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Ministry of Foreign Affairs of The Netherlands, Directorate
General for International Co-operation (DGIS)

OPPORTUNITIES FOR NETHERLANDS SUPPORT TO RURAL WATER SUPPLY AND
SANITATION SECTOR DEVELOPMENT IN BALUCHISTAN AND NORTH WEST
FRONTIER PROVINCES OF PAKISTAN

INTERNATIONAL CENTRE FOR
RURAL WATER SUPPLY AND
SANITATION

End of mission report on the review of Inception Reports
concerning the Strategic Provincial Investment Plans and Project
Preparation Study Project.

The Hague, April 1989

International Water and Sanitation Centre IRC

The views expressed in this document do not necessarily reflect the opinion
of the Netherlands' Directorate General for International Cooperation.

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End of mission report on the review of Inception Reports
concerning the World Bank executed Strategic Provincial
Investment Plans and Project Preparation Study Project in
Pakistan

Report prepared by Teun F. Bastemeijer of IRC

Mission period 13 - 28 March 1989

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EXECUTIVE SUMMARY

The Directorate General for International Cooperation (DGIS) was invited to participate in the review of inception reports concerning the preparation of Strategic Provincial Investment Plans in Pakistan. The mission took place in the period 13 through 28 March 1989.

This report presents the findings, conclusions and recommendations of the Netherlands participant in the mission, who was required to explore opportunities for collaboration with World Bank and other external support agencies in Baluchistan and North West Frontier Province.

The mission as a whole covered a broad range of issues. Discussions with the authorities and the consultants were constructive. The inception reports were generally found to be interesting and the study approach was generally endorsed. It was concluded that the investments would concern an integrated package including the rehabilitation and upgrading of water supply and drainage schemes, new water supply schemes in hilly areas and brackish water zones, sanitation and drainage, hygiene education, human resource development, water resource and other studies, and pilot projects. Proposals would have to be made without increasing the recurrent expenditures, because of budget constraints.

Concerning the opportunities for further collaboration, it was found that the World Bank seems genuinely interested in supporting a development process, rather than merely financing the implementation of rural water supply schemes.

The consultants have collected much data, and have established good communication with the authorities. Some set-backs were encountered in North West Frontier Province. It was suggested that the study team in that province be strengthened.

The World Bank and the Asian Development Bank are interested to support projects in Sind and Punjab. The bilateral donors are more interested in Baluchistan and the North West Frontier Province. Projects could be funded separately within the framework of the planning documents.

Options for a joint funding effort include support to the establishment of credit mechanisms, cofinancing of national level projects concerning training and technical information exchange, cofinancing with other bilateral donors at the provincial level, and sharing the task by supporting projects in selected districts.

Main constraints concern recurrent cost financing, interference of administrative and political processes, poor functioning of existing schemes and lack of monitoring data, inappropriate design of earlier systems.

The general conclusion is that there is scope for collaboration with the World Bank and others, but that it is too early to indicate possible funding levels.

The planning approach is comprehensive, but not sufficiently flexible. It is essential that the present exercise is well fitted into the overall process which started in 1987, and which is continuing after the studies. More emphasis could be put on key sector constraints and on main criteria for project preparation.

The most appropriate form of donor assistance needs to be defined for each province separately. The options need to be compared by the consultants.

The authorities are aware of the present constraints and are ready to envisage more sustainable approaches involving community participation and community financing. However, support systems for community based maintenance management systems need to be developed and tested.

It is recommended that DGIS will agree in principle to support projects in Baluchistan and NWFP provided that its policy requirements are met. Projects could be funded bilaterally, but co-funding of national level projects could be an option to be explored after the appraisal of the World Bank Project.

It is also recommended that DGIS accepts an invitation to participate in the next scheduled review mission, provided that such mission is jointly prepared, and sufficient information is available one month before the mission. A preparatory meeting in The Hague is suggested for the team members who would be specifically covering the provinces of Baluchistan and NWFP.

It is further recommended that DGIS suggest to the World Bank that the present schedule for project preparation and appraisal be adapted when necessary to the needs of specific donors. A step-wise approach in identifying and formulating projects seems more appropriate than preparing one overall project for appraisal.

It is finally recommended that DGIS proposes criteria for project identification as additional guidance for the consultants. These criteria would relate to the Netherlands sector policy, and the findings as presented in the report.

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1. INTRODUCTION

1.1 Purpose of the mission

The Pakistan Government is collaborating with the World Bank and CIDA in preparing Strategic Provincial Investment Plans for Rural Water Supply, Sanitation and Health. The dutch development cooperation agency (DGIS) and other bilateral donors were invited to participate in a review mission in the period 13 through 28 March 1989.

The purpose of the mission was to reach an initial agreement concerning the approach to be adopted, to discuss the scale of public investments over the coming four years, and to begin to define the form donor assistance might take in the different provinces. Further, initial guidance could be provided to the consultants concerning the scope of project preparation.

This report presents the findings, conclusions and recommendations of the dutch participant in the mission.

1.2 Role of the Dutch participant

The role of the dutch participant was to explore if and how the Netherlands could collaborate with World Bank and other donors in the framework of strategic provincial investment plans for the rural water supply and sanitation sector.

The Netherlands are especially interested to support projects in Baluchistan and/or North West Frontier Province.

Recently, DGIS prepared policy guidelines for the water and sanitation sector in which sustainability and cost-effectiveness are indicated as main criteria for bilateral assistance in the sector. The terms of reference for the dutch participant (see annex 1) refer to these guidelines and indicate key subjects for special consideration.

These subjects, including community participation, cost recovery, maintenance and institutional development, were discussed with the Netherlands' Embassy at the start of the mission. Later the main outcome and conclusions were discussed with the Embassy, and presented in a memo (see annex 2).

Other points of consideration are indicated in the terms of reference for the whole mission team (see annex 3). World Bank was especially interested to obtain guidance as to the magnitude and scope of the Dutch financial assistance to the sector.

During the mission, the Dutch team member participated in discussions with the provincial authorities of Sind, Baluchistan, and North West Frontier Province, and in review

meeting with the consultants in all provinces. Field visits were made in Baluchistan and Punjab. General discussions were had with federal authorities concerning the federally administrated tribal areas.

1.3 Project history

The review mission is part of a policy development and sector development process which started mid 1987 when the Government of Pakistan asked World Bank and CIDA for assistance in the rural water sector.

In October 1987 a joint mission prepared a Sector Review Document. A draft of this report was discussed with the federal and provincial governments in April 1988.

In the same period, World Bank supported a national workshop in which staff from federal and provincial government agencies, international agencies, NGO's and projects participated. The workshop discussions concentrated on the following key issues:

- Sector priorities and finance;
- integrated approach to development;
- institutional framework;
- technology choice;
- sustainability of investments;
- cost recovery;
- role of the private sector;
- role of women;
- delivery mechanisms; and
- investment planning & project preparation.

The workshop was immediately followed by a policy conference which resulted in a declaration and specific recommendations (see annex 5) defining a sector policy incorporating lessons learned from earlier experience. Specific recommendations were formulated concerning inter-sectoral coordination through provincial steering committees, establishing broad based village associations, provision of low cost technology systems at basic service levels, operation & maintenance and cost recovery, and community financing. These policy recommendations provide guidance for future sector investments and development projects.

In the final version of the sector review report of June 1988 (a summary is attached, see annex 4) it is recommended to prepare strategic provincial investment plans. CIDA agreed to finance this study project with the World Bank as the executing agency. The plans are now being prepared by a consortium of consultants composed of Wardrop-Acres from Canada, Cowater International with branches both in Canada and Pakistan ,and Nespak from Pakistan. They started their work in at the end of December 1988.

1.4 Terms of reference for the study teams

The study is planned to be carried out over the year 1989. The terms of reference (annex 6) define the expected study outputs in four phases:

- Inception reports after two months;
- Draft provincial investment plans after 6 months (July 1989);
- Provincial investment plans and draft project preparation documents after 9 months (October);
- Final Project preparation documents after 10 to 12 months.

The consultants are required to prepare detailed plans for four provinces for the period 1990-1993 and indicative plans for the 1994-1997 period. The study should result in detailed project preparation for certain elements of the plans, accompanied by institutional and human resource development proposals for the entire plan. External funding in Sind and Punjab provinces are already indicated in the TOR (US\$ 75 million and US\$ 50 million respectively). No indication is given for Baluchistan and NWFP.

Kashmir, Azad Jammu and the Northern areas are not mentioned in the TOR, but these areas are now being covered on special request of the federal authorities.

1.5 Findings and conclusions of the World Bank mission

The findings and conclusions of the mission are summarized in an Aide Memoire (see annex 7). The main conclusion is that an integrated approach to sector investments is required. The sustainability of the systems is a main point of concern. Priorities have to be identified with the provincial authorities.

Further guidance was provided to the consultants by referring more explicitly to earlier experiences concerning community participation, operation and maintenance, intersectoral coordination, and by stressing the need for feasible projects which would be politically acceptable.

Strategic development or investment plans will include the following components:

- Rehabilitation and upgrading of existing water supply and drainage schemes;
- New water supply schemes particularly in the non-irrigated hilly areas (Barani) and in brackish water zones in the irrigated areas ;
- Sanitation and drainage schemes;
- Hygiene education;
- Support to human resource development;
- Proposal for further work in certain areas (e.g. water resource data bases, management information systems);
- Pilot projects

Proposals will have to be made without significantly increasing the Government's recurrent expenditures.

In this respect, specific mention was made of the People's Work Programme which aims to finance small infrastructure development projects all over the country through special committees in the districts, and which may affect sector institutions. The concern is that it may negatively affect the sustainability of water supply and sanitation systems and efforts to develop community based organizations.

1.6 Results of the mission

The mission resulted in the endorsement of the overall approach developed so far. The inception reports were found to present good general information.

The conclusions and recommendations concerning possible Netherlands' involvement are presented in chapters 4 and 5.

The next review mission is scheduled for July. The purpose of this mission will be to review draft strategic plans in each province and to earmark funds for specific projects.

The results of discussions in the different provinces were presented in Aide Memoires. These were presented to the Netherlands Embassy by the teamleader of the mission.

There was agreement on the need to continue collaboration. The Embassy indicated that the Netherlands would also be represented in the next review mission.

2 FINDINGS

2.1 Background

This chapter presents the findings of the Netherlands' participant in the mission. For the findings of the world bank mission reference is made to chapter 1, and annexes referred to in that chapter. The mission presented a good occasion to become familiar with the sector in Pakistan, and to exchange views and ideas with the team members representing the World Bank and other international support agencies represented. The mission generally went well. Some minor difficulties were encountered in coordinating all inputs, not surprisingly because the number of persons involved was large. Initially, the World Bank teamleader aimed to achieve preliminary commitments from represented donor agencies. This turned out to be unrealistic, because the inception reports did not identify possible projects in sufficient detail to allow any preliminary estimation of required funding level.

The consultants have been extremely collaborative, and presented their approaches generally quite well, with exception for the inception report in North West Frontier Province.

Within the mission team there was constructive collaboration, and all point mentioned in the terms of reference were covered.

2.2 The World Bank's Approach in Pakistan

The World Bank aims to develop the sector by taking up a wide range of issues. The present CIDA supported strategic investment plan studies have created considerable momentum and have raised the interest of high ranking civil servants as well as politicians for key sector issues like community participation, role of women, cost recovery and operation and maintenance. The awareness of recurrent costs constraints and sustainability issues has clearly increased, and most of the subjects are being openly discussed at the various levels. An interesting feature of the approach is that extensive use has been and is being made of experiences in Pakistan, which have been described in case study documents (see annex 11). It was noted that community participation and integration of women in local organizations has been successful in urban areas in Karachi. Thus, the urban experiences are being used in developing a rural water supply and sanitation development strategy.

Considering the over-all process the World Bank seems to be genuinely interested in supporting a development process, rather than merely financing implementation of water supply and sanitation schemes. Nevertheless, it was found that internal world bank/ IDA procedures lack flexibility in preparing integrated projects, especially if the first phases do not

include hardware components of sufficient scale. Thus, the role of World Bank, and possibly also the Asian Development Bank, is more important in areas where larger amounts of funding can be absorbed in a relatively short period. Integrated water supply and sanitation projects with priority for institutional development and community participation do not initially require high amounts of funds, because the hardware component will only gradually develop. Larger scale programmes aimed to implement water supply and sanitation schemes at a larger scale in a relatively short period are not necessarily complementary to and compatible with a development oriented approach. Discussions with world bank team members and the authorities tend to indicate that in certain provinces (in particular Baluchistan) and districts a hardware investment oriented project approach would have adverse effects, while in other areas there is sufficient absorption capacity to combine institutional development with larger scale implementation.

2.3 The study approach

The approach taken by the consultants allows comparison between the provinces. The parallel preparation of strategic provincial investment or development plans on the basis of a common strategic planning methodology while adapting the contents to the needs of each province is expected to provide the elements for an over-all national investment plan and for monitoring progress in a later stage.

The approach and the organization of the study teams are described in the national executive summary of the inception reports (see annex 8). The study project organization is composed of a central team and provincial teams. The teamleader in each province carries responsibility for the contents of the reports. As a result, there is considerable variation in quality, focus, and terminology. The central team establishes guidelines for the work in the provinces and monitors progress in different phases.

Both the national and the provincial team are supposed to work closely with the relevant authorities. Their active involvement in the preparation of the plans, and their full support for the final outcome of the studies is the main evaluation criterion of the work done by the consultants.

In most provinces, good communication appeared to have been established and the authorities supported the contents of the reports. In NWFP the communication between the study team leader and the authorities had apparently not been as good as in other provinces and the authorities did not support the report on essential points.

2.4 The inception reports

The consultants teams have learned much about the local conditions. Their reports were informative and presented valuable socio-economic data. However, insufficient reference was made to prior work, including the sector review report and the recommendations of the national policy conference. In relation to this point it should be remembered that most of the expatriate team members had no prior experience in Pakistan, and needed to go through a learning process. Local team members, who were already familiar with the sector, have been involved in in-depth studies in the field, the results of which are not yet available.

Summarizing, it was found that the inception reports give adequate information, and show how the consultants plan to move ahead in the different phases. All relevant issues are presented, with certain gaps in the fields of water resources and environment, human resources and institutional development, recurrent costs and cost recovery. Little information is available so far concerning the level of functioning of water supply and sanitation systems and the present levels of service.

It is important to note that the quality of the inputs provided by the local consultants of COWATER is excellent. It was noticed that women consultants play a predominant role in their team. This is a positive achievement in a country where women's roles are not sufficiently recognized at all levels. Development of professional experience among female consultants and field workers may prove vital to the successful implementation of provincial plans.

2.5 Issues discussed in Baluchistan

The inception report for Baluchistan province was found to be of good quality. It presents a good analysis of the main constraints faced in the sector, key issues were addressed in a coherent way, and data were quite well presented. A copy of the executive summary is attached (annex 9).

The report was discussed with the provincial study team, and comments were received positively. Most of these related to key issues which were also discussed in the national workshop of 1988. The team was advised to give high priority to financial aspects (including community financing, and other mechanisms), and to exploring the potential for increased use of deep-set handpumps. Hygiene education was stressed to be essential in view of improving child health.

Main identified constraints are institutional and financial, but there are also considerable problems to be overcome in introducing sustainable technology and improving the functioning of existing schemes which are too expensive considering the level of development in Baluchistan.

The provincial steering committee in which all relevant departments are represented largely supported the contents of the report. The human resource constraint was highlighted as the main bottleneck. It was stressed, that the studies should result in the preparation of simple projects, which would be feasible taking into account the prevailing constraints. Emphasis should be put on provision of basic supplies, including standposts, handpumps, improved traditional sources and community water storage tanks without distribution network (see also Aide Memoire, annex 10)

It was found that the depletion of water resources through irrigation wells is affecting the sustainability of drinking water supplies, in particular dug wells. This environmental aspect deserved more attention.

Field visits showed that improvement of drinking water supply is a top priority for the population in certain districts, but that local conditions and feasible solutions vary considerably. Sanitation improvements do not seem a top priority in the smaller settlements, but definitely are in larger villages and small towns.

In depth discussions were also had with the Unicef resident engineer in Baluchistan and with the deputy team leader of the German-Pak rural community development project. They confirmed that the absorption capacity in Baluchistan is limited, mainly due to lack of institutional capacities and lack of established village organization. The Unicef experiences in the BIAD programme have not been very positive so far, even though the design and construction of piped water supply schemes have improved. Operation and maintenance responsibilities for the schemes constructed through the BIAD programme have been insufficiently defined. Unicef is now trying to obtain noted funds for handpump programmes. On-site sanitation will be actively promoted to extend coverage. Investment targets should be modest according to the Unicef engineer in Baluchistan.

The Pak-German project has as its main objective to establish village organizations. Implementation of village schemes are based on community participation. About half of the requests from villages concern water supply. The project works only in 9 union councils from a total of about 300 in Baluchistan. Prospects for increased project activity vary according to the district concerned. Some of the districts are well organized and have an effective local taxation system.

The project activities have resulted in the establishment of a Trust Fund at the provincial level. Village committees can get credits from this fund through communal banks. So far experience in recovering the loans are extremely positive: near to 100% repayment was mentioned by the LGRDD representative collaborating with the German-Pak project.

Training was mentioned by PHED, LGRDD and the health department as being essential. The Rural Development Academy has new buildings, and has experience in combined classroom and field training. However, training capacities were mentioned to be low, and specific courses and curricula for different target groups and training requirements need to be developed.

Discussions with the team leader of BKH consultants and the Haskoning engineer who recently arrived in Quetta indicated a positive interest in collaboration with the Canadian consultants working on the provincial strategic plan for the rural water supply and sanitation sector. The rapid growth of Quetta and semi-urban areas were mentioned as an important issue to be looked into.

The idea of providing some inputs in the preparation of the 16 towns project for Baluchistan was born because of the clear need for a coherent approach in the water and sanitation sector as a whole, taking into account institutional and human resource constraints, and the need to address the needs of semi-urban or semi-rural settlements which are now under PHED department, and later possibly under the WASA authority, which is responsible for water and sanitation in Quetta.

2.6 Issues discussed in North West Frontier Province

The inception report prepared by the consultants in North West Frontier Province did not reach the standard of those in the other provinces. In particular the analysis of key issues in the province and the proposed approach were found to be insufficiently balanced.

It does not seem useful to discuss these problems in detail in this report. Critical remarks made by the members of the mission are reflected in the written comments (see annex 12). It should be noted that some of the main ideas presented in the executive summary are valuable, even if these are not fully in line with the report itself. A summary of the inception report is attached (annex 13).

The mission also expressed concern that the provincial government departments had not been sufficiently involved in the preparation of the report, and were not familiar with its main contents. It was noted that the teamleader of the provincial study team felt that the project was not taken serious by the provincial authorities. This point was checked with the different departments as well as through discussions with the provincial steering committee. It was found that the NWFP authorities are in fact very interested, and show initiative in developing a policy in line with the outcome of workshops at national and provincial levels.

It was agreed with the central team of the consultants that they would prepare a supplement to the present inception report, and take the necessary steps to improve the communication with the

provincial authorities by strengthening their team in NWFP, as this would be a condition sine qua non for sound planning and constructive collaboration between interested donors and the authorities.

Discussions in the provincial steering committee proved extremely interesting. It was mentioned that the rates of recovery of water charges are higher than in other provinces. There might be an opportunity to start a pilot project aimed to develop a rural water enterprise in one of the districts. The project could show the viability of private sector management of schemes. Local councils would have to be strengthened if simple technology solutions and village based maintenance has priority. The World Bank stressed the need to test the political feasibility of proposals developed with the provincial study teams.

The Local Government and Rural Development Department General Secretary said that there is already considerable experience in local councils. Approaches which are being developed as 'new' have already been used in the sixties. Procedures have slowly become ineffective due to various factors, including political influence on administrative procedures and established priorities.

The experience in the Mansehra district was mentioned as a good new start. It was also mentioned that if women's activities are taken up outside established institutions, effects may sometimes be adverse, because the activities cannot be sustained, and apparent successes would be artificial and not have a long term impact. The discussions were summarized in an aide memoire which is attached to this report (annex 14).

Presently there are no major donor supported projects in the sector. German Development Assistance (KFW/GTZ) is involved in institutional strengthening of the PHED. Their project has few funds for implementation of schemes. The aim of the planned first phase of the project (2 years as from September 1989) is to develop planning capacities at PHED, to orient PHED to low-cost technology schemes, and to promote community participation in this essentially technical department. After this orientation project of two years, GTZ is interested to collaborate with the authorities and other bilateral donors in developing a longer term integrated rural water supply programme with inputs from different donors. German Development Assistance (BMZ) is also involved in a rural sanitation project. As no specific institutional structure existed for this activity, BMZ financed salary costs of local staff. It is now felt that a more sustainable solution has to be found by training staff from relevant departments or districts. PHED plans to create a sanitation department which could be staffed gradually by reducing staff involved in other activities. The PHED strategy is evolving through workshop discussions which were organized with German support.

The introduction of locally produced Afridev handpumps for community use is not progressing well. The cost of the pumps is presently very high and the quality not yet optimal. Ways are being sought to improve efficiency and reduce costs, for instance by privatizing the activity, and reducing the amount of imported material. It should be realized that only few pumps have been produced so far, and activities are therefore of a pilot character.

