

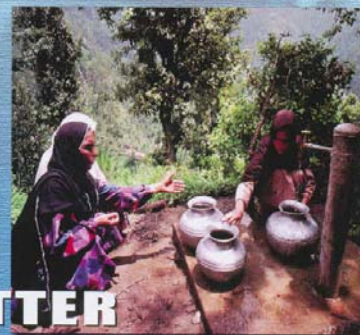
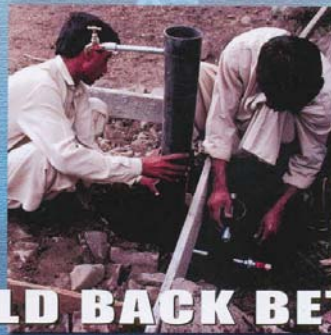
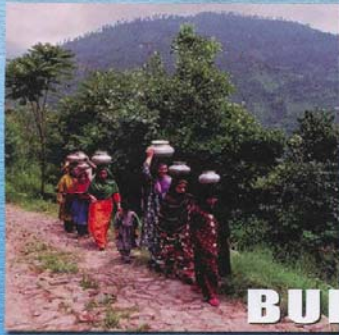


Government of Pakistan

Earthquake Reconstruction and Rehabilitation Authority (ERRA)
Prime Minister Secretariat (Public)



WATER AND SANITATION STRATEGY



BUILD BACK BETTER



July 2006 - June 2009



Rebuild, Revive
with
Dignity & Hope

Abbreviations and Acronyms

AJK	Azad State of Jammu and Kashmir
CBO	Community-based Organization
CG	Core Group
DFID	Department for International Development, UK
DRAC	District Reconstruction Advisory Committee
DRU	District Reconstruction Unit
ERRA	Earthquake Rehabilitation and Reconstruction Authority
GAG	General Advisory Group
HDPE	High Density Polyethylene
LG&RD	Local Government and Rural Development Department
LGB	Local Government Board, AJK
NGO	Non-governmental Organization
NWFP	North West Frontier Province
O & M	Operation and Maintenance
PERRA	Provincial Rehabilitation Reconstruction Authority
PHED	Public Health Engineering Division
PWD	Public Works Department, AJK
RCC	Reinforced Concrete Cement
SERRA	State Rehabilitation Reconstruction Authority
Sft	Square feet
TA/DA	Travel Allowance and Daily Allowance
TAG	Technical Advisory Group
TMA	Tehsil Municipal Administration
W&SD	Works and Services Department, NWFP

TABLE OF CONTENTS

1.	INTRODUCTION	6
	1.1 Background	6
	1.2 Overview of Damage and Needs	7
2.	THE STRATEGY	10
	2.1 Vision	10
	2.2 Objectives	10
	2.3 Scope	11
	2.4 Guiding Principles	12
3.	COMPONENTS AND BUDGET ESTIMATES	16
	3.1 Component Activities	16
	3.2 Budget Estimates	18
4.	IMPLEMENTATION ARRANGEMENTS	22
	4.1 Implementation	22
	4.2 Recruitment and Procurements	25
5.	MONITORING AND EVALUATION	26
	5.1 Targets	26
	5.2 Indicators and Reporting	28
	5.3 Evaluation	30
6.	WORK PLAN	31
	ANNEXES	33
	APPENDICES	53
	A. List of Water and Sanitation Schemes, NWFP	54-111
	B. List of Water Supply Schemes, AJK	112-191

List of Annexes

	Page
Annex-1 – Overall budget estimates for NWFP	33
Annex-2 - Budget estimates for District Abbottabad	35
Annex-3 - Budget estimates for District Battagram	37
Annex-4 - Budget estimates for District Kohistan	39
Annex-5 - Budget estimates for District Mansehra	41
Annex-6 - Budget estimates for District Shangla	43
Annex-7 – Overall budget estimates for AJK	45
Annex-8 - Agency-wise budget estimates for AJK	47
Annex-9 - Budget Estimates for AJK LG&RD (Urban)	49

List of Appendices

Appendix- A. List and cost estimates of individual schemes in NWFP A-1

Appendix - B. List and cost estimates of individual schemes in AJK B-1

1. INTRODUCTION

1.1. Background

1. The earthquake of 08 October 2005 severely impacted upon the existing drinking water supply and sanitation systems in five districts each of the North West Frontier Province (NWFP) and Azad State of Jammu and Kashmir (AJK). Intake structures, treatment plants, storage reservoirs, supply mains and distribution networks were damaged or destroyed. Wells and springs reported significant reduction in yield while water sources in many localities dried up or were buried under the land slides. Household latrines, sewerage networks, drains, solid waste management related equipment and infrastructure and office and residential buildings of the line department also suffered considerable damages.
2. In response to the tragedy, the Government of Pakistan, in collaboration with national and international development partners, launched a water and sanitation emergency relief program. The program entailed restoration of water supply systems, treatment of water through packaged water treatment plants, provision of water in camps through tankering and laying of distribution system and provision of storage tanks, chlorination of water supplies and water quality monitoring, distribution of water purification like filters and purification tablets, construction of latrines, bathing facilities and washing areas in camps, solid waste disposal in camps and urban areas and hygiene promotion campaigns. As a result of these interventions, safe water and sanitation facilities were made accessible to the affected population living in camps as well as settled areas and any major incidence of water and sanitation related diseases was averted.
3. The Government of Pakistan recognizes access to adequate water and sanitation facilities as a human right and, as part of its efforts to rebuild the affected areas, plans to rehabilitate and reconstruct water supply and

sanitation systems damaged or destroyed by the devastating earthquake of 08 October 2005. To this end, the Earthquake Rehabilitation and Reconstruction Authority (ERRA) has devised this “Strategy for Rehabilitation and Reconstruction of Water Supply and Sanitation Sector” to ensure that essential water and sanitation facilities are accessible and available to the affected population in support of the government policy of “Building Back Better”.

1.2. Overview of Damage and Needs

4. According to information provided by the Governments of NWFP and AJK, a total of 3880 water supply schemes, 1902 in NWFP and 1978 in AJK, were damaged and need to be rehabilitated or reconstructed. Of 1902 schemes affected in NWFP, 398 schemes (348 gravity and 50 tube wells/pumping) belong to Public Health Engineering Department (PHED) of Works and Services Department (W&SD) while 1504 (1220 gravity, 3 tube wells and 281 Hand Pumps) are owned by 12 Tehsil Municipal Administrations (TMAs), namely Havelian, Abbottabad, Mansehra, Ogi, Balakot, Battagram, Allai, Alpurai, Puran, Dassu, Palas and Pattan. District-wise number of schemes which need to be rehabilitated and reconstructed in NWFP is given in Table 1. District-wise details of individual schemes affected in NWFP are given in Appendix-A.
5. In AJK, 10 affected urban water supply schemes are under the responsibility of the Public Health Engineering Department (PHED) of Public Works Department (PWD) AJK. The remaining 1955 (1937 gravity and 18 pumping) schemes are located in rural areas and fall under the purview of Local Government and Rural Development Department. Table 2 shows district-wise number of schemes which need to be rehabilitated and reconstructed in AJK. District-wise details of schemes of all the affected schemes in AJK are presented in Appendix-B.

