The Project on Rehabilitation and Recovery from Nepal Earthquake in Nepal

Inception Report

July 10, 2015

JICA Project Team
Build Back Better
Building Resilient Society
Table of Contents

1. Project Outline

2. Output 1: Formulation of Kathmandu valley and district level plan

3. Output 2: Formulation of a seismic resistant building guideline and its dissemination and HRD

4. Output 3: Formulation of prioritized reconstruction project (Grant Aid Program)

5. Output 4: Formulation and implementation of Quick Impact Projects (QIPs)

6. Other items
1. Project Outline
Background of the Project

- On Sunday, 25 April 2015, a 7.6 magnitude earthquake struck Barpak, about 76 Km northwest of Kathmandu.

- To date, there are over 8,631 casualties, 16,808 injuries.

- There are 0.5 million of buildings totally collapsed and 27 million houses of buildings partially damaged.

- Points of land slides are more than 3,300 including Tibet side and delay of rehabilitation and reconstruction efforts.

- The government of Nepal submitted a request to the government of Japan for a rehabilitation and recovery project on 5th of June. Based on the request and a series of consecutive discussions, both sides agreed on and signed the **Record of Discussion (R/D) on 15th of June**.

- This Project is implemented by the Japan International Cooperation Agency through the JICA Project Team based on the contents agreed on the R/D stated above.
Objectives

• To implement Technical Cooperation Project and Development Study to support process of early rehabilitation and recovery of the affected areas

• To formulate disaster resilient nation and society by referring the experience and lessons learned of the disaster and reconstruction in Japan.

• To implement a prioritized reconstruction project to fill the demand-supply gap which arises during the transition from humanitarian assistance phase to rehabilitation and reconstruction

• To develop additional projects such as Program Grant Aid and Loan Projects.
## Project Outputs

<table>
<thead>
<tr>
<th>Outputs</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output1: Formulation of Plans</td>
<td>Formulation of Kathmandu city resilient plan</td>
</tr>
<tr>
<td></td>
<td>Formulation of Rehabilitation and Reconstruction grand design for Gorkha and</td>
</tr>
<tr>
<td></td>
<td>Sindhupalchowk</td>
</tr>
<tr>
<td>Output2: Enhancement of Seismic Resistance</td>
<td>Preparation of Seismic resistant guideline for building and structure</td>
</tr>
<tr>
<td>building and structure</td>
<td>Human resource development plan for seismic resistant housing and school buildings</td>
</tr>
<tr>
<td>Output3: Identification and formulation of</td>
<td>Prepare outline technical design and cost estimation for implementation of</td>
</tr>
<tr>
<td>emergency recovery and rehabilitation projects(Grant Aid )</td>
<td>priority projects that are found applicable for Japanese grant aid scheme</td>
</tr>
<tr>
<td>Output4: Implementation of emergency recovery and rehabilitation (Quick Impact Projects: QIPs)</td>
<td>Formulation of quick impact projects and their implementation.</td>
</tr>
</tbody>
</table>
**Project Time Frame**

**Implementation Period: July 2015 – June 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jul</td>
<td>Aug</td>
<td>Sep</td>
<td>Oct</td>
</tr>
<tr>
<td>Output 1:</td>
<td>Formulation of National level and District level plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formulation of Kathmandu valley resilient Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grand design for recon. &amp; rehab. for 2 Districts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Digital Topo. Map</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land side Hazard Map</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output 2:</td>
<td>Promotion and dissemination of seismic resistant buildings and structures</td>
<td>Review Structure Code</td>
<td>Develop Guidelines</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formulate PGA Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implementation of Quick Impact Projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implementation of Program Grant Aid Projects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Output 3:**
Formulation of prioritized reconstruction projects (Program Grant Aid)

**Output 4:**
Formulation and implementation of QIPs
Work Items for all Outputs in Common

• Item [1]: Collection, analysis, evaluation of the existing plan and information for developing a framework of the Project

