recommended for Phase I. However, it is likely that construction activities will be undertaken by the villagers under local council sponsorship in which case Phase II funding for construction, labor, and materials would not be through the Irrigation Department but rather through local councils. For budgeting purposes, a total of 100 km of canals will be targeted.

Agricultural Outreach

The agricultural outreach program planned for EDV has two main components: upgrading traditional agriculture and introduction of new crops and technologies. The "upgrade" component focuses on traditional crops - wheat, maize, barley, tree crops, and vegetables - using proven strategies to increase their production over the next two years. This is the time when farmers have turned away from poppy cultivation and must rely on traditional crops for subsistence and income. Barley, which is fed to livestock, has not drawn the attention that wheat, maize, and rice have. Introduction of an improved barley variety could have significant impact on livestock nutrition. The "new crops and technologies" component takes a longer look at poppy valleys, seeking attractive crop introduction in combination with

technologies such as supplemental irrigation. For example, the EDV valleys are well-suited for introduction of deciduous fruit trees. Fruits are presently grown for home consumption, but varietal upgrading would have to be done with introductions keyed to specific marketing opportunities in Pakistan and possibly the Gulf States. Table grapes are another crop well-suited to the valleys. They are relatively drought tolerant. Grapes are highly prized throughout Pakistan, but the bulk of the production available in the market is from Afghanistan. The drying of grapes for raisins also appears to offer promise. Though not now widely cultivated in Dir, grapes could be a centerpiece in the income picture for farmers who used to be poppy growers.

In implementation, the two components of upgrade and introduction should not be separated. All work would be performed by the line agency, the Department of Agriculture (DA), headquartered in Timergara through staff consisting of an EADA, AOs, and FAs. Key to the implementation of an agricultural outreach strategy is the introduction of the T & V system. This would be supported under SDEP and will be directed not to the main Panjkora or Swat valleys, but rather to the side valleys which are the poppy centers. The T & V system has had marked success in Buner and other locations in Pakistan, but has not been introduced in Dir. However, key agricultural staff assigned to Dir are familiar with T & V and strongly recommend its introduction. This will be accomplished by:

- o Doubling the number of FAs from 19 to 38, with full time placement of 8 of these individuals in the traditional poppy valleys of Eastern Dir;

- o Providing for three subject matter specialists in agronomy (with emphasis on fruit and grape production), irrigation and plant protection;
- o Providing funding for improved seed, tree varieties, and grape cuttings importation, fertilizers, spray equipment, and chemicals;
- o Providing vehicular support and operating expenses (5 jeeps and 15 motorcycles).
- o Offering regular training for DA staff at Timergara plus specialized training at Mingora, elsewhere in Pakistan or at other locations in Asia where T & V is established. Funding for travel and per diem will be provided by the project;
- o Upgrading equipment at Timergara to include funding for communications, duplicating equipment, audio-visual aids and typewriters;
- o Upgrading facilities at Timergara to include construction of storage facilities and a training building; and
- o Installation of four farms in Ushera, Nihag, Khagram, and Tormung, for purpose of demonstration and outreach. Meteorological stations would be established at these locations and at Warai and Timergara.

The T & V system headquarters will be in Timergara with the system primarily serving the EDV and SKV sub-projects. The system will be introduced first in the SKV area and then in EDV areas. The eventual goal will be to extend the system throughout Dir. For purposes of costing, 75% of the agricultural outreach costs would be borne by the EDV sub-project and 25% by the SKV sub-project.

Marketing and Processing

Marketing initiatives go hand in glove with agricultural outreach programs, offering the area better opportunities for moving produce to nearby markets and thence to the rest of the country. Farm-to-market roads planned for each of the EDV will facilitate local marketing. A study will be conducted on

marketing of specialized crops such as fruits and grapes, pinpointing market opportunities for specific varieties in Pakistan and elsewhere. This information will be shared with the agricultural outreach portion of the project.

The processing of agricultural products offers several attractions: a value added to primary production; facilitation of marketing, for bulk is generally reduced; and employment opportunities. A study will be supported to investigate agro-industry opportunities such as fruit canning and drying, goat-cheese making, fish farming and others.

Via project funding to the Special Development Unit in Peshawar, marketing and processing studies would be performed in the first year of SDEP. Thereafter, matching funds will be provided to help launch private sector processing initiatives. Funding will be contingent upon positive feasibility determination.

Watershed, Range, and Forest Management

In Dir approximately 60% of the land is not cultivated and remains as grazing land or forests. This activity will focus on these lands in an effort to develop programs for their management and to upgrade their productivity. These improvements are important both for raising farmer income and for insuring overall system sustainability.

Overgrazing, fuel-wood acquisition, and tree cutting for sale or housing materials has influenced the agricultural and livestock systems that depend on the watershed. For example, irrigation water supply can be enhanced by forest management

designed to reduce rapid snowmelt runoff. Or, planting of improved range species can provide better forage while reducing erosion.

Responsibility for grazing and forest lands is under the domain of the Forestry Division (FD) and afforestation programs are underway. Responsibility for grazing lands is also with the FD but there are no programs. Further, management of grazing lands should call for participation from Animal Husbandry Department staff with experience both on the animal side, rotational grazing and stocking numbers, and on the crop side, species introduction. It is difficult to obtain these varied skills and to obtain required institutional coordination.

Specifics of the program to be undertaken are not detailed in this document. Instead, the watershed management program will be elaborated by an outside team of experts who will develop a watershed management plan for the EDV. In addition to that consultancy, the SDEP will support:

- o Establishment of a watershed working group to bring together local experts in forestry, animal science, and cropping for plan development and implementation;
- o Pilot interventions in selected watersheds to be done in collaboration with villages expressing interest in participation. Successful pilot interventions will be expanded upon in years 4-5 of this project; and
- o Training of watershed officers with responsibility for integrated watershed management involving forestry, grazing lands, animals, and crop species introduction.

Cost Summary of Agricultural Activities in the EDV Sub-Project

Estimated costs to implement a five-year program of agricultural activities in EDV are summarized below. Costs do not include services of resident Pakistani or expatriate

technical staff which donors may wish to add.

Table 10 Agricultural Program: Eastern Dir Valleys
Sub-Project Cost Summary

	Rs. (000)	\$
Livestock Production	2,755.6	210.0
Hydrologic Survey, Irrigation, Water Management	7,260.0	550.0
Agricultural Outreach	6,666.0	505.0
Marketing and Processing	831.6	63.0
Watershed, Range and Forest Management	3,168.0	240.0
TOTAL	20,681.2	1568.0

Infrastructure

Roads and Communications

At their lower ends, the valleys all have access to the major north-south highway in the district. This highway, asphalt surfaced, is in generally good condition and provides ready contact with major markets and input supply centers to the south.

An access road into the Usherai valley is under construction and is scheduled for completion in 1984/85. The estimated cost of this 14.5 km gravel road is Rs. 4.97 million (\$376,500). Extension of this road for a further 10 km is required to serve settlements in the upper portions of the valley.

The SDEP would provide funds for a 10-km extension of the Darora-Almas road with construction to begin in 1984/85 and to be completed in twelve months. Responsibility for construction would be with the C & W Department. Funds would also be made

available to Union Council Larjan for the construction of short village access roads (typically 1-2 km), animal tracks and pedestrian bridges as may be required in the valley.

The Nihag valley is served in its lower and middle reaches by an earth road in poor condition. There are no on-going road works in the valley.

The project would provide funds for the substantial improvement of 30 km of road serving this valley, contingency funds for the construction of 5 km of new earth road, and funds to Union Council for short village access roads and animal tracks, if required.

For the Khagram valley, there is an existing shingle road extending about 9 km into the valley, but it is not in good condition. The road needs to be extended an additional 15 km to reach settlements in the upper valley that have no road access.

The SDEP would provide funds to build an additional 15 km of gravel road in this valley, to improve/rebuild as required the existing 9 km and to build six km of village access road. All work would be performed by the Union Councils.

In the Tormung valley there is an existing earth road about 15 km long. This road needs to be extended by about 11 km in order to serve other settlements now without road access. Funds will also be provided through Union Council for short village access roads.

A summary of the road program for the EDV is given below:

Table 11 Road Construction, Eastern Valleys Sub-Project

Location and Activity	Length (km)	Rs. (000)	\$
<u>Usheri</u>			
Valley access road; gravel	10	4,200	318.2
Village access; tracks	Lumpsum	250	18.9
<u>Nihag</u>			
Valley access road; gravel	30	6,000	454.5
Earth road; new	5	1,250	94.7
Village access road	Lumpsum	250	18.9
<u>Khagram</u>			
Valley access	15	6,500	492.4
Improvement	9	900	68.2
Village access	Lumpsum	250	18.9
<u>Tormung</u>			
Valley access road	11	4,400	333.3
Village access	Lumpsum	250	18.9
TOTAL EDV ROADS		24,250	1,837.1

Water Supply

Less than 10% of the villages in the valley are served by domestic water supply schemes and none of those approved for construction by Public Health Engineering in 1983/84 are located in EDV.

The project will provide incremental financing adequate to install 24 schemes in total over a five-year period. An average cost of Rs. 450,000 (\$34,100) per scheme is assumed giving a total cost for this component of Rs. 10.8 million (\$818,200). The schemes could be built by Public Health Engineering and the District Council and some smaller schemes by Union Councils.

Education

For Dir district, data on existing educational institutions have been obtained according to sub-division and this does not provide an adequate basis for determining the number of

educational institutions operating in the project area.

Literacy rates in EDV are clearly lower (1981 census data) than the district averages, which are themselves very low by any standards.

As it is not possible at this time to specify the exact educational services needs in the area, a fund approximately equal to 12% of the proposed five year educational development budget, 1983/84-1988/89, will be made available through SDEP. The exact components to be funded will be determined at a later date. The amount to be provided under SDEP is Rs. 12 million (\$909,000).

Health Services

Within the project area, there is one RHC (Nihag), six BHUs, and 10 civil dispensaries (CDs). None of the health facilities approved for construction in 1983/84 are located in the project area, although it appears that four BHUs are proposed for construction in the area during the five-year period 1983/84-1988/89.

The project will provide funds adequate to cover construction and necessary equipment for four BHUs in the project area and an additional sum to help defray staffing costs for the four new BHUs for a three-year period. The amount budgeted for the four BHUs is Rs. 3.6 million (\$272,700) and for staff cost supplement, Rs. 290,000 (22,000), for a total of Rs. 3.89 million (\$295,700).

Electric Power

The potential for developing mini-hydro electric schemes in

any of the valleys seems limited due to insufficient perennial flow in the streams. Rural electrification would best be achieved by tapping into the grid system that is presently being expanded. The main north-south transmission line from the district crosses the lower reaches of each valley. At present four of the larger settlements in the lower valleys have electric service, but there are few individual hook-ups.

The project would make funds available to WAPDA for the extension of high tension (HT) and low tension (LT) lines into each valley and for a number of power sub-stations. The HT lines would follow the roads into the valleys and LT lines would branch off for service to villages. It is estimated that settlements served would constitute about 60% of the total valleys' population of 122,000 and that about 60% of the households would make connection (at highly subsidized rates), totalling about 43,000 persons or approximately 6,200 households.

The indicative costs of the electrification component to be financed under SDEP is derived as follows:

Table 12 Estimated Costs of Electrification in EDV

Item	Rs. (000)	\$
HT line; 36 km @ Rs. 100,000 =	3,600.0	272.7
LT line; 24 km @ Rs. 108,000 =	2,592.0	196.4
Substations; 8 @ Rs. 50,000 =	400.0	30.3
TOTAL	<u>6,592.0</u>	<u>499.4</u>

Program Funding

The project would make available an annual sum of Rs. 100,000 to the District Council and Rs. 90,000 to each of seven

Union Councils for small development schemes in the four valleys. The total amount in this component would be Rs. 3.65 million (\$276,500).

Cost Summary: EDV

A summary of sectoral component costs is given below:

Table 13 Cost Summary EDV Sectoral Components

Sectoral Component	Rs (000)	\$
Agriculture and Irrigation	20,724.0	1,570.0
Roads and Communications	24,250.0	1,837.1
Water Supply	10,800.0	818.2
Education	12,000.0	909.1
Basic Health	3,890.0	294.7
Electric Power	6,592.0	499.4
Program Funding	2,750.0	208.3
TOTAL	81,006.0	6,136.8

Shewa Khwar Valley Sub-Project (SKV)

Introduction

This sub-project area consists of the Shewa Khwar River drainage area and is located in the southeast corner of the District. Poppy cultivation is reported to be widespread in the middle and upper portions of the valleys.

The area of this sub-project is about 130 km². The population is estimated to be around 30,000. This gives a relatively high population density which is consistent with field observations. The project area is in the Timergara Sub-division, Adenzai Tehsil, including Mir Hassan Khal and Asbanr Union Councils.

Agriculture and Irrigation

Livestock Production

Project activities will focus on herd management and range management, following the activities detailed in the livestock production section of the EDV sub-project. One FA will be placed in the SKV area. He will be supported by professional staff from the Warai Livestock Center and Animal Husbandry Department staff in Timergara. Five-year costs of this activity total Rs. 792,000 (\$60,000) and include staffing, housing, vehicular support, a pro-rata share of expatriate short-term technical assistance, artificial insemination equipment, and stock importation that is included in the EDV sub-project.

Hydrologic Survey, Irrigation, and Water Management

Project activities consist of surveys to determine adequacy of water resources availability (Phase I) followed by funding for canal construction (Phase II). Activities follow the detail provided under the EDV sub-project. Funds will be required for one irrigation engineer and two field assistants. Thirty (30) km of canals will be targeted for construction. Costs include staffing, vehicular support, construction (equipment and labor costs) and a 25% pro-rata of the outside technical assistance provided for under the EDV Project. Five-year costs are estimated at Rs. 2.64 million (\$200,000).

Agricultural Outreach

The T & V system has been used with success in Buner and will be initiated in Dir in the SKV sub-project area with later

extension to EDV and eventually to the remainder of the District. Objectives will be upgrading traditional agriculture and introducing new crops and technologies. Details of the approach are provided in the Agricultural Outreach program portion of the EDV sub-project. Elements that are special to the SVK sub-project include placement of two FAs in the area and installation of a demonstration farm near Aspanr. A cost allocation of Rs. 2.24 million (\$170,000) for five years was made based on a 25% allocation to SKV of Agricultural Outreach Costs detailed under the EDV sub-project.

Marketing and Processing

Marketing and processing opportunities will be sought through two studies and through provision of matching funds to stimulate private investment in processing. Costs will be shared on a 25/75 basis between SKV and EDV and will require an expenditure of Rs. 290,400 (\$22,000).

Watershed, Range, and Forest Management

Interventions are designated to increase production from watersheds, grazing lands, pasture, and forests that comprise 60% of the SKV sub-project area. The activity is estimated to cost Rs. 1.07 million (\$81,000). Activity details follow those provided for the watershed, range, and forest management component of the EDV sub-project.

Cost Summary of Agricultural Activities in SKV

Estimated costs to implement a five-year program of agricultural activities in SKV are summarized below. Costs do

not include services of resident Pakistani or expatriate technical experts that donors may wish to add.

Table 14 Agricultural Program: Shewa Khwar Valley
Sub-Project Cost Summary

	Rs. (000)	\$
Livestock Production	792.0	60.0
Hydrologic Survey, Irrigation, Water Management	2,640.0	200.0
Agricultural Outreach	2,244.0	170.0
Marketing and Processing	290.4	22.0
Watershed, Range, and Forest Management	1,069.2	81.0
TOTAL	<u>7,035.6</u>	<u>533.0</u>

Infrastructure

Roads and Communications

From the center of the sub-project area there is good access to the major north-south arterial road linking Dir district to points south. The project would provide funds to extend the main access road (gravel) for a further ten kilometers and an additional seventeen kilometers serving side valleys to the west and east of Asbanr. An additional sum would be provided to Union Council for the construction of tracks and village streets as required.

The cost of the program is:

Table 15 Costs of Road Access, SKV

Valley Access Roads; 27 km @ Rs. 360,000 =	Rs. 9.7 million
Union Council; annual lumpsum Rs. 90,000; 5 yrs. =	Rs. 0.45 million
TOTAL	Rs. 10.15 million (\$769,000)

Water Supply

Five existing water supply schemes can be identified in the valleys. The project would finance the construction for additional schemes in villages with the greatest need for supplies of clean drinking water. The amount made available for this component is Rs. 1.8 million (\$136,000).

Education

Literacy rates in the EDV sub-project area are substantially above the District average. A nominal sum of Rs. 3.5 million (\$265,000) will be allocated for educational activities in the area.

Health Services

One BHU and one Rural Dispensary exist in the area. There is one RHC near the lower boundary of the area, about 6 km distant by good road. The project would provide adequate funding for the construction of two additional BHUs in the upper northwestern and northeastern side valleys. The project would also fund operating costs for the BHUs for the remaining years in the Sixth Plan Period. The amount to be provided for construction of the 2 BHUs is Rs. 1.8 million (\$136,400), and for operating expenses Rs. 0.145 million (\$11,000) for a total of Rs. 1.945 million (\$147,000).

Electric Power

There seems to be no potential for the installation of mini-hydro power units in SKV. Newly-constructed high-tension power

transmission lines serving the northwest Pakistan grid system pass within 5 km of the center of the area. Access to power will be available from this system to meet electrification demands in the area.

The SKV sub-project would provide funds for extending the HT lines about 12 km and extending an additional 10 km of LT village service lines. A cost estimate is given below:

Table 16 Electrification in SKV

	Rs. (000)	\$
HT lines; 12 km @ Rs. 100,000	1,200.0	90.0
LT lines; 10 km @ Rs. 108,000	1,080.0	81.8
Substations; 2 @ Rs. 50,000	100.0	7.6
TOTAL	<u>2,380.0</u>	<u>180.0</u>

Program Funding

The project would make available an annual contribution of Rs. 100,000 to the District Council and Rs. 90,000 each to the Union Councils of Mir Hassan Khel and Asbanr to supplement their development activities. The total amount for this activity over five years is Rs. 1.4 million (\$106,100).