The health department indicated the need to train trainers, who could then themselves develop training material and curriculae for health education staff and village based workers. It indicated that village land use and development planning needs to be developed in an integrated way, if negative effects of water supply and sanitation schemes are to be avoided. Some villages are now worse off from the point of view of hygiene than before water supply schemes were constructed. For instance, piped water supply systems with house connections were constructed without drainage facilities for sullage. Water is now stagnating near the houses, often containing large amounts of human waste.

It was also mentioned that about half of the posts created for female extension staff were vacant, because of lack of candidates. One of the reasons mentioned was the lack of acceptance of these women's roles in rural areas.

The potential involvement of the PATA project in the rural drinking water supply and sanitation sector was extensively discussed with the DHV project manager. The PATA project itself is evolving slowly to small scale agricultural development activities, but so far it is meeting with difficulty in introducing more sustainable solutions for irrigation water supply. Some of the implemented schemes are in fact not justified from the economical point of view, because there are social and political reasons to provide the schemes. Considering the nature of the activities of the PATA project, the discussions concluded that new activities would not be desirable in the direct future. It was also noted that the need for drinking water in the districts concerned may not be as high as in some of the other areas. The point of view heard during the discussions was that implementing a simple piped water supply scheme using water from the irrigation wells would be simple, and could sometimes help establish good relations with political figures and local communities. This however does not necessarily comply with real needs, and does not necessarily fit in an overall sustainability oriented approach.

The presence of DHV consultants in Peshawar is an advantage from the logistic point of view. Possibly, they could be instrumental in monitoring discussions in the provincial steering committee in the rural water supply and sanitation sector.

2.7 Points of interest in other provinces

Considering the terms of reference and the Netherland's interest in the above two provinces, the other provinces are not discussed in detail.

In Sind province as well as in Punjab, there is considerable rural drinking water supply coverage in the irrigated areas. In those areas, priority is on drainage, hygiene education, and operation and maintenance. Considerable amounts of funds are required for water supply scheme rehabilitation and extension, but it is not clear how the systems will be sustained, because service levels are high, and water charges or connection fees low.

There are zones where groundwater is brackish. Better procedures for source selection, borehole siting, treatment plant design and maintenance, as well as better definition of O&M responsibilities are required.

There is considerable difference between districts and union councils.

In Sind province there are areas where feudal land ownership would seriously affect any attempt to develop community organizations.

Punjab has the largest population; there are over 30 million rural inhabitants. At this scale districts have to be considered separately, and union councils may be in some cases well staffed and well equipped. In the field, a union council chairman mentioned that water supply schemes in his area had been made profitable.

The Asian Development Bank is interested to finance projects in the Punjab. World bank has already committed itself in the steering committee meeting to finance a project in Sind Province. Apparently details were already discussed 'en marge' of the mission. The Aide Memoires for the two provinces are attached (annex 15).

It was noted during field visits that in hilly districts population density is quite low, and water needs are high. Special mention was made by consultants and authorities of the Thar desert area, where conditions are harsh and water is scarce. It would appear that UNICEF has met with difficulties in developing appropriate water supply schemes in those areas. ODA is presently involved in water resource studies in these areas.

2.8 Discussions with federal authorities

Contacts with the federal authorities were of general nature. It was confirmed that the provincial authorities carry the main responsibility for the implementation of projects. The federal government department can provide general guidance, and has indirect control through the allocation of annual development budgets.

The key issue is how funds can be more flexibly channeled through, allowing flexible planning and implementation. The so called PC 1 procedure is a major bottle-neck, and leads to unrealistic budgeting and inadequate implementation procedures. The effectiveness of projects could be ensured more easily if a solution could be found for this problem.

3 OPPORTUNITIES FOR SUPPORT BY DGIS

3.1 Options for financing

Roughly, there are the following options for DGIS to support the rural water supply and sanitation sector in Pakistan.

- Contributing to the establishment of funds or credit mechanisms to finance sector investments. This support would not concern a particular project. This option needs to be further considered in relation to the conditions in each province. On the part of the World Bank, there is interest to further develop this idea.
- Co-financing with World Bank.
This could be envisaged for projects of general nature, like training and human resource development projects at the national level, development of a national information and documentation centre or data base, development of monitoring and evaluation capacities. So far no specific opportunities were identified.
- Co-financing with bilateral donors.
This could be envisaged for institutional development and training projects at the provincial level. This option could be envisaged both in Baluchistan and NWFP.
- Bilateral projects.
This form of support could concern selected districts in the provinces of Baluchistan and NWFP.

In all cases it is important, that the support given by DGIS contributes to a coordinated effort.

3.2 Opportunities for donor coordination

Positive coordination with bilateral donors like GTZ and CIDA appears to be feasible and acceptable to all parties, including the provincial governments. During the mission good contacts were maintained with the CIDA representatives, who often presented points of view which were supported by the Netherlands' team member. GTZ was contacted before and after the mission. There is also GTZ supported community development project in Baluchistan. In NWFP, institutional support is being given to the PHED. The results of the mission were discussed between the GTZ sector/community participation specialist and the DGIS sector specialist. There seems to be keen interest to coordinate the inputs over the coming years.

Options include support to integrated project units, water resource study and monitoring, support to training development, focussing on different districts etc.

Coordination with the World Bank, and with the Asian Development Bank will probably concentrate their efforts in Punjab and Sind provinces. Coordination with the Bank is therefore more likely to

take place at the national level. Important issues of mutual interest are private sector involvement, development of financing mechanisms, decentralized maintenance, role of the districts, union councils and villages or user groups.

Considering the interest of the different external support agencies, the World Bank team leader suggested to split the next review mission in two. One for Baluchistan and North West frontier province, and one for Sind and Punjab provinces. This idea seems sound, provided that these missions are prepared with full participation of the relevant donors for each province.

3.3 Constraints

Main constraints for Netherlands' involvement in the rural water supply sector in Baluchistan and NWFP appear to be the following:

- Recurrent costs of water supply and sanitation schemes include components which cannot be covered by poor communities. Provincial annual development and recurrent budgets rely heavily on federal grants and loans. Budget restrictions have been announced and affect the sectors capacity to increase its staff capacities. Consequently, human resource and institutional development have to make use of existing staff, which has to be used more effectively and more efficiently, for instance by reorientating their activities and by training them for new tasks. This will call for clear political priority for integrated programme development, replacing and changing existing administrative entities rather than recruiting new staff for new projects and programmes. Considering this situation, absorption capacity is limited, and can be developed only gradually as institutional arrangements are made, and staff is trained.
- Political processes have considerable impact on the implementation of plans and projects. This problem is so important, that it was highlighted in all provinces, and even explicitly mentioned several times by members of the steering committees. This implies that projects have to be structured in such a way that sufficient guarantee and support is provided to avoid such set-backs. This will require considerable time in the preparation of projects.
- Functioning of existing schemes seems to be generally poor. Realistic planning has to be based on real needs. This supposes that scheme performance and costs are monitored more systematically. As this has not been done so far it may take considerable time to collect reliable information on the basis of which priorities could be set in a more realistic manner. In some areas the needs may be higher than the present coverage data suggest.

- Emphasis has been put so far on coverage, water quantity, and on high service levels, while the water is often of poor quality. Furthermore, inadequate drainage causes health hazards. Finally, environmental factors affect the sustainability of water supply systems. This implies that more reliable information concerning the impact of projects needs to be provided in order to set priorities and prepare feasible projects. Possibly there will be a need to give low priority to rehabilitating certain systems, because they are not sustainable under the present conditions. This could call for an approach which is politically and socially hard to accept. This point must be addressed by the study teams.

3.4 Opportunities in Baluchistan and NWFP

In Baluchistan there seem to be good opportunities to use existing experience and the presence of Netherlands' consultants for project preparation and information transfer during the strategic planning exercise. Examples of projects or activities which could be of interest are:

- Support training and information exchange activities through the Rural development Academy;
- Integrated rural water and sanitation projects in selected districts building on the procedures established by the German-Pak project. In such projects the emphasis could be on low technology solutions and community based maintenance.
- Pilot project in larger villages aimed to improve the functioning of piped schemes, and to introduce appropriate service levels on the basis of user organization for O&M and cost recovery. Such project could for instance concern two centres. It could be envisaged to link this with a similar project for semi-urban settlements. In that case proper use would be made of experience gained in Quetta.
- Support to development of credit mechanisms for water supply and sanitation.

In North West Frontier Province opportunities could not be identified due to the problems mentioned in chapter 2. Thus, much emphasis should be put on developing feasible options for support before identifying projects as such.

German Development Assistance (GTZ) has organized objective oriented planning workshops with participation of different departments. The results of this workshop are possibly more down to earth than the inception report, and should be used to develop options. In view of this work already done and the establishment of an advisory team in PHED, options for Netherlands' support could focus on districts through the Local Government and Rural Development Department. Coordination could be ensured through the provincial steering committee. This committee could either be supported by planning teams within the relevant department or by

a special integrated project unit. A third possibility would be to strengthen training, research, and monitoring and evaluation capacities in a more independent body, such as a training institution.

4 CONCLUSIONS

4.1 General conclusion

The general conclusion is that there is scope for further collaboration with the World Bank and other External Support Agencies. At this stage no final conclusion can be drawn concerning the activities or projects which could be supported by DGIS. The information provided to the mission does not allow a preliminary estimation of the level of funding over the coming years, but it is expected that such estimation could be made on the basis of the draft strategic investment or development plans for each province.

The following more specific conclusions refer to the Terms of reference for the Netherlands' participant and the over-all purpose of the review mission.

4.2 Planning approach and project preparation

The present strategic planning approach is comprehensive and is expected to result in providing a good initial basis for the preparation of projects and effective coordination between the government agencies and the donors.

Relevant authorities and donor representatives could be involved more meaningfully. So far, it has been insufficiently realized that the process of discussions and studies is probably as important as the final result of the studies. It is essential that the strategic planning exercise is seen as a means and not as the aim.

More emphasis could be put on key constraints, over-all objectives and main criteria for project development, and less on the development of projects for appraisal before the deadline of the present consultancy contract.

More flexibility is needed concerning the time schedule. The planning process should not stop after the present study project, and project preparation should not be planned to be finalized in November 1989.

4.3 Expected scale of public investment until 1993

The scale of investment has not yet been determined.

Priority should be on better using and developing institutional capacities, on using available financial resources more effectively, and on developing viable models for community participation than on the level of investments.

The development objective of Netherlands supported projects needs to be properly defined before determining the scale of the investments.

In setting targets for investment more consideration could be given to sector constraints and the present lack of coherent data in order to prepare feasible projects.

Main constraints are lack of human resources, inappropriate planning and implementation procedures, and inadequate institutional arrangements for operation and maintenance.

4.4 Form of donor assistance

The form donor assistance therefore needs to be defined in each province separately.

A combination of institutional support to provincial institutions with a support function on the one hand, and implementation projects focussing on selected districts and union councils seems the most appropriate form of assistance from bilateral donors.

Flexible project preparation would allow individual donors to coordinate their support on the basis of the results of the present study project.

In Baluchistan and North West Frontier Province, bilateral projects are preferred over financing a time-slice or component of a broadly defined investment project.

4.5 Guidance for consultants in project preparation

Successful preparation of feasible and financable projects will largely depend on the involvement of embassies and donor agencies in the planning process.

4.6 Participation of the users

This issue is addressed in the inception reports, and has the interest of the authorities.

User or community participation needs to be better defined. Too much emphasis is put on awareness raising, and too little on the role of user communities as partners in all stages of projects.

Much has to be done in training staff, developing suitable models, developing institutional capacities and suitable forms of community or user participation, and developing community based organizations.

4.7 Cost effectiveness and cost recovery

There is lack of reliable data concerning functioning and costs of existing water supply and sanitation schemes.

Earlier rural water supply investments have often not generated the planned benefits and have in many cases been too costly due to inappropriate technology solutions and high service levels.

The authorities are aware of these problems, and are ready to consider more sustainable alternatives.

Cost recovery has been largely discussed and the authorities are ready to support new initiatives in this field.

Field studies and pilot projects are needed to develop viable options for cost recovery and community based financial management.

4.8 Institutional development

The PHED department has technical capabilities, but faces budget constraints. It also lacks communication with the users.

The District and Union Councils have the formal responsibility to ensure the service to the people once a scheme is handed over, but often find it difficult to operate and maintain the schemes.

Decentralization of the management of water supply schemes to district and lower levels will require a more thorough assessment of what responsibilities and role can be taken up by which institutions in order to develop a reliable support system for community based maintenance.

Developing a community oriented approach will involve change of roles and tasks of staff at different levels. Training needs and capacities need more attention than it has received so far in the inception reports.

5 RECOMMENDATIONS

5.1 Netherlands' involvement in Baluchistan and N.W.F.P

In spite of set-backs in North West Frontier Province , it is recommended that DGIS will agree in principle to support projects in Baluchistan and North West Frontier Provinces provided that certain basic conditions or criteria are met (see 5.4). In identifying projects optimum use should be made of the presence and the work of the study teams in these provinces.

It is further recommended that DGIS coordinates its support with CIDA and GTZ, and when appropriate, finances joint projects. The consultants could be asked to work out options for concrete collaboration at the provincial level . One of the options could be the establishment of integrated projects steering units supported by more than one donor. Another would be that different donors support different departments and institutions.

The preparation of a major investment project for appraisal in November is an important requirement of the World Bank itself and should be perceived positively in the perspective of overall sector development. However, as the World Bank itself and the ADB will largely be able to finance such a project, the option of cofinancing project activities within this framework does not have to be considered at this stage. After the appraisal of such project in November it might be envisaged to finance or cofinance complementary activities at national level or in the provinces for which provisions might not have been made in the appraised project.

In view of positive experience in Quetta and the need to develop a coherent approach in semi-rural or semi-urban settlements, it is recommended that the study team in Baluchistan province is invited to collaborate where appropriate with the Netherlands' consultants there.

Involvement of DHV consultants and the PATA project in NWFP is not recommended in this stage, as priorities in this province are not yet established. An important criterion for the involvement of the PATA project is suggested to be the compatibility of the present project activities with a sustainability-oriented approach in the rural drinking water supply and sanitation sector.

5.2 Follow-up to the present mission

Considering the positive outcome of the present review mission and positive conclusions concerning the overall approach to the sector, it is recommended that DGIS be represented during the second review mission scheduled from 10 to 30 July.

It is recommended that DGIS supports the idea proposed by World Bank to divide this mission in two teams, one covering Baluchistan and NWFP (representatives of bilateral agencies and World Bank) , and the other Sind and Punjab Provinces (predominantly World Bank with representatives of ADB). DGIS could contact World Bank to explore if this idea will be implemented.

It is further recommended that DGIS contributes actively to the preparation of the terms of reference of the team visiting Baluchistan and North West Frontier Province. The purpose of the mission being a review of draft strategic provincial investment (or development-) plans for rural water supply and sanitation, and health (Hygiene education), DGIS would require sufficient written information concerning the strategic plan's objectives and priorities, as well as identified projects is made available by early June, even if the draft plans could not be ready before the mission itself. This would allow DGIS to explore how projects could be funded. This would make it easier to earmark funds during the mission.

It is therefore recommended that DGIS reminds the World Bank on the necessity of:

- Having sufficient information available one month before the mission;
- The Netherlands playing a meaningful role in preparing the terms of reference, preferably in collaboration with other bilateral donors. It might be useful to suggest a preparatory meeting in The Hague. This would be easy to organize, because World Bank and CIDA team members could have a stop-over while flying to Pakistan.
- Consultations between bilateral donors in follow-up to the mission in order to coordinate efforts.

It is finally recommended that the Netherlands Embassy provide the study teams with information concerning the Dutch sector policy, participate in the identification of fundable projects.

5.3 Steps in the process

It is recommended that DGIS suggest to World Bank that the present schedule for the preparation of projects be adapted when necessary to the needs of specific donors. In doing so, it might be suggested to distinguish the following steps in the process of strategic planning, project preparation and implementation:

I. Until July 1989

- a. Agreement on objectives and priorities in the provinces with provincial authorities and donors;
- b. Identification of projects;
- c. Preliminary commitment of Federal Government / endorsement of draft plans;
- d. Earmarking funds for period 1990-1991 (initial phase of projects) allowing for some additional projects or activities.

II. July 1989 until November 1989

- a. Preparation of draft project documents, and project information;
- b. Identifying additional projects or project activities;
- c. Endorsement of Provincial draft plans when applicable;
- d. Defining monitoring system/coordination mechanisms;
- e. Commitment of funds for projects identified before July;
- f. Earmarking funds for additional projects or activities;
- g. Identification of financing conditions.

III. November 1989 - June 1990

- a. Project preparation and formulation;
- b. Approval of Strategic provincial plans by the authorities;
- c. Project implementation (Initial phase);
- d. Earmarking funds for period 1992-1993.

5.4 Scope of Netherlands' involvement

It is recommended that the following criteria are proposed to the World Bank in order to provide guidance by the consultants concerning the identification of projects for DGIS support.

- Support to institutions involved in the sector should build on positive experience. Positive experience may also concern projects supported by other donors, or national programmes.
- Support to project implementation should be consistent with the DGIS sector policy paper concerning water supply and sanitation.
- Projects should be properly phased. New approaches and technologies should first be tested on a pilot scale, without interference with other larger scale projects.
- The strategic provincial investment plans for Baluchistan and NWFP should provide general guidance. Project support should contribute to the success of an overall sector development process, and not be an isolated activity. In this respect, the term 'development' is preferred over 'investment'.
- Netherlands' support should contribute to the establishment of village and/or user organizations which could manage their

of village and/or user organizations which could manage their facilities, and to the development of human resource and institutional capacities at district and union council level.

- Projects should have the full support of the provincial steering committee, the districts concerned, and be politically feasible.
- Projects should be prepared in consultation with other donors in each province with due consideration for local and donor procedures.
- Projects should not suffer from delays and inefficiency caused by cumbersome procedures once the project is approved. This criterion refers to the need to improve the PC 1 procedure.

ANNEX 1

Terms of Reference

for

Dutch participant in the

Review Mission

(Prepared by DGIS)

WB/Pakistan - Terms of Reference for appraisal mission Rural Water Supply and Sanitation

Background

The World Bank is in agreement with Pakistan initiating a masterplan for rural water supply and sanitation in Pakistan. The reason for this is the poor rural water supply and sanitation level in Pakistan. It is estimated that out of the rural population of 70 million, only about 35% have access to safe water supplies, and 17% have any means of sanitation. Despite rapid economic growth in recent years, health indicators are poor. Life expectancy at birth is only 50 years, and infant and young child mortality rates are 160 per 1.000 live births. The largest cause of young child mortality is diarrhea/dehydration, accounting for 45% of all deaths, and associated with poor water supply and sanitation.

The Government is aware of these problems and receptive to assistance with preparation of comprehensive provincial investment programs. Such programs, in addition to providing the basis for donor participation in a watersupply and sanitation project, should also provide a basic strategic framework for the sector.

The study undertaken by the World Bank will prepare for provincial rural water supply and sanitation investment programs, designed to cover investment and institutional development needs in the sector over the FY 90-93 and FY 94-97 periods in all four provinces, in PATA (administration by NWFP), Gilgit, Azad Jammu and Kashmir. The study would also prepare a national summary plan. The CIDA provides funds for engagement of a consultancy firm who starts to work on an inception report in December 1988. To appraise this inception report the World Bank proposes the following timetable:

- 15 - 16 March Sind
- 18 - 19 March Baluchistan
- 21 - 22 March NWFP
- 25 - 26 March Punjab
- 27 - 28 March Federal Government agencies

The World Bank review team will consist of the following people:

- J. Bromhead - Missionleader (economist)
- D. Grey - Rural water sepcialist
- G. Read - Water supply engineer
- G. Walker - Health Education and Training specialist
- M. Hussain - Community Development and Women-in-Deveopment specialist

From donor side e.a. from the Netherlands interest was expressed to participate in the review mission.

Purpose of the review of the inception report

- a) To reach initial agreement between the mission, the Government and consultants on the approach to be adopted during project preparation on key issues such as: the arrangements for coordination between the major organizations involved in the sector; the approach to user (community) management/financing of schemes; the financing arrangements for standpump versus house connections; the organizational arrangements for hygiene education; what, realistically, can be done in the sanitation sector;
- b) To discuss with Government the expected sale of public investment in the sector over the coming four years;
- c) To begin to define the form that donor assistance to the sector might take such as: support to a time-slice of PHED/LGRDD investment program versus support to specific, area defined projects; the scope and scale of donor assistance (for specific geographical areas or for specific components); and

- d) To provide initial guidance to the consultants on the likely scale of project preparation, and to refine further the expected scope of project preparation.

Specific points for the Netherlands participant in the review mission

In their assistance to the World Bank mission by appraising the inception report against the backdrop of the terms of reference for the consultant, the Netherlands participants will keep in mind the principals on watersupply, sanitation, drainage and waste disposal as mentioned in the note about the Netherlands Development Policy on that subject.

Special attention will be given to following points:

- Participation of the users

The experiences taught that watersupply and sanitation activities, which were executed without organized assistance and involvement of the users community, will result in only temporarily and not optimal used provisions.

- Cost effectiveness and cost recovery

Investment in Watersupply and Sanitation sector should be cost effective. An analysis of the costs and benefits should be made in which respectively attention has to be given on financial, economical and social cost benefits.

Another point of attention is the recovery of capital, operation and maintenance cost.

- Institutional development

Decentralisation of water and sanitation organizations is preferred.

Training in maintenance of local organisations and users will be supported. Use of local products will be stimulated.