6. Water supply and sanitation facilities in 420 healthcare facilities and 5857 educational institutions were also damaged or destroyed.

Table 1. District-wise number of public and community-owned drinking water supply systems in need of rehabilitation/reconstruction in NWFP

District/ Schemes	A.Abad	Battagram	Kohistan	Mansehra	Shangla	Total
Gravity	137	359	123	552	397	1568
Pumping/Tube wells	38	0	0	15	0	53
Hand Pump	105	7	0	168	1	281
Total number of schemes	280	366	123	735	398	1902
Number of PHED owned schemes	92	61	38	99	108	398
Number of TMA schemes	188	305	85	636	290	1504

Table 2. District-wise number of public and community-owned water supply schemes in need of rehabilitation/reconstruction in AJK

District/ Schemes	Bagh	Muzaffarabad	Neelum	Poonch	Sudhanoti	Total
Gravity	536	1163	73	178	7	1957
Treatment Works- Gravity- Pumping	1	2	0	0	0	3
Pumping	11	0	0	3	4	18
Total number of schemes	548	1165	73	181	11	1978
Number of PWD owned schemes	3	7	0	0	0	10
Number of LG&RDD owned schemes	545	1158	73	181	11	1968

7. Over 50,000 household latrines were damaged in NWFP and AJK. Sanitation schemes, including drains, street pavements and public toilets, were also damaged.
8. In AJK, drainage system was severely affected in Muzaffarabad City. Drains, street pavements, public toilets and solid waste management system were affected in 12 other towns of AJK including Bagh, Kahuta, Athmaqam, Rawalakot, Chikar, Hattian, Garhi Dupatta, Pattika, Abbaspur, Chinari, Dhirkot and Hajira.
9. Solid waste management related equipment and machinery of TMAs in NWFP and Municipal Corporations/Town Committees in AJK suffered losses due to earthquake and subsequently excessive use in the relief efforts. These agencies also need additional equipment to clear the backlog generated from relief activities and to ensure solid waste management during reconstruction and rehabilitation phase.
10. In NWFP, buildings of PHED, Works and Services Department as well as TMAs have been partially damaged except TMA Balakot office which has been totally destroyed. Buildings of Public Health Engineering Department of AJK Public Works Department and AJK Local Government Rural Development Department have been destroyed in Muzuffarabad, Bagh and Rawalakot and partly damaged in other areas.

2. THE STRATEGY

2.1. Vision

11. The vision for the water and sanitation sector is to improve the quality of life of people of the earthquake affected areas by reducing risks to the public health through provision of equitable, sustainable and reliable supply of sufficient quantity of safe water and appropriate sanitation services.

2.2. Objectives

12. The specific objectives are:

- (i) To rehabilitate and reconstruct all public and community-owned drinking water supply, sanitation and solid waste management systems damaged or destroyed as a result of the earthquake of 08 October 2005;
- (ii) To expand, improve and upgrade the affected water supply and sanitation systems for increased disaster preparedness and enhanced service delivery in line with the National Drinking Water and Sanitation Policy, Pakistan Poverty Reduction Strategy and United Nations Millennium Development Goals;
- (iii) To restore, build and strengthen the capacity of relevant government departments, agencies and institutions, Non-Governmental Organizations (NGOs), Community-based organizations (CBOs) and other partners; and
- (iv) To bring about behavioral changes in favor of safe hygiene practices.

2.3. Scope

13. All public and community-owned schemes damaged or destroyed by the earthquake of 08 October 2005 and included in Appendices A and B will be rehabilitated/ reconstructed/upgraded on the basis of the following priority criteria:
 - Population served by the scheme
 - Extent of damages
 - Schemes serving, inter-alia, schools and hospitals
 - Accessibility
 - Level of involvement of community in implementation
 - Degree of mechanization
 - Availability of water source
14. Any affected scheme which may have been left out due to error or omission or lack of information will be rehabilitated or reconstructed subject to intimation of such scheme to ERRRA and approval thereof.
15. Additional development schemes will not be allowed from the funds made available for implementation of the Strategy. "Replacement schemes", however, will be constructed for relocated settlements or in lieu of the destroyed schemes.
16. In order to ensure that only qualified scheme are taken up for rehabilitation or reconstruction and to ascertain the extent of damages and refine cost estimates and design parameters, schemes included in Appendices A and B will be assessed in-depth by the line department agencies, District Reconstruction Unit (DRU) or development partners and sponsors prior to initiation of rehabilitation and reconstruction work.

2.4. Guiding Principles

17. The following guiding principles will be used to realize water and sanitation sector objectives:

A. Improved disaster preparedness and service delivery: Water and sanitation facilities will be built better and duly upgraded for disaster preparedness and mitigation. This will be achieved through the following measures:

- (i) Partially damaged structures and buildings would be retrofitted to ensure seismic resistance;
- (ii) Water and sanitation facilities will be located away from hazard-prone sites;
- (iii) Structures will be designed to comply with the revised/interim design codes;
- (iv) Pipes will be laid underground unless it is not technically or financially feasible to do so;
- (v) Earthquake resistant materials (such as HDPE (PE 80) and Galvanized iron pipes, RCC water tanks, submersible pumps, steel borehole casing of standard specifications) and construction techniques (such as flexible pipe joints) will be used where appropriate;
- (vi) Partly damaged schemes will be upgraded keeping in view the needs of un-served or under-served population.
- (vii) Replacement schemes will be properly sited and designed with due consideration, among others, to the current and anticipated future needs. A minimum service level of 45 and 120 liter per person per day shall be used for rural and urban schemes, respectively, subject to availability of water;
- (viii) Efforts will be made to avoid, and remove, existing inequities in provision of water and sanitation services; and

- (ix) Cost-effective and appropriate technological options to suit local conditions and social and cultural practices will be used. Operation and maintenance and sustainability will also be given consideration in the selection of the technological options.

B. Community participation: Target communities, especially women, will be involved in site selection, planning, design, implementation, monitoring and management of the schemes to promote community ownership and empowerment as well as sustainability. Active involvement of CBOs and user groups will be promoted in design and implementation of the community operated schemes.