• Item [2]: Survey and analysis of the current condition

• Item[3]: Study tour in Japan

• Item[4]: Implementation of capacity building
Output 1:

- **Output1**  Formulation of Kathmandu valley and district level plan
  - Item[5]: Purchase of satellite images or shoot of aerial photos
  - Item[6]: Preparation of digital topographic maps
  - Item[7]: Preparation of hazard map
  - Item[8]: Formulation of Kathmandu resilient plan & grand design for district level rehabilitation and recovery
2. Output 1
Plan for Geospatial Information

1. Satellite Imagery
   (1.50m Resolution)

2. Existing Map
   (1/25,000 • 1/50,000)

Topographic Map
   Katmandu Basin
   (1/5,000 • 1/10,000)

Hazard Map
   Gorkha
   Sindhupalchok

Gorkha
Sindhupalchok
Katmandu Basin
Plan for Topographic Map

Topographic map
Katmandu Basin

1/5,000 : 100km²
1/10,000 : 721km²
Kathmandu Resilient Plan / Grand Design for Rehabilitation and Recovery

Towards Resilience: Disaster Risk Reduction and Build Back Better

1. Creating Safer Cities and Rural
   - Creation of Safer Communities by Structural and Non-structural measures

2. Recovery of People’s Daily Life
   - Capacity Development on Disaster Prevention through Resilient communities, and Creation of Living Environment toward Sustainable Livelihood

3. Restoration of Local Economy
   - Recovery and Promotion of Industry such as Tourism and Agriculture to enhancement of community power

Projects

Construction of Public Facilities and Provision of Equipment

Implementation of Livelihood Recovery and Skill Training & Building Resilient Community
3. Output 2
Output 2:

- Output2  Formulation of a seismic resistant building guideline and its dissemination and HRD
  - Item[9]: Confirmation of and review on the building and infrastructure standards
  - Item[10]: Formulation of seismic resistant building guideline
  - Item[11]: Support to build model housing and schools
  - Item[12]: Study on dissemination mechanism
Typical Failure Pattern of Non-engineered Delaminating Wall

Delaminating wall
- Joints filled with stone pieces or joints left unfilled
- Low shear strength, particularly with poor mortars.
- Brittle behavior in tension as well as compression.

Gap between outside to inside
Residence Model House Construction

Tribhuvan University  June 20, 2015
4. Output 3
Output 3

- **Output 3** Formulation of prioritized reconstruction project (Grant Aid Program)
  - Item[13]: Selection of prioritized reconstruction project plans
  - Design and approximate cost estimation of the prioritized reconstruction project plans
Construction of Safe School

Example of Pakistan Muzaffarabad
<table>
<thead>
<tr>
<th>Work Schedule for Output 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Review exiting studies</td>
</tr>
<tr>
<td>Sounding at relevant organizations</td>
</tr>
<tr>
<td>Criteria for survey site selection</td>
</tr>
<tr>
<td>Selection of site to be surveyed</td>
</tr>
<tr>
<td>Site survey</td>
</tr>
<tr>
<td>Criteria for selection of Priority Reconstruction Projects (PRPs)</td>
</tr>
<tr>
<td>Selection of PRPs</td>
</tr>
<tr>
<td>Project profile</td>
</tr>
<tr>
<td>Technical note</td>
</tr>
<tr>
<td>Outline design</td>
</tr>
<tr>
<td>Construction plan</td>
</tr>
<tr>
<td>Outline cost estimate</td>
</tr>
<tr>
<td>Reporting</td>
</tr>
<tr>
<td>Natural condition survey</td>
</tr>
</tbody>
</table>
Products of Output 3

- Progress report (end of September)
  - Selection results of priority reconstruction projects (Grant Aid Program) and prioritized project list
  - Project profile of priority reconstruction projects
  - Outline design
  - Outline cost estimate
  - Results of survey for environmental and social considerations
5. Output 4
Output 4

