

# NORTHERN AREAS

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Strategic Provincial Investment Plan  
and Project Preparation for  
Rural Water Supply  
Sanitation and Health.

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## INCEPTION REPORT

March, 1989

Wardrop-Acres  
Cowater International  
NESPAC

822 - PK. NO 89 - 5190

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and Project Preparation for  
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Sanitation and Health.

## INCEPTION REPORT

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March, 1989

Wardrop-Acres  
Cowater International  
NESPAK

# INCEPTION REPORT

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## EXECUTIVE SUMMARY

During a brief visit to the Northern Areas, meetings were held with the Administrator, the Development Commissioner, the Chief Engineer and Planning Officers of Public Works Department (PWD), the Deputy Director and staff of Local Board and Rural Development Department (LBRDD), and the Research Director, Monitoring and Evaluation to prepare this report. Issues have been discussed with UNICEF and the Ministry of Kashmir Affairs and Northern Areas. Some conclusions have been drawn, but they are by no means definite or complete. Potential initiatives can be developed as options for consideration but they need refinement which will be done later in the field.

One basic finding is that the Northern Areas have managed to mobilize their resources into drinking water supply by involving government agencies and elected representatives (Northern Areas Councillor - NAC). The PWD serves the larger sized communities with populations of over 1000, while LBRDD services communities with populations less than 1000. Since the majority of the villages in the Northern Areas are small, LBRDD's responsibility for drinking water supply and sanitation is wide spread. Currently, as it has for past several years, LBRDD is fulfilling this responsibility with UNICEF's support through the Community Based Services (CBS) programme.

Almost 50% of the rural population have access to good drinking water supplies, but the remaining 50% still create a strong demand for services. The LBRDD has very limited technical and financial capacity to meet this demand. The annual ADP allocation for LBRDD's entire development budget is Rs.30 million.

In LBRDD schemes, communities contribute 60-100% of capital and operating and maintenance costs. However, in PWD and NAC schemes there are no efforts made to have the communities contribute. This difference of approach causes problems and communities are questioning it. There

is considerable demand for sanitation provided low cost appropriate models are presented.

There is a good working relation between the government departments and a positive environment exists for a massive water and sanitation programme focused on women. UNICEF has done most of the spade work but its assistance is very small: approximately Rs. 3,600,000 per year.

There is an extreme need for human resource development, community participation, and for positive integration of the traditional community organizational system into the local government system.

Several pilot projects need to be developed to evolve methodologies, strategies and approaches to have a substantial impact, especially on women.

## 1. INTRODUCTION

The Government of Pakistan has embarked on an ambitious program to improve the country's rural infrastructure including water supply and sanitation. In 1987, a team of Pakistani and international consultants undertook a national review of the Sector. They presented a Sector Report to the Government in June, 1988.

As a result of the Sector Review, the World Bank, initiated this Strategic Provincial Investment Planning and Project Preparation Process to assist the Provincial Government in the development of an investment strategy and identification of projects for implementation starting in 1990. The goal of the projects is to contribute to the betterment of health and overall quality of life of the rural populace through more cost effective and sustainable water supply, sanitation and hygiene education initiatives while maximising community involvement.

In late 1988, the World Bank, with the financial support of CIDA, engaged the project team of Wardrop-Acres in association with NESPAK, and Cowater International, as Consultants for the project.

The purpose of this report is to present the Project Team's approach to the work as a basis for discussion with the Government and the World Bank. An outline of the project organisation and methodology is presented and critical issues in the sector and their root causes are identified. A set of preliminary initiatives with implementation options are proposed as a preview of the likely direction of the investment plans.

As set out in the workplan in this report, the focus of the Team's activities in the next phase will be on refinement of the issues and initiatives through more detailed examination of existing data, some limited field checks and discussions with GOP staff. The preliminary initiatives will be reevaluated and additional initiatives will likely emerge. The specific initiatives that evolve will form the basis of the investment plan and the formulation of projects.

# PROJECT ORGANISATION OF NORTHERN AREAS

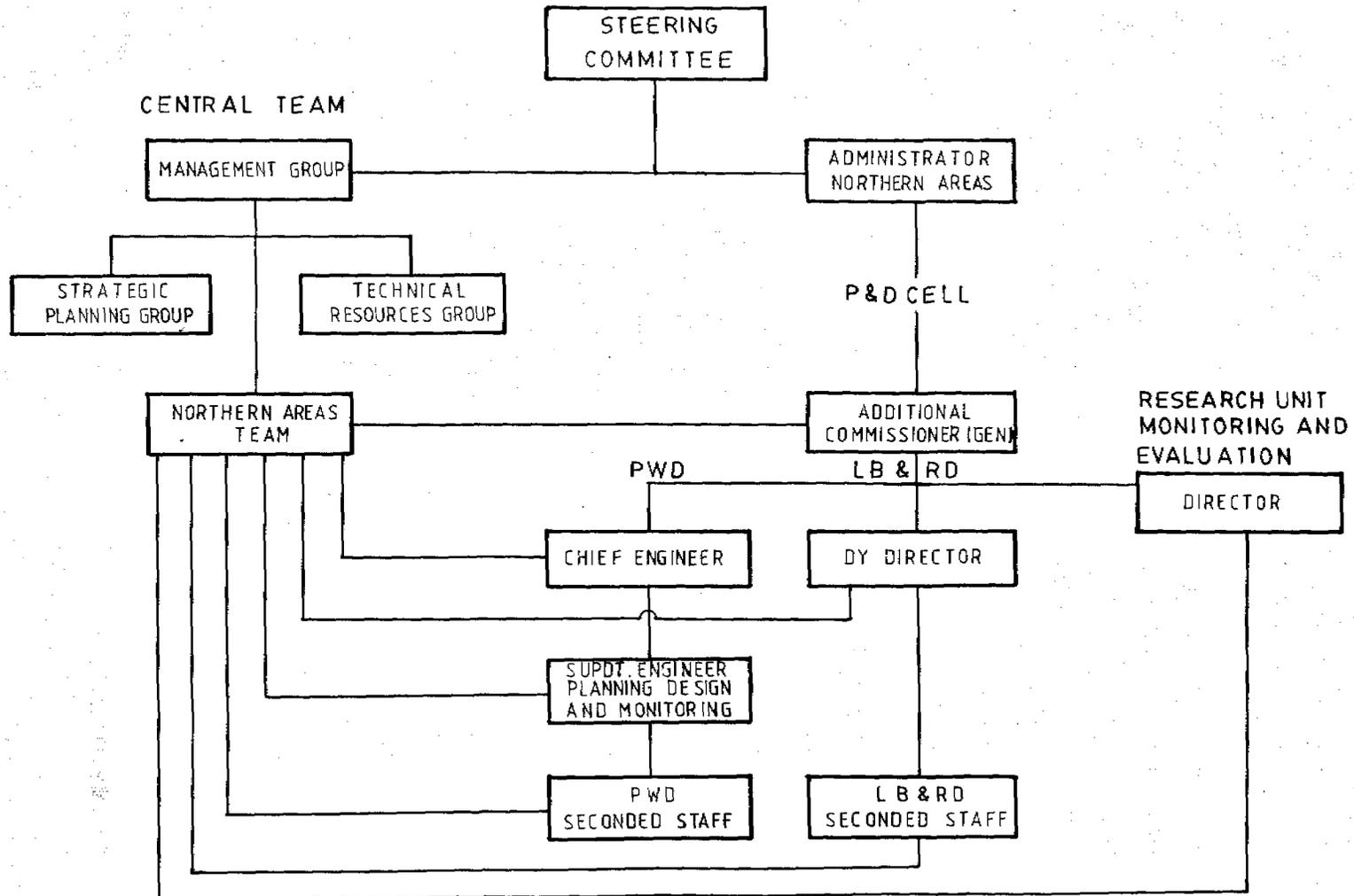


FIGURE -1

FIGURE -1

## 2. PROJECT ORGANIZATION AND METHODOLOGY

### 2.1 Project Organization and Management

The Project is organised into teams of staff based in Islamabad and the Provinces. Responsibility for Project activities in Northern Areas rests with the Islamabad team, led in this instance, by the two Deputy Project Managers, Quratul Ain Bakhteari and Sohail Abid. They will draw on the other members of the team as necessary.

A detailed presentation of the project staffing and individual responsibilities is presented in Appendix I.

### 2.2 Methodology

The project utilizes a Strategic Planning approach to the work programme in which key issues are identified and are used to focus the activities for the duration of the project term. The process is designed to quickly lead to programmes and initiatives which can be implemented and which will have a reasonable likelihood of success.

The process is an ongoing one in which data is collected, analyzed and used to arrive at an understanding of the strengths which can be built on and the weaknesses which need to be overcome. Through analysis, interrelationships in the sector are identified and are used in the development of potential initiatives. Gaps in the data result in more collection and analysis.

The following activities will be undertaken in the time periods shown:

. Reconnaissance Survey	-	Dec. 1 - Feb. 15, 1989;
. Data Collection	-	February 15 - September 30;
. Data Analysis	-	March 1 - September 30;
. Synthesis of Information	-	March 15 - June 30;
. Formulation of Initiatives	-	March 1 - October 30; and

Preparation of Outputs - June 1 - October 30, 1989.

The outputs of the project will be recommended Strategic Provincial Investment Plans and Project Identification documents in both draft and final form and a National Summary Investment Plan according to the following schedule:

- . June 11, 1989 - Draft Strategic Provincial Investment Plan;
- . Sept. 10, 1989 - Final Strategic Provincial Investment Plan;  
- Draft Project Identification Report; and
- . Nov. 5, 1989 . - Final Project Identification Report;  
- National Summary Investment Plan.

A detailed discussion of the methodology is presented in Appendix II.

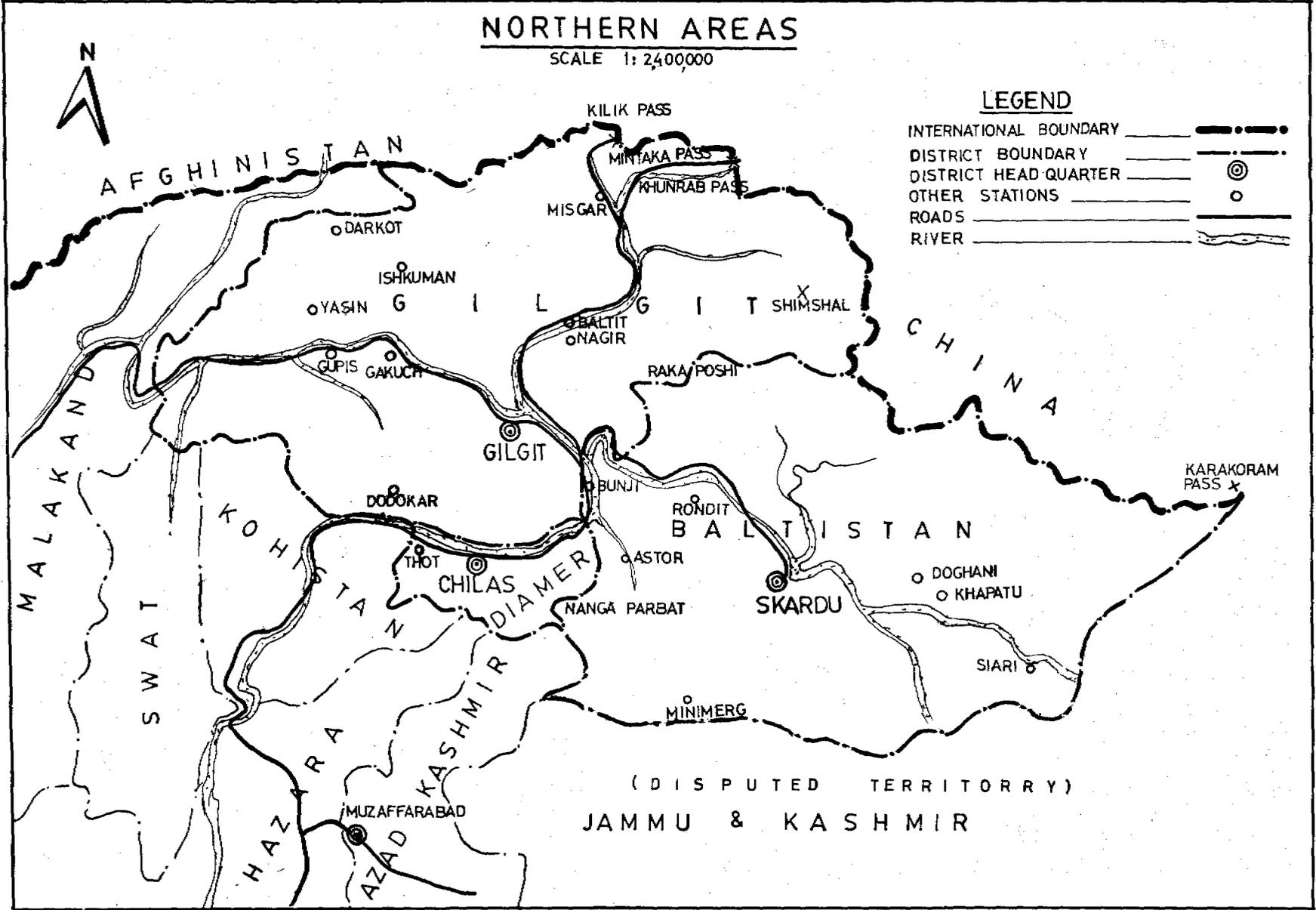
# NORTHERN AREAS

SCALE 1:2,400,000



## LEGEND

- INTERNATIONAL BOUNDARY 
- DISTRICT BOUNDARY 
- DISTRICT HEAD QUARTER 
- OTHER STATIONS 
- ROADS 
- RIVER 



(DISPUTED TERRITORY)  
JAMMU & KASHMIR

### 3. RURAL WATER SANITATION AND HEALTH SECTOR

#### 3.1 Overview of the Province

The Northern Areas of Pakistan cover 72,496 km<sup>2</sup> in the extreme north of the country. The entire area is characterised by high mountains, with an average elevation above 4000 meters. It possesses some of the highest peaks in the world including the second highest peak, K-2 (over 8600 meters), and Rakaposhi (about 7800 meters). The Indus is the most important river in the area, and it flows from the southeast to northwest up to a point north-east of Bunji. From this point it turns to the north, then to the south and finally to the west leaving the Northern Areas west of Chilas. Important tributaries of the Indus are the Shyok, Shigher, Gilgit and the Astor. The climate of the area is characterised by warm and dry summers and very cold winters with temperatures sometimes falling as low as minus 14°C. There is a scarcity of rainfall, averaging 100 mm annually.

The Northern Areas, according to common understanding, include the Districts of Chitral, Gilgit, Skardu (previously Baltistan) and Diamir. However, the Northern Areas administered by the Federal Government exclude the District of Chitral. This report addresses only the federally administered Districts with their headquarters in Gilgit. The total population of the Northern Areas, according to the 1981 population census, is 575,000 which gives a population density of 7.9 persons per km<sup>2</sup>. The annual growth rate during the inter-censal period of 1972-1981 was 3.81%, with the highest rate (4.35%) in Gilgit District. The average household size is 7.1 people.

The distribution of rural settlements by District is given in Table 3.1. The settlement sizes tend to vary in the three Districts with 69% of the population in Skardu living in settlements of more than 1,000 people and 64% of the population in Diamir living in settlements of less than 1,000 people.

The Districts of Gilgit and Skardu have almost the same population, but the growth rate of Gilgit is greater than Skardu.