Possible cofinancing by the Netherlands

The Netherlands has expressed its interest in cofinancing in this World Bank project dependent on the outcome of an appraisal. The teammember(s) are requested to look upon the activities or clusters of activities which are situated in the NWFP and/or Baluchistan and can be executed on a parallel basis. Consultations with the Netherlands Embassy are recommended. Specific tasks are:

- to advise the Netherlands for cofinancing the project considering the development cooperation policies;
- assess the socio-economic aspects of the project activities in particular the component to be supported by the Netherlands;
- what will be the consequence for cofinancing for the Netherlands side;
- is there any possibility to involve Netherlands consultancies;
- after the mission a report on the findings of the teammember will be submitted within three weeks.

Appendices:

- Notitie Drinkwatervoorziening, Sanitaire voorzieningen, Drainage en Afvalverwijdering;
- World Bank document Rural Water, Health and Sanitation Sector Review;
- Terms of Reference for preparation of strategic provinciaal investment programmes for rural water supply;
- Initial executive project summary, March 1988;
- Letter of World Bank of January 6, 1989.

ANNEX 2

Memo to Netherlands Embassy, concerning
results of the review mission

p.op

To : Netherlands Embassy

From: Teun Bastemeyer

Concerning: Strategic provincial investment plans and project
preparation for rwa water supply sanitation and health.

Date: 29 March 1989

This memo provides a short overview of the main subjects discussed and summarizes the outcome of the mission. A more detailed report will be submitted through the Pakistan desk of DGIS.

- The mission team reviewed the inception reports prepared by the consultant teams in each province. These teams were composed of expatriate and local staff of Wardrop/Acres/Cowater International/Nespak.

- The reports were found to be of good quality. They provided an overview of collected data and sector constraints. Detailed comments are formulated in Aide Memoires, which will be attached to the above report. Copies were already provided to the embassy.

- The approach followed and discussions had within the world bank team have highlighted the need for a balance between the actual investments in water supply and sanitation schemes, and the so-called software activities. There is much concern for recurrent cost implications and institutional capacities at provincial and district levels. Project will be prepared with full consideration for the present capacities. Thus, phasing will be an important aspect of the plans.

- Priority for community participation is well reflected in the composition of the consultant's study teams. The chapters concerning the social aspects, like role of women, are often among the best parts of the reports, in particular in Baluchistan and as far as description is concerned also in NWFP.

- The issue of cost recovery is seen as crucial, and has been extensively discussed with the authorities. The feasibility of the projects will to a large extent depend on a clarification of possible mechanisms, and an analysis of what is meant by cost recovery in the various provinces, districts and union councils. Options to be developed should in all cases emphasize community financing taking into account technology choice, service level, operation and maintenance system, and willingness to pay.

- The inception report for NWFP as well as the presentation by the teamleader lacked clarity to the extent that no conclusions

could be drawn concerning the soundness of the work done so far. Consequently it proved difficult to explore possible Netherlands involvement. This problem was also encountered by the other members of the mission. The discussion with the authorities in NWFP were extremely fruitful, but results are not in line with the consultant's report. It was agreed that the consultants will prepare a supplement to the present report to solve this problem. Assuming that the study team will be strengthened to avoid future set-backs, it may be tentatively concluded that there are good opportunities to collaborate with the authorities of NWFP in establishing priorities and formulating feasible projects, preferably in good collaboration with GTZ and CIDA.

- There seems to be no scope for involvement of the PATA project in rural drinking water and sanitation activities as to be defined in the framework of the strategic and coordinated approach which will be outlined in the strategic provincial investment/development plans. If such activities seem to be the natural consequence of irrigation water supply, it should be realized that the sustainability of the systems is a key criterion. It was discussed and agreed with Mr. Heynen that ad-hoc activities in this field have to be seen strictly within the objectives of the PATA project, and will not be pursued.

- In Baluchistan there are positive opportunities for Netherlands to contribute to sector development activities. Considering present constraints, emphasis should be on institutional development, training and information, community participation, hygiene education for women, and development of viable implementation and O&M models.

- In this province there are good opportunities for intensified contacts and joint project preparation, because of the presence of BKH/Haskoning consultants and the involvement of IHS as well as COWATER.

- Activities in Baluchistan could concern the development of local training and information capacities through a support project at the Rural development academy, for instance under guidance of IRC in collaboration with IHS for urban water supply and sanitation.

A pilot or demonstration project could be prepared building upon experience in Quetta with emphasis on a community based approach for the management of sub systems. Such project could concern semi-urban and semi-rural settlements in selected districts. Rural water supply, sanitation and hygiene education activities could concern selected districts, and build upon the approach of the German-Pak community development project. Strengthening of credit mechanisms for village water supply and sanitation improvements and rehabilitation could be considered.

- In Punjab province there might be opportunity for a twinning or linking relation with a district water institution, involving Netherlands water enterprises.

- At the national level and in all provinces there is a great need for information and training support. This aspect has not yet been sufficiently treated by the consultants.

- Environmental considerations and the impact of water supply and sanitation systems need more attention. Provision of large quantities of untreated water without proper drainage and individual sanitation facilities may well have adverse effects for mpublic health.

- The level of functioning of systems is not known. Thus, it is not possible in this stage to strike a balance between additional coverage to serve poor population groups and small settlements, and rehabilitation, and Operation and Maintenance.

- Discussions between the mission team (world bank, CIDA, IRC) and the Netherlands embassy highlighted the importance of coordination between donors in a participatory process allowing for all involved parties to take decisions when appropriate. Close contacts between the study teams and the relevant embassies will be important.

- Projects will be funded seperately by individual donors where possible so as to mavoid unnecessary administrative complications.

- It was agreed that the Netherlands Aid agency would require ample timne to study the draft plan and indentified projects. Thus, a flexible planning would be important. On the other hand the presence of the full team of consultants would be possible only until November 1989. This will need to be looked into by the consultants themselves. It will be important to find a solution to ensure continuity of the planning process. The role of the World Bank resident water supply and sanitation specialist could prove useful in this respect.

- It was agreed that the process should allow individual donors to prepare projects according to their needs and procedures. In tjis, good use should be made of the study teams.

- Mr. Teunissen confirmed that the Netherlands will participate in the mission from 10 to 30 July.

- It was suggested that Mr. Pompe of BKH/Haskoning would possibly be in a position to contribute to the preparation of a feasible project for water supply and sanitation in 16 townships in Baluchistan. This could be complkemnentary to the present planning exercise, because there is no physical diffirence between town ships and largewr rural settlements.

- It is expected that the Netherlands will earmark certain fundsa for specific projects in July. Final and additional commitments could follow later after endorsement of the plans and project criteria by the national and provincial governments. In this respect it was noted that committment to the process was most important. Suitable mechanisms for transdfer of funds would be

required in view of the delays caused by the so-called PCI procedure.

- It would be essential that the consultants in the study teams receive clear instructions as to what they should prepare after the mission in July. In this respect, it would be essential that the relevant written information is received well before the mission, and that the TOR and expected outcome of the mission will be mutually agreed upon.

- Sound preparation and organization of the next mission would greatly contribute to positive donor coordination efforts and project preparation in the period thereafter. In this respect the respective roles of the world bank, the ADB and the bilateral; donors would have to be sufficiently defined before the mission.

ANNEX 3

Terms of Reference

Review Mission

(Prepared by World Bank)

THE WORLD BANK/INTERNATIONAL FINANCE CORPORATION
OFFICE MEMORANDUM

DATE : February 15, 1989

TO : Messrs./Mesdames Bromhead, Read, Grey, Pollard, Walker (IDA)
Hussain (CON, IDA), Kirch (CIDA), Van Schaik and Bastemeijer
(Dutch Aid), GTZ and ADB Representatives

FROM : *M. Cohen*
M. Cohen, Acting Director, EMI

EXT. : 32292

SUBJECT: Terms of Reference: PAKISTAN
Rural Water Supply and Sanitation (RWSS)
Preparation Mission

1. You will visit Pakistan between 14th and 29th March approximately. You will travel to all provinces and to Islamabad, following the schedule outlined in Attachment 1. The purpose of the mission will be to discuss with the CIDA-financed Bank-executed Consultants and the Government the Inception Reports regarding preparation of provincial RWSS strategic investment plans/project preparation. Specifically you will (a) agree on the approach to be adopted on major sector issues (e.g. operations and maintenance, cost recovery, organizational arrangements for hygiene education, appropriate form of assistance for sanitation provision, approach to community financing of schemes, etc.); (b) discuss progress of the investment planning exercise, and agree on the broad form that the project preparation exercise will take; and (c) discuss the form and scope of possible financing by the different donor agencies. Individual terms-of-reference follow:

2. Mrs. M. Bromhead: will lead the mission. She will coordinate the work of the other mission members, and lead discussions with the Government and other donor agencies. She will have prime responsibility, with assistance from the other mission members, for defining proposed project scope. She will review the consultants' investment plan proposals, their rationale, relationship with the Government's 7th Plan proposals, and consistency with macro-economic constraints. She will review the status of proposals regarding scheme financial management, with Mrs. Hussain. She will also have prime responsibility for donor coordination.

3. Mr. G. Read: will participate in Sind and Baluchistan. During this time, he will have prime responsibility with Mr. Pollard for reviewing the overall approach of the consultants to the work underway, and identifying and resolving problems regarding progress of the work. He will also assess the relationship and responsibility between PHED and LGRDD regarding execution and O & M of water and sanitation schemes, and between these organizations and the Departments of Health and Education regarding hygiene education, working with Mrs. Hussain. With Mr. Kirch, he will review the technical approach to be adopted to piped schemes, appropriate

standards of provision (litres/capita/day), planning arrangements for household connections and relationship between these standards and provision for sanitation and drainage.

4. Mr. D. Grey: will have prime responsibility for reviewing proposals for user-managed water supplies, paying particular attention to technology options, costs and institutional arrangements (with special emphasis on O & M and cost recovery), the latter with Ms. Hussain. In addition, Mr. Grey will have prime responsibility for the water resource work, and the approach adopted in relating the technology proposed to the water resource. He will, with Mr. Kirch, review the technologies proposed using groundwater sources. He will be the prime contact with UNICEF. He will also be responsible for the organizational arrangements regarding the establishment of Mr. Pollard in Pakistan.

5. Mr. Pollard: will establish contact and relationships with concerned government officials and the consultants. After the departure of Mr. Read, he will review the consultants' work and solve problems (Mr. Grey and Mrs. Bromhead will assist him in this as necessary). With Mr. Bestemeijer, he will review the technical and institutional proposals regarding sanitation and drainage. He will with Mrs. Hussain, review the proposed organizational arrangements regarding sanitation investments and community financing and management of schemes.

6. Mr. Kirch: will have prime responsibility after the departure of Mr. Read for review of the technical approach to be adopted in piped schemes, appropriate standards of provision (litres/capita/day), planning arrangements for household connections and relationship between standards and provision for sanitation and drainage. He will also with Mr. Grey review technology proposals for using groundwater sources. He will assess cost assumptions. He will have prime responsibility for the review of work undertaken to date on the private sector and proposals for assistance to it. (This will be primarily in the Punjab.) He will liaise closely with Messrs. Walker and Hussain on the progress of proposals regarding training and hygiene education. As the CIDA representative, he will identify content and geographical coverage of possible CIDA assistance to investment financing. He will introduce Mr. Thuruchuttamtalam (CIDA) to main study issues, in Lahore and Islamabad.

7. Mr. Walker: will have primary responsibility for the hygiene education, and, with Mr. Bastemeijer, for the broader training and institutional development components. He will review the proposed organizational arrangements for hygiene education, their feasibility given staffing, cultural and budgetary constraints, and their relationship to the proposals regarding sanitation. In these areas, he will work closely with Mrs. Hussain. His review of training will cover proposed financial, management, community and technical as well as health training. His review of hygiene education proposals will be within the context of broader programs ongoing in the health sector.

8. Mrs. Hussain: will have primary responsibility for those aspects of the review related to community development and the participation of women. She will and recommend on the proposals regarding community participation in scheme planning, construction, management and financing, and scheme responsiveness to cultural and economic circumstances. She will review the approach to cost recovery and O & M from the financial as well

as community aspect. She will review the relevance of the proposals regarding sanitation and hygiene education as to women's needs, working closely with Mr. Grey and Mr. Bastemeijer in this area.

9. Mr. Bastemeijer: will work closely with Mr. Walker in Baluchistan and NWFP on the training and institutional development components for water and sanitation. With Mr. Pollard, he will review the technical and organizational proposals for sanitation and drainage. With Mr. Van Schaik, he will identify the scope of possible financial assistance of the Dutch Government to the sector.

10. Mr. Van Schaik: will work closely with Mr. Grey and Mr. Kirch on the technical feasibility of the proposed approach to piped and point source water supplies. He will review organizational arrangements for links between PHED, LGRDD and the departments of health and education in the Baluchistan and NWFP in the light of the BIAD experience. With Mr. Bastemeijer, he will identify the scope of Dutch government financial assistance to the sector.

11. Specific TOR's for the GTZ and ADB representatives have not been prepared, since the individuals have not been identified. It is intended that they will work closely with the mission, and identify possible areas for financial assistance in investments to the sector by the German Government and ADB. Terry Hall from the resident mission in Bangladesh will join the mission in Sind and Baluchistan under separate terms-of-reference, and will be responsible for reviewing the financial analytical work for completeness, adequacy and consistency between provinces.

12. All mission members will work closely together and with GOP officials and the consultants. Tasks may be adjusted by Mrs. Bromhead during the mission if appropriate. At the end of each provincial visit, an aide memoire will be prepared summarizing the mission's main conclusions, to be left with the Planning and Development, PHED and provincial consultants' team. A final aide memoire including the provincial aide memoires, will be presented to the EAD at the end of the mission. On the return of the mission to headquarters a Back-to-Office Report and follow-up letters to the Government and the consultants will be prepared. A schedule of work during the mission is enclosed in Attachment 1.

13. You will undertake the local travel necessary to complete the above, and keep RMP advised of your movements at all times briefing them before your departure.

Cleared with and cc A. Duncan

cc: Messrs./Mmes. Arlosoroff (INUWU), Cuca (EM1PH), Morin (CIDA), Chartrand-Tresch (CIDA), Kresse (GTZ), Muller (ADB), Jones-Bos (Netherlands Embassy), Abe o/r (EM1IN), Köpp o/r, Krishna o/r (EM1DR)

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Attachment 1

Time Schedule for Mission Participant

Key: Bromhead (Bro); Grey (Gre); Read (Rea); Pollard (Pol); Walker (Wal)
Hussain (Hus); Kirch (Kir); Thuruchuttamtalan (Thu); Van Schaik (Vsc);
Bastemeijer (Bas); GTZ (GTZ); ADB (ADB)

- 13th March - Arrive Karachi
- 14th March - Review consultants documents: Bro, Gre, Rea, Pol; Wal, Hus, Kir
- Travel to Hyderabad: Bro, Gre, Rea, Pol, Wal, Hus, Kir, ADB
- 15th-16th March - Field trips in Sind: Rea, Hus, Kir, ADB
- Meetings in Sind: Gre, Pol, Bro, Wal
- 17th March - Travel to Quetta, Flt. 324: Bro, Gre, Rea, Pol, Wal, Hus, Kir, Vsc, Bas, ADB
- 17th-19th March - Field trips in Baluchistan: Gre, Wal, Bas, Pol, ADB
- Meetings in Baluchistan: Rea, Bro, Hus, Vsc, Kir
- 20th March - Travel to Peshawar Flt. 683: Bro, Gre, Pol, Wal, Hus, Kir, Bsc, Bas, GTZ, ADB
- 21st-22nd March - Meetings in Peshawar: Gre, Wal, ADB, Bas, GTZ
- Field trips in NWFP: Bro, Pol, Hus, Kir, Vsc
- 23rd March - Own arrangements for travelling to Lahore
- 24th March - Review consultants' reports/assess progress to date: Bro, Gre, Pol, Wal, Hus, Kir, Thu, ADB
- 25th-26th March - Meetings in Lahore: Bro, Pol, Kir, Hus
- Field trips in Punjab: Gre, Wal, Thu, ADB
- 26th March - Travel to Islamabad by Flt. 382 leaving Lahore 6:50 p.m.
- 27th-28th March - Wrap-up meetings in Islamabad with Federal Government, EAD and consultants.

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ANNEX 4

Pakistan

Rural Water, Health and Sanitation Sector Review

(Executive Summary)

Report No. 7060-PAK

Pakistan Rural Water, Health and Sanitation Sector Review

June 27, 1988

Country Department I
Europe, Middle East and North Africa Regional Office

Document of the World Bank

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

EXECUTIVE SUMMARY

A. BACKGROUND

i. The Government of Pakistan (GOP) has recently embarked on an ambitious program to improve rural infrastructure, including rural water supply and sanitation. During the 1986-90 period Rs. 8.1 billion have been allocated to rural water, compared with only Rs. 2.6 billion in the 1983-88 period. Government's aim is to improve the living standards and health conditions of the 65 million people who live in Pakistan's rural areas, and to provide a more equitable distribution of basic infrastructure. Government has also expressed interest in obtaining assistance from the donor community to finance this program.

ii. The purpose of this report, carried out jointly by the World Bank and the Canadian International Development Agency (CIDA) as their first involvement in the sector, is to: (a) present an initial review of the Rural Water Supply, Health and Sanitation Sector and Government's policy framework for its development; (b) identify areas where new approaches could improve the effectiveness of on-going programs; and (c) identify the scope for financial assistance by the donor community.

B. PRESENT SERVICE COVERAGE

iii. Rural water and sanitation provision is inadequate in Pakistan, and this is reflected in poor basic health indicators. It is estimated that at present only about 35% of the rural population have access to adequate water supplies, and only 18% have any means of sanitation, or hygienic excreta disposal (see table below).

Rural Water and Sanitation Coverage in Pakistan - 1986

<u>Province</u>	<u>Rural Population (m)</u>	<u>W A T E R</u>			<u>S A N I T A T I O N</u>		
		<u>Piped (%)</u>	<u>Hand-Pumps (%)</u>	<u>Coverage (%)</u>	<u>Latrine in Dwelling area (%)</u>	<u>Facilities Outside Dwelling Area (%)</u>	<u>Coverage (%)</u>
Baluchistan	4.1	19	-	19	21	14	35
NWFP ^{1/}	10.5	45	2	47	31	12	33
Punjab	38.2	12	27	39	4	2	6
Sind	<u>12.1</u>	<u>3</u>	<u>13</u>	<u>16</u>	<u>19</u>	<u>22</u>	<u>39</u>
National	64.9	16	19	35	11	7	18

^{1/} North West Frontier Province. The F.A.T.A., Northern Territories, Azad Jammu and Kashmir are not covered in this report; they would however, be included in any further sector or preparation work carried out with the participation of the Bank.

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iv. Piped water supplies suffer from poor maintenance, frequent cuts in supply, and reduced pressure, permitting seepage of polluted groundwater into the piped systems. It is estimated that a substantial proportion of water in handpump systems is polluted because of inappropriate design and poor maintenance. Thus even where the rural population have reasonable access to water supply, the water quality or level of service may be poor. Hygienic excreta disposal is not generally perceived as a priority by the rural population, and even schools and health centers are frequently constructed without latrines.

v. Despite recent health improvement, infant and young child mortality rates are still high at 160 per 1000. The largest single cause of death among young children is diarrhea dehydration, estimated to account for 45% of all child deaths. These deaths could be substantially reduced by improved water supply and sanitation with associated appropriate hygienic practices.

C. INSTITUTIONAL RESPONSIBILITIES

vi. Rural water supply and sanitation is primarily a provincial rather than a federal responsibility, although programs are federally funded. Execution of projects rests primarily with the provincial Public Health Engineering Departments (PHED), and secondarily with the Local Government and Rural Development Departments (LGRDD). The private sector, consisting of small contractors and manufacturers also play a major role, installing most handpump systems, especially in the Punjab.

vii. PHED is primarily an engineering organization with strong technical expertise, but limited community development skills. Its main experience is with installation of piped systems. It is not in principle responsible for system maintenance, or for revenue collection. However, it is frequently called in to carry out both operations, because LGRDD does not have the means to undertake these tasks. The lack of community focus in PHED programs leads in some cases to technology choice inappropriate to community needs.

viii. LGRDD undertakes rural infrastructure works, including some water supply schemes in the smaller settlements, and has better community development focus. However, it lacks technical strength in water supply systems. Furthermore, its community links are primarily with Union Councils, the lowest formal level of Government. Their member councillors represent on average some 1,000 electors and the Union Councils 20,000 electors. This may comprise several villages in the Sind or NWFP. Some rural development projects have, however, successfully used informal village organizations with Union Councillors as members, and these may be the structures most likely to ensure community commitment to rural water supply schemes.

ix. Handpumps account for over half of rural water provision; their installation and maintenance is undertaken mainly by the private sector. Locally-produced pumps are of cheap and simple design, but lack durability.