C. Inter-sectoral approach: Water and sanitation will be integrated in related sectoral strategies of ERRA, especially housing, education, health and environment. To this end:

- (i) Sanitary latrines will be promoted as an integral component in all individual housing units to be constructed/supported under the ERRA's Housing Sector Strategy";
- (ii) Training on sanitary latrine construction will be imparted to masons, technicians, labor, communities and engineers as part of the ongoing ERRA's "Training Program on Construction of Earthquake Resistant Houses";
- (iii) All public buildings and facilities to be reconstructed in the affected areas under the "Governance Sector Strategy" will be provided with adequate water and sanitation facilities with due regard for gender. These buildings will also have special latrine facilities for the disabled;
- (iv) Adequate services for drinking water supply and sanitation as well as proper collection, treatment and disposal of solid and liquid wastes will be provided in the relocated/new settlements and towns;

- (v) Every health care facility and educational institution to be rehabilitated or reconstructed in the earthquake affected areas will be provided with adequate water and sanitation facilities. Health care facilities will also have proper waste management system. Provision to this affect has been made in the Health and Education Sector Strategies;
- (vi) Protection and integrated and sustainable management of water resources and management of debris and hospital, hazardous and industrial wastes will be addressed under in the “Environment Sector Strategy”; and
- (vii) Disaster preparedness strategy for water and sanitation sector will be prepared under the “Disaster Risk and Reduction Strategy”.

D. Capacity Building: Capacity of line department agencies and implementing partners will be built and strengthened to enable them to effectively undertake and coordinate rehabilitation and reconstruction related interventions as well as to operate, maintain and sustain water supply and sanitation services in the long term. Capacity of communities involved in the operation, maintenance and service delivery will also be strengthened.

E. Linkages and Partnerships: District Reconstruction Units (DRUs), Provincial Rehabilitation Reconstruction Authority (PERRA) and State Rehabilitation Reconstruction Authority (SERRA) will ensure that linkages are established with ongoing projects and programs in the affected areas including Clean Drinking Water for All Program, Safe Drinking Water Program, AJK Community Infrastructure and Services Program, AJK Community Development Project, AJK Multi Sector Rehabilitation and Improvement Project, Creating Assets for Rural Women Project, NWFP Community Infrastructure Project, NWFP Urban Development Project Sarhad Rural Support Program and other related

projects and programs to build synergies and avoid duplication of efforts. Private sector organizations will be encouraged and facilitated to provide technical assistance to the government for building of water and sanitation services. NGOs and CBOs will also be given important role in the implementation, especially in verification of damages, social mobilization, hygiene promotion, building partnership between line department / agencies and communities and capacity building of communities.

F. Coordination: “Water and Sanitation Core Group (CG) and General Advisory Groups (GAGs)”, comprising representatives of line government agencies, development partners, NGOs and private sector organizations, will be formed at the federal, provincial and district levels to provide fora for alliance building and exchange of ideas, information and experiences. The Groups will be led by the designated representative of ERRA/PERRA/SERRA/DRU who will arrange planning and coordination meetings of groups at regular intervals and ensure follow-up on decisions taken therein. Active coordination will also be maintained with relevant CGs & GAGs especially education, health, housing and environment.

G. Quality Assurance: Suppliers and contractors pre-qualified as per the criteria laid down by ERRA, will be engaged for supply of materials and execution of works, respectively, through a competitive bidding process. Quality of supplies and works will also be ensured through standardization and third-party supervision, respectively.

3. COMPONENTS AND BUDGET ESTIMATES

3.1. Component Activities

18. A brief description of the key components and activities therein is as follows:

i. **Rehabilitation and reconstruction of drinking water supply systems:**

This component will support rehabilitation, reconstruction and upgradation/improvement of the affected drinking water supply systems including gravity and pumping schemes, hand pumps, water treatment plants and related infrastructure.

ii. **Water quality monitoring and management:**

Under this component, all water sources of the affected schemes will be tested for physical, chemical and biological parameters and the water systems will be disinfected or provided with suitable treatment option depending upon the quality of water. Furthermore, simple water quality testing kits will be provided to implementing agencies as well as community organizations to enable them undertake regular water quality monitoring.

iii. **Rehabilitation and reconstruction of sanitation systems:**

All affected public and community sanitation schemes including drainage systems, street pavements and public toilets will be rehabilitated or reconstructed under this component.

iv. **Rehabilitation and upgradation of solid waste management systems:**

This component provides for development of “Waste Management Strategies and Plans” for all the affected TMAs and Towns as well as

repair and replacement of damaged municipal solid waste management related infrastructure, tools, equipment, machinery and materials. This will, inter-alia, involve design and development of sanitary landfill site, repair/reconstruction of filth depots and provision of waste bins, wheel barrows, vehicles and other equipment for proper management of solid waste. In addition, concerned Municipal Administrations/Authorities in localities where considerable quantities of solid waste have accumulated as a result of relief activities will be provided necessary additional equipment for its collection and disposal. Governments of NWFP and AJK, however, will allocate additional sources for implementation of the “Waste Management Strategies and Plans” in the long term.

v. **Rehabilitation and reconstruction of buildings:**

This component will support retrofitting, repair and reconstruction of collapsed/damaged offices and residential buildings of the line agencies including buildings of Public Health Engineering Division of Works and Services Department in NWFP as well as Public Health Engineering Department and LG&RDD in AJK and Tehsil Municipal Administrations in NWFP. Buildings of TMA Mansehra, TMA Balakot and PHED Battagram, however, will be covered under the Strategy for the Governance Sector.

vi. **Capacity building:**

This component aims to restore and further enhance the capacity of implementing agencies through provision of (i) incremental project staff, (ii) training on earthquake resistant designing, disaster preparedness, participatory planning, hygiene education/promotion, financial management, information management, project management and procurements, (iii) technical assistance/consultancy services for undertaking detailed assessments and feasibility studies where needed; preparation of designs, cost estimates, PC-1s, technical specifications and bidding documents; formulation of strategies/plans for improved

management systems, cost recovery and operation and maintenance; and supervision for quality control, and (iv) necessary office equipment, furniture and logistics support and incremental operational cost. In addition, the Governments of NWFP and AJK will fill the vacant positions in the concerned departments on priority basis. Local Government and Rural Development Department, Government of NWFP, has undertaken to make available services of two social mobilizers, one male and one female, to each of the affected TMA from the ongoing DFID-funded Rural Water Supply and Sanitation Project.

vii. **Community mobilization and hygiene promotion:**

This component will support community mobilization programs to encourage participation of the communities in the implementation of the schemes. Additionally, hygiene promotion and behavioral change communication programs will be implemented under this component in order to create a demand for sanitation facilities and advocate the need for, and promote, safe hygiene practices in the affected population.

3.2. Budget Estimates

19. The total budget for rehabilitation and reconstruction of water supply, sanitation and solid waste management systems/infrastructure in the earthquake affected districts of NWFP and AJK has been estimated at Pak Rs. 3,674 Million (US\$ 61.23 Million) – Rs. 1,635 Million for NWFP and Rs. 2,039 Million for AJK. Overall budgets estimates for NWFP and AJK are presented in Table 3.
20. District-wise and line department agency-wise budget estimates for NWFP and AJK are given in Tables 4 and 5, respectively.

