

Executive Summary

The 2005 earthquake was the most debilitating natural disaster in Pakistan's history. Azad Jammu and Kashmir (AJK) and the eastern Districts of the North West Frontier Province (NWFP) bore the full force of the earthquake in terms of numbers of lives lost, injuries sustained, and destruction of infrastructure and economic assets. In addition to the enormous human toll, the earthquake and its aftermath posed a huge cost for the Government of Pakistan (GoP)¹. Vulnerable groups, mainly women and children living in inaccessible mountain areas with low levels of income and service provision, have borne the brunt of the earthquake's impact.

To rebuild the destroyed infrastructure in the affected areas and implement large-scale reconstruction and rehabilitation programmes, the GoP established the Earthquake Rehabilitation and Reconstruction Authority (ERRA). ERRA is a body dedicated to coordinate and oversee the rebuilding of the earthquake affected areas.

In addition to the enormous human toll, the earthquake and its aftermath posed a large cost to Pakistan, which according to a preliminary damage and needs assessment by the World Bank and the Asian Development Bank, amounts to US\$5.2 billion. To jump-start early recovery commensurate with needs in the context of the results of the damage and needs assessment, the World Bank announced a package of financing of US\$475 million within weeks of the earthquake. To further support the emergency recovery and reconstruction effort, an Emergency Recovery Credit (ERC) of US\$400 million was made available by IDA for support over a three-year period. The ERC components focus on housing reconstruction, livelihood support, import financing and capacity building.

Carrying out a baseline 'Social Assessment of the Impact of the Earthquake on the Affected Population' is one of the requirements specified under the Earthquake Early Recovery Project. The objective of the study is to assess the social development risks, challenges and viable options to mitigate negative social consequences of ERC interventions. ERRA is carrying out reconstruction and rehabilitation activities in 12 sectors. In addition to housing reconstruction and livelihood support, the assessment also analyzes pre and post earthquake profiles of key sectors and underlines ERRA's strategic interventions in these sectors. The assessment thus, conjures up a comprehensive picture of reconstruction and rehabilitation efforts and outlines their social impacts. It also identifies key indicators to monitor these social impacts and introduces mitigation measures, wherever required, to offset adverse impacts.

The assessment captures the social impacts and identifies indicators not only to measure the progress of ERRA's programmes but also to monitor social impacts. The assessment findings would be instrumental in rectifying inadequacies of various ongoing programmes and give better perspective to the policy makers to make informed decisions while planning and implementing future programmes.

¹ The overall cost associated with the earthquake is estimated at approximately US\$5.2 billion, which includes estimated costs for relief, livelihood support for victims, and reconstruction. A substantial portion of this total relates to housing reconstruction, which will cost an estimated Rs. 92 billion (US\$1.6 billion).

The Social Impact Assessment provides benchmark information about the impact of ERRA's interventions on the overall social fabric with particular reference to the poor and marginalized sections of population. The assessment findings will form the basis for the Continuous Social Impact Assessment², which will assess the social impacts of ERRA's programmes on a regular basis to ensure maximum benefits for the target population.

The Social Impact Assessment is divided into 8 chapters. The following section contains a brief synopsis of each chapter.

Chapter 1 highlights the overall impact of the earthquake, delineates the damage and needs assessment, the formation of ERRA, the World Bank supported Emergency Recovery Credit and the ESSAF requirements, the scope and objectives of the SIA, and the assessment methodology.

Key Points:

- The damages caused by the 8 October earthquake include over 73,338 deaths, 128,304 injured, and 3.5 million affected. In addition to the human toll, it destroyed over 6,298 educational institutions, 796 health units, 600,000 houses, 6,440 km of roads and 50-70% of the telecommunication, power and water and sanitation services in the earthquake affected areas.
- The ERC components of housing reconstruction and livelihood support cash grant provided eligible families Rs. 175,000 per destroyed housing unit and Rs. 3,000 a month for 6 months for families adhering to the vulnerability criteria.
- This SIA was conducted internally by ERRA and benefited from the vast amounts of data and resources available through both the housing and cash grant programmes. The SIA also benefited from focus group discussions, reports, assessments and research from various other stakeholders in government, civil society and the development sector.