Cost Summary: SKV

A summary of component costs is given below:

Table 17 Cost Summary, SKV

Sectoral Components	Rs. (000)	\$
Agriculture and Irrigation	7,035.6	533.0
Roads	10,150.0	768.9
Water Supply	1,800.0	136.4
Education	3,500.0	265.2
Basic Health	1,945.0	147.3
Electric Power	2,380.0	180.3
Program Funding	1,400.0	106.1
TOTAL	28,210.6	2,137.2

Combined Cost Summary: Dir District Sectoral Projects (2)

A cost summary for Dir district sub-projects is given below:

Table 18 Dir Sectoral Projects Combined Cost Summary

Sector/Activity	Rs. (000)	\$
Agriculture and Irrigation	27,759.6	2,103.0
Roads and Communications	34,400.0	2,606.1
Rural Water Supply (domestic)	12,600.0	954.5
Education	15,500.0	1,174.2
Health	5,835.0	442.0
Electricity	8,972.0	679.7
Program Funding	4,150.0	314.4
TOTAL	109,216.6	8,273.9

Summary of All Costs: Dir Development Project

A cost summary for all SDEP-financed activities in Dir is presented in the table below. This summary includes cost estimates for the following:

- o Activities specific to the two sub-project valley areas;
- o General program funding for development activities outside the major poppy areas;
- o Support for LGRD; and
- o Support for the District Management Unit.

Table 19 Dir Development Project; Cost Summary
 SDEP-Financed Activities

	Rs. (000)	\$
Agriculture	17,860.0	1,353.0
Irrigation	9,900.0	750.0
Roads	34,400.0	2,606.0
Water Supply	12,600.0	955.0
Education	15,500.0	1,174.0
Health	5,835.0	442.0
Electricity	8,970.0	680.0
Program Funding	59,650.0	4,519.0
Dist. Mgmt. Unit	1,616.0	122.0
LGRD	2,603.0	197.0
	TOTAL	
	168,934.0	12,798.0

PROVISIONAL DRAFT

**THE CHITRAL DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN**

Detailed Project Description

November 26, 1983

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THE CHITRAL DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN

INTRODUCTION

The tentative design for the Chitral Development Project is organized in three sections. The first covers the background of Chitral District, including the administrative structure of the government and elected local councils. The second details existing patterns of resource availability, agricultural production and infrastructure completion, discussing current as well as planned additions to the physical capital in the largest district in Pakistan. The third section provides the outline of a proposed project, one designed to improve living standards and ensure that poppy does not re-emerge as a major cash crop.

I. BACKGROUND OF CHITRAL DISTRICT

History

Until 1950, Chitral was a princely state ruled by a family named Adamzada (literally sons of Adam). This family, which claimed Central Asian ancestry (specifically Moghul), established itself in the late sixteenth century and its head, known as Mehtar, was recognized as the hereditary ruler.

In 1950, the ruling Mehtar signed an instrument of accession with the Government of Pakistan whereby the territory of Chitral became part of the State of Pakistan. With this development the

Mehtar ceased to have formal authority in Chitral though he continued to hold his title and receive an annual privy purse of Rs. 95,000 (\$7,200) until 1972 when a Presidential Ordinance abolished the titles, privileges, and privy purses of all the former rulers of states.

With Chitral's accession to Pakistan, its administration was headed by a government official, the Additional Political Agent, an arrangement which lasted until 1966. In that year Chitral became an independent agency headed by a Political Agent. In 1969 Chitral was designated a district for the first time and a year later was included in the newly created Malakand Division of the NWFP.

Social Composition, Law, Language and Religion

Various ethnic groups are found in Chitral. The dominant social group in Chitral, referred to as Chitrali or Koh, have racial links to the Siah Posh Kafirs (translated as black coated infidels). This race or tribe, that incorporated Mongolian and Indo-Aryan strains, is thought to have originated in or come by way of Central Asia to Chitral.

Social organization in Chitral is more along class than tribal lines. The three main classes are the Adamzadas (the elite class including the former ruling family), the Arbabzadas which make up the so-called middle classes (artisans and traders) and the Faqir Miskins, a lower class comprised of tenants and tillers of the soil.

Other notable groups include the Kalash peoples, the best

known of whom are concentrated in three southwestern valleys that lie across the border between Pakistan and Afghanistan. While not very numerous, these peoples have aroused keen ethnographic, and more recently, tourist interest on account of their unusual customs. Though their language and culture is different, some scholars link them to the Siah Posh Kafirs. Those who have converted to Islam are known as Sheiks.

Other important groups, smaller in number, include the Shi'as, the Tajiks, the Wakhis and the Gujars. The Shi'as, members of one of the two leading sects of Islam, are represented in Chitral mostly by followers of the Agha Khan and are referred to as Maulais Ismailis or Khojas. The Tajiks are a Persian-speaking people who came from Badakshan in neighboring Afghanistan; the Wakhis also came from Afghanistan, from the Wakhan corridor which borders on northern Chitral. The Gujars are the tribe of animal herders that are found in many parts of the NWFP.

Chitral is now a settled district and the civil and criminal statutes of the Pakistan government are applied. Because the peoples of Chitral lack a tribal heritage and background like the Pushtun tribes, they do not have an entrenched tribal legal tradition that could pose a challenge to the body of government law. While government laws and statutes apply in Chitral, these do not include land registration laws and regulations and no cadastral survey has been carried out to date by the government.

The main language of Chitral is Khowar which is an amalgam of a number of languages and dialects including Turkish and Sanskrit. Recently the language has been given a written form

using Urdu and Persian characters. Khowar serves as a lingua franca throughout Chitral, but in addition there are number of dialects and languages that are spoken. These include Yudgah which is spoken in the Lotkuh valley, Dangarik or Palola in the Ashret valley (the approach to Lowari Pass), Narsatiwar or Gawarbati in the Arandu region (southwest of Lowari), Bashgali by the Sheiks, refugees from the Bashgal valley of Afghanistan and Kalashwar by the Kalash peoples.

Administrative and Political Structures and Institutions

There are three separate structures that are of relevance to the project area. These are the administrative structure or framework of the government within which the project(s) will operate; the government departments - line agencies or nation building departments as they are often called - which are the government's well established and traditional agencies for carrying out development activities; and the elected councils that have been recently established and are mandated to carry out development projects supplementary to those carried out by line departments.

Administrative Structure

The chief government official in the hierarchy at the district level is the Deputy Commissioner. He is responsible to a Commissioner (who is in charge of a Division - in the case of Chitral, the Malakand Division) and the Commissioner is in turn answerable to the Governor through the Chief Secretary of the Province.

Below the level of the Deputy Commissioner are Assistant Commissioners and, in the case of Chitral, Naib Tehsildars. Assistant Commissioners are posted to the subdivision level, of which there are two (Chitral and Mastuj), and Naib Tehsildars are posted to the subtehsil level of which there are seven. There are no administration staff posted below the sub-tehsil level in Chitral. Closely allied to the administration staff, to help with the law and order function, are police staff and these include a Superintendent of Police at the district level, a Deputy Superintendent at the subdivision level and a Station Head Officer at the subtehsil level. (See Table 1).

Nation-building Departments

In the NWFP there are fifty technical departments that constitute the operational level of the provincial government. Each of these departments is headed by a director, (a technical officer), and he reports to a secretary who supervises and is responsible for the department at the provincial level.

Traditionally the district operations of nation building departments have operated largely as self-contained units. However, with the establishment of local councils in 1979, some of the responsibilities of line agencies are being transferred to the District Councils, such as the powers to hire, fire and transfer staff in the education and health departments. Table 1 presents the staff positions of departments and the levels to which they are posted.

Table 1 Posting of Department Staff at District and Subdistrict levels in Chitral

LEVEL District (1)	AGRICULTURE Extra Ass't Dir. of Ag.	FORESTRY Div. Forest Officer (2)	C & W Executive Engineer
Subdivision (2)	Ag. Officer	Range Officer (2)	Subdivisional Officer (4)
Sub Tehsil (7)			
Union Council (11) Village	Field Ass't	Foresters Guards	

Table 1 Continued

LEVEL District (1)	IRRIGATION Executive Engineer	PHE Subdivi- sional Offi- cer	EDUCATION District Education Officer (2), 1 Male 1 Female	HEALTH Civil Surgeon
Subdivision (2)	Subdivisional Officer (1)	Overseer	Ass't Dis- trict Edu- cation Off.	Rural Health Center
Sub Tehsil (7)				Basic Health Unit
Union Council (11)				
Village				

Table 1 Continued

LEVEL District (1)	WAPDA Subdivisional Officer (2)	LOCAL GOVERNMENT AND RURAL DEVELOPMENT Assistant Director, District Engineer	ANIMAL HUSBANDRY Ass't Dir.
Subdivision (2)		Supervisor, Sub- Engineer	Veterinary Officer (3)
Sub Tehsil (7)			Stock Ass'ts
Union Council (11) Village		Secretary	

Elected District and Union Councils

In 1979, under an Ordinance passed by the NWFP government, District and Union Councils were created through an election Process based on a system of electoral wards. In Chitral the various villages and settlements of the district were grouped into 119 electoral wards. The formation of wards was undertaken in keeping with considerations for both community integrity and administrative feasibility, to the extent possible. Each electoral ward comprises from 250-300 households.

The 119 wards have been divided into 11 Union Councils. Thus, with one union councillor representing one ward, there are approximately 10 councillors or 10 electoral wards represented by each Union Council. In addition to its elected membership, the councils also include a functionary from the Department of Local Government and Rural Development who serves as the Council's secretary and, in the case of Chitral, representatives of the line agencies also sit on the council. (See Table 2 for the names of the different Union Councils and their location by administrative division.)

Table 2 Names and Location of Administrative Units

DISTRICT	SUBDIVISION	SUBTEHSIL	SUBTEHSIL	UNION	U.C.HQ		
Chitral	Chitral	Arandu	Arandu	Arandu	Mirkhani		
		Drosh	Drosh	Drosh	Drosh		
		Chitral	Chitral	Ayun	Ayun	Ayun	
				Chitral	Chitral	Chitral	
				Lutkoh	Garam	Lutkoh	Garam
					Chashma		Chashma
					Bresh-gram		Shagoor
			Mastuj	Mastuj	Booni	Mastuj	Mastuj
				Mulkoh	Warijun	Charun	Booni
						Mulkoh	Warijun
						Kwosht	Kwosht
		Turkoh	Shahgram	Turkoh	Shahgram		

The District Council has 33 members elected directly by the people, each member representing an average of 6,000 people. In Chitral three district councillors are elected from the area covered by one Union Council.

The chief purpose of the local council is to identify, plan, and implement development projects or schemes desired by the councils' constituents. The councils receive funds from the government to carry out the projects; in addition, they are empowered to levy taxes to raise their own development revenues, but to date only the District Councils have exercised this right. Funds that the councils raise themselves are referred to as local council funds.

Councils receive government funds as a block grant from the provincial government, channeled through the Local Government and Rural Development Department (LGRD). Funds are under the categories of Rural Works Programme (RWP) cash and World Food Program (WFP) (cash and commodity rations). For 1982/83, the RWP grant to the District Councils was Rs. 5,554,399 (\$420,000); to the Union Councils the total was Rs. 1,803,511 (\$136,000).

Each year the councils go through a planning process to determine which projects will be undertaken that year. Based on requests from constituents, councils prepare a list of schemes and estimated costs that are forwarded through government channels to the provincial level for funding approval.

In the case of the Union Councils, LGRD is the upward channel along which the list of schemes pass, from the Union Council secretary at the council level to the supervisor at the

tehsil level to the Assistant Director at the district level and from there to divisional and provincial levels.

In the case of the District Councils, the planning and identification of schemes is a more complex process. In addition to inputs from the councillors themselves, the plans of the various nation-building departments are also taken into account in deciding a development plan for the district. The mechanism to accomplish this is The District Coordination Committee that is chaired by the District Council Chairman and includes as members the district heads of the various departments. Under the 1979 Ordinance, the District Council is designated as the lead development agency in a district, and as time goes on, it is intended to take over more and more of the functions and responsibilities of the various line departments. Cases in point are the education and health departments where the District Councils are building schools and basic health units and where they will have certain powers over personnel in these departments.

The decisions of the District Coordination Committee are passed on to a Divisional Coordination Committee that reviews the plans from the division's various districts and then passes them on to the province.

In the case of Chitral, council planning has recently entered a more sophisticated stage. With assistance from UNICEF, the councils have adopted a local planning approach that focuses on the grass roots level and attempts to incorporate the basic felt needs of the local population. UNICEF provided training for

line agency personnel and councillors in the formation of functional/sectoral committees at various levels, and in the administration of household surveys to produce baseline data. Data were used to determine development priorities.

This planning approach reaches below the Union Council level to the wards with the result that each ward in Chitral has now produced a list of desired development projects. These lists have been used as the basis to design a five-year district plan, from 1983/84 to 1988/89. Line agencies have also been involved in the development of this plan. Thus, a measure of coordination and integration has come about between the development targets of these departments and the declared wishes of the local people in the formulation of the district's five-year plan.

For the design, implementation, and evaluation of development projects, the councils are assisted by administrative and technical staff provided by the LGRD.

For the Union Council schemes an engineer with the Assistant Director's Office is provided for supervision and technical assistance; at the sub-divisional level, a sub-engineer, work munshis, and a supervisor are responsible for technical and administrative details of Union Council schemes.

The District Council has two separate cadre of technical and administrative staff to assist with its development schemes: one is provided by LGRD and the other is supported out of locally-raised District Council funds. Staff help design and supervise construction of works. Audit arrangements have been worked out through LGRD at both council levels to check that funds have been properly used. The District Council also has its own audit

staff and procedures.

Local Government Activities in Chitral

As with other districts, major achievements have been accomplished by the local councils in Chitral. Small-scale projects in such sectors as roads, communication, water supply, irrigation, and village improvements have been designed and constructed within cost estimates. Chitral is a poor district and therefore does not have its own resources (except for manpower) to contribute to the councils, especially the District Council. Thus, the financial resources used by the local councils in Chitral have come almost exclusively from the government.

In order to test the capability of the District Councils, and also to prepare for the Sixth Five-Year Plan, the Federal Government provided funds under a Special Priority Program for each of the provinces. These funds were to be used by District Councils in the two sectors of farm-to-market roads and school construction. During the first year of the program, 1981-82, District Councils were given responsibility to build 25% of the primary schools in the district. Schools were built according to C&W specifications, but in less time and at less cost than C&W construction. The following year they were given 50% responsibility for primary school construction and in 1983-84, all primary schools in districts, including Chitral are to be built by the District Council.

C&W average costs for a boys primary school is Rs. 125,000 (\$9,500). District Councils have been known to build schools for

Rs. 50,000 (\$3,800) to Rs. 70,000 (\$5,300). Major savings are in avoiding contractor costs and employing cheap labor. When District Councils do not employ contractors, they use project committees headed by a district council member and assisted by the council's technical staff. The council is able to engage cheap or free labor because villagers are willing to provide labor to have a school. But it should be noted that if construction activities are to be viewed as income-generating opportunities for the local people, care must be taken to ensure that workers are paid.

Union Councils use project committees exclusively for their schemes. The leader of the project committee is the union councillor from the ward where the project is to be undertaken. During project implementation, a record is kept and vouchers assigned for funds disbursed to the project committee. The committee is responsible for supplying receipts for preboxed materials and maintaining muster rolls for labor employed. The Union Council chairman and secretary check and attest to the activities of the project committee and upon completion of a scheme, the sub-engineer or assistant engineer undertake a final inspection. Finally, the audit officer of LGRD inspects disbursement records and receipts and reconciles these with the project's implementation schedule.

Tables 3 and 4 show the activities of the District Council and Union Councils in Chitral undertaken during the first four years of the local council program.

Table 3 Chitral District Council, Projects Completed
1979/80 - 1982/83

YEAR	RWP ALLOCATION (RS.)	NUMBER OF PROJECTS EXECUTED BY SECTOR			
		COMMUNICATION	VILLAGE IMPROVE MENT	EDUCATION	HEALTH/ SANITATION
1979-80	825,552	18	20	3	-
1980-81	1,780,100	29	-	2	-
1981-82	1,620,980	28	4	-	-
1982-83	1,827,767	27	-	-	-
TOTAL		102	24	5	

Table 3 Continued

YEAR	RWP ALLOCATIONS (RS.)	NUMBER OF PROJECTS EXECUTED BY SECTOR			
		IRRIGATION	WATER SUPPLY	BUILDINGS	TOTAL
1979-80	825,552	14	16	2	63
1980-81	1,780,100	41	12	2	85
1981-82	1,620,980	10	5	-	47
1982-83	1,827,767	8	8	-	43
TOTAL	5,554,399 (\$420,000)	73	31	4	239

Table 4 Number and Cost of Union Council Projects
1979/80-1982/83

YEAR	ALLOCATION	NUMBER OF PROJECTS EXECUTED
1979-80		
1980-81	440,000	79
1981-82	750,000	127
1982-83	613,500	146
TOTAL	1,803,511 (\$137,000)	352

Table 3 (the District Council) indicates that in numbers of projects executed between 1979 and 1983, the communications sector was the priority sector. Irrigation schemes are second followed by water supply projects and village improvements. The 1983 grass roots survey, now incorporated into the District Council plan, gave first priority to potable water supply, second to irrigation.