Table 3. Overall budget estimates for water and sanitation sector

S.No	Item	Description	NWFP (M. Rs)	AJK (M. Rs)	Total (M. Rs)	Total (M. US\$)	%age of Total
1	Rehabilitation/Reconstruction of WSS/Infrastructure	3880 Nos. (1902 in NWFP and 1978 in AJK) damaged/destroyed schemes	1126.32	1103.32	2229.64	37.16	60.69
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavement and public toilets	111.88	185.08	296.96	4.95	8.08
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery	88.00	157.00	245.00	4.08	6.67
4	Rehabilitation/Reconstruction of Buildings	Repair/Rehabilitation of building, staff residences and stores	45.72	309.01	354.73	5.91	9.66
5	Water quality monitoring and management	Water quality testing/monitoring and chlorination*	32.81	23.46	56.27	0.94	1.53
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	55.06	20.56	75.62	1.26	2.06
7	Project/Contract Staff salaries	WatSan Advisor, Assistant Engineers, Sub-Engineers	37.45	61.44	98.89	1.65	2.69
8	Vehicles	Four WD Double/Single Cab Pick-ups	49.20	31.04	80.24	1.34	2.18
9	Equipment and materials	Computers, Printers, Office Furniture, Fax Machines, Photocopiers and water quality monitoring kits	12.75	16.82	29.57	0.49	0.80
10	Consultancies/TA	Technical Assistance for assessment/feasibility studies, detailed designs and supervision for quality assurance	14.75	57.11	71.86	1.20	1.96
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	3.75	3.20	6.95	0.12	0.19

12	TA/DA	Lump sum	4.14	4.29	8.43	0.14	0.23
13	POL	For project vehicles	11.46	8.32	19.78	0.33	0.54
14	O & M	O&M of vehicles/equipment	7.20	10.80	18.00	0.30	0.49
15	Contingencies	Lump sum	34.26	47.54	81.80	1.36	2.23
	G Total		1634.75	2038.99	3673.74	61.23	100.00

* A large number of schemes are likely to be implemented by development partners (from grant funding) in collaboration with line agencies. Line agencies, however, will be provided funding for implementation of the remaining schemes as well as monitoring of schemes to be implemented by development partners

Table 4. District/Agency - wise budget estimates for NWFP (Million Rs.)

District Agency	A.Abad	Battagram	Kohistan	Mansehra	Shangla	Total
TMA's	174.93	206.49	82.65	351.42	120.87	936.36
PHED/W&SD	171.1	92.39	20.68	319.95	94.27	698.39
Total	346.03	298.88	103.33	671.37	215.14	1634.75

Table 5. District Agency - wise budget estimates for AJK (Million Rs.)

District Agency	Bagh	Muzaffarabad*	Neelum**	Poonch	Sudhanoti***	Total
PHED/PWD	125.96	706.08	0	0	0	832.04
LG&RD-Rural	264.47	441.19	29.76	81.49	5.09	822
LG&RD-Urban	63.08	266.55	11.25	44.08	0	384.96
Total	453.51	1413.82	41.01	125.57	5.09	2039

*Includes incremental staff salaries, cost of office equipment, training and vehicles, TA/DA and operational cost for other districts as well.

** To be managed by DRU in Muzaffarabad

*** To be managed by DRU in Poonch

21. Component-wise budget estimates for individual line agencies at tehsil or district-levels are presented in Annexes 1 to 9.
22. Budget estimates for rehabilitation and reconstruction of individual schemes are given in Appendixes A and B, respectively.
23. The above mentioned budget estimates are based on the Composite Schedule of Rates of the Government of NWFP and AJK as well as the prevailing market rates with allowed premium for upgradation for disaster preparedness. Provincial, State, District and Tehsil governments, subject to prior approval of ERRA/PERRA/SERRA, may make necessary adjustments within the allocated budgets on the basis of detailed assessments so as to ensure that all affected schemes are rehabilitated and reconstructed.
24. Though provision has been made in the budget for the capacity building and technical assistance for development of strategies for systemic improvement to enable the line agencies operate, maintain and sustain water and sanitation services, recurrent costs of the schemes have not been included in the budget estimates. These expenses will be met from the normal budget of the provincial/state government (where applicable). Governments of NWFP and AJK will also make additional allocations for meeting the recurrent cost of the schemes if so required. Schemes which were being operated and maintained by the communities prior to the earthquake will be handed over to them after rehabilitation and reconstruction.

25. 4. IMPLEMENTATION ARRANGEMENTS

4.1. Implementation

26. The strategy will be implemented over a period of three years (2006-2009) by the line agencies (TMAs and PHED/W&SD in NWFP and PHED, LG&RD, Town Committees and Municipal Corporations in AJK) in collaboration with area development projects, development partners, NGOs, CBOs and on the basis of the recorded ownership of the damaged or destroyed schemes. District Reconstruction Unit (DRU) will, however, be the lead coordinating agency at the district level.

27. The following implementation arrangements will be used for rehabilitation and reconstruction of water and sanitation schemes:

A. Direct Implementation by the Development Partners: Ongoing area development projects, donors/sponsors and registered qualified NGOs will be allowed to rehabilitate and reconstruct water and sanitation schemes in collaboration with the local line agencies and communities. This approach will involve:

- Selection of a package of schemes from the lists given in Appendices A and B, preferably on the basis location/region/administrative unit (village/union council/tehsil/district) or departmental ownership, in consultation with the line agencies/departments.
- Submission of application to ERRA for issuance of NOC/allocation of schemes
- Preparation of implementation plan/proposals and submission of the same to ERRA

- Signing of Memorandum of Understanding/Agreement with ERRA
- Detailed assessments, planning, designing in line with the provisions of the Strategy and procedures and policies of ERRA
- Submission of designs/specifications to DRU for endorsement
- Implementation
- Supervision and monitoring by line agencies, DRU, PERRA, SERRA, ERRA and development partners
- Commissioning and handing over of schemes to the line government agency or communities after completion of the work and issuance of a certificate to this effect by DRU

B. Implementation through Private Sector for Large Urban Schemes: Implementation of PHED owned large urban schemes in AJK would include :

- Hiring of consultants
- Detailed assessments, feasibility and design and preparation of PC-11/PC-1
- Submission of PC-11/PC-1 to DRU/SERRA/ERRA and approval
- Execution of civil works through contractors
- Community mobilization and hygiene promotion through registered and qualified NGOs
- Supervision and monitoring by the consultants, PHED, DRU, SERRA, ERRA and the sponsoring agency (if any).
- Commissioning and handing over of schemes to the line agency after completion of the work and issuance of certificate to this effect by DRU/SERRA.

C. Implementation through Private Sector and NGOs for PHED, Works and Services Department's Schemes in NWFP: Works and Services Department, NWFP will establish a "Departmental Coordination Office" in Mansehra to provide technical support to all PHED offices in the affected districts. In addition, services of consultants will be engaged on need basis for detailed feasibility and design of complex schemes, if needed. The implementation of PHED/Works and Services Department's schemes in NWFP would involve:

- Detailed assessment of damaged/destroyed schemes by the Department with the support of consultants and NGOs
- Preparation of designs and PC-1 by the Department
- Submission of designs/estimates to Departmental Coordination Office at Mansehra for technical sanction
- Submission of PC-1 to DRU/PERRA/ERRA for approval
- Execution of civil works through contractors
- Community mobilization and hygiene promotion through registered and qualified NGOs
- Supervision and monitoring by the consultants, PHED, DRU/PERRA, ERRA and sponsoring agency (if any).

