



*In the name of ALLAH the most Beneficent,
the most Merciful*



Build Back Better



Build Back Better

PAKISTAN : EARTHQUAKE 2005

ERRA's HOUSING RECONSTRUCTION PROGRAM

A Success Story of Disaster Risk Reduction



Global Platform
for Disaster Risk Reduction

Third Session, Geneva, Switzerland
8 - 13 May 2011



Sequence

- Snapshot of disaster
- Challenges
- Salient features of Policy
- Implementation Strategy
- Achievements
- Steps taken for DRR
- Lesson learnt

Snapshot – The Disaster

- 7.6 Richter Scale Earthquake hit Pakistan in Oct 2005
- The Quake left 73,000 dead and more than 128,000 injured
- About 3.5 million rendered shelter less
- Around 600,000 houses destroyed/damaged
- About 7,000 public buildings and physical infra-structure heavily damaged
- Economic loss; US \$6 Billion



Difficult Terrain

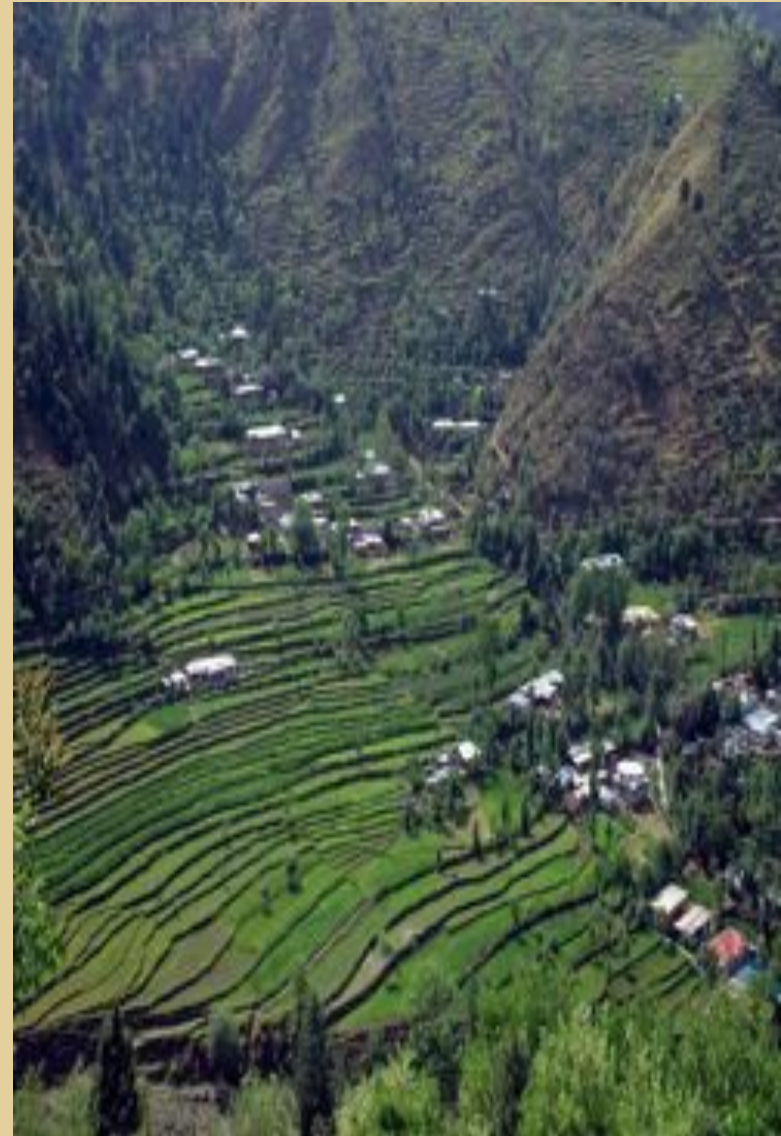
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Challenges



- Remoteness of area and short building seasons
- General lack of capacity
- Shortage of skilled labor – old construction techniques, a problem
- A need for consensus based policy - Arriving at unity out of so much diversity
- Sense of urgency – Trauma hit people not waiting for ERRA decisions





AIM

To ensure early completion of seismic resistant houses through an owner driven, assisted and inspected construction regime and to inculcate a culture of seismic compliance among the people

Salient Features of Policy



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- **Owner Driven – Homeowners in charge of rebuilding their own homes.**
- **Rebuild in – situ**
- **Seismically safe Construction – helping correct the non compliance through a compliance catalogue**
- **Uniform assistance package – special dispensation for vulnerable**
- **Consistent and transparent damage assessment criteria**



contd...