Table 3.1 POPULATION DENSITY, HOUSEHOLD SIZE AND ANNUAL GROWTH RATE IN NORTHERN AREAS, 1981

Area/ Districts	Area sq.km	Population '000'	Population Density per Sq.Km	Household Size	Inter-Censal Annual Growth Rate 1972-82
Northern Areas	72496	575	7.9	7.1	3.81
Baltistan	N.A.	224	-	6.7	3.35
Diamir	N.A.	123	-	6.8	3.68
Gilgit	N.A.	228	-	7.7	4.35

Gilgit is the only District in the Northern Areas with a settlement with a population greater than 5,000. The greatest number of settlements - 119 - is in the District of Diamir, encompassing 34% of the regional population. Most of these settlements are in the range of 200-499 persons. The size distribution of settlements in NA is given Table 3.2.

The Districts of Baltistan and Gilgit have almost the same population, while the growth ratio of Gilgit is more than Baltistan.

Source: 1981 censuses reports of Northern Areas, population Census Organization, Statistic Division, Government of Pakistan.

Table 3.2 Size Distribution of Rural Settlements in the Districts of Northern Areas.

Rural Localities by Population Size	---Gilgit---		--Baltistan---		---Diamer---	
	Number	% Pop	Number	% Pop	Number	% Pop
5000 and above	-	-	-	-	1	3
2000 - 4999	25	36	6	14	13	17
1000 - 1999	56	18	39	23	84	31
500 - 999	56	18	39	23	83	31
200 - 499	74	12	119	34	88	14
<200	22	1	67	7	58	4
Uninhabited	7	-	3	-	1	-
<u>Total</u>	234	100	254	100	258	100

### 3.2 Status of the Sector

#### 3.2.1 Water Supply

Drinking water supply in rural Northern Areas has attracted the attention of government and elected representatives, as well as the communities. The sector has a brief history starting in 1979 when adhoc, isolated water supply schemes were initiated by Integrated Development Programmes (IDP) and People's Works Programmes (PWP). More recently, Public Works Department (PWD) has initiated schemes for larger population centres. PWD is analogous to PHED in other provinces. It was responsible for the entire water supply until the Community Basic Services (CBS) programme was started by Local Board and Rural Development Department (LBRDD) in 1982.

In the CBS programme the community contributed 100% of the labour cost, which amounts to more than 50% of the capital cost and almost all the operation and maintenance cost. UNICEF provided pipes and training, while LBRDD provided technical supervision and funds for materials and construction. A demonstration effect was created; villages that were

not covered by the CBS programme became interested and their demands have been included in the ADPs.

These ADP villages also used the CBS approach except that UNICEF's assistance was fulfilled by the government instead. Northern Areas Councillors, who are elected, also started water supply schemes in their constituencies by establishing village project committees and obtaining technical assistance from PWD, Development Working Party and LBRDD .

### 3.2.2 Water Resources

Availability of water does not seem to be a problem in Northern Areas. Water is taken from nullahs (streams), melting snow, glaciers and springs. It is purified by slow sand filters. There has been no regular testing of the filtered water, nor do facilities exist in PWD and LBRDD to do so. In the case of water drawn from glaciers, filter beds are not constructed, nor has care been taken to save the water from pollution before filling the reservoirs.

### 3.2.3 Human Excreta Disposal

There is a traditional Balti latrine which is very commonly used. The Balti latrine is a dry deep pit with a hole on top, and a small apron at the side which is used to empty the pit of excreta. People use the excreta as manure in the fields, the only example found of people handling it.

In the CBS programme, 120 demonstration units were installed in public places at approximately Rs.5,000 per unit. These were flush latrines with a water seal and the cost included the pan, single deep pit, and concrete superstructure. 880 less costly units were constructed in households with technical assistance, pan, pipes and cement provided, and the family paying of the rest. Most of the household latrines were used and maintained and there is now a demand for household latrines in many villages. The demonstration community latrines were not maintained and have been abandoned. They were too expensive for people to adopt

for themselves. Most of the cost was due to the superstructure and efforts have been made to reduced the cost to Rs.3,000 by eliminating it. When the pit is full the people use another pit constructed at a different place. In the meantime the first pit dries out and is reused. The CBS programme is looking for possibilities to up grade the Balti latrine, and also install 1600 household laterines.

Drainage is not covered by any programme except CBS where water is channelled from community stand posts and washing areas. In the CBS programme, 960 stand posts with aprons and 60 washing facilities have been constructed.

### 3.2.4 Financial Allocation

Funding for the water and sanitation sector comes from three sources: government, UNICEF, and the communities. Some funds were initially provided by Agha Khan Foundation as well. This is shown in Table 3.3.

Table 3.3 Source of Funding for Water Supply Schemes

Agencies/Programmes	Towns	Population	Rural villages	Population	Percentage
CBS, LBRDD, UNICEF, Communities	-	-	128	120,952	21.03
District Councils, ADP, Communities	-	-	60	76,400	13.28
PWD, ADP	3	48,000	85	80,750	14.04
N.A Councillors Five point partially Commities	-	-	31	41,505	7.21
	3	48,000	304	319,607	55.56

The estimated allocation in the current ADP 1988-89 for the sector after 16.6% in reduction, including operation and maintenance cost is 424.394 million. The allocation for water supply is as follows:

Dept.	Source	Allocation (Rs. Millions)
PWD	ADP	
	Gilgit District	6.262
	rural and urban both	
	Diamir District Water	1.454
	Supply	
	Skardu District	1.611
	(Skardu Town sewerage)	
LBRDD	ADP	
	Gilgit District	0.458
	Skardu District	0.400
	Diamir District	Nil
LBRDD	UNICEF CBS programme	1.616
	All districts.	
N.A.	Councillors Programme	
	Gilgit District	8.400
	Skardu	8.400
	Diamir	5.600
	Total ADP Allocation	Rs. 34.201

The classification of all development projects in Northern Areas into urban and rural area is based on the cost of the project. Projects costing Rs. 500,000 or more go to PWD and projects less than Rs. 500,000 go to LBRDD .

The District wide allocation for water supply in both urban and rural areas is shown below (all values in million rupees). Table 3.4

COMMUNITY BASIC SERVICES (CBS) PROGRAMME MANAGEMENT CHART

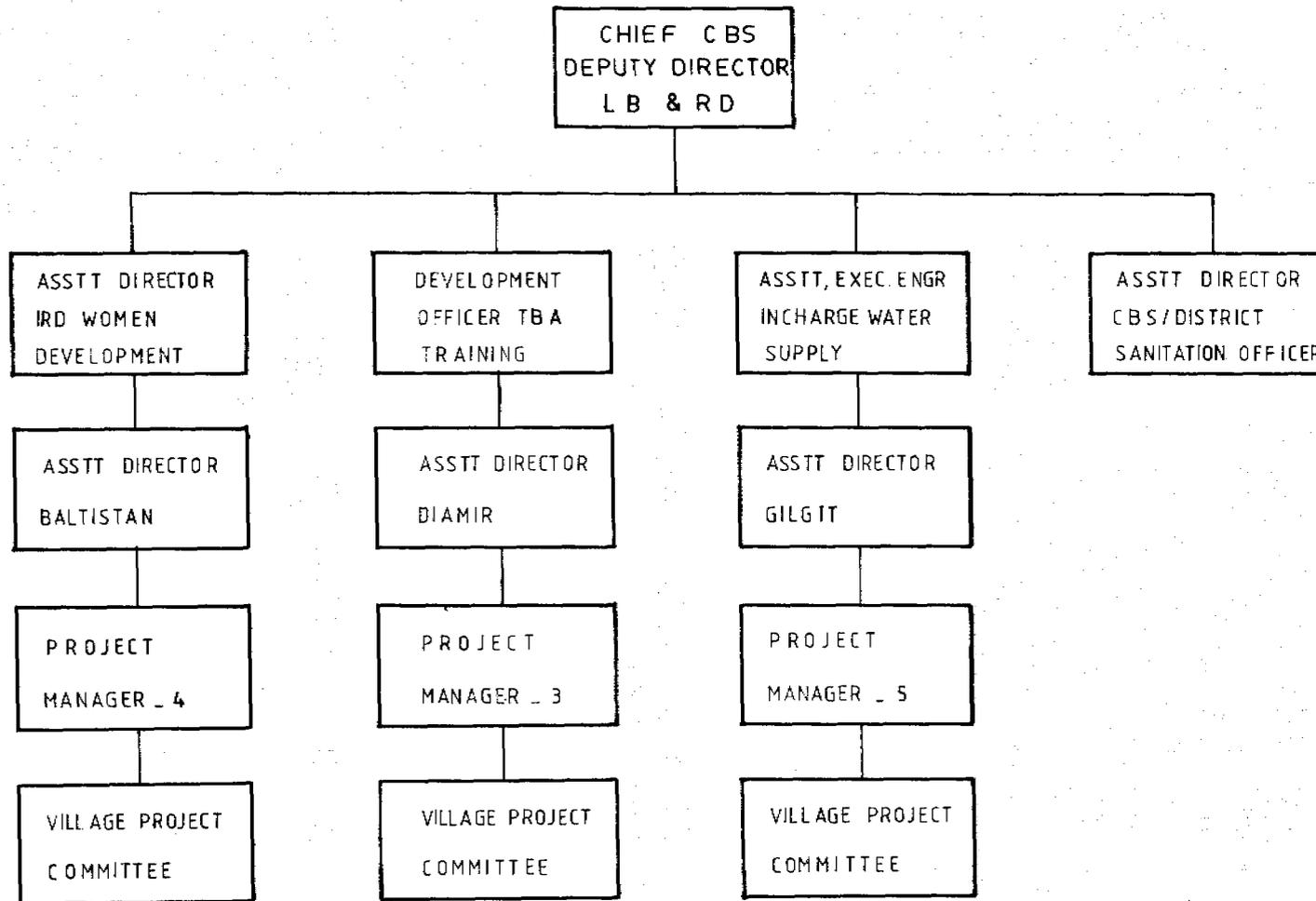


FIGURE - 2

FIGURE - 2

Districts.	No. Villages	1988 - 89	No. Village	1989 - 90
Gilgit	18	Rs. 8.469	10	Rs.16.455
Skardu	5	Rs. 1.611	4	Rs. 4.740
Diamir	5	Rs. 1.454	5	Rs. 1.470
Total	28	Rs 11.534	19	Rs.22.665

### 3.2.5 Community Basic Services (CBS) Programme Supported by UNICEF

The CBS programme in Northern Areas was implemented in collaboration with UNICEF and the Agha Khan Foundation from 1982 through 1987. The main objective of the programme has been to improve the health, education and general awareness of hygiene among women and children. The strategy used to achieve this was to develop potable water supply and household sanitation in 150 villages in three Districts. The programme was implemented in phases.

The CBS model, which is based on the Local Council, was designed in 1982. It is derived largely from the rural development experiments in the country since independence. The Local Bodies and Rural Development Department is the executing agency. In the CBS programme, responsibility for selecting, planning, implementing and monitoring projects rests with the Village Project Committee (VPC). This committee is headed by an elected member of the concerned Union Council and has 4 to 5 other members nominated through the consensus of the community (Fig 2).

The Programme has been able to achieve the following to date:

	Planned	Achieved
Water Supply Scheme	150	106
Demonstration latrines	150	120
Household latrines	950	880
Stand posts/aprons	1135	960
Washing facilities	80	60

## ORGANISATIONAL CHART OF LB & RD DEPARTMENT

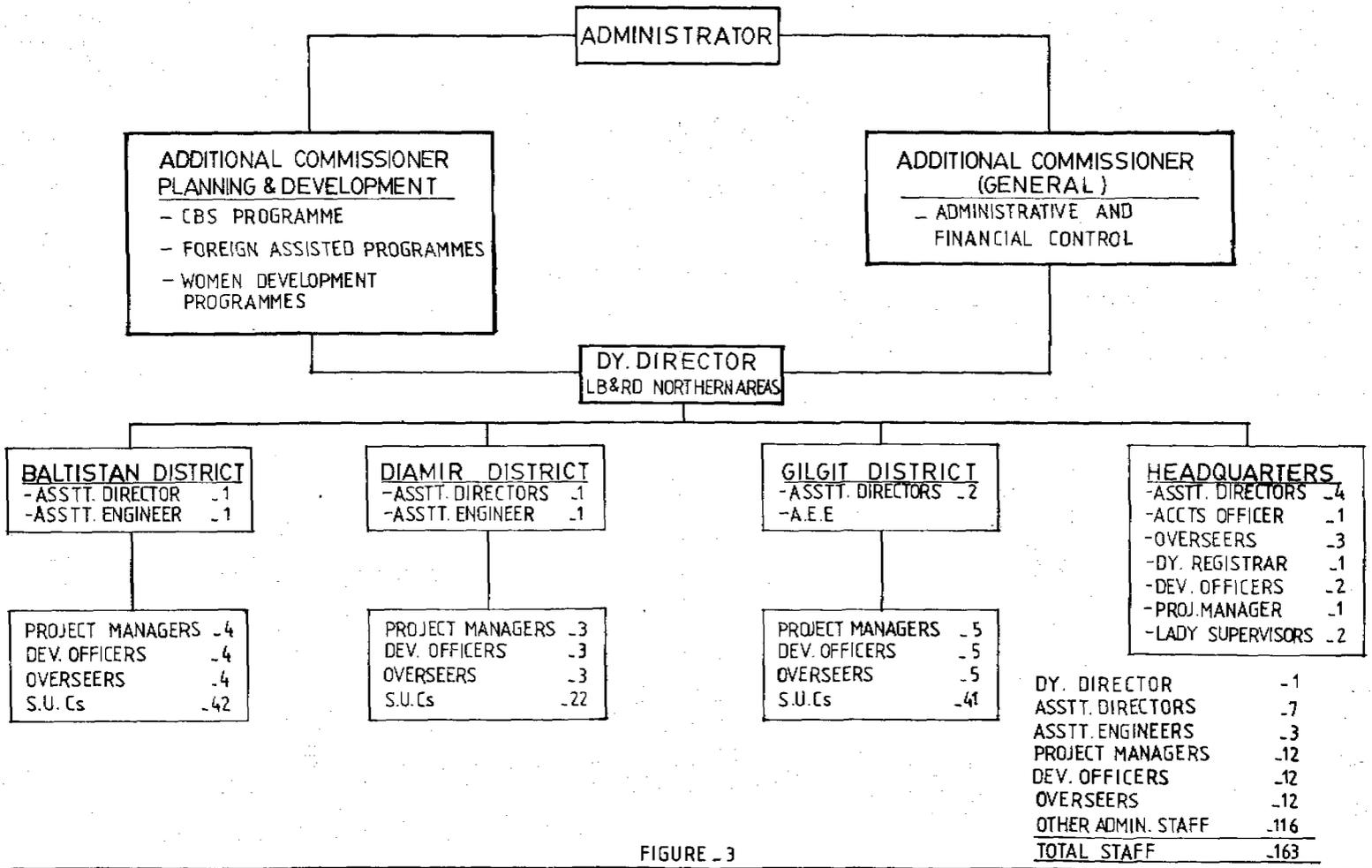


FIGURE - 3

FIGURE - 3

### 3.3 Institutions

Under the present administrative setup, the area is treated as a Civil Division with an Administrator heading administrative and other line departments. The area has been divided into:

- . 3 District Councils;
- . 3 Municipal Committees at Gilgit, Skardu and Chilas; and
- . 811 elected wards.