D. Implementation through Private Sector and NGOs for TMA Schemes in NWFP and LG&RD Schemes in AJK: The implementation for TMA schemes in NWFP and LG&RD schemes in AJK would involve the following:

- Detailed assessments of damaged/destroyed schemes by TMAs or LG&RDD AJK with the support of NGOs/consultants
- Preparation of designs and PC-1 by TMAs or LG&RDD AJK

- Submission of PC-1 to DRU/PERRA/SERRA/ERRA for approval
 - Execution of civil works through contractors, registered and qualified NGOs or community organizations
 - Community mobilization and hygiene promotion through registered and qualified NGOs
 - Supervision and monitoring by the consultants, TMAs, DRU/SERRA/PERRA, ERRA and sponsoring agency
 - Commissioning and handing over of schemes to the line government agency or communities after completion of the work
28. The aforementioned implementation arrangements may be modified to suit the requirements of sponsoring agencies subject to approval of ERRA.

4.2. Recruitment and Procurements

29. Line agencies in NWFP will recruit incremental project staff in collaboration with DRU/PERRA. /PERRA The recruitment process will be overseen by a committee headed by the District Coordination Officer and having representation of the concerned provincial department. In case of AJK, recruitments will be managed by a committee headed by the Secretary of the concerned department and having representation of SERRA.
30. Line agencies, in collaboration with the DRU/PERRA/SERRA, will procure supplies and equipment and engage consultants and contractors through a competitive bidding process in line with ERRA's guidelines, policies and procedures.

5. MONITORING AND EVALUATION

5.1. Targets

31. Sector targets for the period July 2006- June 2009 are summarized below:

A. NWFP

- Rehabilitation and reconstruction of 1902 schemes including 1568 gravity schemes, 53 pumping schemes/tube wells and 281 hand pumps
- Testing of the quality of water sources for all the above mentioned schemes and disinfection of contaminated systems
- Rehabilitation and reconstruction of 190 sanitation schemes including drains, street pavements and communal toilets in 12 TMAs of NWFP.
- Repair and reconstruction of buildings of TMAs and PHEDs (except TMA Mansehra, TMA Balakot and Battagram PHED)
- Procurement of necessary equipment and upgradation/operatilizatoin of solid waste management system in the affected TMAs

B. AJK

- Rehabilitation and reconstruction of 1978 schemes including 10 urban schemes and 1965 rural schemes
- Testing of the quality of water sources for all the above mentioned schemes and disinfection of contaminated systems
- Rehabilitation and reconstruction of sanitation schemes including drainage system, drains, street pavements and communal toilets in thirteen towns Municipal Corporation Municipal Committees/Town Committees.

- Repair and reconstruction of buildings of PHED and Local Government and Rural Development Department
- Procurement of necessary equipment for solid waste management and upgradation/operationalization of solid waste management system in the affected towns.

32. Year-wise targets for AJK and NWFP are summarized in Table 6 and 7, respectively. The corresponding budget estimates are given in Table 8.

Table 6. Year-wise Targets for NWFP

Target	Year		
	2006-07	2007-08	2008-09
No of water supply schemes to be rehabilitated or reconstructed	760	950	192
No of sources/systems tested for water quality	760	950	192
Number of sanitation schemes rehabilitated	76	114	0
Buildings rehabilitated or reconstructed in No of Distt/TMAs/Sites	7	1	0
Number of TMAs in which solid waste management system is upgraded or operationalized	2	8	0

Table 7. Year-wise Targets for AJK

Target	Year		
	2006-07	2007-08	2008-09
Number of water supply schemes to be rehabilitated or reconstructed	790	900	288
Number of sources/systems tested for water quality	790	900	288
Number of towns in which sanitation schemes are rehabilitated/reconstructed	5	7	1
Buildings rehabilitated or reconstructed in No of Distt/TMAs/Sites	2	7	0
Number of towns in which solid waste management system is upgraded or operationalized	3	10	0

Table 8. Year-wise Budget for Water and Sanitation Sector

Year	2006-07	2007-08	2008-09	Total
NWFP (Million Rs)	800	682	154	1636
AJK (Million Rs)	836	938	265	2039
Total (Million Rs)	1635	1620	419	3674
% age	44.52	44.08	11.4	100

5.2. Indicators and Reporting

33. Line agencies and implementing partners will submit monthly, quarterly and annual progress reports to DRU/PERRA/SERRA/ERRA against the stipulated targets. The reports will, inter-alia, include data on the following indicators:

A. Drinking Water Supply

- Number (and percentage) of water supply schemes rehabilitated/reconstructed along with beneficiary (a) gravity; (b) pumping; (c) hand pumps; and (d) others
- Number of water resources tested for water quality
- Number and type of drinking water systems disinfected
- Length of pipelines laid/repared (meters)
- Number of water storage tanks rehabilitated/reconstructed;

B. Sanitation

- Number and percentage of sanitation schemes rehabilitated/reconstructed
- Length of drains/drainage systems rehabilitated/reconstructed (in meters)
- Number of people connected to drainage system
- Length of street pavements rehabilitated/reconstructed
- Number of public/communal toilets rehabilitated/reconstructed
- Number of sanitary latrines built by the community

C. Solid waste management

- Number of waste management strategies and plans prepared
- Number and type of solid waste management equipment procured (such as waste bins, wheel barrows, vehicles)
- Quantity of solid waste collected and disposed of on daily basis

D. Buildings

- Number and area (in sft) of buildings repaired and/or retrofitted
- Number and area (in sft) of buildings rehabilitated/reconstructed

E. Capacity building

- Number and type of training workshops held
- Number of persons (staff and communities) trained
- Number and type of project staff recruited
- Number of vehicles procured

F. Community mobilization and hygiene promotion

- Number of community based organizations formed
- Number of community sessions on hygiene education/promotion held
- Number of schemes executed by communities
- Number of schemes handed over to the community for operation and maintenance

G. Coordination

- Number of partners included in GAG/CG
- Number of schemes allocated to partners with amount
- Number of GAG/CG meeting held

34. A comprehensive management information system for water and sanitation sector will also be established by ERRRA to provide accurate and timely information for decision making as well as for dissemination to partner and general public.

5.3. Evaluation

35. ERRRA will carry out evaluation of water and sanitation sector as part of evaluation of the overall reconstruction program. Third party validation and impact monitoring will be carried out by selecting an external agency as per the established procedure. The following indicators may be used for monitoring and evaluation purposes:

- (i) Number of people having access to improved source of drinking water and adequate sanitation services;
- (ii) Number of people using sanitary latrines;
- (iii) Population having access to proper solid waste management system;
- (iv) Number of people reached with proper messages on better health and hygiene practices;
- (v) Prevalence of hand washing before eating and after defecation; and
- (vi) Latrine usage (% of target population).