There is scope for improvement in technology. Construction materials and equipment are also locally manufactured, and capacity appears adequate. There is great potential for expanding further the activities of the private sector, especially in the sweetwater zones, where over 50% of the rural population is located.

x. Increasing resources are being invested in rural water supply. Yet staff and resources are limited in both PHED's and LGRDD's. Ambitious recruitment programs have had to be scaled down because of difficulties in absorbing and supervising new staff. Limited human resource capacity may impede realization of Government targets. A substantial training program is required, including training of new recruits, in-service training, and training in working with village organizations to promote community scheme planning and management.

xi. There is scope for the skills of LGRDD and PHED to complement each other, and coordination between the two organizations could be improved. Furthermore, other rural sector organizations are not active in rural water and hygiene. Hygiene education does not form a significant part of primary health care, and does not form part of the school curriculum. Primary schools are frequently built without water or latrines. The Water and Power Development Authority (WAPDA), though technically competent and with very substantial resources at its disposal, does not provide relevant water resource data and expertise to PHED.

Financial Management

xii. Capital expenditures together with the first two years of operations and maintenance (O & M) expenditure, are financed through the Annual Development Program (ADP) budgets to the PHED's. Union Councils are in principle responsible for revenue collection and scheme operation. Government policy is to fix revenues at a level sufficient to cover O & M costs. Union Councils, however, frequently do not have sufficient administrative staff, financial systems or community links to carry out this task. Revenue collection is poor, at 50% or less in all provinces.

xiii. The report estimates current O & M requirements at Rs. 215 million per year (based on 4% of investment to date), compared with current O & M allocations of Rs. 70 million. The deficit is met at present by reducing O & M activities and redirecting the ADP from new project allocations. It is estimated that if PHED schemes are implemented as planned under the 1986-90 Investment Program, O & M requirements would be Rs. 600 million by 1992-93.

xiv. The rapid expansion of programs in the water sector has strained PHED management. Investment policy to date has been to concentrate on installation of new systems and on achieving quantitative targets to improve service coverage. There has been little emphasis on rehabilitation and improved maintenance of existing schemes, or on involving communities in planning and financing of new schemes. The program's rapid expansion over the past two years has, furthermore, led to unit cost escalation by straining management capacity to supervise work and minimize costs.

D. CURRENT SECTOR PROGRAMS

xv. GOP has increased the priority attached to rural water and sanitation. Its share in total public investment has increased from 0.9% in the 6th Five Year Plan (1983-88) to 3.3% in FY88. GOP aims to provide 26 million people with water and 7 million with sanitation over the period FY87-FY90, a target twice as ambitious as the 1983-88 period. There are also ambitious programs in rural electrification, education, shelter, roads, health, reduction in water-logging and rural employment promotion.

xvi. GOP's fiscal situation has deteriorated sharply during the last two years, part of a broader problem of a poor tax base, and this is affecting program implementation. The 1987-88 ADP has been scaled back by about 10%, and recurrent expenditure also reduced. This reduces further the scope for Government O & M of water supply (without community participation), and reduces the effectiveness of investments; in the same way, inadequate allocations for teaching materials and school books have reduced the effectiveness of programs to expand rural education. It is unlikely that either the human or the financial resources are adequate to implement the targeted programs; furthermore without improved O & M of schemes, many will not provide an adequate service.

xvii. The identification of projects is frequently at the initiative of the LGRDD or PHED, based on a perception of needs. Some projects are also identified by members of the National Assembly (MNA). Smaller projects are approved at Department level, projects under Rs. 30 million at Provincial and larger projects at Federal level. For these projects officials, feasibility documents (PCI's) are prepared. The approval process can be slow, leading to cost escalation, under-budgeting and implementation delays. In addition, the provision of O & M funding for only the first two years of the scheme's life may jeopardize its long-term viability, without alternative provision for coverage of O & M costs.

xviii. Projects tend to be evaluated in isolation of one another. Emphasis is on the capital costs of the individual project, rather than on the human resource capacity to implement an entire program, relative investment priorities, or project benefits. There is a need to prepare broad sector investment programs, and to evaluate individual projects within the context of these.

xix. Given the macro-economic constraints facing government, the targets of the 1986-90 period are probably over-ambitious; however, the probability of achieving these could be improved by revising the investment strategy. The report presents a revised estimate for investment over the period FY88 through FY93, which would require a strategy of increased community participation, a gradual increase in focus on sanitation, improvements in system rehabilitation and O&M, and promotion of increased participation by the private sector. Capital expenditure and service coverage targets would be scaled back by 20-25% up to 1990, but increased after then. By 1993, up to 80% of the target population could have reliable water, and 32% sanitation, at lower cost to Government than the current investment proposals.

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xxx. Even these objectives, however, will be difficult to achieve, and their attainment will depend on: (a) rationalization of institutional responsibilities especially between PHED's and LGRDD's; (b) effective use and strengthening of institutional resources; (c) community involvement in all stages of planning and execution; and (d) establishment of community-based operation and maintenance systems.

E. IMPLEMENTATION STRATEGIES

Community Involvement in System Management and Financing

xxxi. PHED has in the past installed mostly piped water systems, with little or no community participation in scheme design. With many schemes operating for only a few hours a day, unreliable service, and poor revenue collection, taps are frequently left on and there is considerable waste. With poor recovery of costs, revenues are frequently insufficient to cover O & M costs, and systems deteriorate. On the other hand, experience with individual projects has shown that community involvement in system design, management and finance, leads to implementation of programs and systems which are appropriate to requirements, and are likely to be well-operated and maintained.

xxii. Women are generally responsible for the collection of water, and have most to gain from appropriate systems. Use of clean water by women, combined with sanitation and appropriate hygienic practices, can effectively reduce incidence of disease. There is scope for very substantially increasing community participation in scheme design and management. There would also be the added benefit of reducing the overall cost to federal and provincial government of service provision, thereby releasing government resources from O & M, and making funds available for investing in rehabilitation and new systems for villages currently without public supplies.

Private Sector

xxiii. The private sector has to date installed handpumps and tubewells with little government support. The rapid spread of rural electrification has increased the scope for private tubewell installation, even in remote areas. Support, through: (a) assistance with technology development, system and tubewell designs, and (b) consumer, contractor or supplier credit facilities, would enable the private sector to develop further its activities and increase service coverage at little cost to Government. Support to the private sector may be the most cost-effective way of improving service provision in many of the sweetwater areas.

Sanitation

xxiv. Latrines are generally installed by householders, but 82% of the population are without any sanitation facilities. Rural sanitation is not generally perceived as a felt need; however, surveys have shown that the

demand for latrines exists or can be stimulated where there is real potential for acquiring affordable, acceptable latrines. A further problem is that sanitation is frequently interpreted by the PHED's as drainage, the need for which is frequently caused by excessive use and wastage of water. The open drains of rectangular cross-section commonly constructed by PHED are high cost, and used for direct defecation and garbage disposal, becoming blocked and unhygienic. Alternative technologies should be adopted according to need, and far more attention given to provision of basic on-site sanitation and hygiene education.

F. RECOMMENDATIONS

xxv. The report makes a number of proposals to improve the effectiveness of the sector. It is recommended that:

- (a) Links between the PHED and LGRDDs be strengthened, to improve the community focus of the PHED schemes, and the engineering standards of the LGRDD schemes;
- (b) At Federal level, a small sector support cell be established to provide for a sharing of provincial experiences, and to coordinate investment programs and training;
- (c) Integrated provincial sector investment programs be prepared which: (i) lay down clear investment criteria; (ii) incorporate water, sanitation, drainage, hygiene education, human resource development needs, community involvement, alternative technologies, O & M and cost recovery provisions into programs;
- (d) Future investment programs have an increased focus on sanitation;
- (e) Consideration be given to government resources being allocated to finance a defined minimum level of water supply service coverage on an equitable basis. Beneficiaries should pay for the full O & M costs of basic services, and the capital and O & M costs of service levels above the defined minimum; this recommendation will take time to implement fully;
- (f) Consideration be given to the appropriate level of government finance for meeting basic needs in sanitation and drainage, as part of integrated development programs;
- (g) Links between the provincial PHEDs, LGRDs and departments of Health and Education be substantially strengthened, enabling their effective participation in water, sanitation and hygiene education programs, through mobilizing teachers, traditional attendants (TBA's), and other local level skills;

- (h) Support be given to the private sector to increase effectiveness of small tubewell supplies through credit facilities and demonstration of improved tubewell, pump and drilling technologies. There should also be support to rehabilitation of existing systems, including handpumps and tubewells, and to private investments in sanitation;
- (i) Community resources be fully utilized, through formation or strengthening of village organization, participation of women, and implementation of self-help schemes;
- (j) the considerable technical expertise and resources of WAPDA should be drawn on to assist PHEDs and LGRDDs in water resources assessment. In particular, WAPDA's water resource monitoring program should include assessment of potable water quality criteria.

xxvi. These recommendations were discussed and developed at a workshop and policy conference held for practitioners in the rural water sector in Islamabad in April 1988. The workshop also included a review of 6 projects in Pakistan in which new approaches to water and sanitation were tested.

G. AGENDA FOR ACTION

xxvii. Quantitative investment plans have been prepared for the Punjab, Sind and NWFP. However, they need to incorporate complementary plans for the smaller communities, sanitation, and improvements in hygiene. Plans are also needed on human resources and institutional development, hygiene education, and financing of O & M.

xxviii. Preparation of Strategic Provincial Sector Investment Programs is recommended. These would incorporate policies and strategies into investment plans for the four provinces. They would include project preparation activities which would define specific projects and programs, their funding requirements and sources of funds. The investment plans would be prepared by the provincial governments with assistance from local and foreign consultants and would form the basis of large-scale assistance programs, financed where appropriate together with bilateral and multilateral donors. If well-designed these programs would permit greater numbers of rural people to be reached at lower capital cost, and put in place the means of community management and financing of schemes, reducing the cost burden on government. The CIDA is considering financing the preparation of these provincial programs by consultants.

xxix. The second phase would comprise the Sector Investment Program implementation, which would consist of six components summarized below:

- (a) major investments in rural water supply, sanitation and drainage construction.
- (b) human resources development within provincial departments (PHEDs, LGRDDs, and Health and Education Departments), the private sector and at the community level;

- (c) demonstration projects to develop community-financed water supply and sanitation systems;
- (d) private sector development through credit facilities, training, technology upgrading and promotional campaigns;
- (e) sector coordination at provincial and federal level;
- (f) water resource planning and development in the arid zones of Sind Province (preparatory work for this activity is planned under an Asian Development Bank (ADB) financed technical assistance project).

xxx. The effective implementation of environmentally responsive community-based rural water supply and sanitation programs would contribute to the economic development of Pakistan, while meeting the basic needs of the less privileged in rural areas, and in particularly improving the quality of life of rural women and children.

ANNEX 5

Key Issues

addressed in

National Workshop and Policy Conference

on

Rural Water Supply and Sanitation

10 KEY ISSUES

The Rural Water and Sanitation Sector Review of Pakistan, along with the National Workshop on Case Studies in the sector and the Policy Conference, have led to the clear identification of ten key sets of issues for development of the sector. This chapter raises these issues.

KEY ISSUES

- (i) What factors should determine the priority and allocation of resources for the development of the rural water and sanitation sector ?
- (ii) What should be the service-level targets in the medium and long term and what, consequently, should be the sector's share of GDP and public sector plan allocations ?
- (iii) What should be the share of international funding versus domestic resources in the development of the sector ? How important are the different costs/terms of financing and conditions associated with greater resort to external sources ?
- (iv) What share of the total domestic resources required for the sector should be mobilised by different levels of government, viz., federal, provincial, local, and by the beneficiaries ?
- (v) To what extent should soft terms on international loans be passed on to final beneficiaries ?

INTEGRATED APPROACH TO DEVELOPMENT

- (i) What are the key intra-sectoral (water, sanitation, drainage and hygiene education) relationships which have to be promoted so as to maximise the benefits from investments in the sector ?
- (ii) How can the integration of different components be achieved in the best manner institutionally ?
- (iii) How can households and communities be induced to contribute their own resources towards the provision of sanitation and drainage ?
- (iv) What mechanisms can be used to create a general health awareness and to promote hygiene education ?
- (v) How can hygiene education best be delivered within available institutions in the Government, NGOs and communities, given that any such input has to be provided at the community level on a continuing long-term basis ?

- (i) What should be the overall institutional mix and allocation of responsibilities for development of the sector ?
- (ii) What should be the respective roles of the PHED and the LGRDD ?
- (iii) How can adequate software expertise in sociology, community development, economics, and finance be introduced into existing institutions which have primarily an engineering orientation ?
- (iv) What should be the nature of village-level organisations (individual or clusters of villages, elected/nominated, multi-purpose/single project, permanent/temporary) to ensure effective user participation in the process of identification, execution and management of projects in the sector ?
- (v) What type of human resource development activities need to be undertaken for institutional strengthening in the sector ?

CHOICE OF TECHNOLOGY

- (i) What constitutes 'basic' service level in the sector ?
- (ii) How can the technology be made upgradable and adaptable to changing conditions ?
- (iii) What types of technology are likely to be readily acceptable to users/beneficiaries ?
- (iv) What should be the trade-off between, on the one hand, high capital cost/low O & M cost technology and, on the other hand, low capital cost/high O & M cost technology ?
- (v) How can the labour needs of the chosen technology be enhanced to reflect local manpower resources and enable greater community participation ?

5**SUSTAINABILITY OF INVESTMENTS**

- (i) What implications do different technologies have on the rate of depletion of different natural resources in the environment, e.g., on the depletion or pollution of groundwater?
- (ii) What types of institutional arrangements need to be made at the local level to ensure proper operation and maintenance?
- (iii) How can adequate emphasis be placed on using existing infrastructure properly as opposed to expanding capacity, especially through donor agency funds?

6**COST RECOVERY**

- (i) What should be the extent of capital and O & M cost recovery in the sector?
- (ii) What is the best method of financing (tariffs versus taxes, regular collections vs collections in response to need)?
- (iii) To what extent should financing be decentralised, or community-based?
- (iv) How can the process of cost recovery be effectively integrated within the existing institutional/community structure?

7**ROLE OF THE PRIVATE SECTOR**

- (i) Given that the private sector is a major but often uncoordinated and informal resource for the sector, how can its efficiency be enhanced?
- (ii) Which sub-sectoral and geographical areas have the greatest potential for an enhanced private sector?
- (iii) What support systems (credit, technology development and standardization, marketing, skill development, etc.) need to be instituted to fulfil the private sector's potential?
- (iv) How far can the Government rely on the private sector to achieve the stated objectives? What contribution can the private sector make in reducing the financial burden on the public sector for developing the sector?

8**ROLE OF WOMEN**

- (i) What needs to be done to bring about a greater recognition that the primary beneficiaries in the sector are women and children?
- (ii) How can the role of women as key participants in project development and implementation be enhanced without conflicting with social and cultural attitudes?
- (iii) What are the training and other inputs required to increase the supply of women as managers and professionals in the sector?

9**DELIVERY MECHANISMS**

- (i) How can effective delivery methods, proven to be efficient in similar socio-economic and institutional settings, be replicated on a significant scale within the existing Government and institutional framework?
- (ii) How can the community be made an active and respected partner in project development and execution?
- (iii) How can community confidence, capacity and managerial strengths be built up?

10**INVESTMENT PLANNING, PROJECT PREPARATION**

- (i) What type of planning for the sector should be undertaken at different levels of government - federal, provincial, local?
- (ii) What should be the planning goals and targets? For example, is the target of full water supply and health coverage and 50 percent sanitation (hygienic disposal of human waste) for the rural population attainable by the year 2000?
- (iii) How can technologies and delivery methods be standardised for different parts of the country?
- (iv) What should be the institutional process for project preparation and appraisal so as to minimise delays and depoliticise, to whatever extent possible, the selection criteria?
- (v) How can plans prepared for the sector be best put into operation to meet targets?

NATIONAL POLICY CONFERENCE ON RURAL WATER SUPPLY AND SANITATION Islamabad April 13-14, 1988

Early in April 1988 provincial and federal officials met to consider the review of case studies and the private sector at a workshop in Islamabad. In mid-April they met at a conference to define sector policy which incorporated the key lessons from the case studies.

This section details their conclusions in the form of a policy declaration and more detailed recommendations.

DECLARATION

NATIONAL POLICY CONFERENCE ON RURAL WATER
SUPPLY AND SANITATION

Islamabad

April 13-14, 1988

Government objectives

1. The Conference strongly endorses the objectives of the Five-Point Programme, which seeks substantially to increase coverage of water supply and sanitation to the rural population of the country. The Conference recommends an extension of this sound socio-economic commitment, to achieve full water supply and 50 percent sanitation (hygienic disposal of human waste) coverage to the rural population by the year 2000. The Conference proposes a strategy that will ensure sustainability and assist resource mobilization through enhancing the role of the beneficiaries in planning, financing and managing their services, and that will ensure maximum benefits through the integration of water, sanitation and hygiene education.
2. The strategy includes the following points which should be incorporated into national sector investment guidelines:
 3. Community involvement, with a special focus on enhancing the role of women, is an essential component of the strategy. Beneficiaries, through constituted associations, should participate in planning, construction, management and maintenance of schemes, and should finance, in cash or kind, a part of capital costs and all of the O & M costs.
 4. The integration of water supply, sanitation and hygiene education is also an essential component of the strategy, to ensure improved health of the rural population. This will require close collaboration between sector institutions.
 5. Institutions must be strengthened and coordinated at all levels to undertake challenges of the future. Multi-disciplinary training programmes should be established. Public Health Engineering Departments (PHED) must be strengthened and their social mobilization skills reinforced. The technical skills of both the PHED and the Local Government and Rural Development Departments (LGRDD) must be strengthened. Both institutions must ensure closely coordinated operations, together with departments of Health, Education and Social Welfare. Expanded participation of non-governmental organizations (NGOs) should be encouraged and supported.
 6. The private sector plays a key role in sector development, which must be further strengthened through technology upgrading, training, marketing support and credit assistance.
 7. Technology choice will reflect the different environmental conditions, and water resources constraints across the country, but the principle that technologies should be affordable and sustained by the beneficiaries should be adopted.
 8. Service levels should reflect the expressed demand of the beneficiaries, who should receive the service level that they desire, can afford, and can sustain in the long term. In order to accelerate equitable coverage, the Government should assist in the provision of a basic level of service.

SPECIFIC RECOMMENDATIONS

A. Institutions and Linkages

9. The Conference recommends inter-sectoral co-ordination through provincial steering committees (PSC) so as to ensure co-ordination in the delivery of integrated programmes in the sector. It also recommends an inter-provincial committee (IPC) for developing common design standards and criteria, standard specifications for plant and equipment, common training programmes and the sharing of experience. The PSCs should consist of secretaries/heads of the Planning and Development, PHED, LGRDD, Social Welfare, Education and Health departments, with co-ordination by the Planning and Development Department. The major objective behind the establishment of PSCs, which may meet quarterly, is to ensure full sectoral co-ordination in the delivery of integrated programmes in the sector.

10. The IPC will comprise nominated members of the PSCs and one member each from the Planning Commission and the Federal Ministry of LGRDD. The IPC should also have representatives from the FATA, Northern Areas and Azad Jammu & Kashmir. Meetings of this committee will be held at least once a year before the formulation of the ADP. Its functions will be to evolve common design standards and criteria, suggest standardisation of equipment, share experience in methodologies and organize joint training programmes and workshops. The IPC will have a secretariat located in the Federal Ministry of LGRDD. The Secretariat should be funded and staffed by the Federal Government, keeping in view provincial representation. It should comprise not more than two or three professionals. Details of staffing should be worked out by the IPC. The secretariat will also act as a data centre, a resource group and perform programme monitoring functions.

11. A conference should be held every two years at different locations by rotation among the provinces to share experiences and should be funded by the Federal Government.

12. There should be a formal memorandum of understanding between the participants in a project, viz., the village organisation and the government or the NGO. A bank account should also be established by the former.

13. A training centre for the sector may be established, possibly at the Institute of Public Health Engineering, with a regional network which will include the social sciences and engineering depart-

ments at Karachi, Peshawar and Lahore. Training in social mobilization and low-cost technologies should be incorporated into curricula of university and technical training institute courses. Field placements should form a mandatory part of training programmes.

14. The role of NGOs in the sector should be promoted. Special encouragement must be given to NGOs which have already demonstrated the ability to develop activities in the sector in low-income areas.

15. Water, sanitation and hygiene education are necessary components of an integrated programme for achievement of maximum health benefits. In areas where water supply and sanitation schemes already exist, they should be complemented by hygiene education programmes. Where perceived need and demand for sanitation and/or hygiene education is lacking, awareness must be created by social mobilization and education. As a general principle, for new projects social mobilisation should precede all project interventions, and these interventions should follow demand as expressed in a memorandum of understanding.

16. In view of the ambitious targets for extension of coverage in the Five-Point Programme and thereafter to the year 2000, the implementation capacity of the PHED should be augmented in the short run by the involvement of consultants in the planning, design and supervision of schemes.

B. Community Roles and Responsibilities

17. To institutionalize the role of the community in the sector, two levels of organization must be established. Broad-based village water, health and sanitation associations would include representatives from most households. From this body a special committee should be drawn for the detailed implementation and management of projects either directly or in liaison with the sponsoring PHED/LGRDD departments. The village organisations should be established with the support of the Union. They should not necessarily be registered as non-governmental organisations. With the assistance of the PHED, LGRDD and other line departments, these organisations should participate in and be responsible for the planning, execution, O & M and financing mechanisms of schemes.

of the execution and management of projects prior to their commencement. Technical, organisational and financial skills are required and should be provided by expanded LGRDD Department staff trained in water and sanitation technology and social mobilization. PHED engineers should also be trained in social mobilization skills so that they may involve communities in decisions on the location, service levels, financing and operations & maintenance requirements of schemes. The LGRDD Department should co-ordinate with other line departments to provide extension services to the communities, and should draw upon line departments' resources to impart training.