The basic institution involved in water supply is the community itself through the Village Project Committee (VPC) and the Union Councils. The Councillor is the Chairman of the VPC and he assesses the demand and forwards it to the District Council, where the project is scrutinized and priority is set according to the need and political influence. The project then goes to LBRDD, which provides funds and technical support to the projects through District Councils, Town and Municipal Committees.

The LBRDD works through its technical staff who organize, supervise and provide funds, which are matched by the communities in the form of free labour, for the construction of reservoirs, digging of trenches, laying of pipes. They assist in supervision of labour and connection of joints and repairs.

The Northern Areas are passing through a phase of institution building down to the village level, as the formal institutions are slow to take the place of the traditional Jagirdari (feudal) system. Although interventions through LBRDD and AKRSP have played a role, it will take time to make people understand and get used to the formal involvement of these organizations. Until 1979, the Jagirdari system worked in Skardu and Gilgit as a pseudo-government agency, while concurrently government officers were appointed as heads of administrative units. Diamir District was, however, governed through the Jirga system within the framework of the Frontier Crimes Regulation (FCR). (Fig 3.)

# DEVELOPMENT ADMINISTRATION NORTHERN AREAS

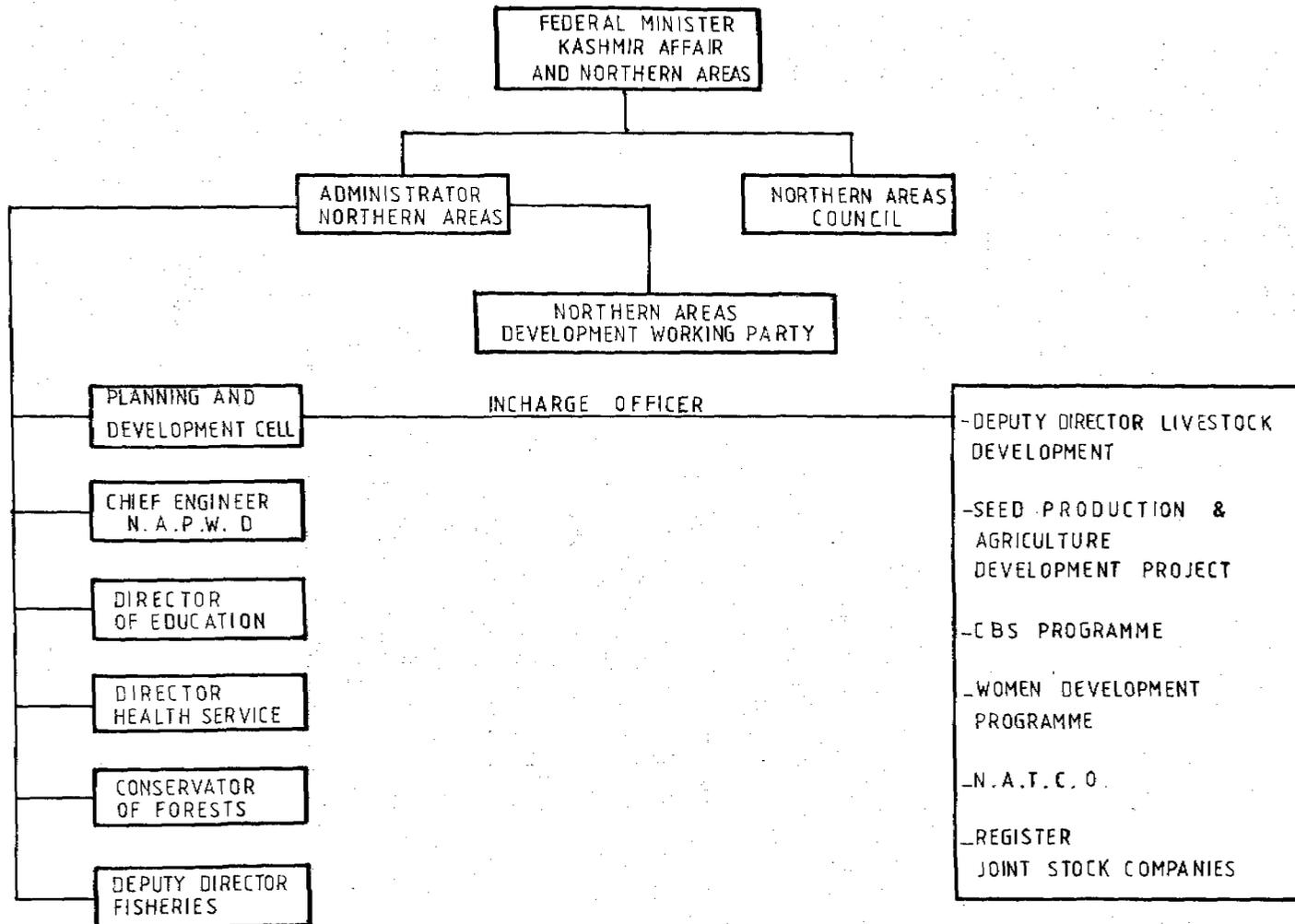


FIGURE - 4

FIGURE - 4

At the regional level a Planning and Development Cell has been created which is headed by the Additional Commissioner (P&D) and which is responsible for planning, monitoring and coordination of the development process in the region. (Fig 4.)

The Northern Areas Council (NAC), which is the highest elected forum, is made up as follows:

Chair Chairman	1
(Minister for Kashmir Affairs & Northern Areas Division)	
Elected Members	16;
Official members	4;
Local Bodies representative (Chairman of a District Council)	1; and
Secretary of Council	1
Total:	<hr/> 23

The Council has the power to approve development projects worth up to Rs.30 million. The body is technically supported by the Development Working Party (DWP) and is responsible for scrutiny of projects before approval by the NAC. The DWP is also empowered to approve all projects, except those sponsored by LBRDD, worth up to Rs.10 million.

Local government institutions were introduced in 1979 under the Northern Areas Local Government Order 1979. There are a total of 111 local government units in NA. These are:

District Council	-	3	-	32 members;
Municipal Committees	-	3	-	24 members; and
Union Councils	-	105	-	811 members.

The Union Councils are divided among the three Districts:

	<u>Gilgit</u>	<u>Diamir</u>	<u>Skardu</u>
Union Councils	41	22	42

These institutions were given the responsibility for planning, execution and monitoring of the Rural Development Programme including water supply and sanitation. The Rural Development Department was separated from political authorities in 1980.

Other than through NAC and FWP, discretionary power over funds and, therefore, projects is as follows:

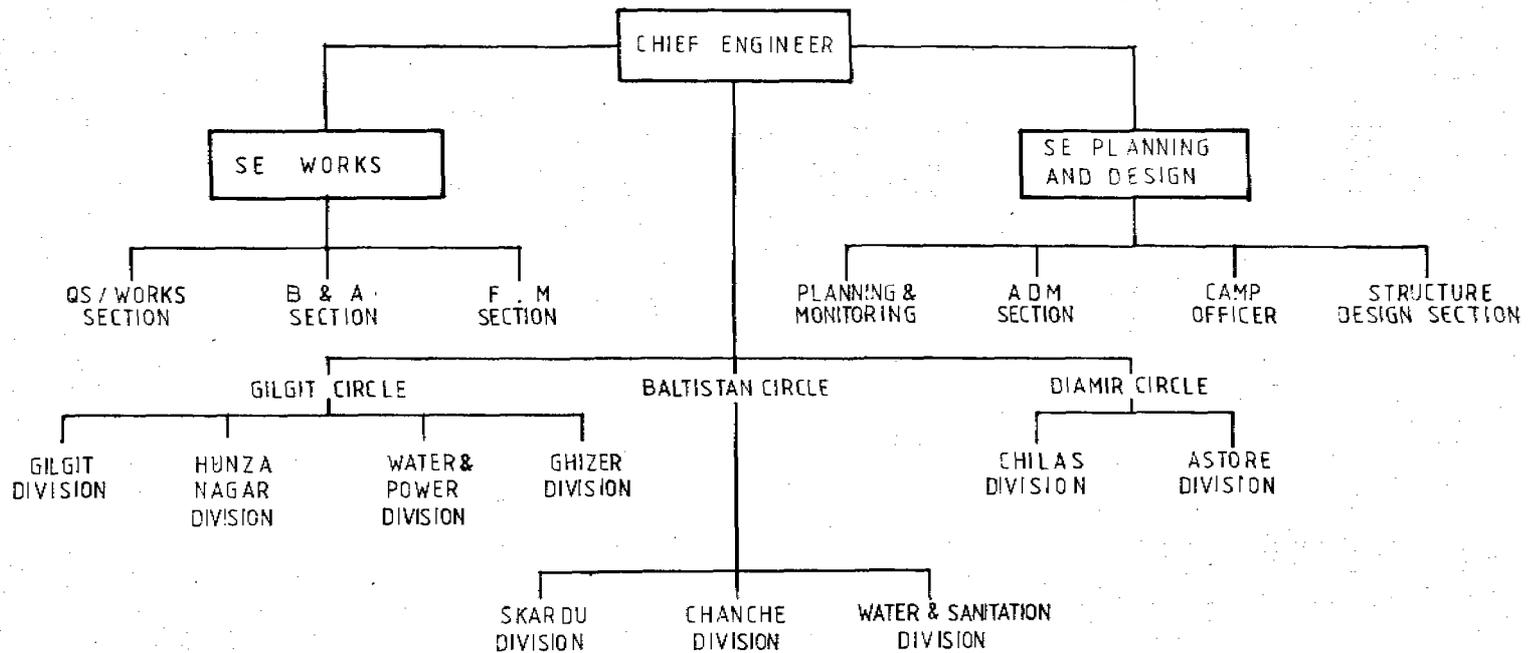
- . LBRDD - greater than Rs. 500,000 per project;
- . District Council - Up to Rs. 500,000 per project; and
- . Union Council - Up to Rs. 10,000 per project.

CBS has a package of vocational training, TBA hygiene education, and training of local level management etc. Women's Division has provided funds for a vocational training centre.

LBRDD dominates the sector, despite a number of handicaps and constraints. Total funding from the ADP is Rs. 3 million for all projects, (roads, link bridges, schools, etc). LBRDD retains a small portion for overheads and distributes the rest to the three District Councils. The District Councils do not have their own income, except for octroi which is insufficient even for salaries. The entire development programme is financed by government. The LBRDD is severely under staffed, considering its responsibilities and area of work. Staff is not trained technically to do the job effectively. Current coverage by water supply systems is:

- . Gilgit - 31.72%;
- . Skardu - 25.78%; and
- . Diamir - 20.16%.

## NORTHERN AREAS P W D ORGANISATION



### AUTHORISED STRENGTH

CE	1
SE'S	5
MEX'S	13
A/XEN'S	48
OTHERS	580
<b>TOTAL:</b>	<b>653</b>

FIGURE -5

LBRDD needs to be strengthened technically and administratively, and provided logistical support. It is the only agency which has demonstrated a capability for reaching out and involving the communities.

The PWD is responsible for villages with populations exceeding 1,000 and the cities and towns. It does not involve the community for operation and maintenance or cost recovery in any way. It assists LBRDD in the repair of schemes damaged by land slides.(Fig.5)

Besides PWD and LBRDD, other departments and NGOs exist and their role in the sector needs to be studied. The role of Federal and financial institutions also needs studying.

The organization chart of the PWD is given in 'A' list of NGOs, financial and government offices is given in Appendix-III.

#### 3.4 Rural Economy

Total farm area in the Northern Areas is 52,923 hectares out of which 82 percent (43,089 hectares) is cultivated. Forests cover a total area of 104,900 hectares. Major crops grown in the area are wheat, maize and fruits. The cropping pattern is given below in Table 3.5:

#### CULTIVATION OF MAJOR CROPS IN NORTHERN AREAS BY DISTRICT

Crops	%AREA UNDER CULTIVATION		
	Gilgit	Skardu	Diamir
Wheat	34	58	46
Maize	32	2	53
Fruit	29	39	1
Others	5	1	-
TOTAL:	<u>100</u>	<u>100</u>	<u>100</u>

At the time of independence, the economy of the Northern Areas was largely undeveloped. In the absence of any road links, the area remained as isolated as it had been for centuries.

Even at the time of First Five-Year Plan, the concept of planned development was not introduced in Northern Areas. Development activities started during the Second Five Year Plan period and have escalated dramatically since then.

Government is the major employer in the region. Approximately 2% of the population is employed by Non-Governmental Organizations (NGOs) and 8 to 10% of the population has migrated to urban areas of Pakistan for employment.

Percentage of people employed and distribution of family incomes is given below:

Table 3.6 Percentage of People Employed in the Northern Areas

	Total	Male	Female
Agriculture	35.53	19.23	16.30
Labour	3.62	3.59	0.02
Employment Services	5.53	5.20	0.33
Trade and business	6.24	1.57	0.01

Table 3.7. Distribution of Family Incomes

	Monthly Incomes		
	<u>Up to Rs.500</u>	<u>Rs.500 to 1000.</u>	<u>Above Rs.1000</u>
No.of families	50,709	18,822	11,720
Percentage (%)	62.41	23.16	14.42

### 3.5 Social/cultural and Community Organizational Patterns

#### 3.5.1 Social/cultural

Due to the mountainous terrain, valley dwelling communities have remained isolated for centuries in numerous small ethnic and linguistic groups or fibres. The people of Northern Areas originate from Aryab, Scythias, Mongolian, Tibetan, Turko-Iranian and Caucasian stocks.

The earliest religion in the region was Hinduism, but in time it was supplanted by Buddhism. Traces of the former were evident until recent times from the strict 'cast' system and prevailing Hindu supersituations among some communities of Gilgit and Diamir. Carvings of Buddha are still seen on rock faces in Kargah Nullah at Gilgit. Between the 9th and 12th Century, Islam spread into this region via Afghanistan, Kashmir and the Indus valley.

The main language spoken in Gilgit and Diamir Districts is Shina while Balti, a variant of Tibetan, is spoken in Skardu. The people of Hunza and Nagar speak Brushaski. There are other languages in Northern Areas such as Wakhi, Chitral and Turki which are now understood in almost in all parts of the area.

There is a need to further understand the socio-cultural patterns related to water and sanitation, health, hygiene and the role of women. In Yaseen valley, women do not work in fields because they have to handle excreta for fertilizer. Working in fields is considered unhygienic and since women have to cook and handle food for the family, her hands should not touch excreta.

The people in Daimir are very tribal in character. Taking more than one wife is common. High brideprices are paid to women's families. The high demand for wives is due to the desire for more children to continue tribal enmity in generations. Communities have been self-reliant in all matters except for an economic dependence on the feudal lord.

Each tribe has its own cultural music and tribal dances. Drinking water is basically a woman's responsibility. Hygiene consciousness is very low. People use both open fields and Balti latrines for defecation. Decomposed human waste from latrines is used as fertilizer.

### 3.5.2 Involvement of Communities

Traditionally, communities have been involved in organizing development schemes and doing collective labour e.g., constructing roads and constructing and maintaining irrigation channels. There is a tradition of each family paying a small amount to someone (10 kilos of water per month) to operate and maintain the irrigation channel. The village blacksmith and Dais (Traditional Birth Attendant - TBA) are supported in the same way.

Decision making is done collectively. With the recent intervention of NGOs, government and local bodies, the traditional system is breaking down slowly. Community activities are being increasingly influenced by political realities. The changing situation needs to be explored further for better understanding of the changing community involvement patterns.

Communities contribute labour for operation and maintenance of CBO water supply schemes, but with reluctance. They are aware that in urban areas, people have water supplies without contributing labour or paying taxes. They are also aware that PWD and NA Council rural water schemes are constructed and maintained without any community involvement. This discrepancy in cost recovery/community participation policy, even within the rural areas, creates an environment which discourages the same.