Salient Features



- **Judicious use of grants subject to certification at two levels-
plinth & lintel**
- **Cascade of training**
- **Participatory and inclusive grievance redressal mechanism**
- **Payments through banking channels**



Implementation Strategy



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- **Damage assessment**
- **Design menu**
- **Social mobilization**
- **Technical assistance – Training, inspection teams, mobile training teams**
- **Public Information Campaign**
- **Ensuring tail end supply chain management**
- **Data Management and Reporting Monitoring and Evaluation**
- **Support to Vulnerable**
- **A responsive grievance redressal mechanism**

Damage Assessment

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Designing

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Social Mobilization



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Social Mobilization

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- **3000 Village reconstruction committees established**

- **Social training and community mobilization**
- **Over 720,000 people mobilized**



Cascade of Training

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Federal and Provincial/State

**Preparation of common curricula
Training of Training Coordinators (22)**



Districts

**Housing
Reconstruction
Centers**

**Training of Master Trainers of
Partner Organizations (150)**



Union Councils

**Partner
Organizations**

Training of Mobile Teams (650)



**Towns/
Villages (4,000)**

**Mobile Training
Teams**

**Training of artisans, self-builders,
contractors, communities, etc.**

Basic Technical Training

Artisans and Assistance and inspection team



More than 200,000 trained

Special Training for Women

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Women Mobile Training Teams

Public Information Campaign

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تعمیر نو

اب سب کچھ آپ کے ہاتھ میں ہے۔



اپنے پیاروں اور خود کو زلزلہ اقد رتی آفات برداشت کرنے والی عمارت کا تحفظ دیں۔

زلزلے سے پہلے اور زلزلے کے بعد ہر عمارت کی تعمیر اور مرمت کے لیے اپنی رقم بچانے کے لیے اپنی عمارت میں محکم کی جانگلی ہے۔ اس رقم کو ذرا بچھوڑیں اور گھروں کی تعمیر کے لیے ضروری اشیاء کی خریداری سے شروع کر دیں۔

اب (ERRA) کی نئی تعمیراتی نیوں اور زلزلے برداشت کرنے والی عمارتوں کی تعمیر کے لیے گورنمنٹ کی مالی معاونت کو مستعمل کریں۔ اور یہ نئی شہدائے گورنمنٹ کو بچانے کے لیے۔

یاد رکھیں: اپنی عمارتوں کی تعمیر اور مرمت کے لیے اپنی رقم بچانے کے لیے اپنی عمارتوں کی تعمیر کے لیے اپنی رقم بچانے کے لیے۔

0800-00023
0800-00024

Website: www.erra.gov.pk



Door to Door Assistance (About 1.5 Million site visits for inspection and technical assistance)

Communication Tools

Over 1 million print products distributed

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اپنے گھر کو زلزلے سے مزاحم بنائیں!
گھڑی سے ہاتھ کے اٹھانچے اور بجلی سمیت والے گھروں کے لئے ہدایات

EREA

1 **گھاس کا انتخاب**

2 **گھری کا خاکہ**

3 **معدا اور اجازت**

4 **تیار اور پختہ**

5 **گھڑی کا خاکہ**

1 **پیرا پستل**

2 **گھڑی کے اٹھانچے میں اجازت کی اجسام**

3 **معدا**

4 **معدا سے اجازت گھریاں**

5 **معدا سے اجازت گھریاں**



Support to Vulnerable Population



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- **Over 200 Model Houses**
- **700 Demo sites**