19. Government staff from the PHED, LGRDD, Health and Education Departments should be trained as master trainers at the existing LGRDD Department's institutes, which need to be strengthened. This training should include social mobilization, basic water and sanitation technologies, accounting, project management, and health education. Master trainers should then be responsible for providing training and support to village organizations. Suitable arrangements for their mobility will have to be ensured. The number of trainers will depend on the resources available and the settlement pattern of the geographical areas. In addition, the private sector may be supported in its role of training local artisans. Promotional costs should not be included in costs to be recovered from beneficiaries.

20. The participation of women in the sector should be increased through their role as sanitation promoters and community health workers, wherever social and cultural conditions permit. The ultimate target for the proportion of women in these cadres should be one-half. Existing village workers; traditional birth attendants; and teachers, including religious teachers, should be provided with basic training in hygiene education. This training should be conducted by women master trainers, if possible, such as lady health visitors.

21. Implementation of schemes embodying simple technology should be handed over to communities (through appropriate village organisations), who should be responsible for project execution. Adequate technical support should, however, be provided to them. In the case of schemes involving more complex technology, an effort should be made progressively to hand over the execution function to communities once they have acquired adequate technical and managerial capabilities through training and extension services.

22. A formal mechanism between WAPDA and each provincial PHED, LGRDD and Irrigation department should be established to exchange water resource data and fill in identified data gaps.

Mechanisms will be prepared and instituted through the PSC to ensure sound water resource management.

23. In order to provide a basic level of service, low-cost technology should be used. A basic level of service is defined as a community supply located outside the household at a convenient distance (which may vary with location). Capital and recurring costs of technologies adopted should be the minimum possible costs. Appropriate low-cost technologies might be spring-based gravity schemes, handpumps, and on-site latrines, depending on site conditions.

24. In recommending the adoption of least-cost technologies, it is assumed that the upgrading or augmentation of existing supplies will be considered as a matter of course and appropriate solutions adopted. Also, technology choice should be based on the most reliable energy source.

25. All technologies adopted should be socially acceptable, economically sustainable, technically efficient and environmentally sound. That is, schemes should be designed to provide the highest level of service demanded by the community providing that it is able and willing to pay for, operate and maintain such schemes subsequently.

26. Designs should be standardised to the extent possible so as to facilitate training and maintenance and avoid high-cost, custom-made designs. It is recommended that each province prepare standard design manuals for water and sanitation which include:

- a. collection of data;
- b. design criteria;
- c. alternative standard designs; and
- d. specifications and tender documents.

27. Research and development should only be addressed to those issues actually requiring further research. A vast amount of data on low-cost appropriate technology exists worldwide and this should be gathered and disseminated through the PSCs.

28. An entrepreneur support programme to enhance the role of the private sector is recommended which would include the following:

- a. credit facilities should be provided through institutions such as the IDBP (Industrial Development Bank of Pakistan), the commercial banks, etc.;

b. designs and information should be standardized;

c. there should be training programmes for contractors; and

d. contractors should be certified for special types of contracts.

D. Operations and Maintenance and Cost Recovery

29. Users should bear part of the cost of the provision of a basic level of service. These partial contributions may be in the form of labour, materials and/or cash. This will ensure the sense of ownership essential to the operation and management of schemes. Above basic service levels, beneficiaries should bear the full cost of the incremental service. Moreover, users should bear the full cost of O & M over their schemes. These costs can be greatly reduced through user participation in scheme management.

30. For simple schemes, communities should be made responsible for operation and maintenance.

For complex schemes, in the short term, O & M should be carried out by the PHED and transferred gradually to Union Councils as their technical capacity to shoulder such responsibilities is developed.

31. The community should be responsible for the mechanism of revenue collection and management of funds.

32. In view of the increasing demand on water resources and for the disposal of water, it is recommended that each province study existing legislation to determine future requirements for better control.

33. Monitoring and evaluation of O & M should be vested in provincial departments such as the PHED and LGRDD.

34. Where a cluster of villages exists, a central committee should be formed to operate and maintain the central facilities whether they be central tubewell and pumping stations, or common stream, canal or spring intakes. Membership of the central committee should be made up of members of the downstream village organisations.

ANNEX 6

Terms of Reference

for

Preparation of Strategic Provincial Investments Programs
for Rural Water Supply and Sanitation and Health

in

Pakistan

TERMS OF REFERENCE
FOR PREPARATION OF STRATEGIC PROVINCIAL INVESTMENTS PROGRAMS
FOR RURAL WATER SUPPLY
AND SANITATION AND HEALTH IN PAKISTAN

A. Background

1. Present rural water supply and sanitation (WSS) levels are poor in Pakistan. It is estimated that out of the rural population of 70 million, only about 35% have access to safe water supplies, and 17% have any means of sanitation. Despite rapid economic growth in recent years, health indicators are poor. Life expectancy at birth is only 50 years, and infant and young child mortality rates are 160 per 1,000 live births. The largest cause of young child mortality is diarrhea/dehydration, accounting for 45% of all deaths, and associated with poor water supply and sanitation.

2. Rural WSS is the responsibility of the provincial administrations. Each province has a unique institutional environmental and cultural background. The Public Health Engineering Department (PHED) provides piped water schemes to towns and larger villages. Though competent technically, PHED is not community focused and projects may not reflect community priorities. In principle PHED is not responsible for operation and maintenance (O&M),^{1/} which is poor, but in practice it frequently carries it out. The local Government and Rural Development Department (LGRDD) has a better community focus, but lacks technical expertise. Links between the two organizations are poor, and links with other related departments such as the public and education departments, and the Water and Power Development Authority (WAPDA) are very poor. The private sector accounts for about half of all rural water supply provision, through handpumps in sweetwater areas mostly in the Punjab.^{2/} The service it provides would be improved by better handpump design, hygiene education and advice on prevention of pollution of well water, and access to credit to enable more householders to use handpumps.

3. A recent Sector Review (September 1987) conducted by CIDA and the World Bank identified many of these problems and proposed an agenda for action, including preparation of the proposed investment plans.

4. The Government has recently accorded increased priority to Rural Development. The Prime Minister's Five Point Program (5PP) aims to provide more equitable distribution of rural infrastructure. Rs.3 billion have been approved for expenditure on rural WSS over the 1986-89 period. Quantitative investment plans have been prepared by the Public Health Engineering Departments (PHED), in detail for Sind, in summary for the

^{1/} Except in NWFP, where PHED is fully responsible for O & M.

^{2/} In the arid areas of NWFP, Baluchistan and Sind groundwater conditions are unsuitable for handpumps and private sector involvement is limited.

other provinces. These plans, however, are lacking an institutional development or community participation focus. They lack an overall framework and objectives, and they are not prepared in sufficient detail to provide a vehicle for consideration by external financiers. No plans have been prepared by LGRDD. Furthermore, substantial human resources development programs will be necessary, for program management and engineering staff, for field staff at District and Union Council levels and for persons with the program communities themselves.

5. Government is aware of these problems and receptive to assistance with preparation of comprehensive provincial investment programs. Such programs, in addition to providing the basis for donor participation in WSS project, should also provide a basic strategic framework for the sector.

Government convened a study Workshop in April 1988 to review experience in community-oriented WSS projects in Pakistan and formulate recommendations for modifications to Government policies in the sector. At the subsequent Policy Conference, senior Government representatives from both Federal and Provincial agencies involved in the sector endorsed the findings and conclusions of the Workshop participants and developed a series of recommendations for policy adjustment for consideration by Government.

B. Objectives

6. The study will prepare for provincial rural water supply and sanitation investment programs, designed to cover investment and institutional development needs in the sector over the FY90-93 and FY94-97 periods in all four provinces, in FATA (Administration by NWFP) Gilgit, Azad Jammu and Kashmir. The study would also prepare a national summary plan. Specifically the study would, for each province and in the Northern areas:

- a. review past investments, public and private, in rural water supply, sanitation, drainage and related health aspects and assess their effectiveness and deficiencies;
- b. evaluate existing institutional arrangements within the rural sector;
- c. develop provincial water, sanitation and related health sector investment plans in detail for FY90-93, and indicative, for the FY94-97 periods, recognizing Government priorities and sector objectives for the Seventh Five Year Plan. Project Investment priorities would be based on criteria to be identified, including alternative service levels, unit costs and scope for community participation as reflected in the April 1988 Workshop and Conference proceedings. These plans would include proposals for modification and rehabilitation of existing schemes, and support to the private sector;

- d. develop procedures for adequate O&M of projects, including budget requirements and arrangements for community training and participation;
- e. develop procedures for annual evaluation of existing schemes;
- f. develop specific proposals for improving the effectiveness of the PHEDs and LGRDDs in service delivery through measures including allocation of responsibility for improved sectoral coordination at provincial and federal levels, and for improved coordination with WAPDA and the Departments of Health and Education; and
- g. develop specific phased proposals for effective community participation in planning, design and construction of schemes and for community management, O&M and financing resource development.

C. Study Scope

7. Data Collection

The study will collect and assess information on the under-noted subjects. To the maximum extent possible existing data will be utilized, but the consultant may find it necessary to conduct additional surveys to augment existing information where the latter is inadequate for investment planning purposes. The study will provide recommendations, with detailed TORs, for all data collection activities that will be necessary for subsequent program implementation and will also develop recommendations for improved routine data collection and benefit assessment methods for WSS projects. Data collection needs to include:

- a. population and population growth;
- b. the physical pattern of rural settlements and the implications for design of WSS systems;
- c. existing coverage of both WSS and sanitation by District and type of water resource availability (sweet, barani, brackish) and service levels utilized in each;
- d. the status of water resources knowledge affecting the choice of rural WSS technology, data availability, competing demands, water management and control methods and their adequacy;^{3/}

^{3/} While assessment of water resources for Baluchistan, NWFP and Punjab will comprise largely an evolution of existing data, for Sind additional field investigations will be carried out by the Government of Sind with the assistance of consultants.

- e. health indicators, including specifically the incidence of diseases related to use of contaminated water, or an insufficient quantity of water;
- f. solid-waste disposal to the extent relevant to implementation of successful sanitation and drainage programmes; and
- g. social structures, including current practices and allocation of responsibility for waste collection, disposal of sullage and foul waste, hygienic practices including care of young children and food preparation, responsibility for maintenance of WSS systems and role of women.

8. Institutional Assessment

The study will include a comprehensive assessment of all institutional aspects of the sector, separately for the Federal and each Provincial Government. Specifically, the following will be addressed:

- a. an assessment of the existing institutions responsible for WSS and rural health, including the PHED, LGRDD the Provincial Education (PE) and Health Department (HD) and the private sector;
- b. recommendations on the most suitable institutional arrangements for sustainable WSS programs at provincial level, including coordination between PHED, LGRDD' Health Education and other relevant agencies, allocation of responsibility between them, support to the private sector and federal support and supervision;
- c. assessment of manpower requirements by category and skill for successful program implementation and assessment of training needs;
- d. a review of existing WSS and rural health training facilities, with recommendations for strengthening and curricula development; recommendations for training local political and LGRDD officials should also be developed;
- e. proposals for an effective community role in planning, construction, management and O&M of WSS schemes, with recommendations on how these can be implemented;
- f. assessment of the current roles of schools, TBA's (traditional birth attendant) and other health officers/workers in hygiene education, with detailed recommendations on how these can be improved, including training implications; and
- g. review of WAPDA's role in water resource assessment, with recommendations as to how the availability and assessability of data can be improved to assist the rural WSS sector.

9. Policy and Planning

The study would review current sector policies, and make recommendations for implementation for improvements, in the light of opinions as expressed by Government/Private Sector persons and especially the April Workshop/Conference conclusions and recommendations. Areas to be covered would include:

- a. cost recovery policies, including community financing mechanisms for user-managed schemes, tariffs and collection mechanisms for public utility managed schemes, recurrent expenditure shortfalls and their impact on O&M;
- b. institutional responsibilities including those of the community, for planning, design, implementation, O&M, accountability and capacity to undertake an accelerated program;
- c. criteria for planning, design, and selection of project investment priorities;
- d. arrangements for O&M, extent of schemes inoperative, analysis of the causes of this and recommendations for community involvement in and contribution towards O&M; and
- e. mechanisms to be adopted for all necessary human resources development.

10. Technology Choices

The study would assess and recommend on appropriate technology choices for the public and private sectors, including:

- a. an evaluation of current rural WSS technologies, their appropriateness, sustainability and acceptance by the community, their affordability and ease of maintenance;
- b. an evaluation of technologies used by the private sector, including back-up and maintenance services, and capital and O&M costs of units provides;
- c. an evaluation of available construction materials and their costs; and the feasibility of using local capacity to implement projects in rural areas; and
- d. evaluation of the availability of water supply equipment (including pump and drilling equipment) and its cost, local manufacture and quality control, and distribution mechanisms for spares.

11. Implementation Methods:

The study would develop implementation models, particularly with regard to:

- a. community involvement in technology choice and construction of WSS schemes;
- b. community organization (through local committees and others) for scheme management and financing;
- c. ways in which PHED and LGRDD can improve program implementation, data collection and interpretation, program planning, management and evaluation;
- d. role of Hygiene Education (through school, ED's, HD's, TBA's, women's organizations and others) in effective WSS programs; and
- e. an analysis of the special needs of low income areas within rural communities and development of mechanisms for meeting these needs.

12. Investment Plan

The study would prepare, based on the framework developed above, provincial investment, institutional and human resource development plans. These would include:

- a. detailed provincial investment plans for the FY 1990-93 period indicative plans for the FY 1994-97 period including investments to be made in rehabilitation or upgrading of existing facilities, investments in hygiene education and in institutional development;
- b. investment criteria and benefits;
- c. an analysis of projected sector investments in relation to the overall public investment program, affecting alternative implementation strategies and service levels;
- d. a review of the status of project preparation for projects selected in the first phase investment plan, and an assessment of the need for further health and WSS studies and engineering works and health activities;
- e. a quantitative assessment of the training and technical assistance needs of the proposed program; and
- f. assessment of Government and community resources and the need for external resources.

13. Scheme Preparation:

Based on the total size of the proposed investment plan, external financing requirements and the likely availability of external funds,^{4/} the study would undertake detailed scheme preparation either for all schemes in the Provincial Investment Plan, or for a certain proportion. The consultants proposal for preparation would be based on the following:

- a. preparation documentation will be prepared for all schemes to be initiated by the FY 90-93 period for Baluchistan and NWFP, and for schemes up to the value of US \$75 million and US \$50 million for Punjab and Sind respectively; and
- b. an appropriate distribution of project costs between various activities and implementation institutions as well as for human resources development shall be effected.

Required project preparation information would include for each project or group of projects:

- a. the water source, its yield and quality characteristics;
- b. the number of beneficiaries and, broadly, their income status;
- c. the amount of water to be produced and the implications for consumption levels, drainage and excreta disposal; the number of latrines/soakaway pits and kilometers of drains, arrangements for solid waste disposal where appropriate;
- d. the materials, equipment and civil works required and their costs;
- e. the training and technical assistance requirements and their cost, including TOR for any proposed TA;
- f. the phasing of project implementation;
- g. the arrangements for community involvement in projects;
- h. proposals for hygiene education;
- i. the organization of project implementation, including the respective roles of PHED, LGRDD, the private sector, the community, the Departments of Health and Education, the impact of the project on development and recurrent budgets;
- j. the O&M costs of the project, proposals for community management, financing and financial implications;

^{4/} Information to be provided by the GOP and World Bank during study preparation.

- k. affordability of the project(s) by beneficiaries, and their acceptance by the community;
- l. project(s) environmental impact;
- m. projects' status of preparation, likely number of contracts and procurement method; (sub-projects to be implemented in the first 18 months of the project period would be prepared to feasibility stage, other projects to pre-feasibility stage);
- n. project(s) benefits, including health, convenience, etc.;
- o. recommended action to be taken before Government's negotiations with funding agencies; timetable of actions to be taken during project implementation; and
- p. detailed costs, presented by component and category (vehicles, training, civil works etc.), in constant and current prices, indicating phasing and the expected foreign exchange costs. Project elements to be undertaken by each implementing sub-agency and their cost would also be indicated.

D. Study Implementation

14. Consultants would have responsibility for task output. They would, however, maintain close contact with Provincial Government officials and discuss their findings with them on a regular basis. The draft reports would be reviewed at provincial level by an ad hoc steering committee chaired by the Department of Planning and Development, and with members of PHED, LGRDD, the Education and Health Departments represented.

15. At Federal level the contact Ministry would be the Federal Ministry of Local Government. Report drafts would be discussed with an ad hoc steering committee chaired by the Ministry of Local Government, and attended by representatives of the Ministries of Physical Planning and Housing, Planning and Development, Health, Education and WAPDA/

E. Study Outputs

16. The study would result in the Preparation of Strategic Investment Plans for each of the four provinces for the rural WSS sector, in detail for the FY 1990-93 period, and indicative for the FY 1994-97 period. They would incorporate activities to be implemented by PHED, LGRDD, Department of Health and Education and Communities, training and institutional development proposals, together with detailed proposals for assistance to the private sector.

17. The study would result in detailed Project Preparation for certain elements of the plans, as indicated in para. 13, accompanied by institutional and human resource development proposals for the entire plan.

18. Total study length is estimated at 10 to 12 months and man-month requirements 140 foreign and 150 local staff. A 45-day mobilization period is assumed after contract signing. Reports issued would be as follows:

- a. after 2 months an Inception Report outlining the direction of proposals for: investment, institutional development, training, inter-government department cooperation, community participation and health education, and cost recovery would be prepared, with identification of any major constraints (100 copies).
- b. after 6 months draft Provincial Investment Plans would be completed (40 copies of each province);
- c. after 9 months final Provincial Investment Plans would be completed, together with draft project preparation documents (40 copies); and
- d. after 10 to 12 months, Final Project Preparation documents would be submitted (60 copies).

Each report would be submitted to Government, CIDA and the World Bank for comment. Where there are unresolved issues (e.g. on policy or cost recovery implications), these should be clearly identified.

ANNEX 7

Aide Memoire summarizing
review of Provincial Inception Reports

March 28, 1989

AIDE MEMOIRE

Strategic Provincial Investment Plans and Project Preparation for Rural Water, Sanitation and Health: Review of Provincial Inception Reports.

This Aide Memoire summarises the conclusions of a World Bank Mission which reviewed the above reports in all four provinces between 13th and 27th March, 1989. Representatives of Canadian International Development Agency (CIDA), the Asian Development Bank and the Netherlands Aid Agency also participated in the mission.

The provincial reports were discussed with Provincial Steering Committees in Karachi, Quetta, Peshawar and Lahore. Comments on these reports, and the Aide Memoires for each province, are attached to this document. Reports were also prepared for the Northern Areas, and for Azad Jammu and Kashmir. The main conclusions from these reports were presented in a Summary Report and were discussed at a Federal Steering Committee Meeting held in Islamabad on 27th March, 1989. The following paragraphs summarise progress to date, outline the possible elements of a strategic investment plan and the key policy areas, and discuss next steps.

Progress to Date

3. The Inception Reports are part of a process which began in mid 1987, when the Government of Pakistan asked for the assistance of the World Bank and CIDA in the Rural Water Sector. A joint mission visited Pakistan in October, 1987. A draft (Green Cover) Sector Report was discussed with the provincial and federal governments in April, 1988, and a final (Grey Cover) Report was issued in June, 1988. The report concluded that in order to increase the benefits of investments in the provision and extension of service coverage, an approach to the sector which integrated investments in water, sanitation, drainage and hygiene education was necessary. While some schemes had been successful, there was a broad problem with sustainability in the sector. Furthermore,

there was a need for sector practitioners to share policy approaches and experiences in project implementation.

CIDA financed a sector workshop and a conference in Islamabad in April, 1988 during which pilot projects which had attempted innovative approaches to the sector were discussed, and policy options considered. At the end of the conference a statement comprising policy recommendations was prepared by government officials involved in the sector; this statement was included in the Grey Cover Sector Report.

It was also agreed to prepare Strategic Development Plans for the sector, which would include an integrated policy framework and investment plan for the sector in each province over the remainder of the Seventh Plan and the Eighth Plan periods. These plans would provide a framework for future investment by Government, and would also provide a framework for those members of the donor community that might be interested in providing financial assistance to the sector.

Terms of Reference for these plans were cleared with the Government of Pakistan and the Provincial Governments in April, 1988. CIDA is financing the preparation of these plans, which are being prepared by a consortium of Canadian and Pakistani Consultants under the supervision of the World Bank. The Consultants began work in December, 1988. Provincial Inception Reports were issued in March. Draft Strategic Investment Plan documents for each Province will be issued in early July, and final project preparation documents in October.

The Strategic Investment Plan is likely to include the following components:

- i) Rehabilitation and upgrading of existing water supply and drainage schemes;
- ii) New water supply schemes, particularly in barani and brackish water areas
- iii) Sanitation and drainage schemes;

- iv) A hygiene education programme;
- v) Supporting human resource development;
- vi) Proposals for further work in ^{certain} areas (e.g. water resource data bases, management information systems); and
- vii) Pilot projects.

The Mission was informed that the physical targets for water supply and sanitation coverage and the budgetary allocation given in the Seventh Plan are essentially unchanged, with the possibility even of increased resources available for sector development. In addition, the investment criteria described in the Seventh Plan, specifying the priority of extending service coverage to the unserved at basic service levels, are also unchanged.