Chapter 2 discusses the legal and policy framework of the SIA, which includes the World Bank Social Safeguard Policies related to the ERC; and the GoP and ERRA policy framework.

Key Points:

- The GoP has specific laws and regulations pertaining to the environment and social issues. Projects which involve construction and may have any potential environmental impact must undertake an environmental impact assessment and submit it to the national environmental protection agency. Other pertinent legal regulations include the Land Acquisitions Act, 1894; Provincial Local Government Ordinance, 2001; Antiquity Act, 1975 and the Employment of Child Act, 1991.
- Under the ERRA Policies Framework, ERRA is an autonomous organization mandated to undertake the gigantic task of reconstruction and rehabilitation in earthquake affected areas in 12 major socio-economic sectors including devising comprehensive strategies for each sector outlining damages, funding requirements and implementation plans. In order to ensure transparency, an Operational Manual has been produced compiling different regulations to be followed in the planning, design and implementation of projects. ERRA reports to the ERRA Board and the ERRA Council; the former being a consultative forum headed by the Chairman ERRA and the latter being a supra decision-making forum headed by the Prime Minister of Pakistan.

² The Terms of Reference for the Continuous Social Impact Assessment attached as Annex B.

- The WB operating policies (Ops) that are relevant (triggered or may be triggered in the future) to this SIA are a) Environmental Assessment (OP 4.01), b) Involuntary Resettlement (OP 4.12), and c) Disputed Territories (OP 7.60).

Chapter 3 provides socio-economic baseline information of the earthquake affected areas and pre and post earthquake sectoral profiles. The chapter sets the background for the subsequent chapters dealing with the emergency response efforts undertaken by various governmental and non governmental agencies.

Key Points:

- The earthquake affected area of AJK and the eastern Districts of NWFP is home to a scattered population of some 5.7 million people. Families are closely-knit and on average comprise 7 people per household. About 88 percent of residents live in hilly, mountainous rural settlements, which range in size from 2 households to more than 300. The region's population is relatively young: nearly half (42 percent) of the population is below the age of 15 years, while 6.7 percent of the population is above the age of 60. Sex ratio is relatively higher in rural areas, whereas in urban areas it is on the lower side. A high proportion of the population lacks basic services and facilities like clean drinking water and safe disposal of waste. The region is also an area of extreme environmental vulnerability, characterized by frequent landslides and unchecked urban development with few environmental safeguards.
- **Housing and Shelter Situation:** The typical home in the affected areas houses 6-7 persons is 400 sq.ft and consists of one or two main rooms, a veranda and a bath and kitchen which may not be attached. A *Kacha* (non-permanent) house will typically have mud or stone rubble walls with a flat mud roof supported on pole beams. A *Pucca* (permanent) house will have stone rubble or fired brick masonry walls with sand cement mortar and a low pitched sheet metal or Reinforced Concrete (RCC) flat slab roof. Virtually none of the housing in affected areas has seismic considerations in design. Compounding this is the generally poor quality of construction and maintenance. As per the 1998 population census, the total number of housing units in the affected districts of NWFP & AJK stood at 450,859 and 184,381 respectively. Out of these approx 61 percent houses in NWFP were *Pucca*, 12 percent semi-*Pucca* and 27 percent *Kacha*. In AJK, approximately 35 percent of the houses were *Pucca*, 12 percent semi-*Pucca* and 53 percent *Kacha*.
- The earthquake left an estimated 2.8 million people in need of shelter at the onset of a harsh winter, in a rural, difficult to access terrain. It is estimated that in October 2005 about 787,000 housing units were in the affected area, and that these were predominantly rural.
- According to the initial joint assessment by the World Bank and the ADB, 203,579 housing units were destroyed and 196,575 units were damaged. Some 84 percent of the total housing stock was damaged or destroyed in AJK, while 36 percent in NWFP. However, these figures have grown in view of severe aftershocks and increased access to remote areas after the initial survey. Ninety percent of the destroyed or damaged housing is found in rural areas.
- According to the preliminary damage and needs assessment, estimated total employment in the affected districts of the two provinces was 1.12 million people³.

³ This estimate was derived from district-specific employment figures published in the District Census Reports of the 1998 Population Census, and *adjusted upwards* to account for: population growth since 1998 and female labor force participation (significantly under-reported by the Census), using PIHS 2001-as a reference.