Though no sectoral breakdown is given of the Union Council schemes, these consisted mainly of minor water supply schemes, village street improvement, construction of footpaths, and small irrigation channels. Their cost averaged around Rs. 9,000 (\$680) per scheme. In 1980/81 each union council was allocated Rs. 40,000 (\$3,000), in 1981/82 Rs. 68,181 (\$5,200), in 1982/83 Rs. 55,772 (\$4,200), and in 1983/84 Rs. 78,000 (\$5,900).

Population, Labor Force and EmploymentDemography**Table 5** Demographic Variables for Chitral

ADMIN. UNIT	POPULATION (END OF '83)	HOUSEHOLDS	AVE. SIZE (HOUSEHOLD PERSONS)	POP. DENSITY (PERSONS/KM ²)	% ANN. POP. GROWTH ('72-'81)
District Chitral	228,000	33,200	6.9	15.3	3.26
Sub-Div Chitral	135,300	19,900	6.8	21.0	3.95
Tehsil Chitral	57,900	8,600	6.7	N.A.	4.20
Tehsil Lutkoh	25,750	3,900	6.5	N.A.	3.18
Tehsil Drosh	51,650	7,500	6.9	N.A.	4.00
Sub-Div Mastuj	92,700	13,240	7.0	11.0	2.35
Tehsil Mastuj	37,320	5,200	7.1	N.A.	2.74
Tehsil Mulkoh	37,100	5,400	6.9	N.A.	2.09
Tehsil Turkoh	18,300	2,650	6.9	N.A.	2.14

SOURCE: 1981 District Census Report of Chitral, Population Census Organization, Statistics Div., Islamabad, June 1983.

NOTE: Tehsils are called "sub-tehsils" in Chitral; a new sub-tehsil, Arrandu, has been recently formed from part of Drosh sub-tehsil, but no data are available on area or population.

NOTE: End 1983 population estimates were derived by applying the 1972-81 annual growth rates to March 1981 census totals.

The average annual population growth rate is high, given the absence of any evidence of substantial in-migration, and may result from under-enumeration in the 1972 census. It is also

likely that females were under-enumerated during the 1981 census, given the sex ratio (males per 100 females) of 107.

The District population is overwhelmingly rural, 100% by census definition. Of approximately 500 settlements in the district only twelve had populations over 1,500 and none exceeded 3,500. About 27% of the settlements had populations under 150 persons, 50% had less than 300 persons, and 77% had fewer than 600 inhabitants. The population is highly concentrated along the major river valleys and valleys of larger tributaries.

Chitral District has the lowest population of any district in NWFP, the largest area, and thus the lowest population density.

Labor Force and Employment

According to the 1981 census, those above the age of ten who are either actively employed or looking for work total 62,858, or about 33% of the total population. The unemployed total less than 1% of the labor force. Nearly 80% of the working labor force, 49,300 persons, are employed in agriculture, of which 76% are self-employed and 23% are classified as unpaid family labor. The "services" sub-sector employs about 8% of the working labor force, the wholesale/retail trade sector about 6.5%, manufacturing only 0.7% and transportation 1%.

Relatively few persons seek employment outside of the district, either within Pakistan or overseas. Reasons given for this were lack of information, expense of travel, low educational levels, and lack of skills in demand. Language may also be a problem for some.

Over 94% of the employed work force is male. Of the females age ten and above (66,872), 94% reported housekeeping as the major occupation; 5% were employed elsewhere, and 1% were students.

II. RESOURCES, AGRICULTURE AND INFRASTRUCTURE

Resources

Physical Setting and Topography

Chitral District, located in the extreme northwest corner of Pakistan, is the largest in NWFP with an area of 14,850 km². In a topographic sense, it is mountainous throughout, with over 50% of the area is at elevations of 3,000 meters or higher. There are over 100 peaks at elevations of 6,000 meters or higher, the most lofty of which is Trich Mir at 7,690 meters. The numerous streams and rivers are deeply incised and elevation differences between valley bottoms and ridge tops are 2,000 to 3,000 meters. The cultivable width of the valleys ranges from several hundred meters to five kilometers where alluvial fans have been formed. There are no significant plateau areas at elevations low enough to permit settled agriculture. Except for the river valley bottoms, most of the terrain is characterized by slopes of 30 degrees and steeper.

Along the entire northern border there is an unbroken range of high mountains, the spine of the Hindu Kush range. Elevations of mountain tops here range from 5,500 meters to over 7,000 meters and the few passes are at elevations of 3,800 to 4,300

meters.

Elevations of the major valley bottoms range from about 1,200 meters along the Chitral River in the extreme southwest to around 2,200 meters in the middle reaches of the Lutkoh River in the northwest and 2,500 meters near Mastuj in the northeast.

Climate

The climate of the district can be classified as continental. In summer it is hot to very hot in the lower valleys and warm in the uplands. For example, the mean maximum for Drosh in July is 35.5 degrees C and the mean minimum is 22.8 degrees C. The minimum recorded temperature at Drosh was -5.5 degrees C. Most upper valleys are frequently in the grip of cold northerly winds and blizzards.

District rainfall ranges from 250 mm to 1,000 mm, increasing from northeast to southwest. Drosh receives 630 mm per year of rain. The southwest can normally expect no more than 500 mm and in the far northeast, no more than 125 mm. Rains generally fall in the winter and spring. The summer monsoon rains are blocked from Chitral by the high mountain range along the southern border. About two-thirds of the rainfall is received during the four-month period January-April. Summer rains usually occur in conjunction with violent thunderstorms, and the torrential rains are frequently more damaging than beneficial. Mud slides in the narrow valleys are common.

The District can be divided into five agro-climatic zones, as shown in Table 6 below:

Table 6 Agro-Climatic Zones

Zone	Elevation (Meters)	Rainfall (mm)	Agriculture
Low mountain dry	1500-2500	150-500	Summer and winter cropping (winter wheat); vegetables, fruit; must irri- gate
Low mountain sub-humid	1500-2500	500-800	Rainfed wheat and barley possible; otherwise same as above
High mountain dry	2500-3500	<400	No winter cropping; irrigation required; grains, potato, fruits
High mountain sub-humid	2500-3500	400-1000	No winter cropping; rainfed wheat pos- sible; fruits, vege- tables, prod. forest
Very high mountain	>3500		Alpine meadow, summer grazing

Source: Agriculture Experts Committee Report on Chitral, Pakistan
Agricultural Research Council, Islamabad, 1981.

Land Use

Agriculture is restricted to widely scattered and narrowly confined alluvial fan and deltaic deposits in mountain valleys. While Chitral covers 1.48 million ha, cultivable land totals not more than 20,000 ha or 1.4% of the district. With a population of 215,000, cultivable land availability is on the order of 1 ha per ten people and, as a consequence, farms are small with 58% in the 1 ha or less category. Typically, farm

land consists of small parcels in steeply sloping terraces.

Forest land occupies approximately 50,000 ha, (3.4%), all of it confined to the southern portions of the district, south of the town of Chitral, where rainfall is most abundant. Rangeland occupies approximately 1 million hectares (68%) and rocky or barren land occupies 400,000 ha (27.2%).

The agricultural land use reflects the quality of land resources and the technology available to utilize the land resources. Population density, district-wide, is low, at only 15 persons/km², but pressure on available land resources, which would be technically classified as marginally suited for agriculture, causes full utilization wherever water is available. Population densities in parts of the Chitral River Valley may exceed 400 persons/km².

Water Resources

Despite the relatively low rainfall, the district is well endowed with water resources from major rivers and numerous perennially-flowing tributaries. Much of the river flow is derived from melting snow. Runoff begins to increase with warm weather in March and reaches a peak in July to August. The average monthly discharge figures for the lower reaches of the Chitral river, presented below, show the seasonality of flow.

Table 7 Monthly Discharge: Lower Chitral River

Month	Discharge (cumecs)	Month	Discharge (cumecs)
JANUARY	73	JULY	712
FEBRUARY	61	AUGUST	660
MARCH	65	SEPTEMBER	323
APRIL	87	OCTOBER	139
MAY	172	NOVEMBER	96
JUNE	479	DECEMBER	81

Source: Agricultural Experts Committee Report on Chitral

From an agricultural standpoint, the district has a surplus of water in that there is more water available in most localities than there is land that could feasibly be irrigated.

Agriculture and Irrigation

Cropping

Production is obtained from approximately 20,000 ha of land, of which 8,500 ha is double cropped. Irrigation is practiced on 92% of the lands, rainfed production on 8%.

Subsistence needs dominate the crop production pattern. Grains occupy better than 95% of the cropped hectareage (see Table 8). Other than barley, which is fed to livestock, wheat, maize and rice are grown and consumed locally. Chitral is a net importer of grain, pulses, and vegetables, in 1982/83 producing an estimated 113 kg/capita/year of cereals, less than two-thirds of the estimated requirement. For six months of the year, fresh fruits and vegetables are not available. Foodstuffs and other goods are imported into the district before closure of the road, typically in late November. Trucks return empty and could be used for hauling local products.

Presently only walnuts, dried apricots, and apricot seeds are exported from Chitral. Apples are produced in excess of local demand at Booni, but long distances and poor roads thwart commercialization. Even if the road to Chitral were open during winter months distances to major consumption centers place the district at a marketing disadvantage when compared with areas producing the same commodities in other parts of the country. For Chitral to market agricultural products in other parts of Pakistan, agricultural schemes would by necessity involve marketing of a processed product, for example dried or canned fruit.

Table 8 Area Cropped and Yield of Principal Crops for Chitral District 1982/1983

<u>Crop</u>	<u>Area (ha)</u>	<u>Yield (kg/ha)</u>
Wheat	7308	1200
Barley	5297	1250
Maize	6672	1660
Rice	2794	1600
Potatoes	280	7500
Pulses	245	Varies
Orchards*	204	Varies
Vegetables	155	Varies

*Principally walnuts, apricots, apples, pears, and grapes.

Average yields of grain crops and potatoes are very low (see Table 8) and could be increased through support to agricultural extension, use of improved seed and increased use of fertilizers. There is no experiment station in Chitral.

Department of Agriculture staff consists of twenty professionals and technicians: an Extra Assistant Director of Agriculture, 4 Agricultural Officers, 10 Field Assistants and 5

Field Workers. Only one vehicle is available to the Department, that provided by the PNCB. Department staff conduct demonstration trials with farmers but extension programs are limited because of transport and funding constraints.

Use of Inputs

Improved Cultivars: Maize, rice and barley production is based entirely upon farmers saving seed from the previous harvest. There is difficulty in importing maize and rice seed for a spring planting because of the road closure. Thirty-eight metric tons of improved wheat seed, sufficient to plant 380 ha, were brought to Chitral in 1983. No information was available about programs to multiply and redistribute the seed that will be harvested.

Fruit tree nurseries are maintained at Chitral (3), Booni, Garam Chesma (2), and Drosh. These are maintained by the Department of Agriculture or the Forestry Department and provide budded and grafted fruit trees either free or at low cost. External support for two nurseries comes from the Agha Khan Foundation and UNHCR.

Fertilizers: Use of manure is common. Fertilizer transport to Chitral is subsidized. Records for 1981/82 indicate importation of sufficient nitrogen and phosphorus to permit an average application of 22 kg of N/ha and 13 kg of P/ha. Rates are less than adequate, but significantly higher than for Dir District.

Equipment: Statistics for 1981/82 revealed a total of 12 tractors in the District. Most cultivation is by animal

traction.

Irrigation

Surrounded by perennially snow-capped mountains, major valleys in Chitral have an ample water supply for irrigation. Shortage of cultivable land, not water, most limits expansion of the agricultural sector.

Agriculture is largely dependent upon irrigation and farmers have recognized its importance, giving irrigation canal construction and improvement the second highest priority (behind potable water supply) in the 1983 District Plan.

Simple diversions are made from rivers and small streams with irrigation canals located along the contours so as to command land further downstream. Typically, main canals carry 100-200 lps and run for distances up to 15 km. They are constructed of stone with little cement used and wooden flumes are common. Maintenance is a problem because of frequent landslides.

The majority of the canals are community projects constructed by villagers on a self-help basis. The Agha Khan Foundation is currently assisting eight villages in constructing irrigation canals and provides a daily wage (Rs. 20-25/day), (\$1.50-2.00) and costs of blasting and cement where required. Using their figures for a typical project, canal costs were estimated to be \$1,000/km. Based on 6.5 km of canal and a command area of 200 ha, the construction costs of the conveyance system was approximately Rs. 499/ha (\$34).

The provincial government, through the line agency, the

Irrigation Department (ID), has completed seven irrigation schemes in Chitral, at an average of \$837/ha. Even though costs for government schemes included more than canals, they are significantly greater than projects constructed on a self-help basis, and for this reason elected authorities prefer to support self-help irrigation projects rather than turning to line agencies for implementation.

The current Irrigation Department budget of RS. 211,200 (\$16,000) includes no funding for new irrigation schemes, though 15 such schemes are proposed. The ID staff of six (with three vehicles), have conducted surveys for nine mini-hydro schemes and will assist three villages with survey work for canal construction leading to installation of mini-hydro generating sets.

Larger irrigation schemes are operated by villages through the Union Councils. Water distribution is made by a common irrigator or ditch tender who is paid wages or produce for his services. Water charges are reported to be collected twice per year on the basis of the crop grown. While farm lands and terraces are not leveled, all are flood irrigated, farmers distributing the water in their terraces using crude hand implements.

Livestock

Livestock are maintained by Chitrali farmers for working the land, subsistence, and cash income needs. Stock numbers (1983 census) and their uses are indicated below:

Table 9 Inventory of Stock and Uses in Chitral

	<u>Number</u>	<u>Uses</u>
Cattle	93,933	Land tillage, subsistence milk and meat production.
Sheep	130,329	Meat for home consumption and wool for making "pattee" cloth, a widely practiced home industry and generator of cash income.
Goats	214,103	Meat for home consumption, wool for carpets and rope, and milk for ghee and cheese.

Chickens are common and trout are found in streams with the stock provided by three hatcheries in the District.

Production of forage is estimated to be insufficient to adequately support the livestock numbers shown above. On the demand side, assuming animal equivalents of 1, 0.2, and 0.3 for cattle, sheep, and goats respectively, and a dry forage requirement of 7 kg/animal unit/day, there is a requirement of 470,000 mt/year. Forage supply is estimated at a total of 360,000 mt/year. Supply is approximately 77% of the estimated requirement. One conclusion is that improvement in range production could have a significant impact on livestock carrying capacity.

Provincial-level programs in livestock are focused exclusively on animal health, with the government supporting veterinary hospitals in Chitral and Drosh and nine dispensaries throughout the District. Three veterinarians are assigned to the District and these individuals are assisted by 12 technicians. The annual staff and operating budget is approximately Rs. 528,000 (\$40,000). There are no externally-assisted programs in

the livestock area. Programs in range management and herd-improvement are greatly needed.

Forestry, Range and Watershed Management

Approximately 50,000 ha, or 3.4% of land in the District is under forest with the majority being in lower Chitral, where rainfall is barely sufficient to support tree growth. Upper Chitral, Mulkoh, Turkoh, and Mastuj Sub-tehsils receive less rainfall and forest growth is less extensive. This difference is reflected in fuel wood costs of Rs. 50/maund (\$3179/maund) (38 kg) in upper Chitral and Rs. 25/maund (\$1.89/maund) in lower Chitral. Because of the cold and for cooking, families burn up to a maund per day for six months of the year, and fuel wood gathering is a critical and expensive (either in money or time) component of their lives. It also places heavy demand on scattered forest resources.

Commerically exploitable forest reserves in lower Chitral are estimated to exceed 2.5 million cubic meters. However, since 1979, there has been no large scale commercial exploitation due to a lack of agreement between Union Councils and the government regarding division of royalties.

Charged with protecting the forest resources is the Forestry Department consisting of one District Forestry Officer, 3 range officers, 11 foresters, and 45 forest guards. The Department has an annual budget of Rs. 792,000 (\$60,000) mostly in pay and allowances. There is only one vehicle, that provided by UNHCR.

The Department has responsibilities in afforestation and provides fruit and forest species from nurseries in Chitral (0.6

ha) and Drosh (0.25 ha). The Aga Khan Foundation maintains a nursery at Garam Chasma. Although the Department has responsibility over rangelands, there are no ongoing range management programs. Range availability in late summer, fall and winter constrains livestock numbers.

Other than modest involvement by the Aga Khan Foundation, the UNHCR and a proposed but as yet unfunded pilot project submitted to the World Food Programme dealing with watershed management and forest extension, there are no external donors active in forestry in Chitral. Support for programs in fuel wood production and range management should be afforded high priority.

Infrastructure

Transport and Communication

The major overland transportation route into the district is via the Lowari Pass on the Dir-Chitral border. The pass, at an elevation of 3,200 meters, has steep grades on both sides and is completely closed by deep snow for 5-6 months, typically from late December until early June. Within the District, there are adequate road networks serving the main Chitral River Valley, the Lutkoh River Valley as far as Parabek and the Mastuj River Valley as far as Booni. Roads in other localities are accessible only to jeep-type vehicles, in some cases seasonally and with difficulty at all times. In good weather, the non-stop driving time, Peshawar-Chitral own, in a jeep-type passenger vehicle is 10-12 hours. Due to the rough condition of the roads, there are no sedan-type passenger cars in the District.

By air the District is linked to the outside by daily PIA

flights direct to Peshawar from Chitral town. Flying time is about fifty minutes. Due to the lack of any instrument landing system, incomplete flight weather information and the confined valley in which the airport is located, flights are frequently cancelled, especially in winter months, when it is not unusual for flights to be cancelled for fifteen consecutive days.

The rivers are not used for transportation due to steep gradients and numerous rapids. During flood stage tributary streams were in the past occasionally used to float logs down from high elevation forests to the main river and thence out to Afghanistan. The volume of timber moved this way was not large.

In the far north, especially the northeast, and to some extent everywhere, commodities are transported by animal -- horses, donkeys, and yaks. Cargos usually consist of basic commodities such as salt, tea, sugar, and wool. This means of communication is extremely important to the large number of villages with either no motorable road access or seasonal access only.