Grievance Redressal Mechanism



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 HOUSING PROJECT

Update Account Information

Update Account Information

Print Account Information

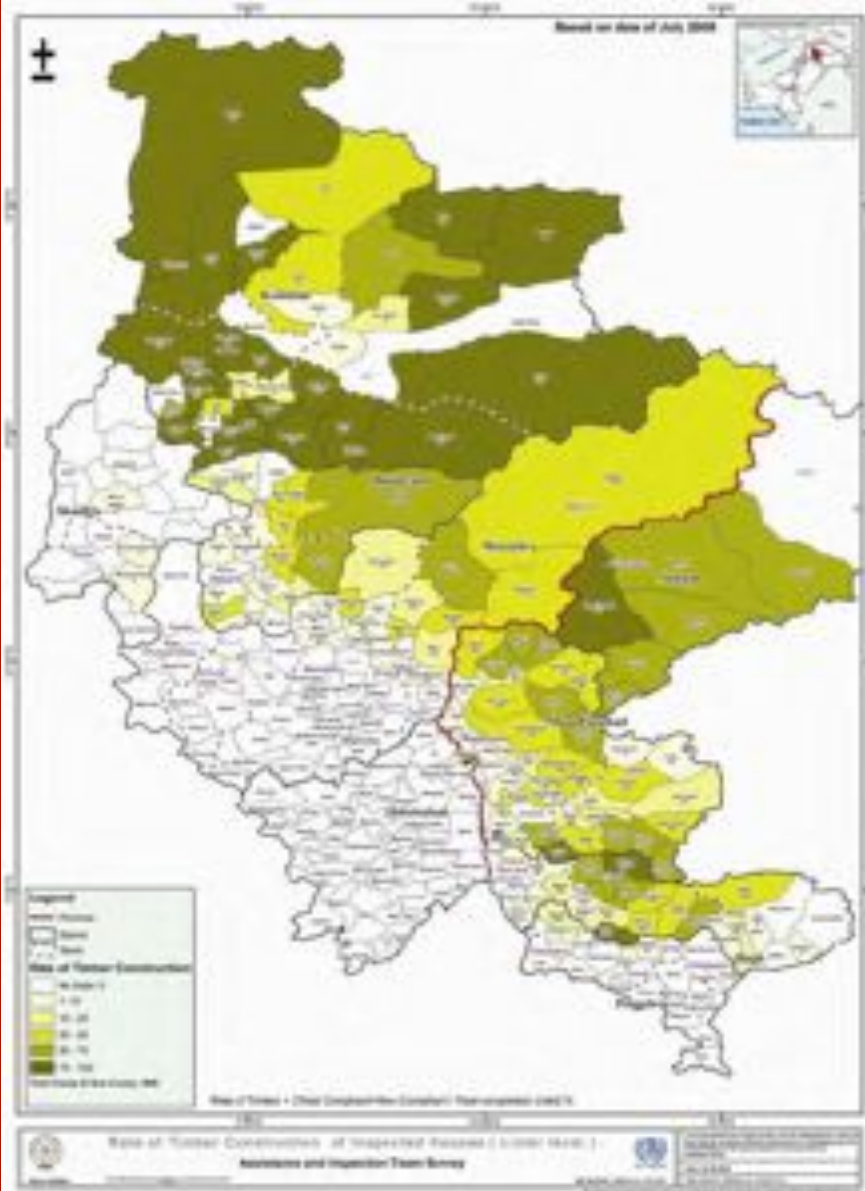
Home

Update Account Information

Institution Name	<input type="text" value="national bank of pakistan"/>
Institution Branch	<input type="text" value="muzaffarabad"/>
Institution Address	<input type="text" value="bank road"/>
Institution Name	<input type="text" value="National Bank of Pakistan"/>
Institution Branch	<input type="text" value="CHATTER DOMEL"/>
Institution Address	<input type="text" value="CHATTER DOMEL, MUZAFFARABAD, AK"/>
Account Title	<input type="text" value="gh muhammad sadique"/>
Account No	<input type="text" value="74644"/>

MIS System: Assistance and Inspection Regime

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Advised case: Lintel band inadequate