Chapter 4 gives an overview of ERRA programme interventions including Housing Reconstruction, the Livelihood Cash Grant Programme and other sectoral programmes. ERRA's various programmes have largely produced positive results. Living up to the resolve of 'build back better' and turning this adversity into an opportunity, ERRA's interventions have brought about a significant improvement in the quality of reconstructed infrastructure and facilities as compared to the pre-earthquake standards.

Key Points:

- **Housing Reconstruction Policy:** The housing reconstruction programme aims to ensure that an estimated 630,000 houses that were either destroyed or damaged by the earthquake, are rebuilt using earthquake-resistant building techniques through grant assistance of Rs. 1, 75,000 from the GoP to eligible households to reconstruct a 'core house' of between 250 and 400 sq. feet depending on his/her choice of structural solution. The financial assistance package is being disbursed directly to the bank account of landlords and tenants and the payment of installments has been linked to compliance with earthquake resistant standards issued by ERRA.
- **Livelihood Support Cash Grant Programme (LSCG):** In order to mitigate the immediate suffering resulting from the devastation, and to assist people to regain their livelihoods, a US\$85 million World Bank funded LSCG programme was initiated by the GoP. The cash grants have helped affected people to get back to business in a short time and provided much needed subsistence allowance. It also injected much required cash back into a devastated local economy, thereby contributing to the revival of economic activity in earthquake-affected areas. The LSCG programme provided livelihood cash support to the 250,000 most vulnerable families in the earthquake-affected districts. A sum of Rs. 3,000 was given each month to every beneficiary household for six months. As of date, a total of Rs. 18,000 has been given in six equal monthly installments.

Chapter 5 takes stock of the landslides triggered due to the earthquake and subsequent monsoon, delineates Red Zones and analyses their impact on the local population and briefly describes the remedial measures taken by the GoP.

Key Points:

- The earthquake triggered many landslides in the affected areas that created another wave of death and destruction. The landslides and resulting hazardous sites also dislocated a sizable population in both the NWFP and AJK. These internally displaced populations (IDPs) were thus compelled to move to safer places including camps. Many people have lost the little land they had and others will be displaced because of living in close proximity to the red zones and or as a result of town planning for the cities of New Balakot/Bakriyal and Muzzafarabad.
- The earthquake exacerbated most existing slides and disturbed slopes and at the same time created numerous new slides and damaged slopes. These slides continue to pose challenges to continuous supply of materials in the affected areas by regularly blocking roads. Land-sliding in many areas has washed away entire tracts of agricultural land, putting entire communities' livelihoods in jeopardy.
- The main environmental impacts from the earthquake to the natural environment were the result of landslides which resulted in impacts to (i) topography/morphology of the surface of the earth (ii) rivers, streams, forests and grasslands, and (iii) habitats of native fauna and flora both on land and in the streams and rivers. The topography/morphology of the affected areas continues to be modified by aftershocks, some large enough to be considered earthquakes rather than tremors.

The landslides resulting from the earthquake have also altered the characteristics of mountain slopes and drainage basins.

Chapter 6 outlines the potential social impacts of ERRA's interventions. Mitigation measures taken to offset some adverse impact are also highlighted in the chapter.

Key Points:

- **Overall Social Impacts:** Formal documentation created through opening of bank accounts, issuance of National Identity Cards (NICs), and requirements of key documents including birth, marriage and death certification; safer and seismically resistant construction; increased job opportunities; increased capacity-building through training programmes; better service delivery due to improved facilities; increased general awareness; better disaster-preparedness; culture of confidence instilled; increased community participation; better appreciation of socio-economic profile of EQAA; barrier-free facilities; integrated reconstruction; cost- push inflation; quality-control; low-level corruption and nepotism; active participation of women; and increased financial capacity of families.
- **Social Impacts of Housing Reconstruction:** Improved overall quality of life; skilled labor and human resource base; improved safety standards; culture of responsibility instilled; issues of ownership largely settled; changing job/employment patterns; women and orphans at risk of losing property rights; and deforestation.
- **Social Impacts of Livelihood Cash Grant:** Revived and supported people to return to their sources of livelihoods or new livelihoods; cash injection into the local economy; formal documentation created; creation of pool of trained enumerators; improved banking system; inequity due to limited coverage and criteria; and creation of dependency culture.
- **Social Impacts of Other ERRA Interventions:** Social Protection: Economic empowerment of women; increased awareness of legal rights; better understanding of child rights; persons with disabilities trained to lead independent and useful lives; and issues of land in hazardous areas not addressed. Health Sector: Increased utilization of health facilities; increased awareness and confidence of users in health service provision; people have access to multiple health services under one roof; people with disabilities have access to better and specialized services; enhanced capacity of healthcare service providers; health sector better prepared for future disasters; improved health of affected population; overall improved quality of life; reduced maternal and child mortality; dependency created on non-government resources and staff. Education Sector: Parents confident to send children to school; increased literacy rates and school enrollment ratio; better awareness and civic sense; girls have increased access to education; increased inclination towards IT and vocational education. Environment Sector: Improved systems of waste management; reduction in deforestation; increased ownership and responsibility of community; dislocation and hazardous sites. Water and Sanitation: Access to potable water; availability of lavatory, drainage and sanitation facilities; behavioural change; and community participation and ownership. Roads and Transport: Increased accessibility and mobility; increased connectivity; employment generation; and tourism promotion. Public Sector Buildings: Resumption of public-service delivery; better record-keeping; increased interest in public-sector employment. Telecom: Communication accessible to affected populations.

Chapter 7 analyzes monitoring and evaluation approaches employed by ERRA to track the implementation progress of various programmes. The chapter identifies key

indicators to monitor the performance of ongoing interventions as well and mitigate adverse social impacts through mid-course corrections.

Key Points:

- The ERRA Monitoring & Evaluation Wing has designed a central monitoring and evaluation system in addition to the on-going project level monitoring of the individual projects and programmes carried out through PERRA/SERRA, DRUs, line agencies and partner organizations. The aim is to provide robust summary information of the progress and challenges related to reconstruction/rehabilitation, support planning and implementation processes, help set strategic direction and supply critical information needed for course correction.
- The monitoring and evaluation scheme designed by the ERRA M&E Wing is that the Monitoring and Data Collection (MDC) field teams of the outsourced consortium will regularly collect household level data/information from the sample/sentinel sites, which would be stored in data repositories maintained at the district/tehsil level. MDC teams will employ Key Performance Indicators (KPIs) designed by ERRA for the monitoring purposes using different participatory methodologies and approaches. Monitoring/data collection formats and templates would be designed by ERRA M&E Wing in consultation with the relevant stakeholders. Employing these formats, the MDC consortium will develop relevant tools and systems to effectively monitor reconstruction and rehabilitation work carried out by ERRA.
- The sectoral KPIs developed and approved by ERRA cover three levels of results; program inputs, outputs and outcomes, which are to be used by the implementing arms of ERRA (PERRA/SERRA, DRUs, line agencies, the M&E Zonal/District staff) in pursuance of their quality monitoring role and by the MDC consortium for regular monitoring and data collection.
- Third Party Validation (TPV) will also be used as a quality check to be applied once in a year to validate data/information produced by ERRA and to evaluate impacts of the sectoral programmes in a systematic and coherent way.

Chapter 8 enumerates recommendations to offset some of the potential impacts of ERRA interventions and add value to future programmes. A synthesis of several discussions and observations with different stakeholders is given as recommendations, primarily focusing on the housing and cash grant programmes.

Key Recommendations:

- Undertake detailed vulnerability survey in order to provide focused interventions for vulnerable groups.
- Develop specific program/policy for people living in hazardous areas, especially as the current ERRA Landless Policy does not accommodate this group.
- Assist vulnerable groups in rebuilding their houses since existing housing reconstruction policy is owner-driven.
- Provide specialized legal assistance for the protection of vulnerable groups, especially in accessing their property and legal entitlements.
- Involve women in reconstruction and ensure gender specific needs are incorporated into all recovery and reconstruction activities, policies and strategies.
- Provide adequate training and capacity-building to ensure service provision in new and modern facilities public facilities such as schools and hospitals, is sustainable.
- Institute a permanent system for monitoring and supervision of future construction to ensure observance of building codes after ERRA has phased out and to ward off the potentially disastrous affects of any future disaster.