### 3.5.3 Role of Women

In areas where the tribal system and tribal enmity are strong (e.g. Diamir) it is the women who go out to work after day light, because the men feel insecure and exposed to danger.

Women's responsibilities include cultivating the fields, grazing animals, fetching water, bearing and caring for children, cleaning the home, cooking, collecting firewood, washing clothes etc. Their health is extremely poor, due to frequent pregnancy, child birth and miscarriages. Female mortality is high. Literacy rates are low. Women have no financial power, although they are actively involved in income generating activities at home and in the fields. In the Agha Khan Rural Support Programme (AKRSP), women have formed organizations and set up their own savings schemes. In Diamir a women's organization has set up its own poultry farm.

At times, women do not wash or change clothes for weeks. This is due to the cold weather and lack of hygiene awareness. To understand the taboos and practices related to the sector, investigations need to be undertaken in the field.

#### 3.5.4 Community Organizational Patterns

Although Union Councils and Village Organizations have been set up, decision making is still influenced by traditional leaders. There is a need to understand the changing patterns of leadership and their implications on community participation in the sector. In Diamir, the tribal organization still dominates. Another influence on community organization which began taking roots in the early eighties, is the Islamisation of most facets of life.

#### 3.5.5 Human Resources

Human resource development is very weak in Northern Areas, having neither programmes nor institutions. There is a great need for training of village communities, mid-level managers, technicians and professionals. For example, the technical staff overseers of LBRDD are largely not trained. When training is done, it usually on the job or in Punjab or other parts of the country. Since women do not want to go out of Northern Areas their training is weaker yet.

### 3.5.6 Education

The literacy rate, according to the 1981 census, is about 14.7%, 4% for females and 24% for males. Estimates for 1988 show a rise to 24%, 10% to 12% for females and 33% to 40% for males. The Northern Areas have the following educational institutions:

- . 475 Primary schools, with 45,289 students;
  - 400 Schools for Boys and
  - 57 Schools for Girls;
- . 89 Middle schools with 13,583 students;
  - 82 for Boys,
  - 7 Girls;
- . 38 High Schools;
- . 2 Intermediate Colleges, one for girls and one for boys; and
- . 2 Degree Colleges.

### 3.5.7 Health

The health status of people in the Northern Areas is low, mainly as a result of harsh living conditions, lack of sanitation and potable drinking water. Crude child mortality is 27.3 per 1000. Iodine deficiency, tuberculosis and other respiratory ailments are common.

Women are generally anaemic and have a low level of nutrition. They have frequent pregnancies and a high rate of miscarriage. Family planning is being introduced, but the average family still has 6 to 8 children. In the recent past, there were widespread intestinal disorders leading to severe dehydration. Many deaths are not reported because people can not reach health centres.

Health facilities are limited. There are only 23 hospitals, 103 dispensaries and 79 First Aid Posts. Female participation in health care is limited to 20 nurses and the UNICEF trained TBAs.

### 3.5.8 Hygiene Education

The CBS programme's experience demonstrates that this is an uphill task in the absence of some arrangement for heating water for washing, supply of soap and shifting some of the economic burden from women to men. The Master Trainers for hygiene education used by the CBS programme came from Punjab and were unable to relate to the hygiene practices arising from the extreme climate of Northern Areas. The programme trained 8 local Master Trainers, but due to transport constraints these women cannot travel to the villages. The training syllabus developed by CBS Hygiene Educators is appropriate but is not put in to practice due to financial limitations on transport. Hygiene Education Trainers (female) are required in another 360 villages.

A Research and Monitoring Cell in LBRDD has started recently. It is actively studying taboos, practices and trends in water and sanitation, as well as the role of women. They have been working on some small projects but need strong technical support and financial assistance to explore and identify these invisible indicators in the difficult geographic areas.

#### 4. IDENTIFICATION OF ISSUES

##### 4.1. Water Resources

Water is available from numerous streams and springs, although not always in the immediate vicinity of the village(s) to be supplied. In a few cases, the spring discharge diminishes within 2 or 3 years of a gravity water scheme installation. The cause of the reduced discharge is not clearly understood, but climatic changes and deforestation are likely to be contributing factors. Ownership of water sources is an issue, especially in tribal areas of Diamir, because owners do not always permit the community to use their resource, even if compensation is offered.

Some common problems with water supplies are discussed below.

##### 4.2 Water Supply

Most of the problems regarding water supply emanate principally from a lack of knowledge of the technical issues involved in the transmission and distribution of water. Some common problems with water supplies are:

- . pipes are damaged by falling rocks and landslides as they are not buried properly;
- . pipe strengths are not controlled;
- . pipes freeze and burst;
- . no steps are taken to prevent pollution of streams used as sources because communities and officials do not know what steps to take; and
- . strong Union Councils or tribes influence planning and design, getting more water per person, house connections, and sometimes

two schemes in a village.

Staff strength and technical and management skills of LBRDD are insufficient for implementation of a large number of schemes. For example the CBS programme had a target of 150 schemes for the period 1982 to 1986. By October 1988, however, only 106 schemes had been completed. It is estimated that there are roughly 360 villages still in need of water supply. The root cause is that LBRD has untrained technical staff.

#### 4.3 Sanitation

Sanitation in the rural communities is conspicuous by its very absence. Some of the major problems are:

there is a lack of knowledge and awareness of the need for sanitation;

presence of cattle sheds is an issue in household sanitation;

pour flush latrines are not used because of the traditional habits of using dry Balti latrines and defecating in the open fields; and

demonstration latrines constructed by CBS were counter-productive. Their cost of Rs.5,000 per unit was beyond most households' capacity to pay. Moreover as these were public latrines no one in the community took responsibility for their maintenance and they were, therefore, abandoned. However, household latrines were used and maintained. Nevertheless the CBS programme has created a good demand for household latrines in some of the villages particularly as the cost of household latrines is declining to Rs.3000.

Nevertheless, the traditional Balti latrines are much more common and acceptable to the people through out Northern Areas. They are being considered for upgrading hygienically.

In Skardu, eight pour flush latrines constructed by CBS are still in use. However, no continuous monitoring is being done to create awareness.

#### 4.4 Drainage

Presently, drainage schemes are limited to cities, but the one exception is small drains built around standposts as part of the CBS programme. Other than these small drains, there are no plans for drainage in rural areas.

#### 4.5 Institutions

The different approaches adopted by LBRDD, PWD and NA councillors have created a major problem in the water supply sector. PWD and the Northern Areas Councillors provide schemes free of cost while in LBRDD's CBS programme, communities have been asked to pay for full operation and maintenance and part of the capital costs. This dichotomy in the provision of water supply constrains the participation of communities as a result of the demonstration effect.

Other issues within the institutional framework are :

. the PWD concentrates on larger communities with populations of 1,000 and over. The rest are catered to by the LBRDD or Union Councils whose role is very limited. The staff, technical expertise and opportunity for upgrading their technical skills, is limited in LBRDD;

. the DCs, UCs, LBRDD and NAC have a lot of interest in water supply, as this is seen as a political entry point;

. community interest and motivation has become very strong for potable drinking water, and there is a great demand for it;

- . the elected representatives exert a strong influence over the project selection process;
- . the Community Based Organisations are in the process of integrating with the Local Bodies System. However, the form and mechanism is evolving gradually and they need to be studied and, where necessary, guided;
- . there is a gap in the taking over process between the traditional institutions at the village level and the local bodies, this gap is distortion in the community's organizational system in relation to community participation;
- . the CBOs created by AKRSP are broad based organization which could be integrated into the sector in the future. AKRSP is very strong in NA, but is not active in drinking<sup>^</sup> water supply; and
- . there are other NGOs in Northern Areas, but they too are not involved in the sector.

#### 4.6 Government Departments:

There is seems to be close contact and co-ordination between the government departments in the sector. The Development Commissioner plays a key role in creating a co-ordinated working relationship. He has up-to-date information on the sectors' development. The Health and Education Departments are now being drawn into the sector by the LBRDD. PWD is not interested in small schemes but assists LBRDD to repair schemes damaged by landslides. The root cause may be that institutional building is very recent in N.A. The traditional culture of cooperation is still prevailing in the government departments as well.

LBRDD is under-staffed to do the job effectively and needs help.

District Councillors and Union Councilillos are very active in the sector. However, they do not have financial bases of their own. Inspite of the

elected leadership, it is the traditional leadership which generally prevails on the people. Elected leaders tend not to support community participation in schemes. Moreover, there is a lack of awareness of their role as elected bodies towards the sector.

The District Council is effective in implementing, monitoring and supervising the schemes, but has strong political biases. The DC needs strong technical support from LBRD. There seems to be pressure on the government agencies after the democratic process in the country. The NAC are also active in sector, but they lack technical and institutional support although large funds are allocated to them.

#### 4.7 Financial Resources

Although the development budget for Northern Areas has gone up an average of

Rs. 23 million to Rs. 510 million in 1988-89, the ADP allocation to LBRDD for its entire development budget is Rs. 30 million. Out of this, the allocations for water supply are:

<u>District</u>	<u>1988 - 89</u>
ADP Allocation	
Gilgit	Rs. 8.469 million
Skardu	Rs. 1.611 million
Diamir	Rs. 1.454 million
	<hr/>
	Rs. 11.534 million

The heavy financial input to the Northern Areas, without strong institutional capacity at all levels, has created a negative impact on peoples' participation in development. The funding procedures and their rigidity make rapid service delivery impossible. Resources are required for action-oriented research into approaches in the sector.

4.8

#### Cost Recovery

No mechanism for the recovery of capital or operation and maintenance costs has been announced for any development plan for the Northern Areas. In rural water supply, the CBS project communities are paying 100% of operation and maintenance costs and 60% of capital costs.

The tribal areas of Diamir are paying very little for their water supply because there is little will to impose payment. The fact that the entire Northern Areas is a tax free zone discourages payment for water and sanitation services. Further, the demonstration of no payment for water supplies in the larger community schemes executed by PWD, is setting a negative example for the rural communities, particularly those within the CBS programme.

4.9

#### Social/Cultural

The Northern Area region is extremely diverse both ethnically and linguistically. At least five major languages - Shina, Burushaski, Balti, Wakhi and Khowar - are spoken, in addition to numerous dialects and minor languages. Urdu is spoken widely in the Gilgit area and along the Karakoram Highway. The region also contains three major Islamic sects: Ismaili, Shia and Sunni. Because of the topography of the region, communities are largely homogenous socially within each valley.

The people of the Northern Areas region tend to be liberal and progressive in their outlook and are not rigidly bound by traditional customs or taboos. Religious leadership in the Shia and especially in the Ismaili communities tends to be progressive and receptive to change.

Villages have not been organised traditionally on hierarchical lines, are egalitarian in their social structures and since the abolition of feudalism, have been largely free from external controls. Within villages, kinship relationships are strong and often form the basis of the community. People's loyalties are focused on religious identity, and although intermarriages between linguistic groups and distant

villages often take place, they are extremely rare between the religious sects. Since there is only a vestigial tribal system and no stronger relationship, the isolated communities have developed a high degree of self-sufficiency and independence.

The Agha Khan Rural Support Programme has attempted to initiate and promote the growth of village institutions which would be able to develop into self-sustaining entities for undertaking diverse development projects. These Village Organisations (VO) are not hierarchically structured, have a membership of at least 75% of households in the village (mainly through the male head of household) and all decisions are arrived at by consensus. The VOs provide a forum for open discussion and the free exchange of ideas and opinions. Training is provided by Agha Khan Support Programme to village organization nominated members in agriculture, plant protection, veterinary skills, forestry and in accounting and management.

The role of women within the communities of the Northern Areas region is extensive, ranging from the traditional household duties to farming - both crop and livestock. However, their economic power is restricted due to traditional practices. The AKRSP is experimenting with the idea of establishing Women's Organisations (WO) at the community level. These WOs act as a counterpart to the VOs in income-generating activities. The WOs make their own communal savings for women's projects. Women's roles are now being viewed in the context of the "farm family" as a production unit. With the exodus of the younger able-bodied men to urban employment and the tourist trade, women are left to shoulder a growing share of the burden of agricultural work. Further, with the spread of education, many tasks previously performed by the older children are also falling to their lot. Women suffer from very low levels of literacy, a lack of knowledge of hygiene and sanitation, and narrow perceptions regarding their own roles.

The isolation and harsh environment in which Northern Areas villages exist have imposed an almost total self-sufficiency on many communities. The development of new lands and water resources, and the management of

the irrigation system has been carried out traditionally on a communal basis, with a high degree of mutual dependence. A complex scheme of water sharing has evolved as a result of water scarcity and this has further strengthened cooperation and the recognition of rights and responsibilities. As a result of this history of community self-help, the Northern Areas people are familiar with the concepts of participatory development and cost recovery. However, with the introduction of the free supply of water through the PWD ADP schemes and the Councillors' Five-Point Programme, this attitude to self-help is being eroded rapidly.

## 5. DEVELOPMENT OF INITIATIVES

### 5.1 Goals Objectives and Criteria

The overall goal is to improve the health of the rural population of the Northern Areas, through cost effective potable drinking water, sanitation and hygiene education projects built on the tradition of community participation. The objectives are:

- . to strengthen sector institutions which are actively engaged in and responsible for this sector, the District Councils, the Local Board and Rural Development Department and the Public Works Department;
- . to strengthen other parties which are actively involved in this sector, the private sector and the communities themselves; and
- . to support on-going and future initiatives in the delivery of water supply, human wastes disposal and hygiene education.

### 5.2 Initiatives

#### 5.2.1 Institutional Structure

LBRDD has the experience, commitment and willingness to undertake water supply and sanitation as a sector. The Communities of less than 1,000 size should be served by LBRDD. This would bring the majority of Northern Areas villages under the jurisdiction of LBRDD. Fifty percent of the population still needs to be covered by water supply, while nearly 100% need to be covered by sanitation and hygiene education.

The first option is to approach projects in the same way as the CBS programme; that is, through the District Council, down to the Union Council and the Village Organization. The technical, social and financial support would be provided by LBRDD.

Pilot projects to strengthen the capacity of District Councils need to be initiated. District Councils can implement projects sponsored by any organization including NA Councillors. Since District Councils do not have their own funding, the option of District Councils undertaking the sector implementation might be possible.

A second option is to strengthen LBRDD by increasing staff, adding a community development wing with sociologists, community development workers and health/hygiene educators. There is also a need to develop a separate unit within LBRDD for the sector. Presently, a staff of 163 is responsible for all rural development. The field offices need to be mobile for effective monitoring and providing continuity in the villages.

#### 5.2.2 The PWD Option for Communities greater than 1,000

As described earlier, the PWD has taken a lead role in providing the technical inputs of its engineers, managers and supervisors for the largest population centres, such as Gilgit and Skardu and in rural communities with population exceeding 1,000. It would continue to act as an executing agency but in stronger collaboration with the Union Councils (or Town Councils in the case of rural towns). The macro-planning functions would continue to be carried out by the P&D Department.

The initiative in this option would be to enhance interaction between the PWD and the community to create the required conditions for the community's involvement in operations and maintenance of the installed schemes. This would require the setting up of a wing within the PWD which would liaise with the community. Selected staff, especially women who are experienced in community development, would be seconded from projects.

### 5.2.3 The LBRDD Option for Communities greater than 1000

The option has the LBRDD performing the lead role in providing technical and management expertise. The LBRDD would carry out macro-planning in association with the regional P&D. This option is dependant on the District Councils executing the project, along with the Union Councils, with strong community participation at the village level.