The major population centers in the district now have microwave telephone links with each other and outside districts.

Roads

Within the District, road construction and maintenance is undertaken by three separate entities: the Pakistan Army Engineers, the Communications and Works Department, and the District and Union Councils. Army Engineer road building activity is quite important as they are responsible for maintaining the Lowari Pass road and for the improvement,

including asphaltting, and maintenance of the major Drosh-Chitral highway. The C & W Department is responsible for the construction and maintenance of all major roads linking district headquarters with tehsil towns and major population and production centers. District Councils build and maintain access roads connecting villages and smaller population/production centers to C & W roads. Union Councils have also built some earth roads on a self-help basis although shortage of funds, equipment, and technical expertise generally limits them to constructing animal/pedestrian tracks and trails, and short limited-access roads.

Within the District, the total alignment length of the road network constructed by C & W and the military is about 585 km of which about 10 km is asphalt surface and the remainder gravel and earth surface. The District Council has constructed an additional 290 km of earth roads and Union Councils about 30 km of earth roads. Of the 585 km of C & W and military road, about 370 km are in fair-to-good condition. District Council roads are generally in fair condition. With the exception of the main Lowari Pass - Chitral road and short sections on other main routes, the roads are suitable only for narrow-track and short wheelbase vehicles, such as compact pick-up trucks, and jeep-type vehicles due to narrow carriageway and steep grades in places. Chitral town serves as the major trans-shipment center where cargo is transferred from large trucks (10 tons) to jeeps (and animals) for further distribution.

C & W road building activities that have been approved and

funded for fiscal years 1983/84 and 1984/85 consist of the following:

Table 10 Communications and Works Road Improvement 1983-85

Alignment	Length (km)	Cost (Rs. millions)	Status
Mirkhani-Arrandu	31	15.0	Nearly complete
Booni-Mastuj Phase I	20	9.85	Will complete by June 1984
Booni-Mastuj Phase II	10	4.9	Will complete 4 km by June 1984
Chitral Bazaar		3.58	50% complete
TOTAL		33.3	(\$2.53 million)

The work on improving and asphaltting the Drosh-Chitral road (Army Engineers) should be completed by July 1984.

Over the past four years the District Council has built 290 km of earth access and feeder roads, consisting of 127 separate alignments and costing in total Rs. 2.15 million (\$163,000) or about Rs. 7,400 (\$560) per kilometer. For the five-year period 1983/84 to 1988/89 the District Council proposes to construct about 540 km of road and 18 bridges. The estimated average unit cost for roads is Rs. 40,400/km (\$3,060/km) of which local community funding would cover Rs. 9,300 (\$706) in the form of labor and land for right-of-way. The total cost of the DC road program over five years is Rs. 21.67 million (\$1.64 million). Bridges (18) will cost an additional Rs. 9.36 million (\$710,000).

Unapproved C & W road proposals cover 188 km of road, mostly extensive improvement and upgrading, for a total estimated cost

of Rs. 68.5 million (\$5.2 million). Four major bridges are also proposed, for a cost of Rs. 19.3 million (\$1.5 million).

Energy and Power

Electric power is available only in tehsil centers where it is supplied through small hydro units (Chitral, Mastuj and Garam Chasma) and small diesel generators. Only 4% of all housing units have electricity, and total installed generating capacity is less than 2 mw. The potential for installing further mini-hydro units is excellent. Kerosene is used for lighting and nearly all households use wood/brush for cooking and for household heating. There are no known deposits of oil, gas, or coal in the district.

Funding for feasibility studies of mini/small hydro schemes has been approved, Rs. 0.5 million (\$38,000). In the District Council's Five-Year Plan, it is proposed that 93 mini-hydro schemes be built. The estimated total cost of the schemes would be Rs. 16.9 million (\$1.28 million), of which 71% would be borne by District Council and the remainder by the local community.

Education

Functional literacy levels are low in the District, estimated at 22% for males and 2% for females age 10 and above.

Educational facilities are summarized below:

Table 11 Educational Services in Chitral District

Institution/staff	<u>SUB-DIVISION</u>					
	Chitral		Mastuj		District	
	Male	Female	Male	Female	Male	Female
Primary School	60	17	72	20	132	37
Middle School	13	1	10	-	23	1
High School	9	2	11	1	20	3
College	2	-	-	-	2	-
Mosque School	41	-	25	-	66	-
Vocational School	N/A	-	N/A	-	9	-
Agha Khan Fdn. School	N/A	N/A	N/A	N/A	N/A	N/A
Teachers	N/A	N/A	N/A	N/A	673	200
Students	N/A	N/A	N/A	N/A	10,373	1,594

- Sources:
1. District Development Plan (1983/84-1988/89)
 2. District Education Officer (Male)
 3. District Education Officer (Female)
 4. 1981 Census Report of Chitral

Within the age group 5-14 years, (61,000 persons), only 15% are attending school, and only 5% of females in this age group are attending.

Many teachers, especially at primary level, are not adequately qualified. Untrained teachers are sometimes temporarily hired and as funds become available they will be sent off for training or trained within in the district.

UNICEF and the Agha Khan Foundation are providing some assistance to education in Chitral. UNICEF has provided funds for repair of four male primary schools, reconstruction of two more and proposes to provide basic equipment for others. The total value of UNICEF assistance is around Rs. 100,000 (\$7,600). The Agha Khan Foundation has built ten female primary schools and

provided teachers. It is expected that these ten schools will soon be certified by the Department of Education, at which time it will assume responsibility for them.

Under the Provincial Annual Development Plan (ADP), the only approved schemes in education for Chitral consist of upgrading primary and middle schools to middle and high school status and adding five extra high school classrooms for a total cost of Rs. 2.9 million (\$220,000).

The construction of primary schools is a District Council responsibility. For the 1983/84-1988/89 Five Year Plan (District) the phased construction of 23 primary schools and 13 middle schools is proposed with a total estimated cost of Rs. 2.29 million (\$174,000) of which 77% is met by District Council and 23% by local communities (Union Councils).

Water Supply, Health, and Sanitation

About 95% of Chitral households obtain domestic water from springs, rivers and streams, and snow. Only 3% have access to piped water. Most streams and rivers are contaminated with human and animal waste, especially in the lower reaches. Less than 3% of dwellings utilize human waste disposal systems such as bucket or pit latrines or flush toilets; however, the incidence of water-borne disease is not exceptionally high and this is no doubt due to the abundant supplies of flowing water, especially during the hot season when microbial activity is at a peak.

In the 1983/84 ADP for Public Health Engineering, Chitral District, a sum of Rs. 2.16 million (\$163,000) is approved for the completion of six rural/small town water supply schemes.

Funding for five additional rural water supply schemes costing Rs. 2.7 million (\$205,000) has not yet been approved. Under the District Council, approval has been received to establish two additional Basic Health Units at a cost of Rs 2.3 million (\$174,000). The District Council also proposes to install 198 domestic water supply schemes over the next five years at a total cost, including community contributions, of Rs. 19.65 million (\$1.5 million).

Mining and Quarrying

The only apparent organized mining activity consists of one small antimony mine in Lutkoh Tehsil. There is some activity, on a casual basis, in collecting semi-precious stones, but the output is small and there is no lapidary work done in the District.

Reconnaissance surveys have identified deposits of a number of minerals including iron and copper, but it does not seem that extraction would be an economically viable proposition. Quarrying is carried out on a small scale for local building materials.

Industry

There is no large or medium scale industry in the district and very little small-scale activity. The weaving of quality woolen cloth called pattee is widespread. The quality of Chitral pattee is recognized throughout NWFP, and about 60,000 yards are exported annually. There is no budgetary support for industry in the provincial ADP, and in the District Council Five-Year Plan industry sector assistance consists of the establishment of a

vocational training center, with an estimated cost of Rs. 0.5 million (\$379,000).

SECTION III. THE PROPOSED PROJECT

Objective: The objective of the Chitral Development Project is to provide sufficient development benefits to prevent the re-introduction of poppy cultivation in Chitral District.

Strategy: The array of development activities detailed below can be undertaken by a single donor, by a consortium of donors, or donors may elect to fund a particular component of the project in which they have interest. Because many of the activities are to be carried out by local elected councils, there is no need for carefully-timed integration of project components. Any contributions which can be provided will add to the assistance now available and help ensure that poppy cultivation does not re-appear in Chitral.

Development activities are designed to:

- o Provide physical works such as roads, public health facilities, and schools, increasing the quality of life for rural residents. Construction of infrastructural works are designed to be carried out largely by rural residents, thus providing them with a source of cash income;
- o Provide income opportunities from sale of primary and processed agriculture and forestry products thus providing residents with a source of cash income over the longer term which is a partial substitute for poppy income they have now rejected;
- o Upgrade the level of subsistence by increasing the amount of arable land and the production potential from existing farm and range land through improvements in livestock types and range carrying capacity, and by making sources of fuel-wood more available through social forestry programs; and
- o Strengthen the capacity of local government institutions to plan and manage development initiatives of their own choosing.

Opium Poppy Cultivation in Chitral District

Before the ban on poppy cultivation in 1979, Chitral District was a major producer of opium. Although all the areas of the District except Chitral Sub-tehsil were reported to cultivate poppy, production was heaviest in the Yarkhun and Mastuj areas in the north, in Madak Lasht, Kesu and Kuro in Drosh Sub-tehsils, and in Lutkoh Sub-tehsil. Approximately 100 ha each were devoted to poppy cultivation in Mastuj and Drosh Sub-tehsils.

On account of the ban and lower prices for opium, farmers ceased growing poppy. With a rise in the current farmgate price, officials in Chitral feel that poppy stands a high likelihood of being re-established because:

- o Substitute crops do not provide the cash income that poppy once did;
- o Distances and poor roads make center-periphery control and enforcement extremely difficult; and
- o Several parts of the District, particularly Yarkhun and Arkari have a high degree of opium addiction, reportedly running to 80% of the population.

The case for including Chitral District in the Special Development and Enforcement Plan area is based on prevention and development need. Local officials feel that unless Chitral is included in the Plan there is strong likelihood poppy will be reintroduced. Further, much of the area is without potable water supply, power, roads, dispensaries and schools.

Development works should be undertaken throughout the District with special emphasis directed to the former poppy-growing areas: Mastuj, Drosh and Lutkoh Sub-tehsils.

Additionally, it is proposed that support be given for detoxification centers.

Strong support for a poppy-prevention cum development program was voiced by the provincial and elected leadership in Chitral. The District has demonstrated excellent community-based/self-help efforts in carrying out past road, bridge, irrigation, and water supply projects, and this experience will be capitalized upon in activities specified under this plan.

Table 12 Chitral District, Area Planted to Poppy by Sub-Tehsil Prior to Ban with Principal Villages That Cultivated Poppy

Sub-Tehsil	Villages	Area (ha)
Mastuj	Yarkhun, Mastuj, Laspur, Booni	102
Turkoh	Sharhgram	8
Mulkoh	Oweer, Gohkir, Kosht Mizhgal, Mulkoh	49
Ludkoh	Breshgram, Gabore Garam Chasma, Bequsht	14
Drosh	Madak Glasht, Kuro Kesu, Shanigar Sweer, Jingirat	103
Arrandu	Arrandu Lasht	7
TOTAL		283

Source: Data are estimates by the Naib Tehsildar in Chitral.

Managing the Project at the District Level

In order to manage and coordinate project activities at the district level, a unit will be established to be called the District Management Unit (DMU). This unit will be headed by a Grade 17 Officer with the rank of Assistant Commissioner and he will be designated as the Project Director. He will be assisted by a staff and his office will be situated at Chitral town.

The functions of the Project Director will be:

- o To liaise with the SDU based at Peshawar and to receive and implement policy direction;
- o To provide policy guidance and coordination to the various line agencies and local councils in carrying out project activities; and
- o To provide overall management for the various functions that will take place at the DMU office.

Short-term technical assistance specialists will be based at the DMU as well as some of the line agency personnel working directly on project activities.

The DMU office will have two sections: administration, and monitoring and evaluation. The administration section will be responsible for general administration as well as logistics and procurement support for line agencies or local councils.

The monitoring and evaluation unit will be responsible for implementation planning, progress, and scheduling. This section will also be responsible for economic studies called for during project design or implementation.

The total costs for the DMU are shown in Table 13 below.

Table 13 Estimated Costs for the District Management Unit

Item	Rs. (000)	\$
Staff	288.6	
Office	114.0	
Transport	245.0	
TOTAL	647.6	(\$ 49,000)

Institutional Strengthening of Local Government in Chitral

Given the present administrative, technical and supervisory capability of the Chitral District Local Government and Rural Development Department (LGRD) cadre, there is room to absorb funds for the planning, design and implementation of small development projects. However, the Project will provide substantial funding increases to the elected local councils, especially the District Council, and these bodies will require substantially more technical support in project implementation than previously.

It will be necessary to add to the existing staff, to provide for increased mobility and to provide miscellaneous basic office supplies and equipment.

The total for the LGRD support component is given below.

Table 14 Estimated Costs for Support to LGRD Department

COMPONENT	Rs. (000)	\$
Staff	725.2	
Mobility	575.0	
Equipment	20.0	
TOTAL	1320.2	(\$ 100,000)

General Development Support

In addition to providing funding for specific sectoral activities detailed in the following sections, financial support for strengthening the Local Government and Rural Development (LGRD) Department, and funding for the establishment of a District Management Unit, the project will also provide financial support for general development activities undertaken by elected councils outside the specific areas in which SDEP project activities are concentrated.

The purposes of this program funding are:

- o To reduce inequities in development assistance within the district;
- o To enable visible, recognizable increased development activity in areas where farmers have voluntarily ceased to grow poppy;
- o To make it more politically expedient for District Councillors to approve major funding for poppy growing areas, and
- o To extend additional project assistance to minor poppy growing areas outside of the three areas of Chitral receiving most of the development assistance.

Program funding would be provided to the District Council and Union Councils to enable them to increase and improve their development program activities which typically consist of small, labor-intensive, community self-help projects which reflect village-level priorities.

In Chitral the program funding assistance would be extended to the District Council and to Union Councils not receiving direct sub-project assistance. The annual program funding would be: District Council Rs. 1 million (\$75,000) and Union Councils (9) Rs. 0.72 million (\$54,500) each. Thus, over a five-year

program, the District Council Chitral would receive Rs. five million (\$378,800) and Union Councils would receive a total of Rs. 32.4 million (\$2.45 million). Total costs of the funding program for Chitral over a five-year period would be Rs 37.4 million (\$2.83 million).

The additional funding for Union Council activities would be made with the understanding and agreement that, whenever possible, priority for development implementation would be given to locations within Union Councils where small areas of poppy may be cultivated and areas where farmers have voluntarily ceased growing poppy. The same agreement would be obtained from the District Council.

Agricultural and Irrigation Project Activities

Agricultural Program

SDEP support is sought for five sectors: livestock, irrigation, agricultural outreach, marketing and processing and watershed, range and forest management. Livestock and irrigation needs (a veterinary dispensary or an irrigation scheme) are location specific. Other needs are not location specific, having benefits throughout the District. For example, establishment of a small applied research station in Chitral is intended to serve as a point for introduction of new cultivars to serve all sub-tehsils.

Wherever components of an agricultural activity can be clearly assigned to one valley, they are so indicated in the text. Otherwise, cost allocations for agricultural activities was made on the basis of 17% to Shishi Valley, 5% to Akari

Valley, 24% to Mastuj Valley and 54% to all other locations. This percentage breakdown is arbitrary but reflects the size of the population in each of the areas, size of the physical area and past history of poppy cultivation which was greatest in Shishi and Mastuj.

Livestock Production

Livestock plays a vital role in Chitral, offering a source of protein for subsistence and power for land tillage. A program of livestock production for Chitral necessarily focuses on three areas: a) better feeding of herds; b) improvement of genetic potential; and c) adequate veterinary coverage. Present programs only deal in part with veterinary coverage.

Better feeding is intimately linked with range carrying capacity which is discussed under the activity dealing with watershed, range, and forestry management. The Animal Husbandry Department has requested project support for importation of breeds of poultry that can tolerate cold and have improved disease resistance. They have also requested sheep herd improvement for wool production to support the local cloth-making cottage industry. Lastly, they seek distribution of improved milk goats since milk is in short supply in the District. Donor funding is sought for animal importation and for a mobile, artificial insemination unit. Project funding will also be used to establish and support veterinary dispensaries at five district locations, including one in the Shishi Valley, which presently lack these facilities.

Irrigation

In Chitral, agriculture is almost totally dependent upon irrigation. The 5-Year Development Programme and Plan of Action prepared in 1983 by the District Council on the basis of community participation gave highest priority in agriculture to the construction of irrigation canals as a means to bring more hectareage under cultivation and to improve productivity from poorly watered lands. The plan called for 770 km of canals but provides no funding for their construction.

Community participation in plan development is matched by a long history of communal action to build water channels and functional small-scale irrigation schemes. This tradition will be supported by the SDEP through funding of 30 km of canals in each of the Shishi, Akari, and Mastuj Valleys, and in providing Rs. 900,000 (\$68,000) to each of the other 9 Union Councils, earmarked for construction of 30 km of canals in their areas. Funding would go primarily for labor to be provided by the communities, but could also be used for cement, explosives for blasting, and other related construction needs as required.

Agricultural Outreach

The primary objective of the agricultural outreach program for Chitral will be to increase yield and production of basic food grains: wheat, barley, maize, and rice. A secondary objective will be to introduce new varieties of fruit trees and grapes which offer promise of commercialization.

