Project Title: Reduction of environmental risks within Flood Emergency Situation for Community Recovery and Rebuilding

Project Code: PKA-FL-10/ER/34535/R

Sector/Cluster: COMMUNITY RESTORATION

Objectives: Within the framework of resumption of public services, community infrastructure improvement and mitigation of environmental risks, this project aims to provide coverage of the basic needs of the affected communities during the recovery and rebuilding process, which are in proximity to the areas affected by the floods.

Beneficiaries: Total: 17,000,000 People of the affected by the floods Provinces
Women: 8,670,000

Implementing Partners: UNDP, PMD, GSP, GCISC, WAPDA, FFC, NDMA

Project Duration: Aug 2010 - Jul 2011

Current Funds Requested: $1,200,000.00

Location: MULTIPLE PROVINCES

Priority: EARLY RECOVERY

Needs

As the flood impacts continue to unfold, the series of severe floods affecting Pakistan caused a major drinking water and health crisis. The extensive damage to existing water supplies systems in urban areas and the pollution of the network of shallow groundwater wells in rural areas within the flood zone have made access to, and distribution of, safe water for flood victims a national and international priority. The crisis is compounded by the damage to, and inaccessibility of, major transportation networks, thus causing significant delays in the transport, distribution, and delivery of safe water for meeting basic needs of the flood affected communities.

While providing safe drinking water is a high priority during initial disaster relief missions, recovery efforts also require the availability of adequate volumes of safe water to meet other basic needs of the affected communities. Deeper protected ground water resources (confined and or unconfined aquifers) that are not susceptible to pollution from natural disasters such floods can provide the necessary source of water for emergency situations.

Pakistan has excellent network of information on shallow ground water resources however, the shallow, unconfined aquifers are vulnerable to pollution following floods. The mapping and hydraulic assessment of deep aquifers with low pollution vulnerability to floods will help strategically develop these resources during the disaster, recovery and rebuilding periods and provide buffer against future emergencies as part of the National Disaster Management Strategy.

This project is based on the results of a mission by a multidisciplinary team of six senior science experts from UNESCO and associated centres of excellence who visited Pakistan from 23-26 August 2010 on the request of the Government of Pakistan. As a result of this mission an agreed integrated plan for guiding early recovery was developed, in full cooperation with relevant Pakistan agencies (WAPDA, FFC, GSP, PMD and NDMA), for restoring the country’s capacity to forecast and manage floods and geohazards and to provide the affected communities with potable water.

The project will have a participatory approach and will be addressing the needs of the whole spectrum of affected population (including vulnerable segments)

Activities

The key project activities will include:

• Evaluation of the present water quality status of water supplies (public and domestic) in the flood affected areas and mapping, investigation and assessment of groundwater resources resistant to the impact of natural disasters in target areas

• Integration of existing geological and hydrogeological maps, existing and available historical groundwater data, including water quality/chemistry, to assess the effects of floods on bore yields and quality.

• Identify locations for drilling and testing of pilot relief support groundwater well systems, in aquifers resistant to the water quality impact of disasters, which can be used for emergency situations to supply needs such as drinking water, hospitals and health centres in emergency situations.
• Perform drilling and testing operations on pilot relief support groundwater well systems, and determine bore yields and water quality for further development of target areas.
• Improve existing water related monitoring and early warning programmes by linking ground water (especially water quality) in strategic locations into existing telemetry networks, such as those used for meteorologic and hydrologic monitoring networks. This will help provide early groundwater warning in affected areas.
• Train local and provincial specialists, service providers and operators on the implementation of guidelines for drilling wells for safe water for emergency situations.
• Develop and update ground water vulnerability maps in flood affected areas and initiate the development of safe ground water for emergency situation development and protection policies at various tiers of government.
• Provide training, as necessary to local and provincial stakeholders and service providers on development of ground water for emergency situations.

Outcomes
1. Community hazard mapping related to groundwater vulnerability produced and disseminated
2. Low vulnerability aquifers are identified, mapped, and assessed for potential usage during community recovery.
3. Local stakeholders and service providers are trained on groundwater for developing and managing emergency situations
4. Discussions of policies and practices of ground water for emergency situations is initiated
5. A network of specialists and of service providers is established to provide sustainable programme for future emergencies.
6. Real time monitoring of strategic ground water locations is improved and foundations for ground water early warning system is established as part the National Disaster Management Strategy.
7. Capacity of the communities for the provision of safe groundwater for basic needs in the short term enabled.
8. Improvement / restoration of community water facilities

Furthermore, in cooperation with the implementing partners, links will be made to ensure that the results of the aforementioned efforts will trickle down to District level via the existing up mechanisms so hat the lives of all residents of the affected areas will benefit from UNESCO's intervention

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