The initiative in this case would be to upgrade and strengthen the technical skills of the LBRDD Studies would have to be undertaken to identify the training that would have to be imparted by a central group for the additional skills introduced into the LBRD.

### 5.2.4 Research and Monitoring Cell

The existing Research and Monitoring Cell must be strengthened for more action oriented research projects. It will need funding, training and institutional support to undertake experiments considering health, hygiene, role of women, water and sanitation related practices as well as to devise implementation methodologies for different vallies and sub-cultures. A data base on a district-wide basis should be created from the work of this cell.

## 5.3 Cost Recovery

### 5.3.1 Community Financing

Cost recovery becomes increasingly more difficult as it moves further away from the control of the beneficiaries to bodies which cannot be held accountable for the services being provided. Where the beneficiary pays for services and is in control of those services, cost recovery is relatively easy. In Northern Areas, full cost recovery for operation and maintenance and 60% of capital cost is being achieved through the LBRDD/CBS programme in the sector. The key to success in this case is that the funds are collected by the community and payed out by the community for services that are rendered under the supervision of the

community. The AKRSP has shown higher capital cost recovery for all development projects.

For purposes of future Public Works Department and Northern Areas Council schemes, studies must now be undertaken to understand the principle and practices of community financing in those areas where it is succeeding. Full knowledge of motivation, collection, control of revenues, payment, supervision and inspection of services must be acquired.

Resources required include a central group of professionals to make the study of existing practices and detailed design of future PWD cost recovery policies and practices. District Councils and local bodies will be required to implement the cost recovery schemes in the larger communities with the assistance of PWD itself. Trials at the District level should be undertaken, their successes and failures assessed, improvements made and the concepts widely disseminated and used.

#### 5.3.2 Sanitation Household Latrines

The LBRDD's capacity for installing latrines on a revolving fund basis is seen as a possible initiative. The CBS programme has generated considerable interest and there is a need for demonstration of appropriate economic upgraded designs of traditional latrines. The programme can be implemented by promoters and backed up with strong institutional support. A new cadre of staff focusing on health and hygiene promotion within the LBRDD at the District level will be required. The programme needs to cover all villages. This needs a phased development starting with research units to pilot projects and culminating with a full-scale programme.

#### 5.3.3 Credit for New Housing Latrines

In furthering the acceptance and dissemination of latrines, government should consider including latrines as an integral component of housing loans in rural areas. As the loan amount would automatically include

the cost of the latrine, the repayment would effect full cost recovery. To ensure quality control, the borrower would be issued standard pans and fittings and technical assistance (licensed mason) at the time of construction. The agency for dispensing housing financing could be either the House Building Finance Corporation HBFC, the Mobile Credit Officer of the Agriculture Development Bank ADP, commercial banks or other financing institutions currently providing small loans for agriculture or housing in the rural areas.

#### 5.3.4 Demonstration Household Latrines

Projects in Baldia and Orangi (Karachi) and in Azad Jammu and Kashmir (AJK) demonstrate that success of household sanitation depends on practical demonstration, follow-up during and after construction, technical assistance and social support. These case studies and the Pak-German projects in NWFP and Baluchistan should be reviewed to determine the most effective means of demonstrating latrines within communities:

- . alternatives include selecting the poorest families (the zakat families, including widows) in the community and providing latrines without cost apart from the digging latrines in the houses of people increases acceptance;
- . installing latrines at the offices of the Union Council. The LBRDD would provide the logistical and technical assistance. However, care would have to be taken to ensure that the toilet was maintained properly;
- . installation of demonstration latrines in new housing (as suggested above but at reduced cost) provided that they had a good chance of becoming real demonstrations and were not made accessible to only the immediate family; and
- . school latrines, but again ensuring that they are properly maintained. A filthy latrine has a decidedly negative

demonstration impact. Likewise latrines at schools which are locked and kept for teachers use only demonstrate entirely the wrong message.

Communal or public latrines are not recommended.

#### 5.4 Community Participation

Case studies on the diminishing role of community involvement in its own activities need to be undertaken. UNICEF, and LBRDD experienced that Northern Areas communities were very active in their community development activities. But slowly this attitude is changing and there is not as much active involvement in many schemes as in the past. Some detailed studies need to be undertaken to find out the root causes of the deterioration in community participation. The initiative can be undertaken by LBRDD's research cell in all the three Districts.

##### 5.4.1 Base Line Inventory Survey

Assessment of village communities' needs and conditions is a first and essential step in the overall planning of rural water supply and sanitation schemes. This was well proven in the Mansehra District Council Programme. A survey was carried out throughout the District which not only raised awareness among the villagers about the future programme but also allowed the District to better understand the needs of the communities as expressed by the community members themselves. It also provides clear information on the communities social-cultural, environmental and physical conditions.

District-wide Base Line Inventory Surveys should be carried out in all Districts intending to undertake community based water and sanitation programmes. The surveys should be carried out by District Councils and/or LBRDD through Union Councils, executed by consultants to ensure quality control. The District Council and/or LBRDD should provide most of the personnel but the consultants should be responsible for establishing protocol, organizing survey teams, data collection analysis

and preparation of reports.

The data base inventory should include existing water supply, sanitation and hygiene education coverages, community needs, potential for community contributions, organizations, settlement and scheme distribution, water resources, and physical conditions. Such a data base will be invaluable, if not essential to rational planning and programme monitoring.

#### 5.4.2 Knowledge and awareness for effective community participation

An initiative is required to maintain the traditional community participation spirit in the communities and relate to the sector. A massive awareness programme at all levels is required for the orientation of and creation of awareness by elected representatives towards the sector and community's responsibilities is essential.

Elected councillors of District and Union Councils generally attend training and orientation sessions soon after being inducted into office at the National Centre for Rural Development of the Ministry of Local Government and Rural Development MLGRD, Islamabad, and the Pakistan Academy for Rural Development Peshawar. Elected representatives from AJK also attend these courses. These institutions could be used for disseminating the orientation materials (mentioned above) on community participation and project management within this sector. This initiative would require development of such promotional material, audio-visual aids and expansion of the faculty and other related inputs at the centre/academics to reach out to a higher proportion of elected Councillors.

### 5.5 Human Resources

#### 5.5.1 Creating training facilities

There is an extreme need for some training institute to allow LBRDD's staff and the elected representatives to upgrade their skills. No

training institute exists in the Northern Areas. The initiative is to create one that trains staff and professionals to operate in harsh climates and environment so they are able to develop appropriate technology, with a strong training component in community involvement for the sector.

#### 5.5.2 Skills and Knowledge

To maintain skilled people within the community, so that people pay for the services for the plumber and operator for water supply schemes, training must be done at the village level and on the job by mobile teams. This manner of training will operate in the village environment and the community will not feel that the plumber or operator has to be paid by the government. An appropriate method of human resource development needs to be evolved for Northern Area.

A mobile team of technical trainers and community development workers (with health hygiene and sanitation training) should visit each village and train the community plumber/operators. Hygiene education will also be provided through the village women who will be trained by the mobile teams. A fellowship programme also should be established enabling engineers and project managers to travel within Pakistan and abroad for workshops and courses within the water supply and sanitation sector. There are several programmes, at Loughborough University in the UK, Delft University in the Netherlands and the University of Ottawa, Canada. The project will operate from the research cell of LBRDD to begin with and later as facilities develop, it can operate from the District level.

#### 5.5.3 Women's Development

To effectively introduce correct hygiene practices, initiatives are required to reduce the work load of women, e.g., introduction of correct farming tools, energy efficient wood burners - such as those developed by the Engineering University in Peshawar, Government Technical Co-operation with Afghan Refugees and Appropriate Technology Development

Organization (ATDO) in Islamabad. The project can be tried along with the sanitation units in the households. It will be implemented, supervised and funded in the same way as CBS programme.

#### 5.5.4 Cattle Sheds

Initiatives are required to study the issue of cattle sheds in the houses creating unsanitary conditions. Initial research is required by the LBRDD research cell. This project will have direct impact on women.

## 6. WORKPLAN

Project activities have been divided into categories as outlined in Section 2. Each category is discussed below and is supported by detailed lists of activities presented in Appendix III.

The project time span has been divided into five phases. At the end of the discussion below, a schedule of the main tasks the team expects to accomplish in each phase is presented. The schedule is a guideline for the development of expanded plans being compiled during the first half of March.

### 6.1 Data Collection

Preliminary data collection began in December, 1988 and was completed February 15, 1989. It identified and collected readily available secondary data and formed the basis for:

- . the division of the sector into sub-segments to be studied;
- . the definition of data bases, outlining data to be collected during the detailed data collection phase; and
- . the focus of project activities during the coming months.

The detailed data collection activities began mid February and will ~~continue until June 15.~~ During this period:

- . secondary data will be collected to assess specific issues and needs;
- . limited field studies will be undertaken to verify selected secondary data; and
- . some primary data collection will be undertaken using sampling techniques where secondary data are not available.

The final phase of data collection will fill gaps in the data which become apparent as initiatives are formulated.

In the schedule at the end of this section, data collection will occur in:

- . Phase II activities 2 to 7, focused by the analysis carried out for the Inception Report; and
- . Phase III activities 11 and 13, focused further by discussions of the Inception Report.

## 6.2 Data Analysis

Analysis of the detailed data collected will take place in parallel with the collection from March 1 - June 21.

Key critical issues, identified in the analysis of the initial data will be reviewed as more detailed information is collected. They will be confirmed as stated, or refined to reflect the new data. Issues judged to have an effect on the other issues, i.e. to "drive" the rest, will be given the highest priority.

In-depth analysis of each issue will determine:

- . the root causes of each issue - why the issue is important;
- . strengths which can be built on and weaknesses which must be overcome; and
- . conclusions reflecting types of action which can be taken.

The strengths and weaknesses will then be prioritized in order to identify actions of the greatest likelihood of success and areas in which the need is the greatest.

Through the analysis of the data, gaps will be identified. The process of data collection will start again, leading to more analysis using the methodology outlined above.

The conclusions reached will form the basis of the investment strategy. Projects will then be identified, and it may follow that needs for additional data will once again result in additional collection and analysis.

Analysis of data will take place in the schedule:

- . Phase II activities 2 to 6; and
- . Phase III activities 11 to 13.

### 6.3 Synthesis of Information

As data is being analyzed, the results are being evaluated for linkages. This synthesizing process will be carried out in parallel with data analysis, from March 15 until June 30. It will occur in Phase II activities 2 to 6, Phase III activity 11 as well as the subsequent phases.

Key interrelationships and constraints identified earlier will be verified by analyzing the conclusions reached in the analysis phase.

Strengths and weaknesses which overlap in several issues will be deemed to be of critical importance and will be given top emphasis.

### 6.4 Formulation of Initiatives

The formulation of initiatives is the last step in the process before identification of potential projects.

Goals will be developed for actions which will build on the available strengths and lessen the effects of the weaknesses.

For each goal, a set of specific objectives which are quantifiable and measurable will be established. The objectives will include a time element. They will be prioritized in terms of most pressing needs, having the broadest anticipated impact and short-term visible impacts and long-term benefits.

A set of strategies on how the goals and objectives are to be met will be set for each objective or set of objectives. Development of the strategies will be guided by the major issues and the overall project goal of developing projects which lead to affordable and sustainable water supply, sanitation, drainage and hygiene education projects while maximizing community participation. Criteria for evaluating the strategies will be defined and used to select ones which offer the appropriate impact, benefit, and likelihood of success. These strategies will be rolled into initiatives which will form the basis of the investment plan and from which projects will be identified.

Phase I activities concluded with a formulation process which produced a preliminary set of initiatives. These will be refined following the discussions of this report. Phase II activities 6 and 8 will narrow the refined initiatives to a specific set and Phase III activities 11 and 12 will lead to the selection of final initiatives for the investment plan and subsequent project identification.

#### 6.5 Project Outputs

The project outputs include a Strategic Provincial Investment Plan, Project Identification Reports and a National Summary Investment Plan as discussed in Section 2.