The strategy to increase food grain production is keyed to:
a) importation of improved varieties; b) introduction of programs

to save (and not consume) improved seed; c) importation, storage, and distribution of fertilizers throughout Chitral; and d) use of irrigation. In the wake of notable breeding improvements and widespread publicity for HYV wheat, rice, and maize, little attention has been focused on barley. Yet, improved varieties of rainfed and irrigated barley are available and can be introduced. High lysine-content, open-pollinated varieties of maize should also be sought out and tested. With SDEP support, the Department of Agriculture will import, demonstrate, store, and distribute seed throughout Chitral. Funding is also sought to make fertilizer available, not only in the town of Chitral, but in distant parts of the District as well, and an improved rural road network is a necessary precondition. A seed/fertilizer storage depot will be built in Mastuj.

Because of Chitral's distance from the rest of the country, fruit trees and grapes must be processed for export. This involves either making preserves, canning, or drying, as is done presently for apricots and as would be done particularly for raisins. Varietal introduction will be necessary to achieve commercialization objectives.

Programs of stepping-up production of basic food grains and introduction of new varieties must be demonstrated to farmers, but the extension service is already spread too thin to reach but a handful of farmers. The number of field assistants will be increased by five through SDEP funding and their radius of operation will be increased by providing project funding for motorcycle transportation (14). Individuals will be trained in agricultural outreach technologies.

Lastly, small demonstration farms will be established in each of the Union Councils to demonstrate and extend appropriate production technologies. A one-hectare station will be established in Chitral and meteorological stations will be established in the Shishi Valley, Booni, and Mastuj.

Marketing and Processing

Because of its distance from the rest of Pakistan, Chitral cannot easily compete in marketing its agricultural production. Walnuts and dried apricots are two products which, because of their transportability and low bulk, are shipped outside of Chitral. Nut production or processing of fruit through drying or making preserves offers alternative ways in which fresh fruit can be moved.

One suggestion is that grapes be planted, dried in the fields, and marketed as raisins. Grape cultivation and raisin production will be tested by the project. Another suggestion is for production of potatoes and their marketing as chips. A third suggestion is that of trout farming and export to the rest of Pakistan and elsewhere through regularly scheduled commercial aircraft.

Funding is sought first to finance a study of marketing and processing alternatives for Chitral. Thereafter, the SDEP will provide matching funds to help launch private sector processing initiatives. These will be contingent on positive feasibility determination. Funding for these activities would be channeled to the Special Development Unit located in Peshawar.

Watershed, Range, and Forest Management

Range lands and forests together cover more than one million ha of watershed in Chitral, 70% of the land in the district. Virtually no attempt is made to manage or to affect productivity from these lands, although farmers depend upon them for grazing of stock and for fuel-wood and building materials.

Although rangeland is the largest land use category in the District, no programs are underway to improve productivity of this resource. Institutional responsibility rests with the Forestry Division, though the Animal Husbandry Department is also concerned because range conditions are so critical to animal carrying capacity.

Under SDEP funding, activities will be supported that increase the productivity of the watershed. Brief mention is made of these activities, several of which were suggested by the Agriculture Experts Committee Report on Chitral, under the auspices of the Pakistan Agricultural Research Council, Islamabad, 1981.

- o A watershed management working group will be formed consisting of staff from the Forestry Division, the Animal Husbandry Department, the Agriculture Department, and the Irrigation Department, all based in Chitral. The mandate of the working group will be to develop and implement a plan to increase productivity from the watershed. A team of outside experts will meet regularly with the Chitral staff to assist them in plan elaboration and implementation.
- o Afforestation programs will be supported in forest areas, along roadsides, riverbanks, and irrigation channels. A nursery will be established in the Shishi valley and funds provided for a forester and an outreach afforestation program.
- o Funding will be provided for construction of check dams, terraces, and drainage culverts so as to protect

irrigation canals and to lessen soil erosion.

- o A study will be made of the possibilities for commercialization of medicinal plants that are native to Chitral's forests. An earlier study by the Pakistan Forest Institute indicated availability of certain species that could be exploited by organized village efforts.
 - o Commercial exploitation of forest reserves is not currently practiced. A study would be supported to investigate possibilities of exploitation and linkages with a processing plant to manufacture wood products.
 - o A range resources survey would be conducted to determine the options for increasing range carrying capacity. Options may include:
 - i. Species introduction, e.g., alpine pasture.
 - ii. Rock fencing.
 - iii. Grazing management.
 - iv. Use of fertilizers.
- A pilot program of range intervention will be staffed and supported.
- o A main program of range improvement will be supported, employing best practices that emerge from the pilot program.
 - o Four new range officers with responsibilities for watershed lands will be funded by the project.

Cost Summary of Agricultural Program

Costs are estimated at Rs. 25.41 million (\$1.925 million) to implement a five-year program of agricultural activities in Chitral. This is summarized below by activity and by location. Costs do not include services of resident Pakistani or expatriate technical staff that donors may wish to employ.

Table 15 Summary Costs of the Agricultural Program

Activity	Shishi Valley	Akari Valley	Mastuj Valley	General Funding	Totals
Livestock Production	32	5	40	63	140
Irrigation	125	65	240	700	1,130
Agricultural Outreach	52	15	113	170	350
Marketing and Processing	7	4	11	23	45
Watershed, Range and Forest Mgt.	119	7	52	82	260
TOTAL	335	96	456	1,038	1,925

Donors have a variety of funding options:

- a. To fund the entire agricultural program;
- b. To fund agricultural activities in a single valley, or
- c. To fund an activity, or a portion of an activity, for example irrigation, in all valleys.

Infrastructure, Health and Education Programs

The Shishi Valley Sub-Project

The Shishi River is a major tributary of the Chitral River, which it joins about 4 km north of the town of Drosh. From its headwaters, about 60 km to the northeast of Drosh, the main stem of the river follows a fairly direct course to its junction with the Chitral. Maximum flows occur in the summer months due to the melting snow pack in the headwaters. The river elevation is about 1,300 meters in the lower reaches, increasing to 2,500 meters about 25-30 km upstream. The width of the potentially cultivatable area (based on slope considerations) in the middle and upper reaches of the valley ranges from one to three

kilometers. The drainage area of the river is in the range of 800-1,000 km².

The population of the valley is estimated at 10,000, with major concentrations at the lower and upper ends. Agricultural land suitable for cropping is estimated to be around 3,500 ha. Agriculture is the major occupation, and this includes forestry. This valley has more accessible timber reserves than any other in the District.

The valley area considered for funding under SDEP lies within the Drosh Union Council boundaries.

Roads and Communications

Access into the valley is by an earth road originally built by the Forestry Department to facilitate log extraction and supervision of felling. This road has not been maintained and is in very poor condition. It is proposed that this road be rebuilt to an all-weather "jeepable" condition for a length of 35 km, and that necessary bridges be rebuilt to safe condition and new bridges built where required.

The indicative cost estimate is based on unit costs for roadwork at Rs. 200,000 (\$15,000)/km and for bridges at Rs. 600,000 (\$46,000) per 30 meter. About 50 meters of bridge would be required. The total cost for the 35 km of road with bridges and all drainage structures would be Rs. 7.1 million (\$537,000).

Funds for construction would be channeled through the District Council that would be responsible for implementation in coordination with Union Council Drosh and local communities. In accordance with District Council policy and practices in rural

road construction, the local communities that benefit from the road would share about 20% of the cost in the form of labor contribution and land for right-of-way. As this road is relatively long, careful coordination of local community participation will be required. It is assumed that construction will be phased over a 3-year period.

Maintenance costs will be provided under the SDEP until commencement of the seventh Pakistan 5-Year Plan. Maintenance is budgeted at Rs. 2,500/km/yr (\$200.00).

An additional nominal sum of Rs. 552,000 (\$42,000) will be made available to Union Council/Drosh for the construction or rehabilitation of donkey trails, pedestrian bridges and short link roads to villages. The sum will be dispersed in equal increments over five years. The cost estimate is derived as follows:

Table 16 Drosh Union Council Access Budget

Activity	Rs.	\$
Village Access Roads; 8 km @ Rs. 30,000	240,000	
Animal Tracks/Trails; 20 km @ Rs. 13,000	260,000	
Pedestrian Bridges; 4 @ Rs. 13,000	52,000	
	<hr/>	
TOTAL	552,000	(\$42,000)

The total amount to be made available under SDEP for transport and communications is Rs. 7.96 million (\$600,000), as detailed below:

Table 17 Summary Shishi Valley Road Access Costs

Item	Rs. (000)	\$
Main Road and Bridges	7,100.0	
Access Roads, Tracks, and Ped. Bridges	552.0	
Main Road Maintenance Subsidy (3 yrs.)	306.0	
TOTAL	7,958.0	(\$600.0)

Water Supply

Precise domestic water supply needs in the valley have not been determined. Nine water supply schemes are proposed for U.C. Drosh in the District 5-Year Plan. It is proposed that five of the schemes would be located in the Shishi Valley and financed under the SDEP. Financing incremental to the District Development Plan budget would be provided to the District Council for early implementation of these five schemes.

The cost of each scheme to be financed by the project through District Council would be Rs. 300,000 (\$23,000). The communities served would contribute labor valued at approximately Rs. 30,000 (\$2,000), would make available right-of-way free of charge and would undertake to maintain the system

The total cost of water supply schemes in the valley to be financed under the project would be Rs. 1.5 million (\$114,000). The projects would be constructed over a two-year period.

Education

Information was not obtained on the number of schools in the valley, nor the school age population. Therefore, a nominal sum is allocated for this item that would approximately cover the

cost of rebuilding two 2-room boys primary schools, building and equipping two girls primary schools of two rooms each, building one new boys primary school and building one new boys middle school.

Unit costs used for deriving indicative cost estimates for education are:

Table 18 Construction of Schools, Shishi Valley

Item	Rs. (000) \$		Rs. (000) \$	
	Unit Costs		Total Costs	
Primary School, new (3)	290.0	22.0	870.0	65.9
Primary School, rebuild (2)	123.0	9.3	246.0	18.6
Middle School, new (1)	350.0	26.0	350.0	26.5
TOTAL			1,466.0	111.0

The total cost to the education component is Rs. 1.466 million (\$111,000). Funds for building and rebuilding primary schools would be channeled through the District Council. The District Department of Education would be responsible for building the middle school and equipping all schools. The local communities (through the Union Council) will make contributions mainly in the form of labor. Land for all schools will be made available free of charge.

Health

Within the valley, basic health facilities are lacking. There are two dispensaries in the middle and upper reaches of the valley, but no Basic Health Units (BHU) or Rural Health Centers (RHC). There is one BHU at the extreme lower end of the valley, but this facility is from twenty to twenty five kilometers

distant from upper valley inhabitants.

Two BHUs are proposed for U.C. Drosh in the District 5-Year Plan, but no RHCs. The SDEP would undertake the financing of one BHU to be located in the upper Shishi Valley. Responsibility for constructing the BHU would lie with Public Health Engineering. The cost of BHU -- construction and basic equipment -- is estimated to be Rs. 1.2 million (\$91,000). The project would also provide an allowance for operations and staffing for the period remaining in the current 5-Year Plan after the completion of the facility. A nominal sum of Rs. 190,000 (\$14,000) is allocated for this activity, assuming a three year period of operations within the current 5-year plan period.

The total cost of the health component is Rs. 1.39 million (\$105,000).

Electric Power

Under the District 5-Year Plan, ninety-three rural electric schemes are proposed, of which six are in Drosh U.C. Under the SDEP financing would be made available for the construction of two of the schemes in the Shishi Valley. The potential for mini-hydro development seems promising, but a feasibility study will be required for each site.

Under SDEP, incremental financing would be provided to ensure that the valley is included in the district-wide mini/small hydro-electricity feasibility study that has been approved with funding of Rs. 0.5 million (\$38,000). An indicative sum is included under SDEP financing for the construction of two mini-hydro units in the valley.

Rs. 100,000 (\$7,600) is budgeted for the feasibility study of mini-hydro potential in the valley and Rs. 366,000 (\$27,700) for construction of the schemes, for a total component cost of Rs. 466,000 (\$35,000). The feasibility study would be undertaken by WAPDA and construction of the schemes by the District Council with community participation.

General Program Funding

Under the District 5-Year Plan, the District Council and Union Councils will be undertaking a number of development projects and activities that are not specifically included as project components in the SDEP program for Shishi Valley. Some of these activities are:

- o Management training (Union Council staff);
- o Training community health and nutrition workers;
- o Training staff/workers in Women Community Centers;
- o Miscellaneous community services; and
- o Adult literacy centers.

A budget allocation of Rs. 190,000 (\$15,400) per year for a five-year period is made available by SDEP for supplementary support of miscellaneous activities. Rs. 100,000 per year (\$7,600) is made available to the District Council and Rs. 90,000 (\$6,800) to Union Council. The total over five years is Rs. 950,000 (\$72,000).

Summary of Costs by Sector: Shishi Valley

A summary of project costs by sector is given in the table below:

Table 19 Summary Costs of the Shishi Valley Sub-Project

SECTORAL COMPONENT	Rs. (000)	\$
Agriculture and Irrigation	4,422.0	335.0
Roads and bridges	7,958.0	603.0
Water supply	1,500.0	114.0
Education	1,466.0	111.0
Basic health	1,390.0	105.0
Electric power	500.0	38.0
Program funding; small schemes D.C.	500.0	38.0
Program funding; Union Council	450.0	34.0
TOTAL	18,186.0	1,378.0

The Arkari Valley Sub-project

The Arkari River is a major tributary of the Lutkoh River which drains northwest Chitral and is eastward flowing. The Arkari River flows north to south and has its headwaters in the high mountain range which forms the border between Pakistan and the Wakhan corridor. The length of the river is about 45 km. The cultivable area of the valley is quite narrow, typically one to one and one-half kilometers. River bed elevation at the Lutkoh River junction is about 1,900 meters, rising to 2,700 meters twenty-five kilometers upstream. Ridgetops above the valley are typically 4,600-5,200 meters above sea level.

The valley lies entirely within the Breshgram Union Council area, Lutkoh Sub-tehsil, Chitral Sub-division. Breshgram Union Council recently received an award as being the most effective Union Council in Chitral District.

Social Setting

The inhabitants of the middle and upper reaches of the valley are reported to be living in deep poverty, compounded by an incidence of opium addiction as high as 80% among adults.

The population of the valley is estimated to be around 4,500 persons, inhabiting 15 to 20 villages. Virtually all households are engaged in subsistence agriculture. Medical services consist of a single dispensary. The literacy rate in many villages is exceptionally low, typically in the range 5 to 10%.

Vehicular access into the valley is not possible, and pack animals are used to transport basic commodities in and out.

Roads and Communications

Lutkoh Tehsil officials accord highest priority in their road program to constructing a "jeepable" road into the Arkari Valley. Under the District 5-Year Plan (indicative plan) seventy-six kilometers of road would be built in Breshgram U.C. over the 5-year period, but no bridges are proposed. SDEP would provide financing for the construction of a 25 kilometer "jeepable" road into the Arkari Valley to reach the village of Shaharkari. The project would also provide funds for the construction of a permanent light vehicle bridge over the Lutkoh River near the mouth of the valley. The bridge would be sited so that it would also benefit other villagers in valleys east of Arkari.

Conditions are difficult for road construction in the Arkari Valley due to narrow steep-sided gorges in many sections. Consequently, unit costs per kilometer of road are taken at Rs. 300,000 (\$23,000). The total cost of the road is Rs. 7.5 million (\$570,000).

For the bridge over the Lutkoh River Rs. 1.2 million (\$91,000) would be made available under the project. A contingency sum of Rs. 800,000 (\$61,000) is also provided for

additional short bridges that may be needed upstream.

A provision of Rs. 350,000 (\$27,000) is made to at least partially defray the cost of constructing or repairing donkey tracks, short village access roads, and pedestrian bridges.

An allocation of Rs. 3,000/km/year (\$225) for maintenance of the project road will be made available for the duration of the current 5-Year plan period.

The responsibility for construction of the main road will lie with the District Council. The Union Council Breshgram would be responsible for the construction of donkey tracks, village access roads and pedestrian bridges with funds provided to them through the project.

The Department of Communications and Works would be responsible for undertaking construction of the Lutkoh River bridge with funds provided through SDEP project.

Water Supply

While data were not obtained on domestic water supply needs in the Arkari Valley, it is likely that 100% of the supply is now obtained directly from rivers, streams, springs, or snow. The District Council proposes to construct four domestic water schemes in U.C. Breshgram during the current plan period, but exact locations are not specified.

The project will provide funds for the construction of two water supply schemes in the valley. Rs. 221,000 (\$17,000) is provided for the construction of each scheme. Costs in Arkari are estimated to be about 30% higher than elsewhere due to high transport charges for cement and pipe.

The District Council will be responsible for implementation, in close coordination with local communities and the Union Council.

Education

Data were not obtained on education services and facilities in the valley, but it is known that illiteracy rate is very high and that there are no middle or high schools, or female schools of any type. During the present 5-Year Plan, the District Council plans to build one primary school and one middle school in Breshgram U.C. The District Department of Education has no plans to build middle or high schools in the valley.

The project would provide funds sufficient to construct two male primary schools, one female primary school, four additional classrooms for existing primary schools (male) and one middle school, plus necessary furnishings for the new schools. The project would also provide Rs. 60,000 (\$4,500) per year for four years to help defray teacher costs for the new schools.

Unit costs for educational facilities are:

Table 20 Unit Costs of New Education Facilities

	Rs.	\$
Primary school (new)	348,000	26,000
Classrooms; Additional	190,000	14,000
Middle school	420,000	32,000

Unit costs are inclusive of furnishings. Bathrooms for the girls school will be Rs. 40,000 (\$3,000) extra.

The total cost for the education component is as follows:

Table 21 Costs of the Education Component, Arkari Valley

	Rs.	\$
Primary schools; male (2)	696,000	53,000
Primary school; female (1)	388,000	29,000
Additional classrooms (4)	760,000	58,000
Middle school (1)	350,000	26,000
Teacher salary	240,000	18,000
	<hr/>	
TOTAL	2,434,000	184,000

The District Council will be responsible for primary schools while the Department of Education will be responsible for furnishing all schools, construction of the middle school and the teacher salary supplement.

