

## CONVERTING ADVERSARY INTO OPPORTUNITY RURAL HOUSING PROJECT EARTHQUAKE, 2005

Muhammad ABRAR ISMAEL

*Director Projects, Earthquake Reconstruction and Rehabilitation Authority Prime Minister Office, Islamabad, Pakistan  
abrarismael@hotmail.com*

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The earthquake of 2005, damaged over 600,000 houses in the affected area, spread over 30,000 sq km in the northern Pakistan. The number of completely destroyed houses was 350,000. Over 200,000 houses were partially damaged and 50,000 houses negligible damaged. The ground survey of the technical experts exposed poor construction techniques mostly due to use of mud and un chiselled stones and block and brick masonry construction without using appropriate ratio of cement and steel. To provide seismically safe, weather friendly and community accepted housing solution; Owner Driven, Rural Housing Strategy at the cost of Billion 1.3 USD was formulated by Earthquake Reconstruction and Rehabilitation Authority (ERRA). The essence of this strategy was to incorporate and revive the indigenous practices of construction which were long forgotten by the people of the area due to easy, low cost but not safe methods of construction. The pages of history revealed that Northern Pakistan remained prone to seismic moments since centuries. The historical evidence can be witnessed in Texila, Pakistan (remains of 1300 BC-The Indus Valley Civilization) where people used to live in seismically safe houses.

Battar and Dhajji designs of construction with some modifications were thus incorporated side by side contemporary construction technologies i.e brick and mortar designs in this strategy. To implement this strategy a joint effort between ERRA, UN-Habitat and other stakeholders culminated in the development of the Dhajji and Battar, Timber Frame House Construction poster which were used as a training guide with a Ten Step format to be followed from start to finish. This information was widely disseminated in the earthquake affected areas through Public Information Campaign using print and electronic media. The poster conveyed complete information on the method, technique, materials, sizing and measurements of these indigenous methods.

To train locals of the area 150 Housing Reconstruction Centres (HRC) were established in different villages and towns. Since most of the population resided in a vast area spread all over the hill tops and deep valleys; 650 mobile training teams were created to teach and taught these techniques to people. Material hubs were also introduced all over the affected area to provide construction material on subsidised rates. Women of the area were provided a leading role in this program to monitor and supervise the stages of construction.

To make this project financially transparent, method of payment; keeping in view the progress of construction was adopted. The whole project was divided into four stages and the disbursement of payments was associated with completion of every stage. A technical team comprising an engineer, a local notable of the area and a local government official visited each house to inspect the progress and material used before issuing the clearance slip after the completion of each stage. The payments were ensured through the banks. Every head of a house was asked to open a bank account and get himself registered with the National Database and Registration Authority. On non-compliance of specific codes the financial tranche was stopped /frozen immediately.

A one window grievance redress centre was established to provide solutions to the issues of people including opening of bank accounts to payments of financial tranche. The project was successfully completed and received UN Sasakawa Award.

**REFERENCES**

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