6. WORK PLAN

36. Table 9 presents a three-year indicative work plan for the sector.
37. All line agencies and development partners will prepare and submit quarterly and annual work plans on the basis of the priority criteria (Section 2.3) as well as procurement plans and advance requests to PERRA/SERRA for approval and subsequent release of funds.

Annex-1. Overall Budget Estimates for NWFP

S.No	Item	Description	Estimated Budget for Rehabilitation/Reconstruction (Million Rs)						
			Abbott abad	Battag ram	Kohi stan	Mansehra	Shangla	Total	%age of Total
1	Rehabilitation/Reconstruction of WSS/Infrastructure	1902 schemes (280 in Abbottabad, 366 in Battagram, 123 in Kohistan, 735 in Mansehra and 398 in Shangla)	289.13	151.21	49.66	488.89	147.43	1,126.32	68.90
2	Rehabilitation/Reconstruction of Sanitation schemes/Infrastructure	Drains, street pavements and public toilets	8.24	42.3	6.00	48.14	7.2	111.88	6.84
3	Rehabilitation of Solid Waste Management System	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	0.00	30	15.00	33.00	10	88.00	5.38
4	Rehabilitation/Reconstruction of Buildings	Reconstruction/Rehabilitation of Office Buildings and Residences	4.05	25	11.50	5.16	0	45.72	2.80
5	Water quality monitoring and management	Water quality testing/monitoring and chlorination	3.31	4.4	1.48	18.82	4.8	32.81	2.01
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	12.60	10.1	3.56	15.84	12.96	55.06	3.37

7	Project/Contract Staff salaries	Water and Sanitation Advisor (1 no), Assistant Engrs (11nos), Community Development Officer (5 nos), Sub-Engrs (23 nos.), Computer Operators (8 nos) and Drivers (29 nos)	3.30	9.54	2.51	15.73	6.372	37.45	2.29
8	Vehicles	4 WD Single Cabin Pick-up (29 nos)+ 1 Double Cabin	8.00	9.6	6.40	15.60	9.6	49.20	3.01
9	Equipment	Water Quality Monitoring Kits, Computers, Printers, Office Furniture, Fax Machines, Photocopiers and water quality monitoring kits	1.50	3	1.25	4.00	3	12.75	0.78
10	Consultancies/TA	Technical Assistance for earthquake resistant designing, supervision for quality assurance	2.50	3.5	1.25	4.00	3.5	14.75	0.90
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0.50	0.75	0.50	1.00	1.00	3.75	0.23
12	TA/DA	Lump sum	0.84	0.84	0.54	1.08	0.84	4.14	0.25
13	POL	For project vehicles	2.34	1.92	0.90	3.78	2.52	11.46	0.70
14	O & M	O&M of vehicles/equipment	1.26	2.16	0.90	1.62	1.26	7.20	0.44
15	Contingencies	Lump sum	8.46	4.56	1.88	14.70	4.66	34.26	2.10
	Total (Million Rs)		346.03	298.88	103.33	671.37	215.14	1,634.75	100.00
	Total (Million US\$)		5.77	4.98	1.72	11.19	3.59	27.25	
	Percentage		21.17	18.28	6.32	41.07	13.16	100.00	

Annex-2. Budget Estimates for District Abbottabad

S.No	Item	Description	TMA Abbottabad	TMA Havalian	PHED Abbottabad	Total	Percent
1	Rehabilitation/Reconstruction of WSS/Infrastructure	280 damaged/destroyed schemes (136 in TMA Abbottabad, 52 in TMA Havalian and 92 PHED Abbottabad)	137	6.1	146.03	289.13	83.56
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavements and public toilets (10 schemes in TMA Abbottabad)	8.24	0	0	8.24	2.38
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	0	0	0	0.00	0.00
4	Rehabilitation and Reconstruction of Buildings	Rehabilitation/Reconstruction of office/residential buildings	0	1.89	2.164	4.05	1.17
5	Water quality monitoring and management	Water quality monitoring and chlorination	1.63	0.62	1.06	3.31	0.96
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	3.4	0.26	8.94	12.60	3.64
7	Project/Contract Staff salaries	Community Development Officer (1 no), Sub-Engr (1 no.), Drivers (5 nos)	1.728	0.096	1.476	3.30	0.95
8	Vehicles	4WD Single Cabin Pick-ups (5 nos)	3.2	1.6	3.2	8.00	2.31
9	Equipment and materials	Water Quality Monitoring Kit, Computers, Printers, Office Furniture, Fax Machine, Photostat machine, Welding Plant with Generator	0.5	0.5	0.5	1.50	0.43

10	Consultancies/TA	Technical Assistance for detailed assessments, earthquake resistant designing and supervision for quality assurance	1	0	1.5	2.50	0.72
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, opeation and maintenance	0.25	0	0.25	0.50	0.14
12	TA/DA	Lump sum	0.36	0.12	0.36	0.84	0.24
13	POL	For project vehicles	1.08	0.18	1.08	2.34	0.68
14	Operation and Maintenance	O&M of project vehicles/equipment	0.54	0.18	0.54	1.26	0.36
15	Contingencies	Lump sum	4.23	0.23	4	8.46	2.44
Total (Million Rs.)			163.16	11.78	171.10	346.03	100.00
Total (Million US\$.)			2.72	0.20	2.85	5.77	

* To be covered under TMA component Abbottabad

Annex-3. Budget Estimates for District Battagram

S.No	Item	Description	TMA Allai	TMA Battagram	PHED Battagram	Total	Percent
1	Rehabilitation/Reconstruction of WSS/Infrastructure	315 damaged/destroyed schemes (212 in TMA Allai, 93 in TMA Battagram and 61 PHED)	34.43	43.2	73.58	151.21	50.59
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavements and public toilets, 108 schemes (38 in TMA Allai and 70 in TMA Battagram)	12.3	30	0	42.30	14.15
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	10	20	0	30.00	10.04
4	Rehabilitation and Reconstruction of Buildings	Rehabilitation/Reconstruction of office/residential buildings	5	20	0	25.00	8.36
5	Water quality monitoring and management	Water quality monitoring and chlorination	2.54	1.12	0.74	4.40	1.47
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	2.28	4.42	3.4	10.10	3.38
7	Project/Contract Staff salaries	Assistant Engineer (3 no.), Community Development Officers (1 no), Sub-Engineers (6 nos.), Drivers (6 nos) and Computer Operators (2)	2.592	2.592	4.356	9.54	3.19
8	Vehicles	4WD Single Cabin Pick-up (6 nos)	3.2	3.2	3.2	9.60	3.21