Health

The only existing health facility known to be in the valley is a dispensary at Owirden Arkari. Under the present 5-Year Plan, neither the District Council nor line agencies have plans for establishing new health facilities in the valley.

The project will finance the construction, equipment, and staffing (for three years) of a Basic Health Unit (BHU) in the middle valley and will provide funds for a survey of opium addiction among the population that would determine the need, and feasibility of establishing an addiction treatment center there.

Cost Estimates are given below:

Table 22 Health Components for the Arkari Valley

Item/Activity	Rs.	\$
Basic Health Unit (equipped)	1,444,000	109,000
Operational Supplement	200.000	15,000
Opium Addiction Survey	30.000	2,000
Detoxification center (indicative)	1,500.000	114,000
	<hr/>	<hr/>
TOTAL	3,174,000	240,000

The District Council would undertake responsibility for construction of the BHU, and the equipping, staffing, and operation would be undertaken by Rural Health Services. PNCRB would be responsible for the addiction survey and feasibility study for a detoxification center.

Electric Power

There is no electric power in the valley, and kerosene, used for lighting, is quite expensive due to high transport costs. The District Council proposes to install three rural electricity schemes in Breshgram U.C. during the current five year plan, but locations are not specified.

As the feasibility of installing mini-hydro schemes in the valley near existing population centers has not been established, the project would finance a feasibility survey for mini-hydro electric generation in the valley (middle-to-upper reaches) and would provide a contingency fund for the installation of two schemes, provided the technical feasibility is established, there is adequate effective demand for electricity and village groupings are sufficiently large and compact to minimize expensive transmission costs. Also, the ability of households to

meet part of the hook-up costs and to pay a small user charge must be determined in this very poor area.

Cost estimates for the electrification component are as follows:

Table 23 Electrification Program for the Arkari Valley

Item/Activity	Rs. (000)	\$
Mini-hydro scheme (2); contingency	400.0	30.0
Feasibility survey	125.0	10.0
TOTAL	525.0	40.0

General Program Funding

Items under this category are as described in the Shishi Valley section. The same amount would be made available annually to the District Council, Rs. 100,000 (\$7,600), and Breshgram Union Council, Rs. 90,000 (\$6,800), to ensure that Arkari Valley benefits from these programs.

Summary of Costs by Sector: Arkari Valley

The table below presents a summary of project cost estimates, including contingency items by major sector.

Table 24 Summary Costs By Sector For The Arkari Valley

Sectoral Component	Rupee (000)	\$
Agriculture and Irrigation	1,267.2	96.0
Roads, tracks, bridges	10,000.0	757.6
Water supply	442.0	33.5
Education	2,434.0	184.4
Basic health	3,174.0	240.5
Electrification	525.0	39.7
Program funding	950.0	72.0
TOTAL	18,792.0	1,423.7

Cost Summary: Chitral District Projects**Table 25** Summary of Chitral Development Project Costs

Sector/Activity	Rs. (000)	\$
Agriculture	10,494.0	795.0
Irrigation	14,916.0	1,130.0
Roads	17,958.0	1,130.0
Rural Water Supply	1,942.0	147.1
Education	3,900.0	296.5
Health	4,564.0	346.8
Rural Electrification	1,025.0	78.6
Program Funding	17,700.0	1,341.0
LGRD	1,320.0	100.0
DMU	647.0	99.0
TOTAL	74,466.0	5,641.0

The Mastuj-Yarkhon Valley Sub-projectBackground and Strategy

The Mastuj area, particularly the Yarkhun Valley, was formerly a poppy cultivation center. It is still a major center for marijuana production.

Rural roads would be a major component in the first phase of development activities in the Mastuj area and points northeast. Improvements on the Booni-Mastuj road should be completed within twelve months, and this will greatly facilitate travel to Mastuj from the rest of Chitral. The next step would be to accelerate the rural road program, working out from Mastuj. Planning officials estimate that up to 150 kilometers of rural roads would be required to provide minimum access to settlements along the long Mastuj-Yarkhun valley. The road program spread over five years would cost in the range of Rs. 30 million to 90 million (\$2 million to \$7 million).

Health and education components could add another Rs. 15

million (\$1.14 million) to a development project cost.

Agricultural development projects, including irrigation, could sum to Rs. 20 million (\$1.5 million) giving a total development package cost of Rs. 65 million to 125 million (\$4.9 to \$9.5 million).

Under the first phase of the SDEP, the Mastuj area would be studied to delineate a benefit package to be implemented over years 2-5. It is expected that program funding of local projects through the District and elected councils will be concentrated on three union councils in the Mastuj area. However, no specific infrastructure, services or projects have yet been identified for the Mastuj area and, except for the early project identification mentioned above, no funds have been earmarked for the Mastuj Valley Sub-project. Designs for the valley will be completed by the Special Development Unit under SDEP funding as a second phase of the Chitral Development Project.

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PROVISIONAL DRAFT

**THE MANSEHRA TRIBAL AREA DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN**

Detailed Project Descriptions

November 28, 1983

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THE MANSEHRA TRIBAL AREA DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN

INTRODUCTION

The Mansehra Tribal Area Development Project (MTA) is in its first phase of design, with proposed project activities concentrated on the mountainous portion west of the Indus River, adjacent to two ongoing narcotics-related projects. The area has little existing infrastructure or services, no elected council system and no access road. The potential for poppy cultivation is high, especially as contiguous locations are eliminated as major opium producers. This project, under the SDEP, is intended to open the area to development, to gain access and confidence of the tribal leadership, and to allow the government a presence not yet possible.

The project design is nearly as sketchy as the existing government presence. There are few possibilities until the basic means of communications and transportation have been established. The first section describes the background of the Mansehra Tribal Area and provides a setting for the region. The second outlines resources in agriculture, infrastructure and government services. The third proposes a first-stage plan of action, all aimed at ensuring that MTA does not become a new center of poppy cultivation.

I. BACKGROUND OF THE MANSEHRA TRIBAL AREA

History

The project area has been called Black Mountain, Kala Daha (Hindko for Black Mountain), and the Mansehra Tribal Area (MTA), which is the official name. The name Black Mountain actually applies to the ridge line in MTA that runs north to south through the portion that lies east of the Indus River. The other portion within MTA lies west of the river, touching the Gadoon project area and the Buner project area. This portion of MTA is also referred to as the Hassanzai Madda Khel Tribal Area (HMKA). Together, these two areas -- Black Mountain and Hassanzai Madda Khel make up the Mansehra Tribal Area.

Little is known of the MTA area prior to events that took place in the last century. In the 1830's Pushtuns from Swat are said to have settled in the Black Mountain area following the defeat of the Durrani rulers of Afghanistan by the local armies of two grandsons of Swat's leading saint, Pir Baba.

In the following decade British control extended to the region bordering on Black Mountain, with the creation of Hazara district in 1847. The British looked on Black Mountain as a place of considerable strategic importance bordering as it did on the states of Swat and Dir which had relations with Afghanistan. They were concerned, in turn, with Afghanistan because of possible interest and involvement by Russia.

The British undertook to conquer the area but the tribes mounted a stiff resistance and the British in the end had to settle with a truce and finally an agreement that was concluded

at Oghi. The agreement was that in exchange for a promise on the part of the tribes that they would insure peace and tranquillity among themselves, they would receive from the British annual gifts and money called "Mujab and Lungi." This practice has evolved but continues, and today the Deputy Commissioner is the government representative who presents these gifts to the tribal chiefs.

During recent history the MTA did not fall under the control of any outside ruler or Nawab. Each of the five major tribes or sub-tribes that inhabit the area has its own Khan or Malik, who has maintained his independence for the most part, though at times one or another of them has entered into an agreement with the Nawab of Amb or the Wali of Swat to receive support in squabbles with a neighboring Khan or Malik.

Today the Mansehra Tribal Area is similar in a number of respects to FATA areas that lie on Pakistan's border with Afghanistan. There is little government presence in the area though it lies fully within the settled district of Mansehra. The government official directly responsible for the area is the Deputy Commissioner (DC) and he is assisted by a Political Tehsildar who is posted at Oghi. The present D.C. is taking a keen interest in this anomolous area, particularly in its development so that it can become fully integrated into the District and Province.

Social Composition, Law, Language and Religion

The dominant social group in the MTA are Pushtuns. They are originally from Swat and are members of one or another of the

sub-tribes or sub-sections of Yusufzai Pushtuns. They are divided into two sub tribes, the Essazai and the Mulazai. The Essazai are further divided into three sections, namely the Akazai, the Hassanzai and the Madda Khel. The Mulazai are also divided into two, the Basi Khel and the Nusrat Khel.

The two tribal sections concentrated on the west side of the Indus in the southern portion of the MTA include the Hassanzai and the Madda Khel sub-tribes of the Essazai. Those on the east include the other sections.

Aside from the Pushtun tribes, the only other two peoples of note are the Syeds and Gujars. The Syed families claim direct descent from the Prophet and are likely related to, or at least claim lineage ties to, the Pir Baba family based in Buner subdivision of Swat district. The Gujars are pre-Pushtun peoples said to have migrated from Central Asia whose primary occupation has been and remains animal herding.

The following table presents the estimated population of the various tribes and tribal sections in the MTA. Included are populations figures for the Syed and Gujar communities according to the tribal section with which they live. These figures are based on the 1981 census report.

Table 1 Project Area Population by Tribal Group

TRIBAL GROUP	# OF TRIBE	# OF SYEDS	# OF GUJARS	TOTALS
AKAZAI SECTION	4702	1570	1160	7432
HASSAN-ZAI SECTION	17036	2869	1067	20972
MADDA KHEL SECTION	9477	1173	1658	12308
ESSAZAI TRIBE (SUB-TOTALS)	31215	5612	3885	40712
BASSI KHEL SECTION	34110	3721	29	37860
NUSRAT KHEL SECTION	3390	1243	722	5355
MULAIZAI TRIBE (SUB-TOTALS)	37500	4964	751	43215
TOTALS	68715	10576	4636	83927

Source: District Census Report for Mansehra (Islamabad, 1983)

This table indicates that there was a total population in the MTA area of 83,927 persons in early 1981. Of these 68,715 or roughly 80 percent are Pushtuns, 10,576 (12 percent) are Syeds and the remaining 4,636 (eight percent) are Gujars.

As the MTA remains a tribal area the laws and statutes of the Government of Pakistan do not as a matter of course extend into the area. According to the Deputy Commissioner, specific applications of government law can be administered only with the approval of the Governor. This includes revenue regulations as land registration has not yet been undertaken in the area. Thus the law that holds sway in the MTA is tribal law administered

through a jirga or assembly of tribal elders. In certain cases, Shariat or Islamic law may be resorted to with an intermediary role played by the Syed leaders, but this would only take place when tribal sanctions fail to resolve disputes.

The vast majority of the people speak Pushtu. The only other languages of any significance spoken in the area are Hindko, the principal language of the Hazara division, and Gujri, but these two languages are spoken by only small minorities.

All of the people in the MTA are Sunni Muslims.

Administrative Structure

The MTA is officially referred to at present as a PATA or a Provincially Administered Tribal Area. It has had this status since 1972; prior to that time it was a Frontier Region and bracketed with the FATAs, the Federally Administered Tribal Areas. Despite its official status as a PATA, the MTA still resembles in a number of respects a Frontier Region. A Frontier Region (there are four official FRs in the NWFP) is described as an area which falls within the administrative boundaries of a settled district but, having a dominant tribal character and traditions, enjoys the privileges of a tribal agency. But unlike a tribal agency which is administered by a Political Agent, an FR is administered by the Deputy Commissioner of the District in which it falls.

The Mansehra District Administration has no presence in the MTA. While the Deputy Commissioner has direct responsibility for the area his administration of the area is referred to as "indirect." The D.C. is represented by a Political Tehsildar,

posted at Oghi in Mansehra Tehsil, whose area of responsibility is exclusively the MTA. For law and orders matters he is assisted by a District Officer of the Frontier Constabulary. These are the only two government administrative personnel who have exclusive responsibility for the Mansehra Tribal Area.

There are only two line agencies with staff in the project area: the Education and Health Departments. These include front-line staff such as primary school teachers and health staff attached to Basic Health Units. Other departments that have carried out activities or have visited the area include the Public Health Engineering Department which has installed at least one water supply scheme, and the Forestry Department which undertook a study in 1976.

The Agency Council System

Because of its particular status, the system of locally elected councils begun in 1979 did not extend to the MTA. Thus, there are no representatives from the area that sit on either the District or Union Councils in Mansehra. There did exist, however, during a prior period (1958-65) an Agency Council for the MTA. These Agency Councils which were established in the FATAs were made up of representatives from the area nominated by the government. This process worked by the tribes themselves putting forward names of persons to represent them, and from these names the government chose a certain number as agency councillors. A proposal to create a similar Agency Council for the MTA is presently before the Provincial Government. If approved, this agency council will be involved with planning and

undertaking development schemes in the area somewhat on the order of present district council activity. It is unlikely, however, that the Council will have its own technical staff but will rather rely on the technical expertise of line departments and also possibly that of the District Council to assist in the design and implementation of development projects. The District Council supported the implementation of two water supply schemes in the MTA recently. (see Local Government below)

Location, Population, and Area

Location and Area

The MTA is located in the western part of Mansehra district. It straddles the Indus river in such a fashion that the northern part of the area lies on the east side of the river and the southern part lies west of the river. To take the southern portion of the area first, it is bounded on the west and north by the Buner subdivision of Swat D on the south by the Hazara Amazai area which lies in Haripur tehsil of Abbottabad District and to the east, across the Indus, Mansehra Tehsil of Mansehra District.

The northern part of the MTA is bounded on the west, across the Indus, partly by Buner and partly by Shanglapur Subdivisions in Swat District. To the north, across the river, lies Shanglapur Subdivision, and to the east and south of the area lies Mansehra Tehsil.

The MTA covers an area of 44,400 ha.

Topography

The Black Mountain, as its name suggests, is largely a

mountainous area. A mountain ridge about 3,000 meters high runs along the easternmost boundary of the northern portion of the area. From this ridge, land slopes down to the west and extends to the Indus river. A ridge line also runs along the western side of the river, in the southern portion of the area. This ridge, averaging about 2,000 meters elevation, is an extension of the Mahaban ridge located in the Gadoon-Amazai project area. It is interrupted by the Chamla river in the middle of the western or southern portion of the MTA.

Climate

Generally the temperature of Mansehra District is hot in summer and cool to cold in winter. The maximum mean temperature for the district in January is 12 degrees (C) and the minimum is 2.8 degrees (C). Corresponding figures for July are 30.6 and 21.2. Because of the higher elevation of Black Mountain, the temperatures of the area will be consistently cooler.

In Mansehra, the heaviest rainfall falls in the months of March (125 mm) June (277 mm) and July (237 mm). The Census Report for 1981 gives an annual precipitation figure of 1,202 mm. for the District; the amount of rainfall in the MTA can be assumed to be somewhat higher, again on account of elevation. The situation in the MTA is likely similar to Gadoon-Amazai where rainfall is estimated to be 381 mm on lower slopes going up to 762 mm in upper elevations.

Population

The total population of the MTA given in the 1981 Census is

83,927. Of this total, 42,277 are registered as males, 41,650 as females. The average household size for the area is 6.0. Given an approximate total area of approximately 440 square kilometers, the population density of the area in 1981 was 187 persons per square kilometer.

Land Use

Only five percent of the land area of the MTA is available for cultivation. There are considerable forest resources in the area and these are jointly owned by the resident tribes. There has been no Forestry Department activity in the area though it is known that the forest resources have been and continue to be exploited.

The creation of Tarbela Lake resulted in considerable loss of land to the residents of the MTA. This development helped fuel the exodus from the area of men to search for employment in Pakistan's cities and the Gulf.

II. EXISTING AGRICULTURE AND INFRASTRUCTURE

Agriculture and Irrigation

There is no agricultural outreach program for the MTA and no statistical compilation of agricultural output. Crops are grown in small terraces carved from the mountainside. In adjacent Gadoon or Hazara Amazai, on the western bank of the Indus, it is this limited agricultural possibility which has promoted the cultivation of opium poppy.

There are presently no irrigation schemes operating in the

MTA. Under the present ADP, an allocation of Rs. 100,000 (\$7,700) has been made for pre-feasibility studies of five irrigation schemes. Three of these schemes are in the Basi Khel tribal area: Jatka, Jaigal and Judba and two are in the Hassanzai area: Kunhar Shari and Taigram.

Survey work is expected to begin in March 1984 and be completed within four months. Each scheme calls for 6-8 km of main canal with an estimated average cost of Rs. 280,000 (\$31,000) per km. The estimated cost for all five schemes is Rs. 10,125,000 or \$780,000.

Infrastructure and Services

Transport and Communications

At present no roads exist in the MTA. A major, shingled road is proposed for Black Mountain with construction to begin in 1983/84. The road will extend from Thakot in the north to Darband in the south, a distance of 72.5 kilometers. The total estimated cost of this project is Rs. 97.6 million (\$7.3 million) including construction of three rest houses at separate locations along the road. The C&W Department has prepared detailed plans for this project and it is presently awaiting federal approval. Over the next several months, provided approval is granted (it is expected), tenders will be floated so that construction can begin. Rs. 7,000,000 (\$530,300) have been allotted under the 1983/84 provincial ADP for this project and the physical target to be reached by June 1984 is the completion of five km.

Once the road is completed or possibly while it is under construction, east-west link roads leading from it to various

settlements in the hinterland can be constructed. This would dissect the area and serve to open it up enabling residents easier access to the outside. Link roads would be 8-10 km in length; in order to connect the major settlements that lie off the road it is estimated a total of 100 additional km would need to be built at an average cost of Rs. 0.9 to 1.2 million (\$68,000 - \$91,000) per km.