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Compliance Catalogue

Guidelines for the Construction of Compliant Rural Houses





Achievements

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- Brought about a sea change in the pattern of construction
- About 3.5 million people successfully moved to new safe and better homes
- Over 95% houses compliant with ERRA standard
- Over 1.5 million visits to carry out inspections and provide technical support to households
- Culture of safety has become a reality



Achievements

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- **Over 500,000 new bank accounts opened**
- **Over 40,000 families were moved to safer places from hazardous land**
- **Over 55,000 houses reconstructed by women headed households**
- **27 Partner Organizations mobilized in 232 union councils**
- **720,000 people were socially mobilized**
 - **Over 200,000 technical persons were imparted training**
 - **Over 200,000 women participated in training, awareness and community mobilization activities**



Achievements

- Over 2 million financial transactions with US\$1.3 billion remitted directly to the affectees' accounts.
- Over 1 million print/information products distributed
- Over 3,000 Village Reconstruction committees formed
- Court admitted ERRA's stance in 93% of the grievance cases
- Rated as , “highly satisfactory” program
- Earthquake resistant construction techniques incorporated in curriculum for associate Engineering in poly-technical colleges

Glimpses of Housing Sector

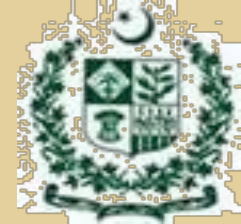
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Glimpses Contd

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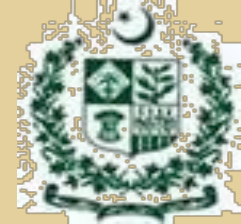




Steps for the DRR

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- Participatory development/reconstruction approach
- Hazard assessment and mapping of the entire EQA
- Preparation of Hazard and vulnerability profile of the whole country
- Microzonation of all over Pakistan especially the 30,000 Km sq earthquake affected area
- Mainstreaming of DRR in the normal development process
- Community based disaster management programs to create local coping capacities in the communities
- Seismic provision in building code of Pakistan updated
- Reconstruction of infrastructure as per updated building
- Master Planning of the four EQA cities



Steps for the DRR

- Relocation from vulnerable sites
- Training, awareness and sensitization of all
- Development and Mainstreaming of revised codes in the National Engineering policies/ construction practices
- Creation of a dedicated Disaster Management Authority (NDMA) and Provincial Disaster Management Authorities (PDMAs)



Lessons Learnt

- Earthquakes don't kill people, poor construction does
- Have faith in people - An owner-driven approach with assistance and inspection regime promotes efficiency, capacity and sustainability
- People bound to make mistake- continuous support throughout the life span of program for people – compliance catalogue and PIC
- The use of technology in program implementation should be encouraged – damage assessment, grievance redressal, Reporting monitoring and evaluation

Lessons Learnt

- Central policy but decentralized implementation especially through the local authorities
- Incorporation of local practices in construction techniques and solutions ensures ready acceptance and adoption
- Flexibility in design and implementation – rather than one size fits all approach is a prerequisite for success – mid course corrections
- A vulnerable sensitive approach is important to ensure equitable implementation of the policy and women empowerment
- The program is to be reviewed for its impact – social as well as environmental

Lessons Learnt

- Disbursal systems should be simple and easily ‘monitor-able’; payment through bank accounts could be one effective option
- An easily accessible and responsive grievance redress system should be established
- Its good to outsource –institutions like UN-Habitat and NADRA have made tremendous role in the success of the program in all stages. Diverse partners in the program brings credibility and augments capacity
- Innovative approaches – landless program offshoot of overall housing program



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THANKS

What went wrong?

- A predominantly “response-centric” approach to disaster management – little or no focus on disaster preparedness, mitigation and risk reduction
 - Spatial **Risk Mapping** and Assessments were not available
 - General **Lack of Risk Awareness** across public sector institutions and the public
 - **Inadequacy of Local Coping Mechanisms** to deal with major hazards
 - Absence of **Institutional arrangement**
 - **Building Codes and Non-Existent Enforcement System** resulting in structural inadequacies with no regard to disaster resistant designs