

Support of Permanent Reconstruction Working Group

Context

Following the earthquake in Java on 27th May 2006, the housing impact assessment for both Yogyakarta and Central Java Provinces conducted by the Provincial Governments identified massive damage to the housing sector. Published figures indicated 303,330 households were totally destroyed or heavily damaged as a result of the disaster. The Early Recover Cluster further estimates that an additional 80,000 households living in 'lightly damaged' may also be in need of shelter assistance, bringing the total to 386,685 households, which accounts for over 1.5 million people.

The Emergency Shelter Cluster, together with GOI, has distributed tents, tarpaulins and toolkits to vulnerable families reaching around 88% of the affected population. It is recognised, however, that due to delays in the implementation of the GOI permanent housing reconstruction programme, the majority of the affected population will still require further shelter assistance to meet needs through the rainy season which begins in mid-October 2006. As a consequence, the Shelter and Reconstruction Cluster (part of 'Early Recovery') has assumed responsibility for the delivery of a new programme to deliver interim shelter using the 'roof first' strategy. Currently, Cluster commitments are projected to meet 24% of total need with 70,000 roof structures.

In addition to the need for interim shelter, the Cluster has also identified a pressing need to support the 'informal' housing sector, in which families are already building back with permanent materials on a unilateral basis. The current policies of both Provinces envisage the allocation and disbursement of grants to enable the construction of permanent houses using steel reinforced concrete frames, supervised by technical facilitators. Currently, it is planned that all families with destroyed or heavily damaged housing will receive housing assistance, although it is not clear how the informal construction process will be supported in parallel to this process. Current estimates based upon the Inter-Cluster Assessment (ICA) indicate that around 37% (120,000 households) have begun this process in earnest already. Further, it remains unclear how to best support those families with 'lightly damaged' housing (269,000 households) many of whom remain living in unsafe structures and who are not currently being adequately supported to rebuild in a sustainable and safe manner.

To tackle both these pressing concerns, the Cluster has convened a Permanent Reconstruction Working Group (PRWG) to describe the extent and quantify building-related risks and identify measure to mitigate these risks. The Shelter and Reconstruction Cluster now requires expert assistance to support the PRWG. It is proposed that an expert team be deployed with two components; a Technical Team consisting of experts from national universities with institutional expertise in the fields of geotechnics, structural seismology and the design and production of technical literature for public outreach.

In addition, an international expert team will be deployed to provide strategic support to the National Technical Team for a limited period of time in order to develop an initial overview of geotechnical and seismic risk, to design and analysis specialist building and ground condition surveys and to build capacity and support the formation of the Working Group within the Cluster. The National Technical Team will then be further be supported by the Cluster to develop a 'strategic framework' document, in collaboration with the Shelter and Reconstruction Advisor, which will identify discrete programmes to mitigate both immediate risks and provide a platform for longer-term Disaster Risk Reduction (DRR) programmes during 2007.

Services

Desk Study

1. Review existing data from districts, provinces and central govt relating to housing damage, geo-technics and seismic reports
2. Compare existing geotechnical data and depth of ground water table with the geography of the housing damage recorded by Bakornas, the Damage and Loss Assessment and the Inter-Cluster Assessment (ICA).
3. Review of GOI housing programme design and existing building codes

Field Survey/Assessment

1. Conduct a survey of the type and quality of the housing being constructed unilaterally (without external assistance) within the earthquake-affected area
2. Conduct a detailed survey of the geotechnical conditions in the affected area
3. Conduct a survey of 'lightly damaged' buildings within the earthquake-affected area describing the type of damage and identify trends
4. Conduct a survey to estimate the extent of ground liquefaction
5. Conduct a field survey to identify the actors implementing permanent reconstruction programmes in the affect area. Describe the size and type of their programmes
6. Design and conduct other surveys as required by the PRWG

Analysis

1. Develop a methodology for comparing the performance of Cluster member programmes to deliver permanent housing
2. Quantify the risks associated with living in 'light damaged' buildings
3. Quantify the extent and risks associated with the phenomenon of ground liquefaction
4. Quantify the risks associated with unilateral housing construction in the affected areas

Outputs

1. Recommend suitable programmes to repair lightly damaged buildings together with a cost analysis
2. Recommend suitable programmes to mitigate risks associated with unilateral housing construction together with a cost analysis
3. Produce a critical analysis of the performance of Cluster member programmes and make recommendations for improvements

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