Essential to the success of the components listed in paragraph 7 is the institutional and policy framework in which they take place. This has been discussed with the Provincial Governments. Certain elements are, however, summarised below:

- i) Experience in Pakistan has illustrated that community involvement in scheme planning is important if communities are to manage and to finance the expenses of operating and maintaining schemes. The most successful examples in Pakistan have been where District Councils have implemented schemes, with community participation. The Consultants' Report is likely to propose a greater role for District Councils in the future, including increased resource transfer from Provincial Governments to District Councils. A concern of the Consultants, and the Mission, is the political feasibility of this proposal. The Federal Steering Committee advised the Consultants to proceed with the analysis of this option, in close consultation with the Provincial Governments;
- ii) Past experience with operation and maintenance (O&M), in particular recovery of O&M costs from consumers, has been mixed. The Mission sought, and received, confirmation by Provincial Governments and the

Federal Government that there is full commitment to the policy of ✓
financing of O&M costs by beneficiaries;

- iii) Implementation of a successful integrated programme requires close coordination between the institutions involved in the sector (PHED's, LGRDD's, District and Union Councils, the Departments of Health and Education, and WAPDA). New schemes must also respond to the 'felt needs' of village communities; thus much closer coordination between PHED and Union and District Councils will be necessary in future;
- iv) The Provincial Departments of Health will provide the technical framework for hygiene education, which would be carried out by Basic Health Unit Staff as well as other village - level agents, including women's industrial centres and primary school teachers;
- v) Proposals will have to be made within the context of Government's tight fiscal situation; extended coverage must be provided without significantly increasing Provincial Governments' recurrent expenditures, either through recruitment of new staff or through increased O&M expenditures. This in turn implies increased responsibility by communities for O&M, and eventually for a proportion of capital expenditures;
- vi) Investment programmes were likely to include proposals for latrines and improved handpumps in households, which might involve credit schemes. The consultant will explore the potential role of the existing public and private sector banks (including the Agricultural Development Bank of Pakistan) in providing this type of credit;
- vii) More attention should be paid to environmental considerations in the future; for example, the Strategic Investment Plans should include important elements for improvement of water quality in existing schemes and for maintenance of drains and ponds;

- viii) The importance of enhancing the accessibility of water supply and sanitation schemes to women necessitates the participation of women in planning and managing schemes. The Consultants will pay particular attention to this issue in the preparation of the Strategic Investment Plans;
- ix) Finally, the Peoples Work Programme includes important elements which may have an impact on the institutions currently involved in the sector. It will be necessary to ensure that schemes financed under the Programme are sustainable.

Next Steps

The next mission is scheduled for the 10th to 30th July. At that stage it is hoped that the donor community will be able to provide an indication to Government of their areas of interest in order that the Consultants may proceed with detailed project preparation. It will be necessary at that time for the Provincial Governments together with the Federal Government to provide an indication of the extent and type of financial assistance that they will seek, if any. The Mission will also need guidance, in the event that an IDA or ADB type credit is proposed, on the likely on-lending arrangements from the Federal to the Provincial authorities and the implementing agencies, given the nature of the sector.

Over the coming months it will be essential that the authorities continue to maintain a close working relationship with the Consultants, in order to ensure that the Strategic Investment Plans fully reflect the views of the Government.

The Mission would like to thank the Government of Pakistan for the considerable support provided by both federal and provincial authorities to the Consultants and for the cooperation and hospitality accorded to the Mission.

ANNEX 8

National Executive Summary
of the
Inception Reports

PAKISTAN

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

NATIONAL EXECUTIVE SUMMARY
OF THE
INCEPTION REPORTS

March, 1989

Wardrop-Acres
Cowater International
NESPAK

NATIONAL EXECUTIVE SUMMARY

The contents of the National Executive Summary of the Inception Reports by the Consultants working on the preparation of the Strategic Provincial Investment Plans followed by detailed project preparation is given below:

1. Project Organization

The Project Organization (Fig 1) is comprised of a Central Team based in Islamabad and four Provincial Teams located at the PHED headquarters in each province. Azad State of Jammu and Kashmir and Northern Areas are covered by the Central Team.

The Central Team is composed of a Management Group, a Strategic Planning Group and a Technical Resources Group. Members of the Central Team regularly travel to the four provinces, AJK and the Northern Areas to keep close contact with the project activities in each area.

The Provincial Planning Teams are composed of a Team Leader, Engineers, a Financial Analyst, and a Sociologist. Each Provincial Team is responsible for its activities within the guidelines established by the Management and the Strategic Planning Groups.

2. Existing Water Supply

The existing average for safe water supply coverage over the country is about 40% of (Table 1). This water supply is through piped water and handpumps. Among the Provinces NWFP ranks highest with a 52% coverage whereas the coverage in Baluchistan is lowest at 27%.

3. Seventh Plan Targets and Investment Strategy

The Seventh Five-Year Plan for the period, 1988 - 89 to 1992 - 93, envisages a target for coverage of the rural population by potable water supply of 75% and by sanitation of 30% (Table 2). In the former case, the additional population to be served is 31.2 million, and in the latter case, 17 million.

4. Provincial Sectoral Issues

The Provincial Sectoral Key Critical Issues are summarised in (Table: 3). The priorities of these issues vary from province to province. Some of the issues however have the same degree of priority all over the country eg. lack of suitable quality of water, lack of knowledge and awareness of the sector, usage of drainage, roles and mandates of the departments, etc.

5. Federal Sectoral Issues

The Sector Issue at the Federal level (Table: 4) are mainly of the monitoring nature eg. inter-provincial co-ordination; co-ordination between federal agencies and the provincial line departments; institutional roles of the concerned ministries and commercial banks; Federal Government's policy and commitments to the sector; legislative support to the community based organizations (CBOs); and the need for a sector data base.

6. Sector Initiatives

Based on the Key Critical Issues identified at the provincial level several initiatives have been proposed (Table: 5) in the Inception Reports which emphasise on institutional development, cost recovery, strengthening the role of private sector, the use of appropriate

technology, community participation, human resources development and hygiene education.

7. Work Plan

The Work Plan for the Project Jan - Nov 1989, is given in detail in the Inception Reports. This bar chart is however also included in this National Executive summary (Table: 6)

PROJECT ORGANIZATION AND METHODOLOGY

1. Organization and Management

The Project Team is organized as shown in Figure 1:

- . Management Group;
- . Strategic Planning Group;
- . Technical Resources Group; and
- . Provincial Planning Team.

The Management Group assumes overall management responsibility for the Project, coordinates the efforts of other groups and takes the lead role in liaison with the Federal Steering Committee. It will consist of the Project Director, Co-Director, Project Manager and two Deputy Project Managers.

The Project Director and Co-Director provide overall direction to the organisation and management of the Project. They take an active role in developing the Project work plans and monitor work progress, ensuring that the Project Team continues to work towards stated goals and objectives within the allotted time frames.

The Project Manager is responsible for the day to day managing of the Project and delegates specific duties to his two deputies. He takes the lead in liaison with GOP staff and is the for Management direction to the Strategic Planning Group, Technical Resources Group, and the Provincial Planning Teams.

The two Deputy Managers, besides their responsibilities in the Management Group, are also responsible for covering the state of Azad Jammu and Kashmir and the Northern Areas.

The prime function of the Strategic Planning Group is to achieve consistency in methodology, ensure quality of all outputs, coordinating activities which will minimize duplication, prepare the national

Investment Plan, and provide feedback to the Provincial Planning Team. It is made up of the Strategic Planner, Strategic Advisor, Socialist, Demographer, Economists, and Evaluation/Monitoring Specialists.

The Technical Resources Group, consisting of all short term technical specialists, provides technical support to the other staff as needed.

ANNEX 9

Inception Report

Baluchistan

(Executive Summary)

BALUCHISTAN

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

- to refer to national and provincial government

- to refer to foreign private

- to refer to national government
distribution system, water supply
and systems, health, education

- More info concerning

INCEPTION REPORT

- Union Councils and Government

development

developed to

March, 1989

Wardrop-Acres
Cowater International
NESPAK

EXECUTIVE SUMMARY

The goal is to develop strategic provincial investment plans and to identify project which are committed to the betterment of health and overall quality of life for the rural population. This will be achieved through more cost-effective, sustainable water supply, sanitation and hygiene education initiatives which maximize community involvement.

Before initiatives were developed in Baluchistan were identified key issues what influence development in the sector. Understanding the causes of these issues is the first step to finding workable solutions.

Key Issues

Water resources and population issues have proved to be the major constraints within which initiatives for the sector must be formulated. Population shifts can affect water demand but so can new water supplies affect settlement patterns.

Water supply schemes in Baluchistan are costly and trade-offs for technical or economic reasons usually result in compromises on quality. The emphasis has been to install conventional water supply systems without fully investigating the technology options and without involving the community.

The need for water supply, sanitation and hygiene education in Baluchistan is great, but full awareness of this need by rural people and decision-makers is lacking.

Several institutions play a role in the provision of services in the sector. The government line departments have been making progress in increasing the rural coverage of water supply, primarily the Public Health Engineering Department. Special agencies, with foreign donor assistance, have made some progress in meeting the water supply, sanitation and hygiene education needs of small rural villages.

The human resource capabilities in the sector are very limited and must be expanded to support progress in the sector.

Although cost recovery is an important policy for Pakistan the concept, must be applied carefully in Baluchistan because the peoples are poor and the cost of schemes is high.

Development of Initiatives

Initiatives were developed in seven areas:

- . institutional;
- . community participation;
- . technical;
- . health and hygiene;
- . human resource development; and
- . cost recovery.

For each initiatives, several options were identified which provide direction for further development of investment strategies in the next phase of this study. Ultimately, the projects selected will combine many of these initiatives.

Potential Initiatives

Institutional initiatives aim to strengthen capabilities, streamline procedures, increase interdepartmental coordination and increase the level of direct involvement with communities. Several options exist with line departments and local government bodies.

Community participation initiatives include improved interaction with line departments, community awareness, community participatory programmes and needs assessment.

Technical initiatives include small schemes implemented mainly by communities (latrines, handpumps, repairs), large schemes for

implementation by line departments, tubewell, water treatment, rehabilitation and investigative studies to assess needs and water resources.

Health and hygiene education requires the mobilisation of health workers through existing organizations and the extension of training to rural areas.

The human resource initiatives address areas that require support including technical skills, artisans, community development expertise, planning, and management. In Baluchistan, a major limitation is the number of qualified teachers to deliver the necessary educational requirements to the rural population.

Cost recovery initiatives include the promotion of community financing, the development of fair and effective mechanisms of collection, and the provision of funding and credit.

To increase private sector involvement, initiatives could include the privatisation of operation and maintenance of water schemes, upgrading the capability of the private sector, and provision of financial support.

These initiatives are only indicative of the types of initiatives which may work in Baluchistan. Numerous potential projects could be identified within each initiative; however, it is necessary to verify much of the data collected; to date, to determine which projects will work best in Baluchistan.

List of Indicative Projects

delivery of water supply to schools in villages with existing or proposed piped water supply;

provision of latrines in schools and other community centres;

development of water supply systems for small villages located close to identified water sources;

rehabilitation of existing water supply schemes (traditional and modern) and improvements to water tanks and distribution systems;

upgrading quality of surface water supply where rural population density is high and groundwater potential is poor, as occurs in Jafarabad and Tamboo Districts;

installation of deep handpumps for small villages in areas where groundwater potential is good;

improvement works for existing water sources that are unprotected and subject to contamination;

assessment of alternative water supply schemes in the brackish water zones of Lasbela and Chagai Districts; and

assessment of drainage problems in special areas, such as Nasirabad.

ANNEX 10

Draft Aide Memoire

(Baluchistan)

Strategic Provincial Investment plan and Project preparation for Rural Water, Sanitation and Health in Baluchistan: Review of the Inception Report.

This Aide Memoire summarizes the discussions on the above report which were held between Government of Baluchistan, the CONSULTANTS and the World Bank Mission on 18th March in Quetta. The meeting was chaired by Mr. Atta Jafar, ACS, Planning and Development. Representatives from Asian Development Bank, Canadian CIDA, the Netherlands Aid Agency and the Federal Ministry of Local Government also participated in the discussion.

Mr. Jafar congratulated the consultants on the report and looked forward to the next phase, preparation of the strategic investment Plan. GOB attached the highest priority to the rural water sector, and had made a request to GOP for additional federal applications in order to improve basic coverage more quickly. The focus was to be on rapid provision of basic supplies through simple technologies, including improved traditional sources, handpumps, standposts, and/or community tanks without distribution systems. Household connections would be provided at a later stage. Mr. Jafar emphasized that the outcome of the study must be simple projects that could be implemented. It was important that the conditions imposed by any potential donors be realistic. Policy changes and institutional improvements should take place together with disbursements, rather than as a condition of disbursements. The consultants should also look at the political feasibility of new initiatives, as well as the social, financial and institutional feasibility.

Mr. Jaffar also emphasized the human resource constraint in Baluchistan as the major constraint to development.

New technical initiatives were welcome, given the high cost of previous schemes.

Following a discussion on cost recovery, it was emphasized that, in a country where the government had taken responsibility for the people's welfare, it was not realistic to expect full recovery of costs. The consultants should examine other ways of paying for schemes, including indirect taxation, although this too would be difficult.

Community participation was essential, and the form that this took should be adapted to the circumstances of particular villages. Hygiene education was also essential.

The mission understands that all available data on water resources held by WAPDA will be shared with the sector executing agencies and the consultants since this will:

- i. avoid duplication of effort and,
- ii. expedite service coverage.

Comments by the mission on the consultants report are attached. They are intended to provide guidance for the preparation of the Plan. No modifications are expected on the Inception Report.

There are several agencies operating within the Province with jurisdictional responsibilities for domestic water supplies. The fact that these agencies do not all adopt consistent policies with respect to such important issues as type and level of service, community involvement, operating procedures and cost recovery makes it difficult for the agencies themselves, as well as for potential donors, to formulate project assistance proposals in a consistent manner. The Mission believes that it is essential for the Government to address this issue with the assistance of the Project Team while preparing the Strategic Investment Plan.

The mission is concerned over the sustainability of projects that are constructed before a full recognition of the water resource availability and sustainable yield has been gained (eg. to avoid ground water mining). While it is acknowledged that the Government is considering other means for completing an adequate assessment of the water resources of the Province, the Mission feels it to be essential that the Strategic Investment Plan addresses this question in detail and, if omissions in the data base remain, that the Plan itself provide for one or more projects devoted to rectifying this need.

The Mission also feels that attempts should be made to promote the private sector to relieve the growing financial and technical burden on government departments. In reviewing the options for sector development the Project Team must assess fully the possible long-term benefits to the Province of promoting a capability within the private sector for carrying out such services as investigations, well drilling, topographical surveys, project designs, and maintenance and operation.

The mission would like to thank the Government for the high degree of cooperation and the hospitality that they have provided. Continued close involvement of all government departments involved in the sector was essential, in order that the Strategic Investment Plan document reflect government's views. The next main mission of the World Bank and other interested donors will be in July.

level, and the district and union council levels, for artisan skills development, for participatory development training of extension workers, institutional development including higher level staff training, for information, education and communications (IEC) programs, and for in-service programs. Thus, the total requirements for human resources development (HRD) are much greater than suggested in the HRD section of the Report. It is, however, accepted that much of the detailed work on HRD can only be determined following more thorough specification of other project components.

32. A full inventory and capability assessment of existing training resources in NWFP will be required, including institutions not presently involved in the water and sanitation sector, but which have potentially relevant experience, including those with expertise in general rural development training, skills development in rural areas, and IEC programmes. On this basis, an informed view can be taken of both those institutions/groups that could be used by the project and of the needs for training capacity development.
33. One aspect of training that should be developed is, given the inter-disciplinary nature of the sector, to provide mid-level staff and above an appreciation of the contribution that other relevant disciplines make to project development and implementation (eg. engineers being sensitized to the social sciences). Also, there is likely to be a need for strengthening management and financial skills in addition to upgrading professional and technical knowledge.
34. The need for incentives to encourage training take-up should be researched. Such incentives should not necessarily be financial and could include, for example, certification courses for selected trades/professions.

Financial Aspects

35. In preparing the Strategic Investment Plan, recurrent cost implications should be clearly laid out to Government. Recurrent cost estimates for PHED and other Departments should include the requirements for existing systems, the implications of the present rate of expansion, and the future recurrent cost requirements on the basis of planned future investment in the sector, rehabilitation of systems, and population growth.
36. The number of options to be considered for cost recovery should be expanded to include more than indirect taxation. Community-based options for financial management should have priority as an initial step towards the development of viable cost recovery systems.
37. Data on operation and maintenance costs should be collected and analysed using a standardized and simple framework in which the main cost components are itemized. The

ANNEX 11

The Case Studies

Presented during
The National Workshop

(Source: World Bank)

THE CASE STUDIES

THESE case studies were carried out to review new approaches in implementing water supply and sanitation programmes and to find out whether they could be replicated in other parts of the country. Each project was carried out by either the Government or NGO, with or without external donor agency participation.

The following criteria were used for selection of case studies within Pakistan :

- (i) The project should involve community participation;
- (ii) All provinces should be represented;
- (iii) Each project should have a target population of over 200,000;
- (iv) The project should have been operating for sufficient time so that lessons could be learned from its implementation.

Six case studies which met these criteria were selected and the main features of each project are summarized in the table on page 10.

In addition, a case study has been conducted of the private sector's role in the districts of Multan and Gujranwalla in the province of Punjab.

The case studies were presented and discussed at a workshop in Islamabad April 5 to 7, 1988.

SUMMARY OF THE CASE STUDIES

Case Study	Province	Start Year	Executing Agency	Donor Agency	Component			Target Pop.
					WS	S	Other	
AKRSP	Northern Areas	1983	NGO	CIDA DUTCH Gvt ODA			CD	802,000
BSPP	Sind	1979	NGO	UNICEF JAYCEES DUTCH Gvt		S	CD	200,000
BIAD	Baluchistan	1981	PG	UNICEF EEC DUTCH Gvt CIDA	WS	S	HI	280,000
MDDP	NWFP	1982	LG	UNICEF	WS	S		1,000,000
OPP	Sind	1980	NGO	BCCI		S	CD	800,000
PSP	Punjab	1981	PG/LG	UNICEF	WS	S	CD	940,000

Key:

WS	Water supply
S	Sanitation
HI	Hygiene Education and Extended Immunisation Programme
CD	Community development
PG	Provincial Government
LG	Local Government
NGO	Non-Governmental Organisation
BIAD	Baluchistan Integrated Area Development
AKRSP	Aga Khan Rural Support Programme
MDDP	Mansehra District Development Programme
PSP	Punjab Sanitation Programme
BSPP	Baldia - The Busti Programme
OPP	Orangi Pilot Project

AGA KHAN RURAL SUPPORT PROGRAMME

THE main objective of the AKRSP was to double rural incomes within 10 years. Its emphasis was on improving agricultural productivity through the provision of extension and training services. It was not intended to provide potable water supplies or sanitation.

AGA KHAN RSP

BACKGROUND: The AKRSP covers three of the poorest districts in Northern Pakistan - Gilgit, Baltistan and Chitral. About 750,000 people live in the project area in 1,030 villages. Village populations vary in size from less than 100 to 1,000 inhabitants. The people speak many different languages and dialects and come from diverse ethnic backgrounds. Village kinship ties are strong and often form the basis of the community.

Despite the remoteness of the region, communities have a liberal and progressive outlook and are not bound by taboos or customs. They depend on an unreliable subsistence economy which is based on agriculture, horticulture and livestock. There is a desperate need for more reliable sources of food and this has made the population receptive to new ideas and opportunities.

The project has a strong link with the Ismaili population whose spiritual leader is the Aga Khan. Most Ismailis live in the Hunza Valley and it is doubtful whether the project would have been as successful without the Ismaili community as its entry point.

THE OUTCOME

SUCCESSES

■ Since December 1982, 764 VOs have been created. About 48 percent of rural households are members of these organisations. In Gilgit, over 96 percent of the households are members.

■ The VOs have a savings deposit of Rs. 34 million (December 1987) - an average contribution of Rs. 45,000 per organisation. Ten percent of this money has been contributed by women.

■ By September 1987, 975 projects had been identified and 331 completed.

■ By May 1987, 207 people had been trained in livestock development; 152 in plant protection; 152 in poultry development; 23 in accounting and 85 in marketing. These villagers have been given 424 training kits and 19 refresher courses have been arranged. Training has also been given to VO office bearers in bookkeeping, agenda preparation, meetings procedures and reporting.

PROBLEMS

■ Links between PHEDs, LRGDDs and village-level organisations need to be improved.

■ More training is necessary in construction skills, control of funds and O & M at the village level.

BALDIA - THE BUSTI PROGRAMME

THIS project was designed to reduce the infant mortality rate and provide social benefits for children. It set out to encourage the construction of soakpits.

BALDIA - BUSTI

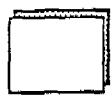
BACKGROUND: The Baldia Township is located in north-west Karachi and covers 1,060 acres. The current population is about 271,000, with an average population density of 150 persons per acre.

Baldia's population is made up of a wide variety of ethnic groups which have migrated from surrounding areas. Almost 42 percent of the people have come from India, 21 percent from the North West Frontier Province, 17 percent from Baluchistan, 9 percent from Sind and 8 percent from Punjab. Despite the cultural differences, there is a high level of interaction between people from different mohallas and a good community spirit prevails.