A road project of direct relevance to the Thakot-Darband project is an on-going project linking Oghi, Shergarh and Darband. This 21 km shingle road is being metalled at a cost of Rs. 9,034,000 (\$700,000); only five km remain to be completed and this target is expected to be reached by June 1984.

The C&W Department has proposed three other projects of relevance for the Black Mountain area. These include the 25 km Jalgali to Jodba road that will take off from the existing Oghi - Batagram road and enter the Black Mountain area terminating at the village of Jodba. Another is the Shergarh to Bandi Shugli road (9 km) which has been completed in shingle form by the District Council; the proposal is to metal it. The third proposal is the Nika Pani link road (8 km) which would take off from the Oghi-Darband road and connect the major settlement of Nika Pani village to the main Thakot-Darband road.

Energy

At present no electricity service exists in the MTA. While there are no present plans to extend electricity service into the area, WAPDA has proposed to electrify villages in areas adjacent to the MTA. One proposal is to electrify 54 villages between

Oghi and Darband at an average cost of Rs 500,000 (\$38,500) per village and a total cost of Rs. 27 million (\$2 million). A second proposal - approved in the ADP with ADB funding support - is to provide electricity to 49 villages in the Batagram Tehsil.

Education

There are nine government primary schools and three mosque schools functioning in the MTA. Two additional schools have been constructed but they lack staff so no instruction takes place. In the ADP for 1983/84 Rs. 509,421 (\$40,000) has been allotted for the establishment of four primary schools in the project area. The District Development Committee is to select the sites from 23 proposed, eight in the Basi Khel area, five in the Nusrat Khel area, four in the Madda Khel area, four in the Akazai area and two in the Hassanzai area.

Health

There are presently four Basic Health Units (BHUs) functioning in the MTA and two are under construction by the C&W Department. The four completed BHUs are located at Danda Shingle Dar, Kamessar, Garhi Nawab Said and Bartooni. The two under construction are located at Manjakote and Dur Maira. The BHUs that are functioning are each staffed with two Medical Technicians, a dai (midwife), an orderly, a sweeper and a chowkidar (watchman).

Nine sites have been selected as proposed locations for health facilities to be established during the Sixth Five Year Plan period (1983/84 - 1988/89). A Rural Health Center (RHC) and three BHUs are proposed for the Basi Khel Area. One RHC and one

BHU are proposed for the Hassanzai area. One BHU is proposed for each of the remaining areas.

Water Supply Schemes

There is at present only one water supply scheme completed by the Public Health Engineering Department (PHE) in the MTA. It is located at the village of Sural and was completed in June 1983 at a cost of Rs. 170,000 (\$13,000).

PHE plans to undertake three additional water supply schemes in the area during 1983/84. These schemes have been included in the ADP. Schemes are to be located at Phaggan in the Nusrat Khel area, Bhimbal in the Akazai area and Kundar Sharif in the Hassanzai area. Their average cost is Rs. 350,000 (\$27,000).

Local Government

As noted above the system of elected councils has not been extended to the MTA. Two water supply schemes have been completed in the area, however, by the Mansehra District Council. These were undertaken apparently as a result of persuasion by a notable of the village of Tili, where the two schemes were constructed. He approached the District Council and requested the water projects, which were completed at a cost of Rs. 48,500 (\$3,700) in 1981/82.

The D.C. Mansehra strongly favors development activity in the MTA. As a result of his efforts, and the interest of the Provincial Government, Rs 2,000,000 (\$151,500) has been provided for small-scale development projects in 1983/84. These include 15 water supply schemes (six in the Basi Khel area, four in the

Madda Khel area, three in the Akazai area and two in the Nusrat Khel area), the construction of two primary schools (one in Hassanzai and one in Akazai) and a suspension bridge at Kotli.

This grant of Rs. 2 million has been allocated under the heading of the Kala Dhaka Project. This money has been disbursed directly to the D.C., Mansehra, who will serve as Project Director, from the Director-General, LGRD, Peshawar. To assist the D.C. in the design and implementation of these schemes, additional staff, detailed from LGRD, has been provided, including the following positions: a Project Manager (NPS-17 officer), an Assistant Project Manager (NPS-16), a sub-engineer (NPS-11), an office assistant (NPS-11), a junior clerk (NPS-6), a work munshi (NPS-5) and a work taker (NPS-3). This staff is based in Mansehra with its own separate office. Should a scheme require technical capability beyond the capacity of this project unit, they will approach whatever appropriate agency (e.g. C&W, LGRD, the District Council or a contractor) for assistance.

Minerals

To date no mineral exploitation has taken place despite reports that there may be significant mineral deposits in the area. The reports include mention of semi-precious stones. Uranium reserves are reported in or near to the area.

Donor Activity in the Area

The West German Government is providing financial support to two projects currently under implementation in Mansehra district. One project to produce sweet potatoes is headquartered in Abbottabad but includes three additional farm sites in the Kaghan

valley (of Mansehra district), at Kaghan, Sharan and Battakundi. This project, which began in 1978 with a five-year life, has been successful in producing higher yields of seed potatoes at less cost than imported seed potatoes. It is expected that the German Government will fund this project into its second phase which will begin in 1984. To date the level of donor funding has been approximately \$500,000.

The second German-funded project is a watershed management project based at Kaghan, in the Kaghan valley.

A third donor active in Mansehra District, UNICEF, has provided training support for local level planning in an effort to increase the capacity of local councils to plan and execute projects, particularly those in the sectors of health and sanitation with women and children as target populations.

The Canadian International Development Agency (CIDA) has recently expressed an interest in providing support to the District Council to undertake a community development program and is now awaiting the council's response.

Another project of relevance to the MTA is the Tarbela Watershed Management Project. This project is to be undertaken during the Sixth Five-Year Plan at a cost of Rs. 152 crore or \$117 million, to be funded by the Federal Government.

III. THE MANSEHRA TRIBAL AREA DEVELOPMENT PROJECT

Objective

Special Development and Enforcement Plan support is sought

for MTA development, phased by initiating project activities on the west side of the Indus river, the Hassanzai Madda Khel Tribal Area. These early activities are intended to bolster development and enforcement efforts of two contiguous ongoing projects, innoculating the region against a flare up of poppy cultivation as neighboring tribes eliminate their opium production

The Development and Enforcement Strategy

Poppy Cultivation in the MTA

There is strong likelihood that poppy is grown at least in the part of the MTA that lies adjacent to the Gadoon Amzai project area. This conclusion can be supported by similarities in agro-ecological and ethnographic conditions in the two areas. In addition, there are reports that the people in the northern branch of the ridgeline adjacent to the Buner Project have decided to plant poppy this year because of the rising farmgate price. Poppy is also likely grown in the Black Mountain area itself - east of the Indus - though the intensity of its cultivation may not be as great as that in the western portion.

Regardless of the present magnitude of poppy cultivation in the MTA, a preventative argument must be made for including this area in the SDEP. As project efforts succeed in replacing poppy in adjacent areas, the pressure will increase on the farmers of the MTA to increase their cultivation if they are presently growing or to begin to cultivate poppy if they had not done so before.

While SDEP support is sought for the entire MTA development, interventions will be introduced into the area in a phased

sequence. During Phase I, the first two years of the project, development activity will focus on the portion of the area that lies to the west of the Indus river. During Phase II, the following three years, development activity will continue in the Hassanzai Madda Khel area but will begin in the portion of Black Mountain that lies to the east of the river.

Managing Project Activities at the District Level

In order to manage and coordinate project activities in Mansehra, a unit will be established called the District Management Unit (DMU). This Unit will be responsible for the coordination of project activities in the MTA.

The Unit will be headed by a Grade 17 Officer with rank of Assistant Commissioner and he will be designated the MTA Project Director. As the Deputy Commissioner Mansehra is directly responsible for the MTA, the Project Director will be assigned to his office. It may be feasible to combine project responsibilities so that the MTA and Kala Dhaka Projects are directed by the same management unit.

The chief responsibilities of the MTA Project Director (PD) will be to liaise with the SDU at Peshawar and to coordinate project activities with line agencies and the Agency Council (provided this latter institution is established.) The PD will also be responsible for providing logistic and procurement support to agencies undertaking project activities. In addition, he will provide support to any technical assistance serving the project area. The PD will be assisted by a senior office assistant who, in addition to office responsibilities, will

maintain financial records of project activities including expenditure records for audit purposes.

The Unit will have a vehicle assigned to it to be used in support of project activities.

The following table shows anticipated costs for maintaining the DMU.

ITEM	Rs. (000)	(\$)
Staff	183.6	(13.9)
Transport	202.5	(15.3)
TOTAL	386.1	(29.2)

Agriculture and Irrigation

Support to agriculture consists of Rs. 500,000 (\$38,000) to be provided to the Agriculture Department to cover the services of an additional field assistant and an agricultural extension program involving demonstration of new maize and wheat varieties and fertilizer inputs.

Irrigation component support consists of Rs. 2.2 million (\$168,000) provided to construct approximately eight kilometers of main canal in the area west of the Indus river. The utilization of this funding is contingent upon successful feasibility studies which the Irrigation Department intends to conduct in 1984.

Total first-phase support under SDEP for agriculture and irrigation activities within the west portion of the MTA is RS. 2.7 million (\$206,000).

Infrastructure and Social ServicesRoads

The project area west of the Indus has no road access. Under the SDEP, funding would be provided for the construction of 25 km of gravel road and four necessary bridges in this area. This road would join the major network within the Chamla valley, being blacktopped by the Buner project, as well as the road through the Gadoon area into Amazai, making access from both west and south. The table below summarizes the road component cost for the first phase of the MTA development project.

Table 3 MTA Road Construction During Phase One

Item	Rs. (000)	(\$)
West Bank Development Road; 25 km	10,400.0	
Four Bridges; West Bank Road	1,600.0	
	12,000.0	
TOTAL		(\$0.91 million)

Water Supply

Only one village has a government-provided potable water supply system to date in the project area, but three schemes have been approved for construction in 1983/84. The SDEP project will provide financing for an additional eight water supply schemes, to be constructed over a five-year implementation period.

An average cost of Rs. 350,000 (\$26,500) per unit is used, giving a total component cost of Rs. 2.8 million (\$212,100).

Education

Illiteracy rates are extremely high in the project area, nearly 99%. School attendance has been extremely low, according

to the 1981 census, with only 4% of males between the ages of 10-19 having completed primary school.

Within the area there are nine primary schools (male) and three mosque schools, but no female schools or high schools, for a school age population (ages 5-14 inclusive) of over 30,000.

The SDEP project would provide funds for: the construction of an additional six primary schools, of which two would be female schools; four primary school classrooms, and a supplement to help defray staffing and furnishing costs for new schools. Education component costs are itemized below:

Table 4 MTA Education Costs

ITEM	Rs. (000)	(\$)
Primary schools (M); 4 @ Rs. 290,000	1,160.0	
Primary schools (F); 2 @ Rs. 330,000	660.0	
Classrooms; 4 @ Rs. 190,000	760.0	
Staff and equipment supplement; lumpsum	240.0	
TOTAL	2,820.0	(\$213.8)

Health

There are four operational BHUs in the area and two others under construction. There are no RHCs. A total of seven additional BHUs and two RHC are proposed for construction during the Sixth Five Year Plan. Funding for the additional nine units have not been approved and there is no certainty that all nine units will be approved for construction during the Sixth Plan period.

In order to ensure the early construction of these needed units, funding will be provided for the construction of two BHU

including equipment and staff housing. The health component cost is: two BHU @ Rs. 1.1 million = Rs. 2.2 million (\$166,700).

Rural Electrification

The area now has no electric service. Provision for extending electricity to the western bank of the MTA is made as follows:

Table 5 Electric Service Extension into MTA

ITEM	Rs.	(000)	(\$)
HT transmission line; 20 km @ Rs. 100,000		2,000.0	
LT transmission line; 25 km @ Rs. 108,000		2,700.0	
Substations; 3 @ Rs. 50,000		150.0	
	TOTAL	<u>4,850.0</u>	(\$367.4)

Program Funding

There are no active Union Councils in the area and District Council activities have been minimal. An annual grant of Rs. 90,000 (\$6,820) will be made available to undertake small schemes that may be specifically requested by the local leaders in the western MTA area. These schemes could be implemented either by the Kala Dhaka Project unit or by the Agency Council which has been proposed to be established.

Summary of Costs by Major Activity: MTA (First Phase)**Table 6** Cost Summary for Mansehra Tribal Area, First Phase

Sectoral Component	Rs. (000)	(\$)
Agriculture and Irrigation	2,720.0	206.0
Roads and Bridges	12,000.0	909.1
Rural Water Supply	2,800.0	212.1
Education	2,820.0	213.8
Health	2,220.0	166.7
Rural Electrification (Indicative)	4,850.0	367.4
Program Funding	450.0	34.1
DMU	386.0	29.3
TOTAL	28,226.0	2,138.5

24-

PROVISIONAL DRAFT

**THE FATA (BAJAUR AND MOHMAND) DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN**

Detailed Project Description

November 27, 1983

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THE FATA (BAJAUR AND MOHMAND) DEVELOPMENT PROJECT
UNDER THE
SPECIAL DEVELOPMENT AND ENFORCEMENT PLAN

INTRODUCTION

This description of the early stages of a development and enforcement plan for two of the Federally Administered Tribal Areas (FATAs) is divided into three sections. The first covers the history of the two agencies included, Bajaur and Mohmand, which offers insights into present day administration and government involvement. The second section focuses on existing agriculture, infrastructure and services in the two agencies. The final section presents a plan for initiating development activities in the FATA region aimed at eliminating opium production.

I. BACKGROUND OF BAJAUR AND MOHMAND

History

The early history of the area is marked by invasions of Alexander (4th Century B.C.), Mahmud of Ghazni (11th Century A.D.) and Mohammed of Ghor (12th Century A.D.). In the sixteenth century, Push'tun tribes entered the area and settled in the mountain valleys. Most of these tribes came from the region around the present-day city of Kandahar in Afghanistan.

In 1893, an agreement was signed between the British

government and the Amir of Afghanistan establishing a boundary line between the territories of the two governments. This line, known as the Durand line, still stands as the international boundary between Afghanistan and Pakistan. It also marks the western boundary of the seven FATA areas.

Authority in tribal areas has traditionally been in the hands of tribal leaders, called Maliks, Khans, or Nawabs. Over time certain of these leaders were able to extend their authority over other tribal leaders and became recognized as the chief leader of the area. Such examples were the Khan of Nawagai and the Nawab of Khar who lived in the Mohmand and Bajaur areas. Authority still remains largely in tribal hands, but during recent years the government has managed to encroach upon tribal autonomy so that now, in the FATAs, authority is in some measure shared between the government and tribal leadership.

Social Composition

The majority of people in Bajaur belong to the Pushtun tribe known as Tarkanrai. This tribe is actually a branch of the major Pushtun tribe, the Yusufzais, and thus the customs and language (dialect) of the Tarkanrai are very close to the Yusufzais'. Other Pushtun tribes present in Bajaur include the Mohmands, the Safis and the Utman Khel, the last of which is also related to the Yusufzais. A non-Pushtun tribe living in Bajaur has the name Mashwani. Members of this tribe are thought to be related to the tribe of the same name resident near Kabul. Originally they were non-Muslims but have since been converted to Islam. As they are also Pushtu speaking, they are considered to be

Pushtuns. Other residents of Bajaur who are of non-Pushtun origin include the religious groups - the Syeds and Mians (who claim direct or proximate descent from the Prophet Muhammad) and the ubiquitous Gu'jars.

Mohmand Agency is more homogeneous than Bajaur and is populated mostly by the Pushtun tribe named Mohmand. This tribe is divided into the following clans: Tarakzai, Halimzai, Baezai, Khwaezai, Safi, Burhan Khel and Isa Khel. Other Pushtun tribes of note in the Mohmand Agency are the Safis and the Utman Khel. The only non-Pushtun group of any note in the Mohmand Agency are members of the religious classes - the Syeds, Mians and Mullahs.

Law

The legal system that is in force is based on tribal traditions and sanctions following Pukhtunwali, the code of honor or law that is followed by Pushtun tribes. Principles such as hospitality, revenge and female honor are rigorously upheld. Violations of these principles are dealt with harshly (e.g. stoning for adultery). Legal authority lies in the hands of the tribal elders who meet together in a jirga or assembly to take decisions on tribal matters involving land and social relations.

Administrative Structure of Bajaur and Mohmand Agencies

The Structure of the Government Agencies

Bajaur and Mohmand Agencies each have as the government's representative an official known as a Political Agent (PA). The PA is appointed by and is responsible to the Chief Secretary of the NWFP Government through the office of the Commissioner of the Division. For law and order affairs in the Agency, the PA is

responsible through the Commissioner to the Home Secretary of the NWFP Government.

Each Agency is divided into three administrative categories: Administrative Areas, Protected Areas and Tribal Territories (TTs). The authority of the PA is greatest in the Administrative Areas. This area generally includes the headquarters area of the Tribal Agency, the black top roads which are considered under the government's jurisdiction, and areas where there are important government installations such as power houses, dams or military camps. In an Administrative Area a PA can attempt to deal with any law and order problem that may arise.

At the other extreme from the Administrative Areas, the TTs are where the government has least control. By treaty agreement with the tribes, government officials cannot enter a TT. As a consequence there are no government services in TTs. Protected Areas are areas that in administrative practice fall in between Administrative Areas and TTs. The government has limited control in a Protected Area; its authority waxes and wanes according to the attitudes and activities of the resident tribes. In quiet times or when relations are good, development activities can proceed and the government can exercise its law and order authority when serious incidents take place.