• Output4  Formulation and implementation of Quick Impact Projects (QIPs)
  – Item[14]: Formulation of QIPs
  – Item[15]: Implementation and implementation management of QIPs
Formulation and Implementation of Quick Impact Projects (QIPs)

- **Formulation process**
  
  1) **Concept for QIP formulation**
     - Formulation of QIPs necessary and effective for the disaster affected areas
     - Discussion with Relevant Organizations of Nepal
  
  2) **Needs survey**
     - Interviews at target DDCs
     - Items identified in Output 3 but cannot be implemented through grant aid program
     - Concepts and ideas shared by relative government agencies and donor organizations
  
  3) **Establishment of criteria for project evaluation / evaluation of candidate projects**
  
  Longlist of candidate projects

  Shortlist of candidate projects

  4) **Selection of QIPs**
     - Site survey and collection of detail information
     - Effect of project implementation
     - Consistency with formulation concept
     - Balance with other formulation concepts
     - Areal distribution
     - Expandability of project effect
     - Prioritization of QIPs
  
  QIPs to be implemented
Survey for Local Governments

- **Interviews with DDCs in the project area**
  - Preparation of longlist at DDC → Finalization at Municipal / Village level
  - However, with the consensus of DDC, project list may be directly prepared at Municipal / Village level. This may save considerable amount of time.

<table>
<thead>
<tr>
<th>District</th>
<th>Municipality/VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sindhupalchok</td>
<td>1. Melamchi Municipality (Melamchi, Talamarang, Jyamire, Sindhukot, Bansbari, Shikharpur, Phataksila); 2. Chautara Municipality (Chautara, Pipaldanda, Kubhinde, Sanusirbari); 3. Barhabise VDC</td>
</tr>
</tbody>
</table>
Selection of QIPs for Implementation

- Site survey / collection of detail information
  - Access to site / physical obstacles for implementation
  - Readiness of concrete implementation plan, participation of local government staff in project activities
  - Plan for operation and maintenance

- Selection of QIPs
  - Examination in reference to individual formulation concept
  - Project effect, areal distribution of projects, balance among other formulation concepts, further expandability of project effect
  - Prioritization of QIPs based on implementation period, importance, balance among formulation concepts and sector coverage
6. Other items
# Reporting Schedule

The following reports are scheduled to be prepared and submitted within the Project period.

<table>
<thead>
<tr>
<th>Report</th>
<th>Date</th>
<th>Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inception Report (IC/R)</td>
<td>July 2015</td>
<td>20 copies</td>
</tr>
<tr>
<td>Progress Report (PR/R)</td>
<td>September 2015</td>
<td>20 copies</td>
</tr>
<tr>
<td>Interim Report1 (IT/R1)</td>
<td>April 2016</td>
<td>20 copies</td>
</tr>
<tr>
<td>Interim Report2 (IT/R2)</td>
<td>November 2016</td>
<td>20 copies</td>
</tr>
<tr>
<td>Draft Final Report (DF/R)</td>
<td>April 2017</td>
<td>20 copies</td>
</tr>
<tr>
<td>Final Report (F/R)</td>
<td>June 2017</td>
<td>30 copies</td>
</tr>
</tbody>
</table>
Study Tour in Japan (three times)

• Visit to disaster affected areas in Japan to observe undertaken / ongoing efforts for recovery and reconstruction

• To share actual experiences and lessons learned in Japan from past disasters

Local industry (food processing)

Lecture on protection facilities

Stockpile warehouse

Relocation housings
Requirements

The following items will be required from the government of Nepal (as stated in the R/D).

• Assignment of C/P personnel

• Office space with necessary equipment (Kathmandu, Shindhpalchowk, and Gorkha)

• Provision of available data (including maps and photographs) and information

• Grant privileges, exemptions and benefits including official visas.

• Selection of Joint Coordination Committee (JCC) members and coordination
Thank You