9	Equipment and materials	Water Quality Monitoring Kit, Computers, Printers, Office Furniture, Fax Machine, Photostat machine	1	1	1	3.00	1.00
10	Consultancies/TA	Technical Assistance for detailed assessments, earthquake resistant designing and supervision for quality assurance	1	1	1.5	3.50	1.17
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0.25	0.25	0.25	0.75	0.25
12	Outstation Travel	Lump sum	0.24	0.24	0.36	0.84	0.28
13	POL	For project vehicles	0.72	0.48	0.72	1.92	0.64
14	Operation and Maintenance	O&M of project vehicles/equipment	0.36	0.72	1.08	2.16	0.72
15	Contingencies	Lump sum	1.18	1.18	2.2	4.56	1.53
Total (Million Rs.)			77.09	129.40	92.39	298.88	100.00
Total (Million US\$.)			1.28	2.16	1.54	4.98	

Annex-4. Budget Estimates for District Kohistan

S.No	Item	Description	TMA Dassu	TMA Pattan	TMA Palas	PHED Kohistan	Total	Percent
1	Rehabilitation/Reconstruction of WSS/Infrastructure	123 damaged/destroyed schemes (19 in TMA Dassu, 29 in TMA Pattan, 35 in TMA Palas and 38 PHED Kohistan)	3.06	10.72	22.5	13.383	49.66	48.06
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavements and public toilets. 3 schemes (1 in TMA Pattan and 2 in TMA Palas)	2	2	2	0	6.00	5.81
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	5	5	5	0	15.00	14.52
4	Rehabilitation and Reconstruction of Buildings	Rehabilitation/Reconstruction of office/residential buildings	0	0	10	1.5	11.50	11.13
5	Water quality monitoring and management	Water quality monitoring and chlorination	0.24	0.36	0.42	0.46	1.48	1.43
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	0.2	1.3	0.4	1.66	3.56	3.45
7	Project/Contract Staff salaries	Assistant Engineer (1 nos.), Sub-Engineer (1 nos.), Community Development Officer (1 no), Computer Operator (1 no) and Drivers (4 nos)	0.096	0.096	1.92	0.396	2.51	2.43
8	Vehicles	4 WD Single Cabin Pick-up (4 nos)	1.6	1.6	1.6	1.6	6.40	6.19

9	Equipment and materials	Water Quality Monitoring Kits, Computers, Printers, Office Furniture, Fax Machine, Photostat machine, Welding Plant with Generator	0.25	0.25	0.5	0.25	1.25	1.21
10	Consultancies/TA	Technical Assistance for detailed assessments, earthquake resistant designing and supervision for quality assurance	0.5	0	0.5	0.25	1.25	1.21
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0	0	0.25	0.25	0.50	0.48
12	TA/DA	Lump sum	0.06	0.12	0.24	0.12	0.54	0.52
13	POL	For project vehicles	0.18	0.18	0.36	0.18	0.90	0.87
14	Operation and Maintenance	O&M of project vehicles/equipment	0.18	0.18	0.36	0.18	0.90	0.87
15	Contingencies	Lump sum	0.1	0.33	1	0.45	1.88	1.82
Total (Million Rs.)			13.47	22.14	47.05	20.68	103.33	100.00
Total (Million US\$.)			0.22	0.37	0.78	0.34	1.72	

Annex-5. Budget Estimates for District Mansehra

S.No	Item	Description	TMA Mansehra	TMA Balakot	TMA Oghi	PHED Mansehra	Total	Percent
1	Rehabilitation/Reconstruction of WSS/Infrastructure	735 damaged/destroyed schemes (228 in TMA Mansehra, 228 in TMA Balakot, 180 in TMA Ogi and 99 PHED Mansehra)	75.30	110.75	29.67	273.17	488.89	72.82
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavements and public toilets. 56 schemes (8 in TMA Mansehra, 35 in TMA Balakot and 13 in TMA Oghi)	4	18.14	26	0	48.14	7.17
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	15	10	8	0	33.00	4.92
4	Rehabilitation and Reconstruction of Buildings	Rehabilitation/Reconstruction of office/residential buildings	0.00	0.00	4.00	1.164	5.16	0.77
5	Water quality monitoring and management	Water quality monitoring and chlorination + water quality monitoring lab (PHED Mansehra)	2.73	2.73	2.16	11.2	18.82	2.80
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	1.56	4	3.28	7	15.84	2.36
7	Project/Contract Staff salaries	WatSan Advisor (1 no), Assistant Engineer (4 nos.), Community Development Officer (1 no), Sub-Engineers (9 nos.), Computer Operator (3 nos.) and Drivers (8 nos)	2.592	2.592	2.592	7.956	15.73	2.34
8	Vehicles	4WD Single Cabin Pick-up (8 nos) + 1 Double Cab	3.2	3.2	3.2	6	15.60	2.32

9	Equipment and materials	Water Quality Monitoring Kits, Computers, Printers, Office Furniture, Fax Machine, Photostat machine, Welding Plant with Generator	1	1	1	1	4.00	0.60
10	Consultancies/TA	Technical Assistance for detailed assessments, earthquake resistant designing and supervision for quality assurance	0.5	1	1	1.5	4.00	0.60
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0.25	0.25	0.25	0.25	1.00	0.15
12	TA/DA	Lump sum	0.24	0.24	0.24	0.36	1.08	0.16
13	POL	For project vehicles	0.72	0.72	0.72	1.62	3.78	0.56
14	Operation and Maintenance	O&M of project vehicles/equipment	0.36	0.36	0.36	0.54	1.62	0.24
15	Contingencies	Lump sum	2.15	2.6	1.76	8.19	14.70	2.19
Total (Million Rs.)			109.60	157.58	84.23	319.95	671.37	100.00
Total (Million US\$.)			1.05	2.63	1.40	5.33	11.19	

Annex-6. Budget Estimates for District Shangla

S.No	Item	Description	TMA Alpurai	TMA Puran	PHED Shangla	Total	Percent
1	Rehabilitation/Reconstruction of WSS/Infrastructure	398 damaged/destroyed schemes (162 in TMA Alpurai, 128 in TMA Puran and 108 PHED)	36.9	37.43	73.1	147.43	68.53
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavements and public toilets (6 schemes in TMA Puran and 7 PHED schemes)	2	2	3.2	7.20	3.35
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	5	5	0	10.00	4.65
4	Rehabilitation and Reconstruction of Buildings	Rehabilitation/Reconstruction of office/residential buildings	0	0	0	0.00	0.00
5	Water quality monitoring and management	Water quality monitoring and chlorination	1.96	1.54	1.3	4.80	2.23
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	5.28	2.68	5	12.96	6.02
7	Project/Contract Staff salaries	Assistant Engineer (3 no.), Sub-Engineers (6 nos.), Community Development Officer (1 no), Computer Operator (2 nos), Drivers (6 nos)	2.592	2.592	1.188	6.37	2.96
8	Vehicles	4 WD Single Cabin Pickups (6 nos)	3.2	3.2	3.2	9.60	4.46