Karachi and the Sind Industrial Trading Estate (SITE) are within easy reach of Baldia by road and rail, and this has improved employment opportunities.

In summer, the climate is hot and humid but the winters are mild. There is an average annual rainfall of 7 in. The water table lies between 3 and 12 ft. below the surface, in sandy-clay soils, but has been rising gradually since water supplies were introduced.

THE OUTCOME



SUCCESSSES

- Between 1979 and 1985, 1,065 demonstration latrines were installed.
- By 1985, half of Baldia's houses had soakpit latrines. This indicated a demonstration-to-household installation ratio of 1:13.
- Unit latrine cost has been progressively reduced. This cost is even lower if the dissemination of the technology outside of Baldia is taken into account.

KEYS TO SUCCESS

- The community wanted some form of sanitation and 20 percent of the houses already had soakpits.
- Women played a major role.
- The past problems with bucket latrines encouraged people to pay for better forms of sanitation.



PROBLEMS

- The soakpit design was inflexible. It could not be changed to cope with local conditions, such as rising water tables.
- A household loan system was introduced but was difficult to maintain.
- Recently, increased water supply in the area has raised the groundwater table which has interfered with pit operation. Many families are connecting their pits to the open drains and operating them as septic tanks.

BALUCHISTAN INTEGRATED AREA DEVELOPMENT PROGRAMME

THIS project was aimed at reducing Baluchistan's infant mortality rate which is between two and three times higher than the national average. The deaths are mainly caused by the lack of potable water, poor health services, unsanitary conditions and inadequate hygiene education.

BALUCHISTAN

BACKGROUND: Baluchistan is Pakistan's most backward region and its 4.3 million rural inhabitants live on an estimated annual per capita income of Rs. 1,200 - less than half the national average. The majority derive their livelihood from farming, mining and services.

In the past, agriculture was dependent on the old 'karez' system of gravity-fed irrigation but the introduction of tubewells has brought about changes and in some areas the groundwater levels have fallen considerably. In the mountains and plateaux to the north and west, the water-bearing rocks are quite deep (300 to 600 ft.) except in the valleys where the water table is near to the surface. In the Indus plains to the east, canal-fed irrigation has raised groundwater levels and, as a result, waterlogging is common. In the southern coastal region, the groundwater is brackish.

THE OUTCOME



SUCCESSSES

- The BIAD programme might have been slow in meeting its targets but it managed to raise the people's awareness of water and sanitation for health in the project areas.
- The sanitation programme achieved a measure of success because the technology being promoted was simple and cheap.
- The EIP coverage was very successful.



PROBLEMS

- The water supply technology used in the first phase is too complex and beyond the capacity of the local people to manage.
- Operation and maintenance costs are consequently too high.
- Essential spare parts are difficult to find.
- The main problems arose because of the lack of coordination between the hydrogeological, anthropological and technical investigations at the planning stage.
- There has also been a lack of coordination between UNICEF, BIAD and the Government organisations.

■ BIAD's original targets were unrealistic, especially in view of the skill shortages in the province, the population scatter and logistical problems.

Summary of the BIAD targets and achievements for Phase I.

Activity	Target	Achievement	Success Rate (%)
Water supply schemes (clusters)	26	16	(61%)
Latrines	5,375	1,353	(25%)
Traditional Birth Attendants (TBAs)	78	31	(39%)
Community Health Workers	208	52	(25%)
Sanitarians	26	26	(100%)
EIP (Children under 5 years)	9,044	8,848	(97%)
Oral Rehydration Therapy (Families)	5,375	4,408	(82%)

MANSEHRA DISTRICT DEVELOPMENT PROGRAMME

MANSEHRA

THIS project had three main objectives. First, it aimed to improve rural water supplies and, second, to provide better sanitation facilities, particularly for women. Self-reliance for the development of infrastructure was the third objective. The MDDP was the first District Development scheme in Pakistan in which the community helped to prepare plans and implement water supply schemes.

BACKGROUND: Mansehra district is one of the more politically, socially and economically advanced regions of the North West Frontier Province. It lies in the foothills of the Karakoram Mountains at an elevation of 3,500-4,000 ft. above sea level and has wide, fertile valleys and numerous springs and rivers. Apart from the more remote villages, most of the region is well served by roads such as the Karakoram Highway (KKH) which is a major export route to the rest of Pakistan for one of Mansehra's main products - timber. Most of the land in Mansehra is divided into small plots up to 10 acres in size although there are some large landholdings in the forested region of the Kaghan Valley.

Improvements in communications, coupled with its long history of migrant working, have left Mansehra with a society which is much more open than in many other areas of NWFP. Consequently, the people are keen to listen to new ideas and accept change. The rapid urbanization, strong urban-rural links and a growing service industry are further evidence of the dynamism of Mansehra society.

Mansehra's District Council has a high quality of political leadership. It has introduced a successful revenue-earning, timber export tax and also implemented numerous development schemes, especially in water supply. High priority has also been given to education, electrification and roads. The weakening of the feudal society and proximity of the more affluent areas such as Abbottabad and Rawalpindi will continue to stimulate Mansehra's desire for development.

THE OUTCOME



SUCCESSSES

- In the 1982-86 period, the MDDP envisaged construction of 1,552 schemes. However, 3,639 schemes have been completed - over 2,000 more than planned.
- UNICEF has trained 2,121 project communities, 142 primary school teachers, 148 TBAs, 26 CHWs and 44 Sanitary Promoters.
- The MDDP is an important step in the integration of community resources and participation into governmental programmes.
- Although not meeting the usual technical standards, the water supply schemes are cost-effective and continue to provide water close to the homes up to this day.
- The MDDP has succeeded in transferring responsibility for O & M over to the community.



PROBLEMS

- The water schemes created large quantities of wastewater which are posing a health hazard.
- None of the 500 planned drainage and street paving schemes has been completed. Only 325 have been started.
- The target of installing 2,000 latrines has not been met.

ORANGI PILOT PROJECT

THE primary objective of this programme was to build a sewerage system for the town. In addition, the project aimed to raise the health awareness of the people, support community-based institutions and strengthen technical, managerial and organisational skills among the residents of Orangi.

ORANGI

BACKGROUND: Orangi is one of Pakistan's largest squatter settlements (katchi abadi) with a population of about 800,000. It is situated north west of Karachi on gently undulating rocky desert with numerous creeks and gullies. Most of the people live in houses, totalling 90,400, which are organised in 6,200 carefully-planned lanes. A piped water supply has been in existence for the past seven years and many homes have electricity.

The people of Orangi come from a variety of backgrounds. Over 200,000 refugees from East Pakistan (now Bangladesh) were settled in the colony in the 1970s. Other residents have left impoverished rural or urban backgrounds and are trying to build a better life in a new environment. The monthly household incomes vary from Rs. 1,000 to Rs. 4,000 per month, with an average income of Rs. 2,500.

Many of the settlement's inhabitants have been forced to live outside Karachi by the soaring price of land. Clerks, typists, journalists, teachers and bank employees as well as unskilled workers live in Orangi.

Land tenure problems are complex in the settlement. There is an informal property market and this has spawned a sophisticated "parallel administration" in Orangi which has given the residents a considerable feeling of security and the incentive to invest in their houses.

The lane organisations were responsible for O & M of the sewerage system and it was their job to clean and repair manholes and sewers. Most sewer blockages occurred when manhole covers were broken and the manhole turned into a rubbish dump. The OPP is now planning to make strong and inexpensive precast concrete manhole covers which will eliminate many of these problems. Money for maintenance work was collected from the resi-

dents by an individual involved in the original project construction. Most people were anxious to protect their investment, and there have been no problems so far with community maintenance.

The OPP has found that maintenance costs were directly related to the quality of the original construction. As construction methods have improved, the maintenance cost per lane per month has been reduced substantially and is well below that of schemes administered by formal water/sewerage authorities.

THE OUTCOME

SUCCESSES

- Since July 1981, 2,230 primary drains have been installed.
- By the end of December, 147 secondary drains had been installed by the residents. In addition, OPP supervised the construction of 26 secondary drains which were paid for by KMC councillors.
- The OPP has shown that it is possible for small groups of people to build a sewerage system based on lanes.
- The completed sewerage systems are often finished to a higher standard than those built by the KMC.
- The lane organisations and the OPP are now important new groups working for community development
- Construction of the sanitation system brought people together for a common purpose. Now, they are capable of undertaking other joint tasks.
- Using sanitation as its entry point, the OPP has started a low-cost housing programme and a Women's Welfare Pro-

gramme to promote health and hygiene education, immunisation, family planning and the provision of seeds for kitchen gardens. Nine Women's Work Centres have provided jobs for 600 women.

- KMC's policy that only open drains could be built in squatter settlements has been revoked and the Council is now funding sewerage projects.
- The OPP has also managed to stimulate the private sector.

PROBLEMS

- There is no treatment of the wastewater which is discharged into nullahs and this may pose a health hazard. The nullahs have already started to silt up as a result of the sanitation programme.
- The locally-manufactured sewer pipes are inferior to those made by KMC and will have a shorter life.
- The original manhole cover design was inappropriate as it could be removed easily. This enabled people to use the manhole as a refuse pit.

PUNJAB SANITATION PROGRAMME

PUNJAB

THIS programme, which ended in 1986, had several major aims. It was designed to cut the infant mortality rate by 35 percent and halve the incidence of intestinal and parasitic diseases in children and mothers. It also aimed to provide sanitation for 20 percent of villages and water supplies for almost one-third.

High priority was given to improving public awareness of the health benefits relating to sanitation, water supply and waste disposal. Another priority was to train community leaders in the organisational work needed for sanitation projects.

BACKGROUND: The project area encompassed six districts - Rawalpindi, Jhelum, Chakwal, Attock, Mianwali and Dera Ghazi Khan which had a total population of 4.4 million in 1981. The region's economy is based on agriculture and landholdings are small. There is no feudal structure. The major crops are wheat, maize, jowar, bajra, pulses and vegetables and there is a high degree of mechanisation on farms since tractors can be easily rented for Rs. 60 per hour. Despite their relatively modern approach to farming, the farmers still rely on rainwater for crops as well as for domestic water supplies. The terrain is hilly and the rainwater runoff is fast. In times of drought, the people suffer. The lack of irrigation and the seasonal nature of farming has encouraged many men to seek employment in the nearby cities of Rawalpindi and Islamabad.

The influence of nearby urban areas is quite strong. People are receptive to new ideas and have a high level of literacy, estimated to be 40 percent.

bring. A second problem was the high cost of the equipment. A biogas plant costs Rs. 5,000 and a water cistern, Rs. 7,000 - beyond the reach of most families.

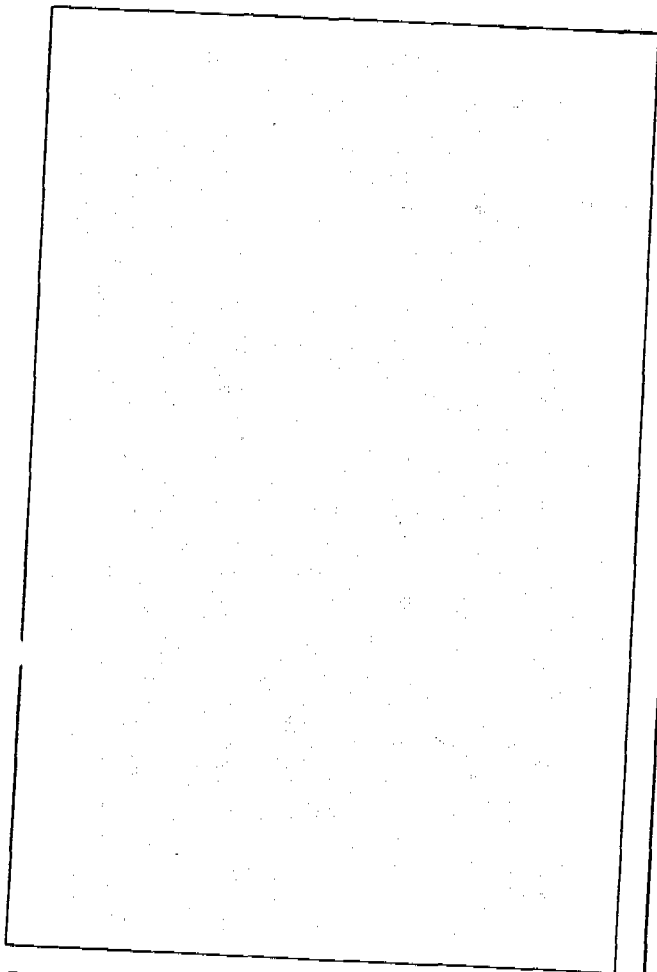
Operation and maintenance

The pour-flush latrine was difficult to maintain in areas with water shortages. People were still worried about the pits filling up and about the resultant desludging problems they would face.

People who installed latrines were not trained how to use them and this contributed to their under-use.

Community education

The PSP missed opportunities to emphasize the links between water supply, sanitation and health. There was no formal hygiene component in school curricula even though many schools had demonstration latrines.



Before and after sewer construction in Orangi; the improvement speaks for itself

THE OUTCOME

SUCCESSES

■ A high rate of latrine installation was achieved in the first few years of the programme. Over 10,000 latrines were installed.

■ The provision of loans in kind or as cash from the revolving funds, coupled with sanitation promotion, encouraged villagers to accept latrines.

PROBLEMS

■ Enthusiasm in the programme declined from 1983 onwards following the appointment of a new District Council Chairman. Development emphasis is now being placed on roads, electrification and primary schools.

■ In areas with a low water table there is a shortage of water for sanitation purposes which limited the use of pour-flush latrines.

■ The PSP did not recruit and train sufficient Sanitation Promoters to cover the number of villages encompassed by the scheme. The Sanitation Promoters were expected to cover large areas without proper transport.

■ The four project components - biogas plants, water cisterns, soakpits and latrines - were not integrated.

ANNEX 12

Comments to consultants on NWFP inception report
and on future work

(North West Frontier Province)

March 22, 1989

COMMENTS TO CONSULTANTS ON NWFP INCEPTION REPORT AND ON FUTURE WORKGeneral

1. The Mission recognises that the Inception Report represents a great deal of work in a short time and commends the Consultants accordingly. The Mission is concerned, however that the report lacks clarity in its presentation, in particular of the key critical issues and conclusions in section 4. In addition, the Mission is concerned that the presentation of initiatives in section 5, whilst containing many important proposals (such as needs assessment surveys and institutional adjustments), is characterised by the limited initiatives in other areas (such as in water supply O & M options, in cost recovery mechanisms, or in HRD).

Institutional Aspects

2. Given limited financial resources now and in the future, preparation of the Plan and subsequent project proposals must take into consideration existing institutional capacity, as well as the anticipated low rate of absolute expansion. The capacity of relevant line departments and institutions required for the implementation of future programs in the sector is limited. References in the Inception Report to the establishment of new cadres of various staff have raised a concern that institutional capacity is not being given sufficient consideration.
3. Effective transfer of O & M costs to beneficiaries will have to be supported by clear public policy statements on the part of Government. The mission recommends that suitable guidelines for such policy statements are prepared for Government's consideration.
4. The mission also wishes to stress the importance of assessing the political feasibility of the Plan and proposed projects as they are developed. Government support in this assessment is essential and has been agreed.
5. Issues concerned with user involvement in planning, implementation, and O & M of water and sanitation schemes will require closer analysis and definition by the consultants.
6. While effective intersectoral coordination of all departments and other institutions involved in the rural water and sanitation program is desirable and should be sought, it is too often difficult to achieve in practice. Accordingly, it would be risky to develop a Plan and projects which are very dependent on close inter-agency coordination.

7. The roles and responsibilities proposed in the sanitation policy paper prepared by PHED to be taken on by PHED, LGRDD, district councils, union councils, and community-based organizations should be subjected to further analysis and assessment in light of their respective present and potential institutional and financial capacities.

Water Supplies

8. In analysing present constraints and developing viable solutions for water supply, the consultants could make more use of available experience. In order to define objectives objectively and set realistic targets, collection of data concerning the functioning and use of existing facilities is important.
9. In view of the need to increase the proportion of total costs recovered, consultants should give high priority to analysis of costs, affordability and acceptability of various feasible technology option and service levels. Low-cost technologies, like dug wells, handpumps, and simple gravity systems with standposts will deserve priority. New technology options and system designs may need to be tested and demonstrated before being incorporated in large scale programmes.
10. Considering the reasonable level of coverage which has been already achieved in NWFP for rural water supplies, the development of sustainable maintenance systems (taking account of the potential roles of PHED, users, local government authorities, and the private sector) should have high priority.

Sanitation & Drainage

11. The general approach outlined in the Inception Report for 'disposal of human waste and sanitation' seems appropriate. Projects developed along these lines should be feasible, affordable, and effective.
12. Both affordability and willingness to pay for latrines in rural NWFP households need to be looked into in greater detail. Is there a gap between affordability and willingness to pay that social marketing, health education, and/or other efforts might reduce? What percentage of households are in real need of credit or subsidy? The present subsidy which is being applied as an incentive rather than on the basis of need will be prohibitively expensive if it is to be made available on a non-selective basis to the two million rural households in NWFP. It also establishes a precedent for subsidy which may be difficult to retreat from if it becomes unaffordable in the future.
13. Further development of technical options for sanitation is possible. In particular, lower cost options should be investigated to increase the affordability of latrines. Attention should be given to reducing the cost of latrine

pit lining through the use of ringbeams and off-set superstructures, if this has not already been done. A basic, flexible pit and slab design(s) over which a superstructure could be built using a variety of materials would allow adaptation to meet the financial, durability and prestige requirements of individual households.

14. Construction of latrines at schools should only be undertaken if coordinated with training and organisation of students and teachers to ensure that the facilities are cleaned and maintained. Too often, latrines at schools and other public places are over-used and not maintained. They can become an actual health hazard, with a negative demonstration value. As a demonstration to encourage latrine construction in rural homes, careful attention should be given to the design of school latrines. A single, multicompartment structure may be the most efficient design for a school, but it does not represent an appropriate model for a household.
15. Improving the hygiene behaviour of children is an important aspect of sector development. However, careful consideration should be given to the relative effectiveness of focussing health education campaigns on mothers and the household versus schools. Improvement of the hygiene education curricula in schools should be part of a package of health education interventions, but not the primary focus. It is also important that any latrine construction campaign be integrated with broad-based health education and promotional efforts, and coordinated with the provision of safe and adequate water supplies.
16. Provision of credit as suggested in the report may be an effective means of increasing the affordability of latrines. An examination should be undertaken of existing and traditional loan arrangements in NWFP. Wherever possible, existing arrangements and institutions which are understood by the community and proven to be effective should be used to provide credit.
17. It is unlikely that masons will be able to carry out effectively all of the responsibilities which have been proposed for them in the Inception Report. Careful consideration should be given to the division of responsibilities for marketing, health education and administration of credit between extension workers, government, NGOs, and, to a limited extent, masons.
18. Drainage schemes for rural communities should not be undertaken in an ad hoc manner. Drainage should be viewed as an integral component of village-level physical planning to ensure that drainage problems are not merely shifted from one area of a community to another. Affordable, appropriate solutions for rural drainage should be sought. For example, the provision of properly graded roads and paths as opposed to underground drainage.

Hygiene Education

19. With the exception of a few small experimental schemes, almost no hygiene education is currently being carried out in NWFP. Experience from elsewhere suggests that expectations of the impact of hygiene education per se must be realistic and modest, since it is seeking to introduce and sustain major behavioural changes.
20. Future work should focus on better defining institutional responsibilities for hygiene education; in particular, which department and cadres should take the lead. Given their technical skills and rural staff infrastructure, this will probably be the Department of Health (DOH). They will need support from the staff of other involved agencies which are implementing water and sanitation activities to ensure consistency and reinforcement of messages. How this will be achieved, including the division of responsibilities and coordinating mechanisms, will need to be clearly specified.
21. Given the lack of experience in hygiene education, it is important that a full inventory is made of the hygiene education work that has already been done, both in NWFP and elsewhere in Pakistan. This will include work with Afghan refugees. It will also include a synthesis of similar experience in related programmes, such as the immunization programme and the population programme. Subsequent work will then be able to utilize fully existing resources and experience. Also, the potential of the full range of the different types of media, including traditional, should be considered.
22. Care should be taken not to treat hygiene education as an independent, "vertical" programme. It is important to preserve the balance of DOH's work, particularly in regard to how hygiene education activities relate to all other health education activities. The women's welfare programme should be explored as one possible avenue for sanitation education at village level, since a full cadre of staff already exists.

Community Participation

23. In considering institutional options the Consultants should study the possibility of using village based organisations (user associations, Village Development Organisations and Village Organisations) for the identification, planning, implementation and management of water supply and sanitation schemes at the village level. The use of such organisations may increase the possibility of capital cost recovery and collection of service charges for operation and maintenance.
24. The ability of community based organisations to finance, implement and manage water supply and sanitation schemes will be determined by the technological choices that are available. To enhance the possibility of success special

attention has to be paid to appropriate technology in the provision of cost-effective water supply and sanitation schemes.

25. The government line departments can be most effective in playing a supporting role rather than a direct implementation role in the development of village based community organisations (e.g. user associations for water supply, lane associations for sanitation and drainage). The line departments should assume specific responsibility for training, funding, input supply, technical and managerial assistance and monitoring and evaluation.