The administrative structure in Administrative Areas is similar to the structure found in a settled district. Officers representing the administration and the various line agencies are posted at three levels - at the Agency level, at the subdivision level and at the tehsil level. One important difference between

the operation of line departments in the settled districts and in Tribal Agencies is that each line agency must clear its plans first with the Political Agent before proceeding.

The headquarters of Mohmand Agency is Ghallanai and the Agency is divided into two subdivisions; one called Lower Mohmand headquartered at Ekkaghund and the other Upper Mohmand headquartered at Gandab. Bajaur Agency is headquartered at Khar and is divided into two subdivisions: Khar and Nawagai. These are further divided into tehsils, three in Khar and two in Nawagai.

The Agency Councils

In addition to the administrative and line agencies, a third type of government institution in the Tribal Areas is the Agency Council. These Councils were first established during the period of Basic Democracies (1958-65), lapsed for a time and then were reinstated in 1979 with the establishment of the Local Bodies Scheme. An Agency Council exists in both Bajaur and Mohmand Agencies.

Councils are formed through a procedure in which the "assured" (recognized) tribes resident in the Agency put forward names (usually the head of a clan or section of a tribe) as nominees for the Council. The PAs and the Commissioner are involved in the decision of which Maliks or Khans will sit on the Council. A list is then drawn up with the names of all of those selected which is then attested to by signature of the Assistant Director, LGRD and the Political Agent. In this way the Councils are made up of nominated rather than elected members. The Bajaur

Agency Council presently has 42 members, the Mohmand Agency Council has 40 members.

The Chairman of the Agency Council is the Political Agent of the Agency and the Secretary is the Assistant Director of LGRD. As is the case in settled districts, the primary purpose of the Agency Council is to decide upon and undertake development schemes in the area. Money is provided to the Agency Council through the same channel as District Councils are funded (the LGRD). In some cases this money is used not only for development schemes but also as a discretionary fund for the PA to influence tribal sections or clans to accept government directives. The PA ensures that each tribe gets its fair share of these development monies.

Despite the occasional "political" use of Agency Council funds, LGRD maintains that the Agency Councils actually have a better performance record overall (i.e. reaching physical targets) than many District Councils. This is attributed to tribal solidarity in the Agency Council; a tribal malik when assured of funds, will work to see that schemes are carried out to benefit his kinfolk. Agency Councils lack a technical cadre to design and carry out development schemes, relying on the AD/LGRD's cadre or line agency cadres.

Location, Population and Area

The Federally Administered Tribal Areas of Bajaur and Mohmand are located in the northwestern part of NWFP, about sixty-five kilometers north of the provincial capital of Peshawar. Basic area and population data are summarized below:

Table 1 Population Data for Bajaur and Mohmand Agencies

AGENCY	POPULATION	AREA (SQ. KM.)	POPULATION DENSITY (PERSONS PER SQ. KM.)
Bajaur	1,290	303,000	234
Mohmand	2,297	170,000	74

II. EXISTING AGRICULTURE AND INFRASTRUCTURE

Agriculture

Bajaur An area of 114,000 ha can be cultivated, of which 4,800 ha are under irrigation. Bajaur has good aquifer conditions and 110 wells have been drilled, each producing an average of 20 liters per second. However, since power from the electrical grid is limited, wells cannot be operated around-the-clock.

Mohmand An area of 10,100 ha can be cultivated, of which 4,858 ha are under irrigation. Of these, 322 are irrigated from wells. Groundwater conditions are less promising in Mohmand than in Bajaur.

Principal crops, their areas and yields are given in Table 2. Fruit trees and rape are other crops said to be grown in the agencies.

There are three Agricultural Officers (AOs) and 13 Field Assistants (FAs) assigned to Bajaur. Mohmand has a complement of 5 AOs and 18 FAs.

Table 2 Crops, Area and Yield: Bajaur and Mohmand

<u>CROP</u>	<u>AREA</u> <u>(HA)</u>	<u>YIELD</u> <u>(KG/HA)</u>
	<u>Bajaur</u>	
Maize, irrigated	520	17.5
Rice	1050	12.0
Sugar Cane	45	25.0
Wheat, irrigated	910	13.7
Wheat, rainfed	24400	0.8
Barley, rainfed	18300	0.6
	<u>Mohmand</u>	
Maize, irrigated	2037	17.5
Sugar Cane	2201	25.0
Wheat, irrigated	1860	14.5
Wheat, rainfed	7500	1.0

SOURCE: 1981-82 Agricultural Statistics, NWFP.

Infrastructure and Services

Education

Existing educational institutions in the two Agencies (1982/83) are given below:

Table 3 Education in Bajaur and Mohmand Agencies

Institution	Agency	
	Bajaur	Mohmand
Primary Schools:	126	137
Male	114	121
Female	12	16
Middle Schools:	13	22
Male	12	18
Female	1	4
High Schools:	10	9
Male	9	8
Female	1	1

Total enrollment in primary and middle schools is 9,510 in Bajaur and 7,006 in Mohmand. This represents, respectively, only 10 percent and 13 percent of the school-age population

between the ages of five and 14 years. Sixty-six of the primary schools in Bajaur and 12 in Mohmand are open-air schools. There are clearly inadequate numbers of covered schools to serve more than a fraction of the school-age population.

The FATA Department of Education has the financial resources to construct only two to three primary schools a year in each of the 11 FATA and Frontier Regions for which it is responsible. This does not provide sufficient additional classroom space to accommodate the incremental number of children entering school each year.

The Department gives high priority to the construction of additional female primary schools in Bajaur, Mohmand and elsewhere. Primary schools, in general, are accorded higher priority than middle and high schools because most parents do not perceive much benefit to be gained from allowing children to be schooled beyond four or five years.

The Department has introduced agro-technical training into a number of high schools, of which three are in Bajaur and three in Mohmand. For these schools the Department gives high priority to providing short-term technical training for the teachers, providing a small volume of irrigation water to schools with the agriculture training component, and providing basic tools and equipment for schools with a technical training component.

Rural Water Supply

Public Health Engineering (PHE) estimates that 12 percent of the population in Bajaur and 14 percent in Mohmand is served by water supply schemes, of which 15 have been completed in Bajaur

and 10 in Mohmand. Each scheme, on average, serves about 2,500 persons.

The pace of implementation is constrained by other than technical and financial factors, according to PHE. There is a shortage of qualified contractors in the agencies and PHE is unable to exercise effective leverage on contractors who do not meet schedules or specifications. Disputes over water rights are also a common source of delay, or outright abandonment, of water supply schemes. For these reasons there are limitations imposed on funding recommended by PHE for Bajaur and Mohmand for improved water supply projects.

PHE estimates that annually, about Rs. 1 million (\$76,000) can be allocated to construction of water supply schemes in Bajaur and Rs. 600,000 (\$46,000) in Mohmand. At an average per capita cost of Rs. 400 (\$30) of providing water, a total of about 4,000 additional persons can be benefitted each year. This is about one percent of the persons now without access to supplied drinking water.

Rural Health Services

The existing health facilities in Bajaur and Mohmand are summarized below:

Table 4 Health Facilities in Bajaur and Mohmand

AGENCY	HOSPITALS No.(BEDS)	RHC	BHU	RD No.(BEDS)	LEPROSY CLINIC
Bajaur	1 (32)	-	7	15 (8)	1
Mohmand	7 (36)	-	11	5 (24)	-

For FY 1983/84, approved new schemes for Bajaur are designed to:

- o Improve and expand the hospital to 68 beds; add a blood bank, new operation theater and equipment; total cost: Rs. 3.757 million (\$284,600).
- o Establish one additional BHU; estimated cost Rs. 1 million (\$76,000).

For FY 1983/84, new plans for Mohmand are designed to:

- o Establish a dental clinic, blood bank, purchase new equipment for the hospital at Ghallanai; estimated cost Rs. 0.9 million (\$68,200).
- o Construct an Agency Surgeon office at Ghallanai hospital, estimated cost Rs. 2 million (\$151,000).

For the Sixth Five-Year Plan period, Health Services proposes the following schemes for Bajaur and Mohmand.

Bajaur: Build one RHC and three BHUs; improve the Khar hospital.

Mohmand: Build three BHUs; convert one BHU into a RHC and one RD to a RHC; improvements to the Ghallanai hospital.

Compared to other rural districts covered under SDEP the Bajaur and Mohmand Agencies are relatively well served by rural health service facilities.

Local Government

Since 1980/81 small-scale development projects have been implemented by the LGRD administrative and technical cadres in Bajaur and Mohmand Agencies in conjunction with the Agency Councils. Schemes have been undertaken in the following sectors: communications (roads), irrigation, flood protection, education, health and sanitation and drinking water supply schemes. Funds for these projects have been allocated under LGRD's Rural Works Programme (RWP) and their location has been decided upon by the Political Agent in consultation with members of the respective

Agency Council.

The activity that was undertaken in 1982/83 may be indicative of the scale of expenditures made and the number of projects completed. In 1982/83 Bajaur Agency had a total of Rs. 1,400,000 (\$110,000) available to spend under the RWP. By the end of June 1983, Rs. 1,103,201 (\$84,000) had been spent, representing a 76.6 percent utilization rate. Most of the allocation - Rs. 464,450 (\$35,000) - was for 26 drinking water supply schemes. The activity receiving second largest allocation was flood protection bunds.

In Mohmand Agency, in 1982/83, Rs. 1,259,000 (\$95,000) out of a total of Rs. 1,485,150 (\$112,000) was spent, representing a 76.4 percent utilization rate. As with Bajaur, the sector to receive the most money was drinking water supply schemes, with Rs. 578,768 (\$44,000) devoted to construction of 131 schemes.

The following table presents the proposed level of funding and the number of schemes to be undertaken under RWP in 1983/84 in Bajaur Agency.

Table 5 1983/84 Agency Council Development Schemes in Bajaur

SECTOR	NUMBER OF SCHEMES	ESTIMATED COST	
		Rs. (000)	(\$)
Water Supply	71	643.0	(\$49.0)
Flood Protection Bunds	80	648.0	(\$49.0)
Communications	11	243.0	(\$18.0)
Health and Sanitation	4	55.0	(\$ 4.0)
Other		190.0	(\$14.4)
TOTAL		1,779.0	(\$135.0)

The following table presents the budget for Mohmand Agency in 1983/84.

Table 6 1983/84 Agency Council Development Schemes, Mohmand

SECTOR	NUMBER OF SCHEMES	ESTIMATED COST	
		Rs. (000)	(\$)
Flood Protection Bunds	275	1,076.0	(\$81.5)
Water Supply	77	277.0	(\$21.0)
Communication	2	20.0	(\$ 1.5)
Other		645.0	(\$49.0)
TOTAL		2,017.0	(\$153.0)

III. THE FATA DEVELOPMENT PROJECT

Objective

The objective of the project is to reduce poppy cultivation in Bajaur and Mohmand Agencies by bringing phased development benefits to tribal groups in those areas. Both development and enforcement government presence in those Agencies is now limited and would be expanded as a result of the project.

Development and Enforcement Strategy

There are severe limitations to the government's ability to dictate actions within the Federally Administered Tribal Areas of Pakistan. This project is designed to provide development benefits which can be targetted on those areas which grow, or

might grow, opium poppy in an attempt to increase the Government's ability to bring about an end to cultivation.

The project proposals are very modest, intending to establish a method of working with the tribal leaders through the Political Agents, the officers of the line departments, and the Agency Councils. As this pilot effort proves successful, the second phase of the Special Development and Enforcement Plan will increase both the requests for development contributions from donors and the expectations of cooperation in ending opium production from the leadership within the FATA region.

The direct targets of the program will be those valleys and mountainous areas which grow the opium poppy. The actual locations and sub-project areas have not yet been determined. Project benefits would be selective to those designated areas with a small amount set aside for general program support outside the poppy cultivation areas. As can be seen from the table below, opium production is practiced by only a limited number of farmers within these two FATA agencies.

Poppy Cultivation

The following table gives an estimate of poppy cultivation in Bajaur and Mohmand Agencies.

Table 7 Estimates of Area Planted by Poppy, Production and Yield, 1981/82 and 1982/83

TRIBAL AGENCY	1981/82			1982/83		
	AREA HA	PROD MT	YIELD KG/HA	AREA HA	PROD MT	YIELD KG/HA
Bajaur	200	4.9	24.5	100	2.4	24
Mohmand	100	2.0	20.0	60	1.2	20

TOTAL	300			165		

SOURCE; Data estimates provided by FATA Agricultural Extension Office.

Managing the FATA (Bajaur and Mohmand) Development Project

Due to difficulties with direct and frequent accessibility to FATAs, project activities would be coordinated from Peshawar. A sub-unit for this purpose will be attached to the SDU based there. With measureable progress and an increased level of funding in subsequent years, it would then be appropriate to establish a management unit at each of the Agency headquarters, attached to the Political Agent's office.

Agriculture and Irrigation

Agricultural programs in Bajaur and Mohmand Agencies will be strengthened through project-supported activities described below. Each Agency will receive similar support.

Nursery establishment: Funds will be provided for establishment of 2-ha nurseries. Nurseries will provide both quick-growing forest species for fuelwood, and fruit tree stock. Recurrent costs of each nursery are to be provided by the project. These are phased, to begin at Rs. 50,000 (\$4,000) in the first year and reaching Rs. 200,000 (\$15,000) in year five. Nursery costs including development and recurrent costs total

Rs. 900,000 or \$70,000 per agency.

Demonstration farms: Funds will be provided to establish a one half-ha demonstration farm in each agency. The farm will be under AO supervision and will serve as a location for demonstration of new varieties and best cultural practices. The Rs. 800,000 (\$60,000)-budget includes costs of supplies (fertilizers, seed, and plant protection equipment) that will be used by FAs in demonstration work with farmer-leaders. The funding of these supplies is done incrementally: once programs begin and prove effective, they may be expanded in scope.

Small Canals: Funding is provided to support construction of small-scale, community-based irrigation development. These are self-help projects which villagers will organize and execute. Through project funding to Agency Councils, villagers will be paid for their labor, for equipment and cement. The Project will construct 18 km of small canals at a cost of Rs. 1,000,000 (\$75,000).

Mobility: Funding totalling Rs. 510,000 (\$40,000) is sought for one jeep, five motorcycles and their operating expenses. Vehicles would be used by AOs and FAs to extend the agricultural outreach program.

Buildings: Funding totalling Rs. 200,000 (\$15,000) is sought for construction of storehouses and office space.

The agricultural component of the FATA Development Project will total Rs. 3,410,000 or \$260,000 per agency. Average costs are \$52,000 per agency per year. Costs will be phased to permit gradual start-up and expansion of successful programs.

Infrastructure and Services**Education**

The Project would make available to the FATA Department of Education funds to undertake the following projects and activities over a five-year period;

Bajaur

- o construct and furnish 12 new girls primary schools at an average unit cost of Rs. 0.18 million (\$13,600);
- o construct and furnish 10 new boys primary schools at an average unit cost of Rs. 0.14 million (\$10,600);
- o convert eight open air primary schools to covered schools at an average unit cost of Rs. 0.12 million (\$9,000);
- o provide short-term training for teachers in agro-technical high schools; nominal cost Rs. 132,000 (\$10,000); and
- o provide basic tools and equipment for agro-technical instruction in high schools; nominal sum Rs. 132,000 (\$10,000).

Total cost for Bajaur: Rs. 4.77 million (\$361,000).

Mohmand

- o construct and furnish eight new girls primary schools (Bajaur unit cost);
- o construct and furnish six new boys primary schools;
- o convert five open air schools to permanent schools;
- o provide short-term training for teachers in agro-technical subjects; and
- o provide basic tools and equipment for agro-technical instruction in high schools.

Total Cost for Mohmand Rs. 3.13 million (\$237,000).

Total Education Sector Cost for Bajaur and Mohmand:

Rs. 7.9 million (\$598,000).

Rural Water Supply

The Project would make available of Rs. 6.24 million (\$473,000) for implementation of water schemes in Bajaur and Mohmand, split 60 percent for Bajaur and 40 percent for Mohmand. The funds made available for rural water supplies would provide clean domestic water to about 15,600 persons.

Rural Health Services

The Project would finance the construction of four additional BHUs; three in Bajaur and one in Mohmand. The specific locations would be determined by Rural Health Services in consultation with Agency authorities and Councils.

Each unit (equipped) would cost Rs. 1.19 million (\$90,000), giving a total cost of Rs. 4.75 million (\$360,000).

General Program Funding

The program fund will be divided between Bajaur and Mohmand on a population proportional basis, with Bajaur receiving 60 percent and Mohmand 40 percent. The Bajour Agency Council will receive an average of Rs. 338,000 (\$26,000) a year for the five years and Mohmand Agency Council Rs. 190,000 (\$15,000). These funds will be phased: a slow start up with incremental increases. Funding will be routed through the LGRD in keeping with the present procedure for moving funds for Agency Council schemes. In total, Rs. 2.64 million (\$200,000) will be allocated.

Cost Summary

A summary of first-phase development assistance financing provided for projects in the Bajaur and Mohmand poppy cultivation

areas is given below:

Table 8 FATA Development Project Total Costs

SECTOR/ACTIVITY	(000)		Rs. (\$)		TOTAL
	BAJAUR		MOHMAND		
Agriculture	3,432.0	(260.0)	3,432.0	(260.0)	6,864.0 (520.0)
Education	4,770.0	(361.2)	3,130.0	(237.4)	7,900.0 (598.5)
Water Supply	3,746.0	(283.8)	2,497.0	(189.2)	6,240.0 (473.0)
Rural Health Program	3,564.0	(270.0)	1,188.0	(90.0)	4,752.0 (360.0)
Funding	1,689.6	(128.0)	950.0	(72.0)	2,640.0 (200.0)
Totals	Rs. 17,201.6		11,197.4		28,396.0
	\$ (1,393.2)		(848.3)		(2,151.5)