9	Equipment and materials	Water Quality Monitoring Kits, Computers, Printers, Office Furniture, Fax Machine, Photostat machine, Welding Plant with Generator	1	1	1	3.00	1.39
10	Consultancies/TA	Technical Assistance for detailed assessments, earthquake resistant designing and supervision for quality assurance	1	1	1.5	3.50	1.63
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0.25	0.25	0.5	1.00	0.46
12	TA/DA	Lump sum	0.24	0.24	0.36	0.84	0.39
13	POL	For project vehicles	0.72	0.72	1.08	2.52	1.17
14	Operation and Maintenance	O&M of project vehicles/equipment	0.36	0.36	0.54	1.26	0.59
15	Contingencies	Lump sum	1.18	1.18	2.3	4.66	2.17
Total (Million Rs.)			61.68	59.19	94.27	215.14	100.00
Total (Million US\$.)			1.03	0.99	1.57	3.59	

Annex-7. Overall Budget Estimates for AJK

S.No	Item	Description	Estimated Budget for Rehabilitation/Reconstruction (Million Rs)						Total	%age of Total
			Neelum	M'abad	Bagh	Poonch	Sudh-noti			
1	Rehabilitation/Reconstruction of WSS/Infrastructure	1978 Nos. (10 urban and 1968 rural) damaged/destroyed schemes	11.30	735.75	316.50	37.52	2.25	1103.32	54.11	
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavement, public toilets etc.	5	151	16.149	12.929	0	185.08	9.08	
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	5	105	27	20	0	157.00	7.70	
4	Rehabilitation/Reconstruction of Buildings	Reconstruction/Rehabilitation of Office Buildings and Residences.	16.32	165.18	77.31	47.65	2.56	309.01	15.16	
5	Water quality monitoring and management	Water quality monitoring and chlorination	0.88	13.90	6.50	2.08	0.11	23.46	1.15	
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	1.26	10.28	6.92	1.93	0.17	20.56	1.01	
7	Project/Contract Staff salaries	Incremental project staff	0	61.44	0	0	0	61.44	3.01	
8	Vehicles	4-WD Double Cab SSR and Motor Cycles	0	31.04	0	0	0	31.04	1.52	

9	Equipment and materials	Computers, Printers, Office Furniture, Fax Machine and Photocopiers	0.385	14.61	0.77	1.055	0	16.82	0.82
10	Consultancies/TA	Technical Assistance for supervision for quality assurance	0.358	54.632	1.169	0.951	0	57.11	2.80
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0	3.2	0	0	0	3.20	0.16
12	Outstation Travel	Lump sum	0	4.29	0	0	0	4.29	0.21
13	POL	For project vehicles	0	8.32	0	0	0	8.32	0.41
14	O & M	O&M of vehicles/equipment	0.36	8.64	0.72	1.08	0	10.80	0.53
15	Contingencies	Lump sum	0.143	46.552	0.468	0.38	0	47.54	2.33
	Total (Million Rs)		41.00	1413.83	453.51	125.57	5.09	2039.0	100.00
	Total (Million US\$)		0.68	23.56	7.56	2.09	0.08	33.98	

Annex-8. Agency-wise Budget Estimates for AJK

S.No	Item	Description	Estimated Budget for Rehabilitation/Reconstruction (Million Rs)				
			PHED, PWD	LG&RD (Rural)	(LG&RD-Urban) Urban Schemes of 13 Towns	Total	%age of Total
1	Rehabilitation/Reconstruction of WSS/Infrastructure	1978 Nos. (10 urban and 1968 rural) damaged/destroyed schemes	649.00	454.32	0.00	1103.32	54.11
2	Rehabilitation/Reconstruction of Sanitation Schemes	Drainage, street pavement and public toilets	60	0.00	125.08	185.08	9.08
3	Solid Waste Management	Design of solid waste management system, design/development of landfill site and provision of necessary equipment and machinery.	0	0.00	157.00	157.00	7.70
4	Rehabilitation/Reconstruction of Buildings	Repair/Rehabilitation of building, pump houses, staff residences and stores	35.00	214.01	60.00	309.01	15.16
5	Water quality monitoring and management	Water quality testing/monitoring and chlorination*	0.00	23.46	0.00	23.46	1.15
6	Community Mobilization/Hygiene Promotion	Workshops, Meetings, Community Sessions, Promotional Material	4.88	13.40	2.28	20.56	1.01
7	Project/Contract Staff salaries	WatSan Advisor, Assistant Engineers, Sub-Engineers, Community Development Officers and other staff	2.4	47.74	11.30	61.44	3.01
8	Vehicles	Four WD Double Cab SSR	2.8	21.84	6.40	31.04	1.52

9	Equipment and materials	Computers, Printers, Office Furniture, Fax Machine and Photocopiers	0.5	12.00	4.32	16.82	0.82
10	Consultancies/TA	Technical Assistance for assessment/feasibility studies, detailed designs and supervision for quality assurance	42	8.00	7.11	57.11	2.80
11	Training	Training on design and construction for earthquake resistant watsan infrastructure, project management, community mobilization/hygiene promotion, operation and maintenance	0.5	2.00	0.70	3.20	0.16
12	Outstation Travel	Lump sum	0.24	2.25	1.80	4.29	0.21
13	POL	For project vehicles	0.36	5.80	2.16	8.32	0.41
14	O & M	O&M of vehicles/equipment	0.36	6.48	3.96	10.80	0.53
15	Contingencies	Lump sum	34	10.70	2.84	47.54	2.33
	Total (Million Rs)		832.0	822.0	385.0	2039.0	100.00
	Total (Million US\$)		13.87	13.70	6.42	33.98	

Annex-9. Budget Estimates for AJK LG&RD (Urban)

S. No	Item	Description	Muzaffarabad							Neelum (qam M.C. Athma)	Bagh			Poonch			Total
			LGB	M.C.M	T.C Chikar	T.C Chinari	T.C. Hattian	T.C G.Dupatta	T.C Pattika		M.C.Bagh	D.Kot	M.C. Kahuta	M.C. Rawalakot	T.C. A.Pur	T.C. Hajira	
1	Rehabilitation/Reconstruction of WSS/Infrastructure	Rehabilitation/Reconstruction of WSS/Infrastructure	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	Rehabilitation/Reconstruction of Sanitation Schemes/Infrastructure	Drainage, street pavement, public toilets, slaughter houses etc.	0.00	70.00	4.00	5.00	4.00	4.00	4.00	5.00	6.15	5.00	5.0	4.93	4.00	4.00	125.1

List of Appendices

Appendix- A. List and cost estimates of individual schemes in NWFP A-1

S/No	District	From	To
1.	Abbottabad	54	60
2.	Battagram	61	74
3.	Kohistan	75	80
4.	Mansehra	81	99
5.	Shangla	100	111

Appendix - B. List and cost estimates of individual schemes in AJK B-1

S/No	District	From	To
1.	Bagh	112	135
2.	Muzaffarabad	136	176
3.	Naleem	177	181
4.	Poonch	182	189
5.	Sadhnoti	190	-
6.	Water Supply Schemes of PHED, AJK	191	-