Women-in-Development

26. The Consultants need to identify the whole spectrum of constraints that women face (institutional, technical, social and economic) in the area of water supply, sanitation and health and identify specific initiatives that will address these constraints. The Consultants should involve women from the target population in the diagnostic process.
27. There is a need to review the initiatives of the Women's Division, NGO's, development projects and line departments in addressing some of the constraints faced by women in the water supply and sanitation sector. The Strategic Investment Plan should suggest ways to coordinate these efforts and identify initiatives which strengthen and build on existing programmes.
28. The Consultants need to adopt an integrative approach in defining the role of women and integrate the specific interventions aimed at women in the overall development initiatives that they propose in the Strategic Investment Plan.

Non-Governmental Organisations

29. The Consultants need to examine the role of existing and planned NGOs like the Aga Khan Rural Support Programme and the Sarhad Rural Support Corporation in initiating social sector programmes aimed at delivering some basic water supply, sanitation and health facilities to rural communities.
30. The Consultants need to examine the role of NGOs in the provision of support services to community-based organisations involved in social sector activities. In particular, the Consultants need to determine the role of NGO's as financial intermediaries in the provision of credit and in organising training, input supply and other crucial inputs.

Human Resources Development

31. The training requirements implied in the Inception Report are many and varied. They include inputs at the community

feasibility of O & M cost recovery for different systems can then be assessed, and realistic targets established regarding the degree of cost recovery achievable.

38. Experiences with decentralized financial management and cost recovery throughout the province and elsewhere in Pakistan should be reviewed. This would provide a basis for determining the most appropriate institutional arrangements for financial management and cost recovery. In this analysis it would be important to identify potential financial intermediaries, financial management methods, and organizations/groups which have access to credit.
39. Any initiative which proposes credit schemes should be viewed very cautiously, since it could potentially introduce a whole new range of institutional complexities.

Monitoring and Evaluation

40. No section/initiative on monitoring and assessing the effectiveness of the sector development strategy was included in the Inception Report. The Strategic Investment Plan should include a proposal for monitoring which defines the indicators to be looked at to measure changes in hygiene practices, use and functioning of water supply and sanitation systems, achievement of physical targets, and impact on health. The institutional setting for implementation of monitoring and evaluation should also be defined. The Plan should also include baseline environmental health data (morbidity/mortality statistics, health infrastructure and staffing patterns, etc.)

General

41. The Inception Report implies that, except where groundwater is saline (in the "barani" areas), water resource availability is not a constraint to rural water supply development. It is important that this be confirmed. In addition, it would be of value to identify the range of water supply options available area by area (such as areas with groundwater levels suited to the extensive use of deep or shallow lift handpumps). The report also states that "most" water in the province is used for drinking. This is unlikely to be so, given the extent of irrigated agriculture.
42. In preparing the Investment Plan, consideration should be given to the need for preparing guidelines for determining priority investments (eg. on the basis of socioeconomic or health indicators), and for planning (ie. service levels and technology choice). In addition, the need for the adoption of standard policies and procedures should be emphasised, to avoid perceptions of inequity between neighbouring communities.

ANNEX 13

N.W.F.P.

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

Inception Report
(Executive Summary)

N.W.F.P.

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

Inception Report

*to the Ministry
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March, 1989

Wardrop - Acres
Cowater International
NESPAK.

EXECUTIVE SUMMARY

As a result of a review of the water supply and sanitation sector presented by the World Bank in a report dated June 1988, agreement was reached with the Government of Pakistan to implement a project to prepare a strategic investment plan for the sector for all provinces. The plan is intended to engender projects which will contribute to the betterment of health and overall quality of life of the rural population through more cost-effective and sustainable water supply, sanitation and hygiene education initiatives while maximising community involvement.

A strategic planning approach has been adopted for this work to focus on key issues and linkages as a means to develop programmes and projects meeting the plan objectives as quickly as possible.

The project team was mobilized in early January 1989. This Inception Report presents the results of work completed to mid-February as a basis for discussion between the Government of Pakistan, Government of NWFP, the World Bank and the project team. Following such discussion, the issues presented in this report and conclusions reached will be elaborated and developed.

Major issues identified to date have centred around the need to secure meaningful community participation by enhancing people's knowledge and awareness of the health aspects related to water supply and sanitation. These issues are:

Water Supply

- . criteria for, and design of, water supply systems;
- . cost of water supply systems;
- . operation and maintenance of systems;
- . knowledge and skills required to maintain systems and their availability in rural communities; and
- . willingness of users to pay for water.

Sanitation

- . knowledge and awareness of the health hazard posed by human and animal waste;
- . household practices for disposal of human waste;
- . social perception of promotion of sanitary waste disposal;
- . criteria for, and design of, disposal systems;
- . costs of disposal systems;
- . operation and maintenance of disposal systems;
- . criteria for, and design of, street drainage systems;
- . costs of drainage systems; and
- . operation and maintenance of drainage systems.

Role of Women

- . Rural women's knowledge and awareness of water-related health issues; and
- . the purdah system and its influence.

Private Sector

- . capacity and capability to participate in the sector; and
- . potential for increased involvement.

Institutions

- . the mandates of line departments and their capacity and capability;
- . knowledge and awareness of local elected officials in the issues of the sector;
- . resources available to local bodies; and
- . capacity and capability of Non-Governmental Organizations.

Rural Community

- . knowledge and awareness of water-related health issues
- . leadership, both formal and informal; and
- . capacity and capability of community based organizations (CBO's).

NWFP has made significant progress in the provision of water supply with an estimated coverage of 52%. The target of 70% coverage by 1993 identified in the Seventh Five Year Plan is within reach. The burden of heavy expenditures on O+M and low cost recovery from beneficiaries remains as a major problem.

Good initial progress has also been made in the provision of latrines with a present estimated coverage of 1%. Spontaneous construction of latrines by individual families is now being observed although a major effort is still required to reach the Seventh Five Year Plan target of 20% coverage by 1993. The initiatives identified in this report are directed towards the achievement of the above targets while achieving lower net cost to government, higher community understanding of water-related health issues, greater community participation and an enlarged role for the private sector.

The following initiatives are put forward to indicate the direction being recommended for study and more detailed examination during subsequent stages of this project. They are, therefore, conceptual in nature and subject to modification or deletion during interactive discussion with the Steering Committee, Government of Pakistan, World Bank or other donor agencies. It is expected that some crystallization of options indicated will take place between the date of completion of this report and the date of review with the World Bank mission which is scheduled to visit Peshawar on March 21 and 22, 1989.

The major initiatives proposed are:

Water Supply

1. For smaller rural communities, reallocate responsibility for initiation and motivation of schemes to District and Union Councils. Provide additional technical support to District Council staff, augmented as necessary, to ensure that appropriate criteria, and design and construction standards are met. If necessary, technical support from PHED or LGRDD should be provided, perhaps on a hire charge basis.

An option on this initiative is to assign the motivational role to LGRDD with technical support from either LGRDD or PHED. In each case the Union Council would be the body responsible for implementation.

2. Focus attention of World Bank and other donor agencies on those Districts which presently have below average coverage (Mansehra, Kohistan, Swat and Dir).

3. Explore options for the contracting of operation and maintenance and associated billing, to the private sector. A variation of this initiative, for new schemes, would be to contract out groups of village water supply schemes on a turn-key basis including design, construction and operation. The contractors' costs would be totally recovered from user charges.
4. Encourage the wider use of handpumps, including pumps capable of operating at water depth of up to 50m, by supporting manufacturers and installers. Such support would encompass training to improve design, increased standardization of designs and establishment of credit facilities.

Sanitation

5. Promote the activity of the private sector in providing latrines to householders at their cost. Line departments would upgrade and standardize designs, provide training to entrepreneurial masons, assist in providing credit to householders, and undertake a supporting media campaign. The geographic focus would be those areas already supplied with water systems.
6. In conjunction with the initiative described above replicate the waste disposal initiative presently being executed by PHED with aid from KFW. This initiative focuses on latrine construction in rural schools (male and female) together with incentives to householders to become pioneer installers and demonstrators of private latrines.

7. Raise the level of knowledge and awareness among rural women on the role of water supply and waste disposal in promoting family health. This initiative requires the development of a hygiene education programme accompanied by a demonstration latrine programme with latrines constructed, with female involvement, in female community or education centres. Where no such center presently exists, promote the formation of one.
8. Establish criteria and designs for street drainage in rural settlements, culminating in the preparation of a simple design manual for use by LGRDD, District Councils and Union Councils.

Community Participation

9. Conduct a needs assessment survey in each area prior to the undertaking of water supply or waste disposal programmes. The survey will serve to raise the level of community awareness about such programmes, allow the community to express its views, and provide basic data for other initiatives.

Human Resource Development

10. This initiative is directed to the support of other initiatives by undertaking a broad programme of improvement to the technical and entrepreneurial skills available to the rural population. This initiative involves the use of technical and vocational training institutes to train masons, carpenters, pipe-fitters,

plumbers, electricians, diesel mechanics etc. in skills needed for the sector. Training facilities will be needed at the Tehsil or Union Council level which indicates the use of mobile training units.

Environment & Water boards.

ANNEX 14

Aide Memoire

Inception Report Review
(North West Frontier Province)

Aide Memoire

22 March 1989

Strategic Provincial Investment Plan and Project Preparation for Rural Water Supply, Sanitation and Health in NWFP: Inception Report Review.

1. This Aide Memoire summarises the main points of the discussions on the above report which were held between the Government of NWFP, the Consultants and the World Bank Mission on 22 March, 1989. The meeting was chaired by Mr. Sulaiman Ghani, Secretary, Planning and Development Department. Representatives of the Netherlands Aid Agency, Asian Development Bank and Canadian CIDA, also participating in the Mission, took part in the discussions.
2. While there was general support for the findings of the report, it was agreed that there were a number of areas in the report that needed updating in the light of discussions with the Government and the Mission, in order that further work would proceed on a sound basis. It was subsequently agreed that a short supplement to the Inception Report would be prepared by the consultants which would fully take account of the views of both the Government and the Mission. This supplement would be available within three weeks.
3. The Government stressed the importance of budgetary constraints and the limitations this would place on future sector development. Recurrent cost limitations were even more serious than capital costs and hence all feasible efforts had to be made to reduce the O & M financial burden. This included the need for communities to take responsibility for O & M management and costs for all new small schemes, to use appropriate technology and to explore ways and means of increasing the community's contribution to O & M costs of both new large-scale schemes and existing schemes. With the new initiatives being taken on sanitation, it was agreed that minimising Government financial responsibility from the outset was important.
4. It was agreed that sustainability of new schemes was most important, not only financially but also institutionally. Therefore, it was a key consideration in assessing project feasibility to ensure that the project would operate within a sound institutional framework. The experience of the Mardan project was instructive in this regard.
5. The Mission outlined areas where Government guidance to the consultants would be needed. These included financial constraints and anticipated shifts in the ADP, the roles of the line departments concerned, including the Departments of Health and Education, and how to improve co-ordination and potential changes in the roles of local government and village organisations. Of particular importance was guidance from the Government on political constraints and feasibility of various proposed initiatives. The Government agreed to provide this, acknowledged the importance of the political

dimension and undertook to identify key administrators and political leaders and make arrangements for the necessary meetings.

6. The need for close collaboration between the Consultants and the line departments was agreed. While the Consultants are working very closely with PHED, there is also a need for them to liaise closely with the Health and Education Departments and, in particular, the LGRDD due to the potentially major role of local government in the sector. In addition, the Consultants will need to obtain budgetary information from the Finance Department and a range of information from the Bureau of Statistics.
7. On geographical scope, it was agreed that FATA should be included in the study but that the approach in the tribal areas would need to be different to that of the settled areas. It was possible that difficulties would be encountered with issues such as cost recovery. Within the settled areas, it was agreed that the report's proposed intensive concentration on under-served northern districts was not justified given the ready availability of water in those areas and that particular regard should also be paid to the arid southern districts.
8. The Government stated that a number of the ideas in the report, while worthwhile, would require careful piloting and assessment. This applied particularly to the privatisation of O & M proposals. Similarly, experimentation may be necessary in other areas such as large-scale NGO involvement, and credit proposals should be studied cautiously.
9. At the village and local levels, the Government stressed that existing organisations should be used rather than establishing new organisations. Fully utilizing the experience gained to-date, particularly by LGRDD, in project development was important. It was agreed that the consultants would need to be sensitive to current policy changes being made, e.g. in the health sector, by the Federal and Provincial Governments which could directly affect their recommendations.
10. The Mission would like to thank the Government of North West Frontier Province for the considerable support that they are providing to this study, and for the hospitality accorded to the Mission. We would like to emphasise the need for full participation of staff of all the line departments in the next stage of the study, in order that the Investment Plan fully reflects the views of the Government. The next Mission of the World Bank and other interested donor agencies will be in July to discuss the Strategic Investment Plan. Comments on the Consultant's report are attached.

ANNEX 15

Aide Memoires

Inception Report Review - Province of Sind and Punjab

18th March 1989.

AIDE MEMOIRE

Strategic Provincial Plan and Project Preparation for Rural Water Supply Sanitation and Health: Inception Report Review - Province of Sind.

1. This Aide Memoire summarises the discussions on the above report which were held between Government of Sind, the consultants and the World Bank mission on 15th March in Karachi. The meeting was chaired by A. B. Soomro, ACS, Planning and Development Department, Government of Sind. A representative of the Netherlands Aid Agency, the Asian Development Bank, Canadian CIDA, and the Federal Ministry of Local Government also participated in the discussion.

2. There was broad support among those present on the conclusions of the inception report, including the need for community participation in scheme management, cost recovery, and adaptation of organizational arrangements and technologies to meet the special needs of rural Sind (small, dispersed settlements and frequently brackish ground water).

3. Mr. Soomro emphasised the importance of the study to the Government of Sind and the high priority attached by the present Government to improving water and sanitation conditions in rural areas. He stressed that the workplan, project and funding arrangements should go together. It was important to have donor commitment early in the process, and it was important that incremental financing requirements for the Government be quantified well in advance, so that they could be incorporated in the ADP. Mrs. Bromhead explained that if all went well, Bank approval of a possible project could take place by May 1990. Project commencement would coincide with the Government of Sind 1990-91 financial year. Mr. Soomro answered that he hoped some bank assistance could be provided during the 1989-90 financial year. Mrs. Bromhead said that this could be possible through a project preparation facility or retroactive financing arrangements after November, 1989, when completion of appraisal was scheduled. CIDA, ADB and the Netherlands Aid representatives said they were interested in the national strategic investment plans and projects under preparation, but were not yet in the position to make any specific commitments.

4. The strategic investment plan for Sind province would provide substantially more information, together with detailed investment and institutional requirements. There were a number of areas, however, in which the consultants' Team requested further guidance from Government of Sind. These included:

- i) The likely availability of financial resources from the public sector for increases in recurrent funds (eg. from staff);
- ii) The demarcation of roles between PHED and RDD, given the small settlement size in rural Sind;
- iii) The future role of the elected local Government, in particular the district councils and Union Councils;
- iv) The future Organizational arrangements for O&M (community-based cost-recovery, indirect cost-recovery through taxation, possible privatization of O&M, the supporting role of RDD, PHED or the district councils, etc.);
- v) The future role of the health and education departments;
- vi) Organizational arrangements for monitoring and evaluation;
- vii) The role of SAZDA and its links with the provincial line departments; and
- viii) The possible role of the private sector.

5. It was stated that the plan /project preparation process was still in the preliminary stage. There was much further detailed work to be done. Specific comments on the report are provided in annex 1. However, these comments are intended to assist in preparation of the strategic plan; it was agreed that no modifications would be made to the inception report.

6. Mr. Syed Aziz-ud-Din, Chief Economist emphasized that the Government of Pakistan would provide survey assistance to the consultants to complete their work. In particular it might be useful for them to use field staff of the Bureau of Statistics, who were currently available, for detailed data collection. Mr. Parry will follow this up with the chief economist over the coming days.

7. Some members of the mission undertook field visits. This provided team members with a broad exposure to the problems and opportunities in the sector in Sind. The visit was well arranged, and received considerable support and enthusiastic response from government officials, the community and the consultants team. The mission is grateful for this.

8. The already widespread use of handpumps where point source supply is technically feasible, indicates that further development and promotion of community based handpumps approaches could improve sector coverage significantly; a workable maintenance approach needs to be developed, however. Sanitation investments should be

undertaken in parallel, to achieve benefits and meet expressed community preferences.

9. The practice of sustained recovery of capital and O&M cost is currently not a priority at local or provincial level though an adequate administrative framework is in place at local level. Considerable attention should now be given by the government to addressing this including exploring means of indirect recovery. Much of the considerable investment in PHED water supply scheme is currently unproductive scheme or non operational, under-utilized and overdesigned. During the next months the consultants should identify alternate strategies to respond to this.

10. The mission would like to thank the Government of Sind for the exceptional support that they are providing to this study, information, advice and staff time. We would like to emphasize the importance of full participation by staff of all the concerned government agencies in the next steps of the plan, so that the future documents fully reflect the views of the government and basis for projects that can be implemented. The mission will return in July to discuss the strategic investment plan. The precise dates of the mission will be included in the final Aide-Memoire to be sent to you from Islamabad.

AIDE MEMOIRE

March 26, 1989

Strategic Provincial Investment Plan and Project Preparation for Rural Water Supply, Sanitation and Health in Punjab: Inception Report Review.

1. This Aide Memoire summarises the main points of the discussions on the above report which were held between the Government of Punjab, the Consultants and the World Bank Mission on March 26, 1989. The meeting was chaired by Mr. Mohammad Azhar, Secretary, Planning and Development Department. Representatives of the Asian Development Bank and Canadian CIDA who are part of the Mission took part in the discussions.
2. The Mission hoped that the Strategic Provincial Investment Plan to be prepared by the Consultants would be adopted by the Provincial Government as its investment plan for the sector and therefore, it was important for the Provincial Government to be very closely associated in the preparation of the plans.
3. The need for close collaboration between the Consultants and the line departments was agreed. While the Consultants are working very closely with PHED and LGRDD, there is also a need for them to liaise closely with the Health and Education Departments. In addition, the Consultants will need to obtain budgetary information from the Finance Department and a range of information from the Bureau of Statistics.
4. While there was general support for the findings of the report, it was agreed that there were a number of areas in the report that needed more indepth investigation and analysis. These areas included willingness to pay, community experience in managing village based water supply and sanitation schemes and strategic considerations in evolving a policy of water supply, drainage and sanitation coverage (e.g. a review of Government's current policy to provide water only to the saline and barani areas).
5. The Mission outlined areas where Government guidance to the Consultants would be needed. These included the role of the line departments concerned, improvement of co-ordination and potential changes in the roles of the local government and community based organisations and the possibility of increasing the role of the private sector. Of particular importance was guidance from the Government on political constraints and the political and financial feasibility of various proposed initiatives
6. Government guidance was sought on a possible assistance

program to the private sector for upgrading handpump installation or design in sweetwater zones. It was agreed that this investigation be continued.

7. The Government is undertaking some innovative initiatives e.g. contracting out O & M responsibility for a water supply scheme to a private firm. It would be extremely helpful if the Government shared their experience in the implementation of such schemes with the Consultants.
8. It is the opinion of this Mission, and the Project Team, that involvement of the benefitting communities in all phases of project implementation is necessary for achieving development that meets the felt needs of the community and retains their commitment to its sustained operation and maintenance. Again the guidance of the Government to the Project Team in formulating workable project implementation procedures becomes essential if the Strategic Investment Plan is going to be a useful document for soliciting external support.
9. The Government reiterated its support for the policy that O & M costs should be met by the Community but agreed that this would be difficult as the expectations of the people had been shaped by a whole range of programmes which offered communities schemes on very different basis (self-financed, matching grants and outright grants). The Consultants were urged to investigate the mechanisms which would make it possible for the community to meet O&M expenses.
10. It was agreed that the Department of Health would carry out hygiene education, in coordination with agencies implementing water supply, sanitation and drainage schemes.
11. While considering the institutional option of channeling funds through the District Councils, the Provincial Government suggested that the current system of disbursement of funds through councils to their members on a population basis constrained effective implementation of schemes. The provision of additional grants to the District Councils through the provincial government would require agreement at the highest political level.
12. At this stage the major thrust of the Inception Report was on considering institutional initiatives which would help in the implementation of physical targets which were being determined by the Consultants. These physical initiatives would be clearly specified in the Strategic Plan and would include rehabilitation of existing schemes; new water schemes in saline and barani areas; drainage and waste disposal schemes; sanitation promotion schemes; water resources data ; hygiene education; and supporting HRD and assistance with community participation in schemes.

13. The Government was concerned about the absence of groundwater data in barani areas and stressed the need for a detailed survey. The PHED department would follow up with ODA (UK) on the progress on the groundwater investigation proposal which they were contemplating. The Consultants would prepare detailed terms of reference for such an investigation, underline its importance, and define the institutional arrangements for the study.
14. There was a discussion on the participation of women in the planning of water supply and sanitation schemes. It was agreed that their involvement was essential in such matters as site selection, technology options, operation and maintenance, and would appreciably enhance the accessibility of water facilities and sanitation schemes to women.
15. The Mission would like to thank the Government of Punjab for the considerable support that they are providing to the Consultants Team. We would like to emphasise the need for full participation of staff of all the line departments in the next stage of the study, in order that the Investment Plan fully reflect the views of the Government. The next Mission of the World bank and other interested donor agencies is planned for July 1989 to discuss the Strategic Investment Plan.