**STRATEGIC PLANNING METHODOLOGY  
PHASE I-JAN 6 TO FEB 25**

**RWSSHE SECTOR OF PAKISTAN**

**SEGMENTATION OF SECTOR**

**SCANNING THE SECTOR  
(BUILDING DATA BASES)**

**ANALYSIS OF DATA  
(IDENTIFY BROAD TOPICS/TREND  
ANALYSIS)**

**BROAD GOAL STATEMENT**

**IDENTIFICATION & SELECTION  
OF CRITICAL ISSUES  
"WHAT?"**

**PRIORITIZATION  
EMPHASISING THOSE CRITICAL  
ISSUES WHICH DRIVE THE  
OTHERS**

**LINKS**

**ROOT CAUSE ANALYSIS**

**LINKS**

**CONCLUSIONS**

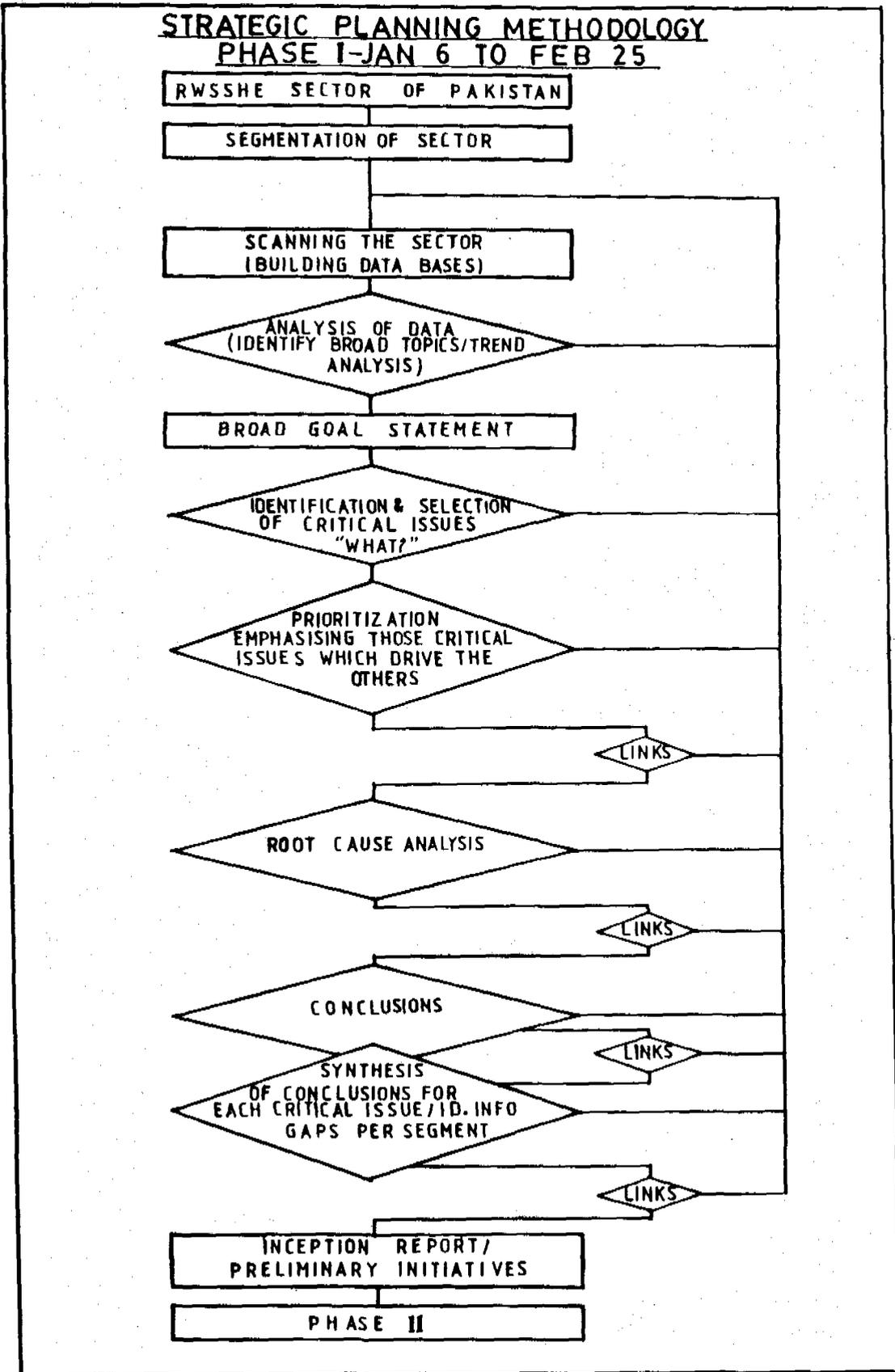
**LINKS**

**SYNTHESIS  
OF CONCLUSIONS FOR  
EACH CRITICAL ISSUE/ID. INFO  
GAPS PER SEGMENT**

**LINKS**

**INCEPTION REPORT/  
PRELIMINARY INITIATIVES**

**PHASE II**



**WORKPLAN PHASE I - JAN 6 to FEB 28**

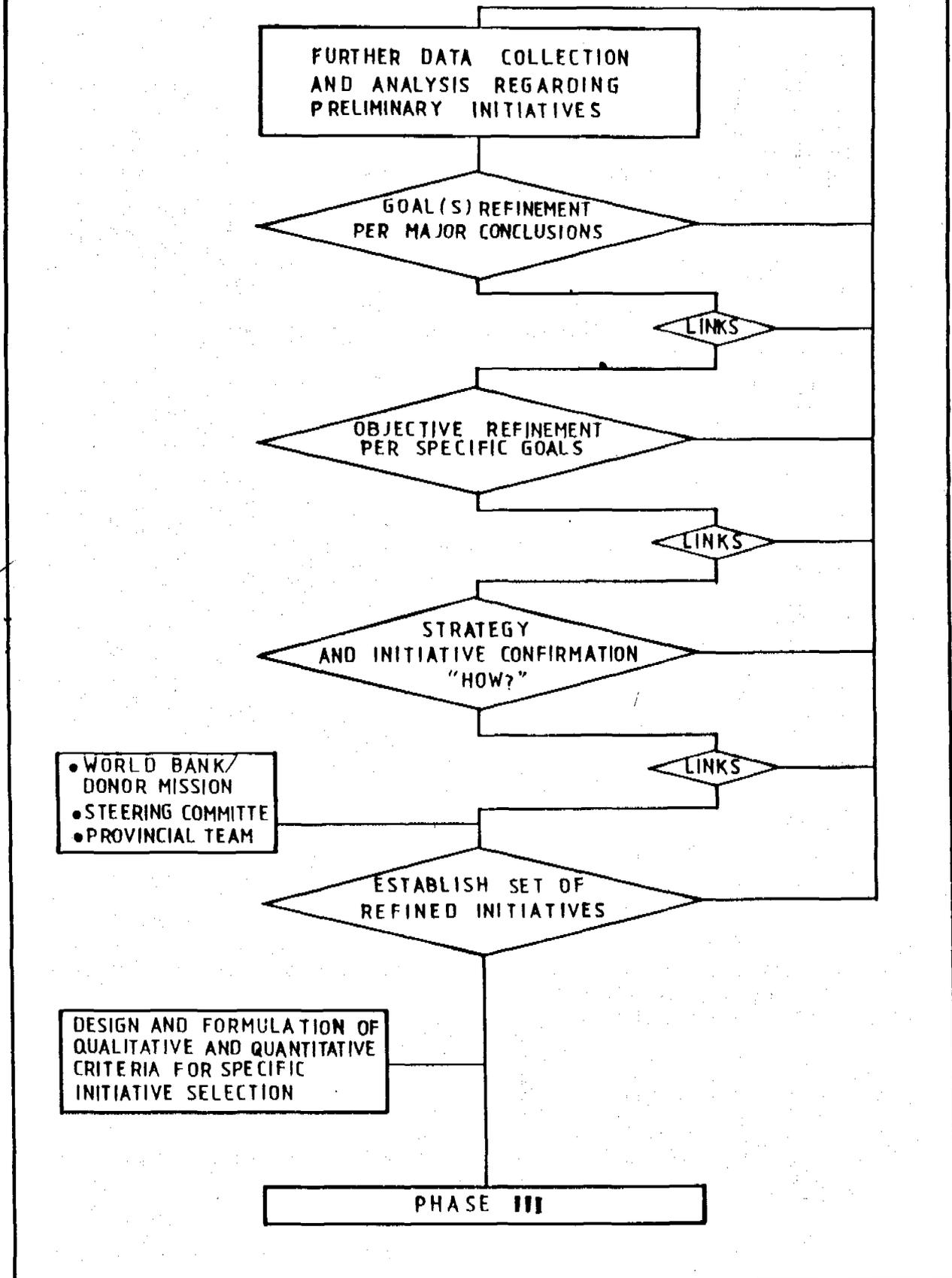
Initial reconnaissance of data and issues leading up to the Inception Report and a set of preliminary initiatives and indicative projects.

**WORKPLAN PHASE II - MAR 1 to APR 1**

Enhancement of data and refinement of preliminary initiatives identified in the Inception Report in order to establish the set of refined initiatives:

ACTIVITY	APPROX. TIME REQUIRED	COMPLETION DATE	RESPONS- IBILITY
<b>1. PREPARATION OF DETAILED WORKPLAN FOR PHASE II</b>			
-----			
Prepare detailed workplan for Phase III and review with MG	02 days		PT/CT
<b>2. REVIEW AND ENHANCEMENT OF STRATEGIC ANALYSIS BASED ON INCEPTION REPORT</b>			
-----			
2.1 Review conclusions of inception report and identify data gaps for each key issues of each subsegment	01 day		PT
2.2 Prioritise data gaps and collect highest priority data	10 days		PT
2.3 Analyse data and identify new trends	10 days		PT
2.4 Revise root causes and refine conclusions for each key issue	01 day		PT
<b>3. GOAL REFINEMENT</b>			
-----			
3.1 Refine goals and formulate new ones in light of new data and conclusions	01 day	15/03/89	PT
3.2 Review linkages between goals and synthesise into major goals for each subsegment	01 day		PT

**STRATEGIC PLANNING METHODOLOGY**  
**PHASE II - FEB 26 TO MAR 31**



<b>4.Objective Refinement</b>		<b>16/03/89</b>	
<hr/>			
<b>4.1 Refine objectives and formulate new ones for each major goal</b>	<b>01 day</b>		<b>PT</b>
<b>4.2 Review linkages between objectives and synthesise into major objectives for each major goal within each subsegment</b>	<b>01 day</b>		<b>PT</b>
<b>5.STRATEGY CONFIRMATION AND REFINEMENT</b>		<b>26/03/89</b>	
<hr/>			
<b>5.1 Confirm formulated strategies and establish new ones that will best achieve major objectives</b>	<b>02 days</b>		<b>PT</b>
<b>5.2 Review linkages between strategies and synthesise into major strategies for each subsegment</b>	<b>01 day</b>		<b>PT</b>
<b>5.3 Compare major strategies with strategic options in the Inception Report .</b>	<b>01 day</b>		<b>PT</b>
<b>6.INITIATIVE CONFIRMATION AND REFINEMENT</b>		<b>26/03/89</b>	
<hr/>			
<b>6.1 Refine preliminary initiatives and if needed formulate new ones</b>	<b>03 days</b>		<b>PT</b>
<b>6.2 Review linkages between initiatives of each goal and synthesise for each subsegment</b>	<b>02 days</b>		<b>PT</b>
<b>7.WB/DONOR MISSION</b>		<b>12/03/89</b>	
<hr/>			
<b>7.1 Meeting with Steering Committee, WB and prospective donors to review contents of Inception Report</b>	<b>02 days</b>	<b>to</b>	<b>PT/CT</b>
<b>7.2 Confirmation by WB of order of magnitude of expected foreign investment into the sector</b>		<b>26/03/89</b>	
<b>8. ESTABLISH A REFINED SET OF INITIATIVES IN CONSIDERATION OF STEERING COMMITTEE/ WB-DONOR MISSION RECOMMENDATIONS</b>	<b>02 days</b>	<b>31/03/89</b>	<b>PT</b>
<hr/>			

**9. FORMULATION OF INITIATIVE SELECTION CRITERIA**

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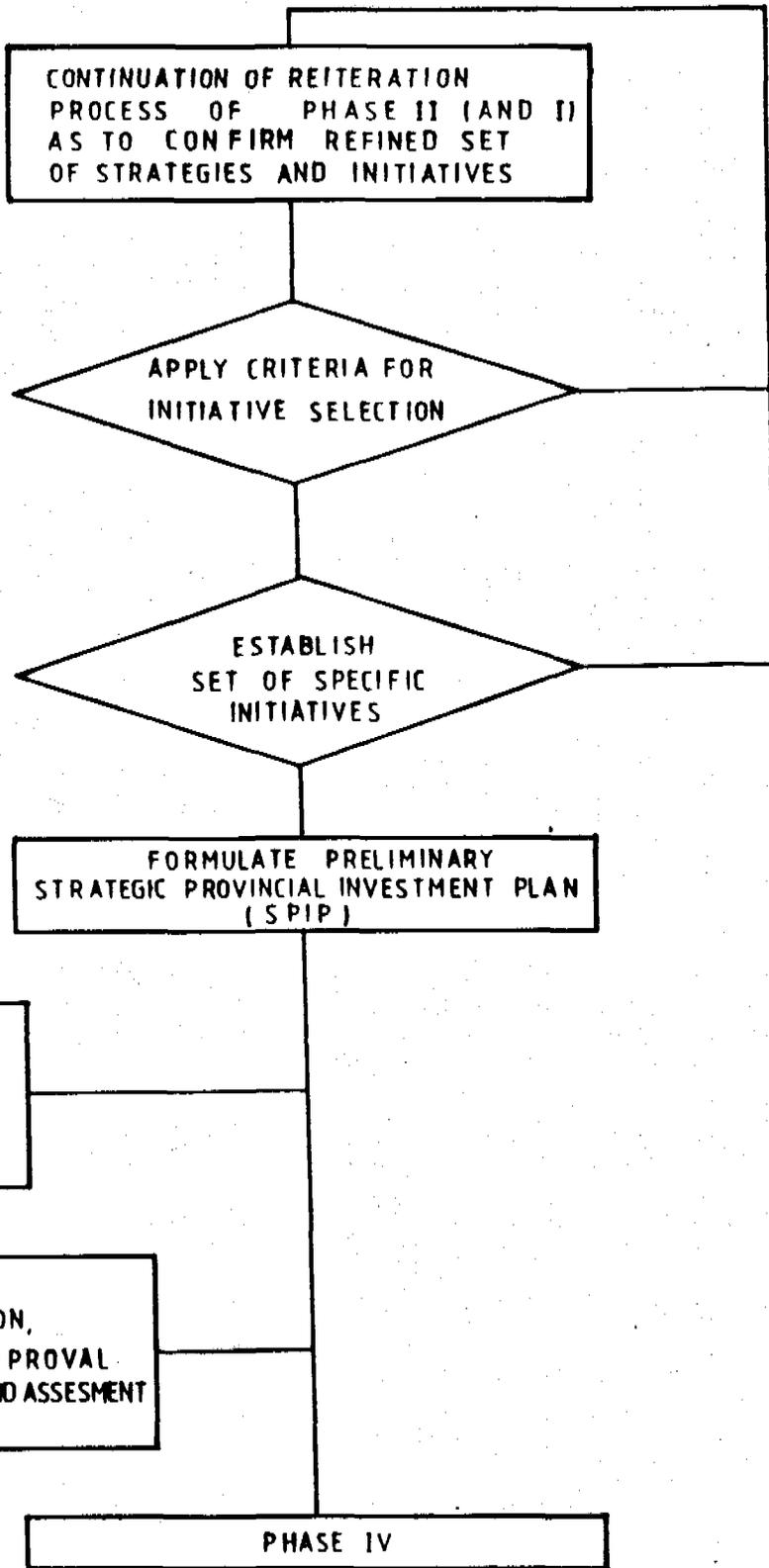
Design qualitative and quantitative criteria for the selection of specific initiatives 07 days 31/03/89 CT

**10. PREPARATION OF DETAILED WORKPLAN FOR PHASE III**

---

Prepare detailed workplan for Phase III and review with MG 02 days 31/03/89 PT

STRATEGIC PLANNING METHODOLOGY  
PHASE III APRIL - JUNE



- WB\_DONOR MISSION\_ II
- STEERING COMMITTEE
- PT

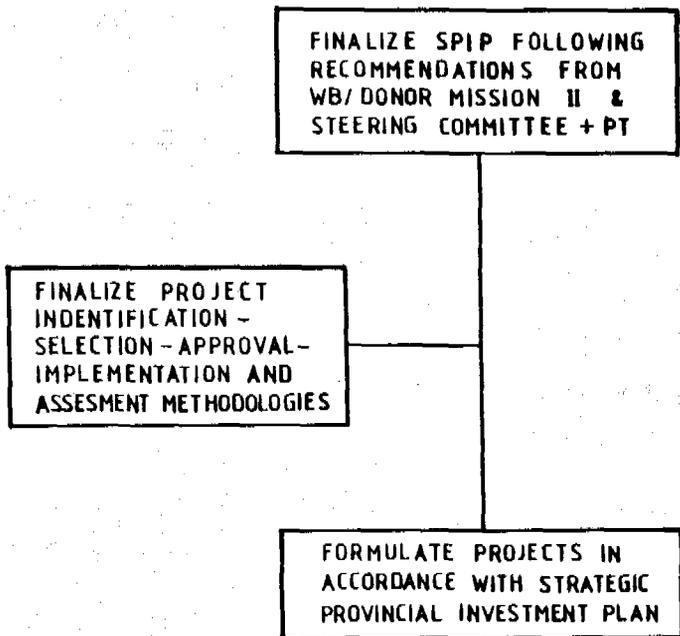
DRAFT PROJECT IDENTIFICATION, SELECTION, APPROVAL IMPLEMENTATION AND ASSESMENT METHODOLOGIES

**WORKPLAN PHASE III - APRIL 2 to JUNE 11**

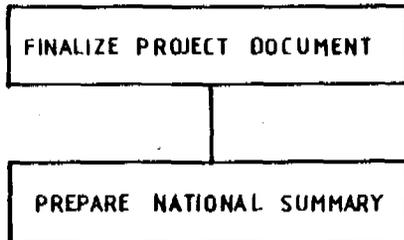
Selection of most appropriate and feasible of the refined initiatives to be developed into a preliminary strategic provincial investment plan

ACTIVITY	APPROX. TIME REQUIRED	COMPLETION DATE	RESPONS- IBILITY
<b>11. CONTINUATION OF STRATEGIC ANALYSIS</b>			
-----			
11.1 Collect additional data in support of refined initiatives and to meet selection requirements	10 days	24/04/89	PT/CT
11.2 Refine strategic analysis, goals, objectives, strategies and initiatives in light of latest data	05 days		PT/CT
<b>12. SPECIFIC INITIATIVE SELECTION</b>		13/05/89	
-----			
12.1 Apply qualitative criteria to refined initiatives to select a short list of initiatives	02 days		PT/CT
12.2 Apply quantitative criteria to the short list of refined initiatives to select final set of specific initiatives	05 days		PT/CT
<b>13. PRELIMINARY STRATEGIC INVESTMENT PLAN FORMULATION</b>			
-----			
13.1 Group specific initiatives into programmes	01 day		PT
13.2 Assess resource requirements and time frames for each programme	04 days		PT/CT
13.3 Allocate resources for the '90-'93 and '94-'97 planning periods	10 days		PT/CT
13.4 Produce preliminary strategic provincial investment plan	15 days	20/05/89	PT/CT
13.5 Deliver Preliminary Strategic Investment Plan		11/06/89	PT
14. DRAFT METHODOLOGIES FOR PROJECT IDENTIFICATION, SELECTION, APPROVAL, IMPLEMENTATION AND ASSESSMENT FOR FUTURE USE BY LOCAL EXECUTING AGENCIES	10 days	11/06/89	CT
-----			
15. PREPARATION OF DETAILED WORKPLAN FOR PHASE IV AND REVIEW WITH MG	02 days	11/06/89	PT/CT

STRATEGIC PLANNING METHODOLOGY  
PHASE IV JUNE - AUGUST 1989



PHASE V  
SEP - NOV 1989



**WORKPLAN PHASE IV - JUNE 12 to SEPT 10**

Finalisation of strategic provincial investment plan and preliminary project document preparation:

<b>ACTIVITY</b>	<b>APPROX. TIME REQUIRED</b>	<b>COMPLETION DATE</b>	<b>RESPONS- IBILITY</b>
16. REVIEW OF PRELIMINARY STRATEGIC INVESTMENT PLANS WITH WB AND STEERING COMMITTEE	02 days	25/06/89 to 09/07/89	PT/CT
-----			
17. FINALISATION OF STRATEGIC INVESTMENT PLAN			To be defined
-----			
18. FORMULATION OF RELATED PROJECTS WITHIN STRATEGIC INVESTMENT PLAN FRAMEWORK			
-----			
19. FINALISATION OF METHODOLOGIES FOR PROJECT IDENTIFICATION, SELECTION, APPROVAL, IMPLEMENTATION AND ASSESSMENT			
-----			
20. PREPARATION OF DETAILED WORKPLAN FOR PHASE V AND REVIEW WITH MG			
-----			

**WORKPLAN PHASE V - SEPT 11 to NOV 05**

Finalisation of projects and preparation of national summary report

<b>ACTIVITY</b>	<b>APPROX. TIME REQUIRED</b>	<b>COMPLETION DATE</b>	<b>RESPONS- IBILITY</b>
21. PREPARATION OF FINAL PROJECT DOCUMENTS			To be defined
-----			
22. PREPARATION OF NATIONAL SUMMARY REPORT			To be defined
-----			









## HUMAN RESOURCES SCHEDULE

POSITION	NAME	MONTHS REMAINING	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
			REVIEW	PRELIM SPIP	FINAL SPIP + PRELIM PP	FINAL PP + NS					
<b>MANAGEMENT GROUP</b>											
PROJECT DIRECTOR	MC GINNIS		█		█				█		
PROJECT CODIRECTOR	MC GARRY		█	█	█	█	█	█			
PROJECT MANAGER	FOY		█	█	█	█	█	█	█	█	█
DEPUTY PROJECT MANAGER	ABID		█	█	█	█	█	█	█	█	█
DEPUTY PROJECT MANAGER	BAKTHEARI		█	█	█	█	█	█	█	█	█
MANAGEMENT ADVISOR	ASHWORTH				█			█			
<b>STRATEGIC PLANNING GROUP</b>											
STRATEGIC PLANNER	RATHIER		█	█	█	█	█				
ADVISOR PLANNING	WEBSTER				█	█		█			
ECONOMIST	PASHA		█	█	█	█		█	█	█	█
FINANCIAL ANALYST	KARDAR		█	█	█	█	█	█	█	█	█
SOCIOLOGIST	BAKTHEARI			AS	ABOVE						
DEMOGRAPHER	KHAN		█	█	█	█	█				



**Appendix  
I**

# PROJECT ORGANISATION OF NORTHERN AREAS

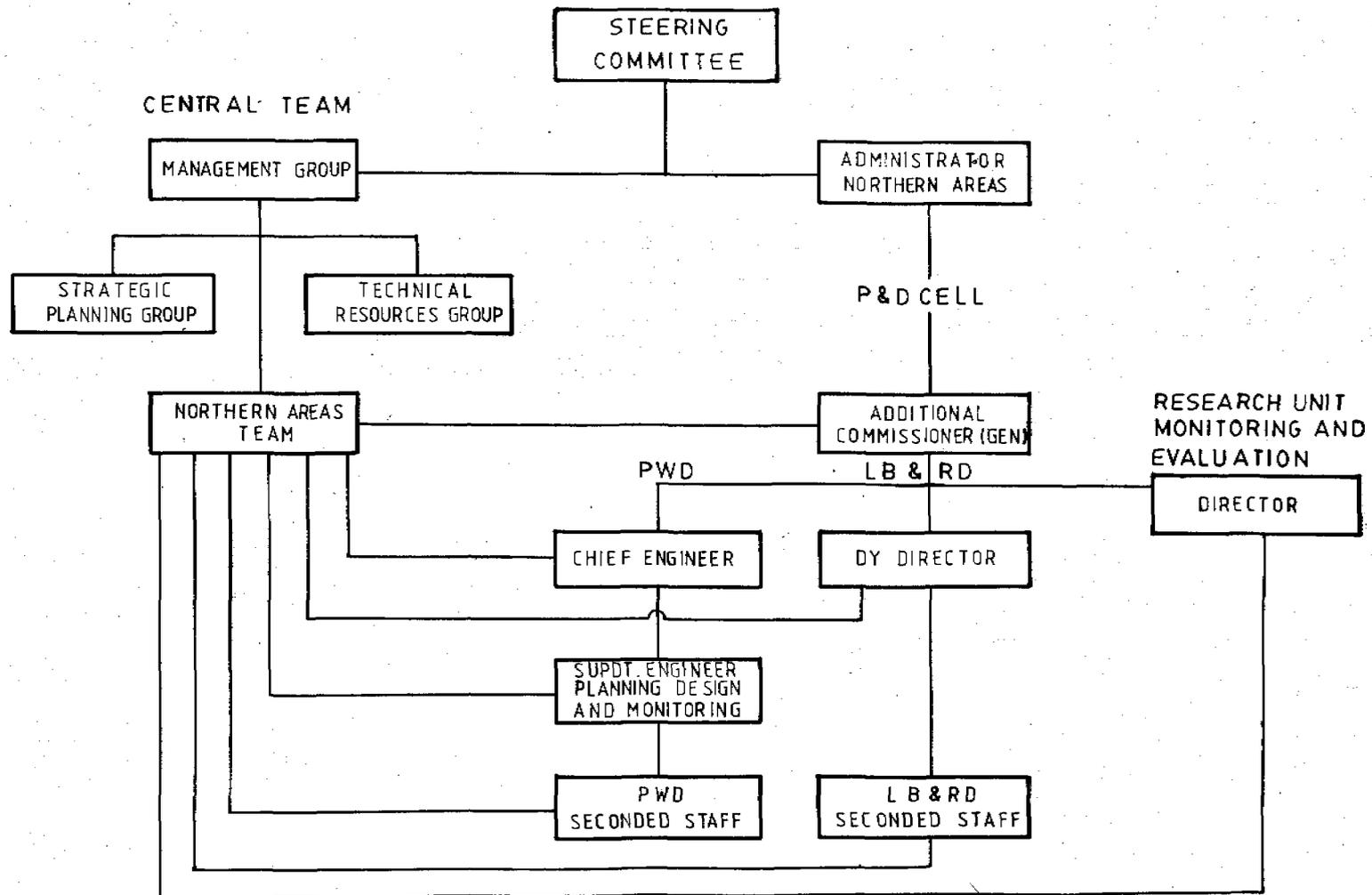


FIGURE \_1

FIGURE -1

**PROJECT ORGANIZATION AND MANAGEMENT**

Project Staff are organized into the Provincial Teams and the support group made up of the Management, Strategic Planning and Technical Resources staff as illustrated in Figure I-1. The Provincial Teams are based in the respective Public Health Engineering Department offices and the support staff is based in Islamabad.

Provincial Teams are charged with developing the investment plan and identifying projects for implementation. The Islamabad Team is taking the lead role in Northern Areas activities.

The Islamabad based staff are also responsible for the overall direction of the project and provide support to all four Provincial Teams. The Management Group monitors the day to day management process and its extension to the Provincial level, ensures goals are reached on time and provides liaison with the Federal Government and the World Bank. The Project Director and Co-Director are based in Canada and visit the project from time to time to ensure it operates within contractual guidelines and to provide management and technical advice. The Project Manager has overall operational responsibility for the project and all staff report to him. He is supported by two Deputy Project Managers who provide guidance and technical support to the Sociologists and Engineers on the Provincial Teams and by an Advisor - Management/Engineering on short-term assignments.

The Strategic Planning Group takes the lead in developing methodologies and criteria and works with the Provincial team to apply and to modify them as necessary to meet local conditions. All of the staff in this group are on long term assignments.

The Technical Resources Group is comprised mainly of short-term staff who provide technical inputs in their area of expertise to both the Islamabad and Provincial Teams.

**Appendix  
II**

**METHODOLOGY**

The project uses a Strategic Planning approach to the work. Strategic Planning differs from Comprehensive Planning in that it focuses on key issues and interrelationships in order to quickly arrive at appropriate programmes for implementation while the latter is much more broad based and attempts to identify all components of a specific subject. For example it is necessary to review the economy of the province. Using a strategic approach, only those items of the economy which have a direct bearing on the water supply, sanitation and health sector will be considered - eg. income levels, ability to pay for services, income generating activities which affect the way water is used. In a comprehensive study, all aspects of the economy would be studied.

The methodology is comprised of six categories of activities:

. Project Initiation	-	Series 100 activities;
. Data Collection	-	Series 200 activities;
. Data Analysis	-	Series 300 activities;
. Synthesis of Information	-	Series 400 activities;
. Initiatives Formulation	-	Series 500 activities;
. Outputs	-	Series 600 activities.

Since the project initiation activities related only to project start up and this phase is now complete, they are not discussed in this report.

1. Data Collection

Data collection activities are divided into three categories. The preliminary data collection began in December before the project was formally initiated and was completed by February 15, 1989. This work identified the availability of secondary data, collected what was readily available and formed the basis for:

- . the division of the sector into sub-segments to be studied:
  - water resources;
  - water supply;
  - sanitation and drainage (disposal of sullage and storm water);
  - disposal of human waste;
  - institutions subdivided into:
    - . government departments;
    - . District and Union Councils;
    - . Elected Representatives; and
    - . Non-Governmental Organizations (NGOs);
  - economy;
  - financial resources;
  - cost recovery;
  - private sector;
  - social/cultural subdivided into:
    - . communities;
    - . role of women;
    - . practices, beliefs, and behaviours; and
    - . community organizations;
  - population;
  - health; and
  - human resources development;
- . the definition of data bases, outlining data to be collected; and

. the focus of project activities in the coming months.

Further detailed data collection began mid February and will continue until June 15. Activities are aimed at collecting the information defined by the data bases. Selected secondary data will be verified by independent field studies and some primary data collection will be undertaken using sampling techniques where secondary data are not available. It is anticipated that investigation may be needed to gain an understanding of the rural communities - the beliefs and behaviours of the populace, the availability and strength of village organizations which could be involved in project implementation, and the ability and willingness of people to pay for services.

During the period July 1 - September 30, data collection will be focused on project identification. Analysis of the data collected and identification of potential initiatives will both highlight data gaps to be filled, resulting in the final phase of data collection.

## 2. Data Analysis

Analysis of the data collected will also be an ongoing activity.

The preliminary analysis phase ended February 15, 1989 and provided:

- . preliminary identification of issues to be studied in each subsegment;
- . preliminary selection and prioritization of the key critical issues (those which drive the rest) for each subsegment;
- . preliminary analysis of the key critical issues, including their root causes and identification of data gaps; and
- . conclusions reached.

## APPENDIX II

Analysis of the detailed data collected will continue in parallel with the collection activities and will end June 30, 1989. During this phase the following activities will be carried out:

- . review of the preliminary identification of key critical issues in the light of the additional data collected;
- . prioritization of key critical issues and an in depth analysis of them identify:
  - factors which are the basis of the issue being of critical importance (root causes);
  - strengths which can be built on and weaknesses which must be addressed; and
  - conclusions reached;
- . prioritization of strengths and weaknesses; and
- . identification of data gaps, collection of the data and analysis of it using the same methodology outlined above.

In the final phase, July 1 - September 30, additional data collected for project identification will be analyzed in the same way.

### 3. Synthesis of Information

As a result of the analysis of data, conclusions will be reached based on quantitative and qualitative assessment of root causes. These conclusions will then be studied or synthesized to identify the key interrelationships and constraints. Strengths and weaknesses which overlap in several issues will be given top emphasis.

Synthesis is an ongoing activity, tied into the collection and analysis of data. The major effort will end June 30, but conclusions reached as

the result of the more focused project identification data collection will also be checked for interrelationships with other conclusions.

#### 4. Formulation of Initiatives

In order to formulate initiatives which will lead to projects, specific objectives and strategies must be devised and criteria to select the most appropriate ones developed.

Within the overall goals of the project, specific objectives will be set based on the interrelationships identified among the conclusions. The objectives will define in broad terms initiatives which will build on existing strengths and opportunities and lessen the effects of weaknesses.

For each goal, a series of objectives will be set which are quantifiable, measurable, and include a time element. The objectives will then be prioritized in terms of:

- . most pressing needs;
- . broadest anticipated impacts; and
- . short-term visible impacts and long-term benefits.

The objectives serve to further quantify the goals.

A set of strategies for meeting each objective or set of objectives will then be formulated. The overall project goal of developing projects to improve the health and quality of life of the rural population through more cost effective and sustainable water supply, sanitation and hygiene education initiatives while maximising community involvement, will focus the development of the strategies as it did in the analysis of issues.

Criteria to evaluate the different strategies will be developed. Criteria which could be used include:

- . likelihood of success;
- . potential for community involvement;
- . potential for the involvement of women; and
- . coverage to be achieved and impact expected.

Using the criteria, the best strategies will be selected and result in recommended projects.

## 5. Project Outputs

The outputs of the project include this Inception Report, a Strategic Provincial Investment Plan, National Summary Investment Plan and Project Identification Reports.

The Inception Report is being submitted March 4, 1989, two months after the project was initiated.

The Strategic Provincial Investment Plan will be presented to the Government in draft form three months later, June 10, 1989, and in final form, September 9, 1989.

### 5.1 Report Format for Strategic Provincial Investment Plan

The formulation of objectives outlined in the previous section will form the basis of the investment strategy. The contents of the report defining the strategy will be finalised in the coming months, but the initial outline is:

#### Rural Water Supply, Sanitation and Health Sector

- current situation;
- Government priorities and targets for increased coverage (Seventh Five Year Plan, 1988 - 1993 and Perspective Plan, 1993 - 1998; and
- sector issues.

Population and Demand

- overall and rural population projections;
- present and future demand for services;
- population to be served; and
- proposed service levels.

Investment Strategy

- objectives;
- analysis of alternative strategies; and
- investment criteria.

The Investment Plan

- size and components of investment plan by sub-sector (based on order of magnitude cost estimates);
- Provincial Investment Plan;
- types of investments - 1990 - 1993; and
- types of investments - 1994 - 1997.

Financing

- prospects of overall macro resource availability;
- projections of Government allocations to the sector;
- involvement of donor agencies;
- future operations and maintenance cost requirements;
- affordability and willingness to pay of beneficiaries;
- mechanisms for cost recovery; and
- overall financing plan.

Project Management and Implementation

- institutional arrangements;
- organization and management;

- involvement of communities;
- operation and maintenance; and
- personnel/training requirements.

## 5.2 Outline of Identification Reports for Projects to be Implemented 1990-93

Draft project identification reports will be submitted September 9, 1989 and in final form, November 4, 1989. The format of the reports will also be developed during the coming months, but the initial outline for a water/sanitation project to be implemented in the period 1990 - 1993 includes:

### The Water Supply, Sanitation and Health Sector

- provincial background;
- economic and health indicators;
- water resources and control;
- present service coverage and standards;
- sector goals;
- staffing requirements and training needs;
- financial implications; and
- involvement of international agencies.

### The Project Area and the Need for a Project

- planning horizon;
- project area;
- population patterns;
- economic and social conditions;
- regional development prospects;
- existing and future land use patterns;
- sector institutions;
- available water resources;
- existing water supply systems and population served;
- existing sanitation systems and population served;

## APPENDIX II

- existing drainage and solid wastes removal systems and population served; and
- need for a project.

### Strategic Plan for Water Supply, Sanitation and Hygiene Education

- objectives;
- water supply service standards;
- sanitation and drainage service standards;
- community preferences and affordability;
- capital availability;
- future demands for water services;
- future demands for sanitation services;
- future demands for drainage services; and
- strategic plan for water supply, sanitation and drainage, and hygiene education.

### Proposed Project

- project definition;
- institutional responsibilities; and
- financial aspects.

### Conclusions and Recommendations

- conclusions;
- issues; and
- recommended actions.

5.3 Outline of Identification Reports for Projects to be Implemented 1994-98

The outline of water supply projects which could be considered for the subsequent period, 1994 - 1998 is:

- . a map showing the project area and definition of the intended beneficiaries;
- . explanation of how the project complies with the strategic investment plan;
- . description of the present services in the project area with an outline of the deficiencies of the services;
- . summary of the main objectives of the project, indicating the number of people to be served, anticipated standards of service and expected conditions in the project area after the project is completed;
- . outline of the proposed project components in terms of physical facilities and supporting activities - e.g. hygiene education, training;
- . estimate of the local and foreign costs of implementing the projects and proposals for cost recovery;
- . description of the institutional responsibilities for the future project feasibility study, detailed design and implementation; and
- . recommendations for future actions regarding the project.

Both project identification report outlines suggested above are for integrated water supply, sanitation and hygiene education projects. They will be modified as needed for other types of projects - human resource development, community development.

**Appendix  
III**

## DETAILED LIST OF PROJECT ACTIVITIES

200 Data Collection210 Water Resources, Rural Water Supply, Sanitation and Drainage

211 Compile data on the physical environment including sources of ground water and surface water, and rainfall.

212 Using secondary data, determine coverage in terms of the number of villages with water supply, sanitation and drainage services, grouped by District and population.

213 Identify the technologies used:

- . water supplies - ground water or surface water sources;
- hand pump or mechanized pumps;
- treatment and distribution facilities;
- public or private ownership, operation and maintenance;
- . sanitation; and
- . drainage.

214 Using sampling techniques, examine arrangements for operation and maintenance and analyze existing data to gain an appreciation of system status:

- . number operating;
- . number operating but needing repair; and
- . number not operating.

215 Identify present criteria for design, project prioritization and selection and special criteria for underdeveloped areas.

220 Institutional Assessment

221 Identify institutions involved in the province and each district and their mandates including responsibilities for the planning, design, implementation, operation and maintenance of water supply, sanitation and drainage systems or the provision of related services:

. Government Departments:

- PHED;
- LGRDD;
- Department of Education (including schools);
- Health Department (including Traditional Birth Attendants and Lady Health Visitors);
- WAPDA; and
- Social Welfare;

. District and Union Councils;

. Elected Representatives;

. Non Governmental Organizations;

. Private Sector; and

. special projects with particular attention to the methodology and relationship between agencies, private sector and donor agencies.

222 Determine institutions' organizational structure:

- . organization chart;
- . basis for making promotional appointments; and
- . scheme of service.

223 Examine the institutions' management philosophy, policy and guidelines.

224 Examine funding mechanisms:

- . source of the funds, financial year, and operating budget (salaries, expenses and revenues);
- . method of establishing operating budgets and justifications used; and
- . review of funds transfer mechanisms in the province vis-a-vis urban and rural.

225 Examine training institutions and determine:

- . class timetable, class size, and ages and gender of students;
- . curricula, facilities, learning materials and text books;
- . attendance policies and achievement; and
- . educational level classification system.

226 Identify the Provincial/National linkages:

- . composition of the coordinating body and frequency of meeting;
- . guidelines, mandate, and authority/approval levels of staff;
- . how staff are appointed to the coordinating body; and
- . appraise the effectiveness of the linkages.

227 Examine staff development/training:

- . training policy;
- . scope of development - i.e. is it limited to specific groups;
- . performance appraisal procedures;
- . assessment and licensing of teachers in schools and training institutions;
- . job opportunities after graduation and promotion policy;

- . incentives for staff to take training and opportunities available
  - training courses, seminars, workshops, study tours, fellowships, scholarships or training of trainers;
  - . facilities;
  - . instruction level and quality, equipment and training aids;
  - . locations; and
  - . hostel/accommodations and allowances, and costs involved.
- 228 Assess the capacity to undertake an accelerated development programme.
- 230 Economy
- 231 Examine the rural economy, focusing on level of prosperity and ability to pay for services.
- 232 Identify regional development at the district level:
- . income levels and affordability;
  - . demand for water supply, sanitation, and drainage;
  - . production indicators - number of tube wells, tractors; .
  - service indicators - number of roads, banks, schools.
- 232 Review sources of funds for provincial departments and recent government statements leading to a forecast of the likely future funding.
- 233 Review cost recovery experience in this and other service sectors.
- 234 Determine the magnitude of capital costs of civil, mechanical and electrical components of water supply, sanitation and drainage facilities, and operation and maintenance costs.
- 235 Study the Private Sector in terms of:
- . technologies, designs, and standards used by the private sector;
  - and

the sector's role as:

- a consultant;
- a contractor;
- a supplier of hand and mechanized pumps and construction materials;
- a manufacturer of pumps, drill rigs and supplies, and construction materials;
- a participant in operation and maintenance activities;
- a financier for hand pumps; and
- an owner or operator of a community water supply system.

240 Social/Cultural

241 Study communities in terms of:

- . community leadership and its relationship with water related issues;
- . ethnic segmentation in the community;
- . level of experience with water and sanitation issues; and
- . knowledge and awareness of water, sanitation and health.

242 Review the role of women in the community:

- . perceptions regarding women which are held by the women themselves and by others;
- . general levels of knowledge women possess;
- . restrictions placed on women by the purdah system;
- . women's access to independent economic means;
- . their role in water issues; and
- . skills available to women and the opportunity to gain new skills.

243 Determine local practices and attitudes:

APPENDIX III

- . allocation of responsibility with respect to waste and sullage collection and disposal;
- . defecation practices;
- . solid waste disposal;
- . hygiene, care of children and preparation of food;
- . understanding of linkages between hygiene and health;
- . responsibility for the maintenance of rural water supply and sanitation facilities and health education delivery; and
- . perceptions of how well their needs are being met.

244 Review the existence, activity level and experience of community based organizations:

- . number of formal and informal groups;
- . level of activity;
- . past involvement with water supply, sanitation, drainage and hygiene education;
- . numbers of people involved; and
- . the quality of the groups.

245 Define community involvement:

- . current situation; and
- . what villagers want and are capable of with respect to planning, construction, management, operation, maintenance and financing of water supply, sanitation and drainage facilities.

250 Population

251 Estimate the population and population growth rate from existing data in terms of:

- . village size - number of people living in mauzas of the following size categories on a district basis:

- 200 - 500 people;
  - 500 - 1000 people;
  - 1000 - 2000 people;
  - 2000 - 5000 people; and
  - 5000 - 10000 people; and
- population densities.

252 Identify the physical pattern of rural settlements and numbers in different population.

260 Health

261 Obtain health indicators, especially the incidence of water related diseases.

262 Review existing health services and allocation of resources.

263 Assess past experience in hygiene education indicating the goals of the programme and coverage achieved.

270 Human Resources Development

271 Inventory all training organizations and efforts:

- . school system, including mosque, primary, secondary, polytechnical and universities - numbers, number of students and teachers, number of lady teachers and curricula;
- . institutional or job related training at the Union and District Council, line department and private sector level; and
- . village level training in project management, community organization and operations and maintenance.

272 Identify recipients of present human resource development programmes:

- . staff in institutions;
- . local government officials; and
- . villagers.

280 Government Policy

281 Identify government priorities and sector objectives on a national and provincial basis.

282 Define cost recovery policies:

- . tariffs and collection mechanisms for public utility managed schemes;
- . community financing mechanisms for user-managed schemes; and
- . recurrent expenditure shortfalls and their impact on operation and maintenance.

283 Identify present investment criteria.

290 Data Collection Associated with Assessment of Past Investments

291 Assemble data on recent investments in the sector, criteria for selection of project investment priorities, and present plans.

300 Data Analysis

310 Analysis Process

311 Assess the reliability of data being collected.

312 Review the preliminary identification of the Key Critical Issues in light of more data collected. Prioritize the Key Critical Issues.

313 Analyze the Key Critical Issues:

- . identification of root causes;
- . identification of strengths and weaknesses; and
- . conclusions.

314 Priorize strengths and weaknesses.

320 Water Supply, Sanitation and Hygiene Education

321 Assess the implications of the physical pattern of rural settlements for the design of systems.

322 Establish the causes of present systems being inoperative.

323 Evaluate current technologies being used from the point of view of appropriateness, sustainability, acceptability, affordability, ease of operation and maintenance, and potential for community participation.

324 Establish design criteria:

- . service levels and technology options to be used for each socio-economic module; and
- . daily production requirements per capita of each water supply technology type.

325 Determine the number of communities by population category who need:

- . no change to the existing system;
- . repair/rehabilitation of existing system;
- . expansion of existing system; or
- . a new water supply, sanitation or drainage system.

330 Institutional Development

- 331 Establish the commonality of mandates among PHED, LGRDD, DH, DE, WAPDA, and the private sector.
- 332 Propose an allocation of responsibility within the agencies, identifying which agency has:
- . sole responsibility; or
  - . joint responsibility - prime or sub.

333 Assess where strengthening would be desirable for each organization.

344 Establish what data WAPDA possesses which could be made available to other institutions.

340 Economy

341 Assess the likely magnitude of future funding for the sector.

342 Establish affordable and acceptable tariff structures.

342 Assess the technologies being used by the private sector for construction, operation and maintenance, and capital and recurrent cost recovery.

343 Evaluate construction materials available and needed and their costs.

344 Establish the availability of water supply system equipment, costs, local manufacturing, quality control and distribution mechanism.

345 Assess the financial needs of the private sector.

350 Social/Cultural

351 Evaluate communities' desire and ability to participate in planning, design, construction, management, operations and maintenance, and financing capital and recurrent costs.

352 Assess the need for external community motivation and mobilization.

353 Evaluate the special needs of low income areas and develop relevant mechanisms.

354 Establish the presence of community organizations which may be used in project implementation.

355 Evaluate the need for hygiene education.

360 Human Resources Development

361 Assess the status of water resources knowledge affecting the choice of technology, competing demands, and water system management and control methods, and their adequacy.

362 Evaluate technical and financial training needs in institutions, the private sector, the community and local politicians.

363 Assess the role of schools, TBA's, and other health workers.

364 Establish staff shortages by institution and category.

370 Government Policy

371 Assess the impact of recurrent expenditure shortfalls on water supply, sanitation, drainage and determine its financial needs.

380 Review Sector Investments

381 Compare the past rate of investments made in rural water, sanitation and hygiene systems to the targets set.

382 Identify reasons for variances.

400 Synthesis of Information410 Identify Key Inter-relationships and Constraints

411 Assessment of the relationships and constraints by the Provincial team.

412 Review with the Project Central Support Group.

413 Review with the Provincial Government.

420 Define Initiatives

421 Assessment by the Provincial Team.

422 Input from the Project Central Support Group.

423 Preparation of proposals.

424 Review with government staff to reach consensus.

430 Establish Community, Private Sector, and Institutional Roles

431 Examine issues in provincial meetings with inputs from community groups, private sector representatives, line departments and project central support staff.

432 Prepare proposals.

433 Achieve concensus to provide guidelines for the formulation of projects.

440 Determine Human Resources Development Approach

441 Identify alternative training approaches.

442 Prepare proposals for method of delivery.

443 Review with government staff and obtain concensus.

500 Formulation of Initiatives

510 The Planning Process

511 Strategic Planning Group develops seminars for Provincial Planning Teams.

512 Strategic Planning Group monitors and evaluates the process in each province to achieve consistency in its application.

520 Provincial Investment Plans

521 Strategic Planning Group establish levels of investment in conjunction with GOP authorities and discusses them with Provincial Teams.

522 Provincial Teams prepare a draft investment plan based on the conclusions reached.

523 Finalize the investment plan.

530 Initiative Identification and Selection

531 Establish goals, objectives and evaluation criteria:

- . formulate potential goals, objectives and criteria through meetings with Provincial Teams;
  - . Provincial Teams present proposed goals, objectives and criteria to GOP authorities for approval;
  - . Provincial Teams identify high priority geographic areas and target groups and ensure initiatives being considered are representative of the views and wishes of the communities.
- 532 Identify potential initiatives and prioritize in a workshop format through advocacy bargaining approach.
- 533 Select initiatives through goals achievement process.
- 540 Provincial Project Documentation
- 541 Strategic Planning Group develops format and methodology for project documentation.
- 542 Strategic Planning Group holds a seminar to familiarize Provincial Planning Teams with the documentation preparation process.
- 543 Provincial Teams prepare project documentation.
- 544 Economic and financial analysis of proposed projects.
- 550 National Summary Investment Plan
- 551 Review of Provincial Investment Plans by Strategic Planning Group
- 552 Feedback of national level analysis to Provincial Teams.
- 553 Preparation of National Investment Plan by Strategic Planning Group.

600 Project Outputs610 Inception Report

611 Write Inception Reports based on preliminary analysis of data gathered and identifying:

- . present situation;
- . objectives;
- . options to be considered; and
- . methodology for the study duration.

612 Review the report with GOP officials and refine.

613 Prepare the final report.

620 Strategic Provincial Investment Plans

621 Prepare a preliminary first draft of one provincial investment plan.

622 Review the report with appropriate Government and World Bank personnel and refine having had this additional input.

623 Prepare draft provincial investment plans based on the format of the approved preliminary report.

624 Review the report with appropriate Government and World Bank personnel and refine as appropriate.

625 Submit the final investment report.

630 Project Identification Reports

631 Prepare draft project identification reports and discuss with Government and World Bank staff and refine as appropriate.

632 Submit final reports.

640 National Summary Investment Plan

641 Prepare and submit a national summary of the provincial investment plans.

642 Develop proposed implementation programmes identifying local, Provincial, National and foreign components.