

# **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**

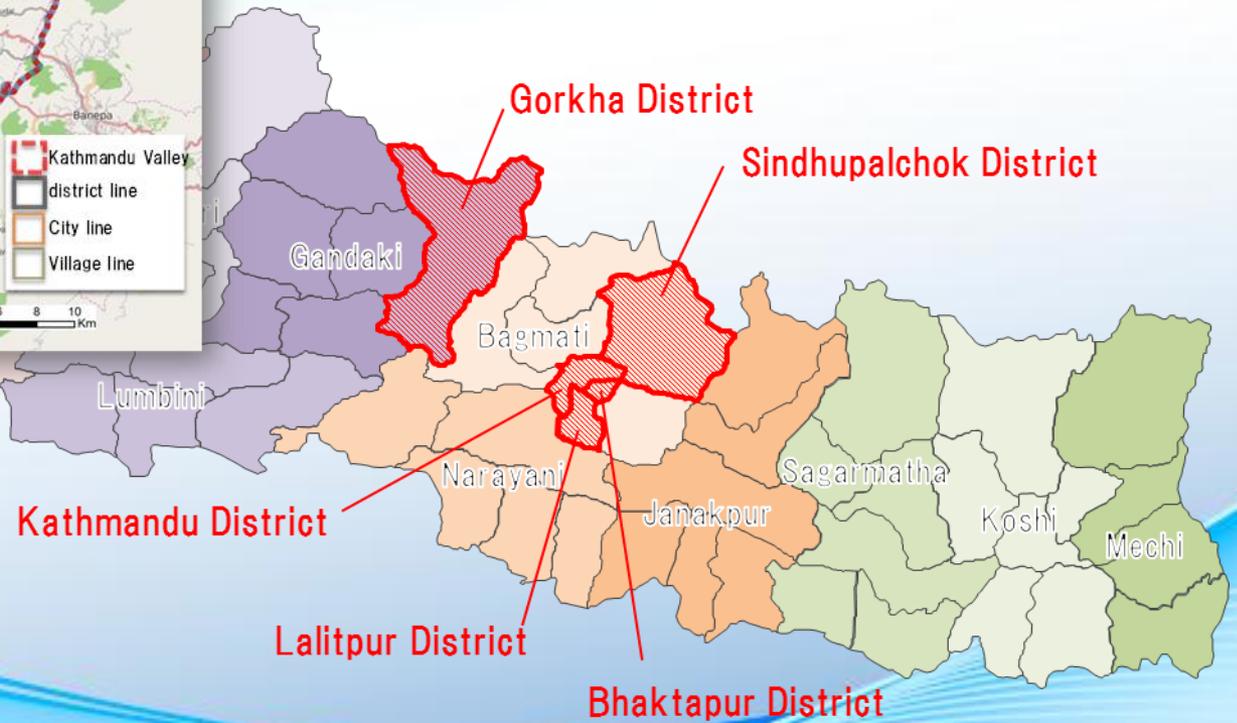
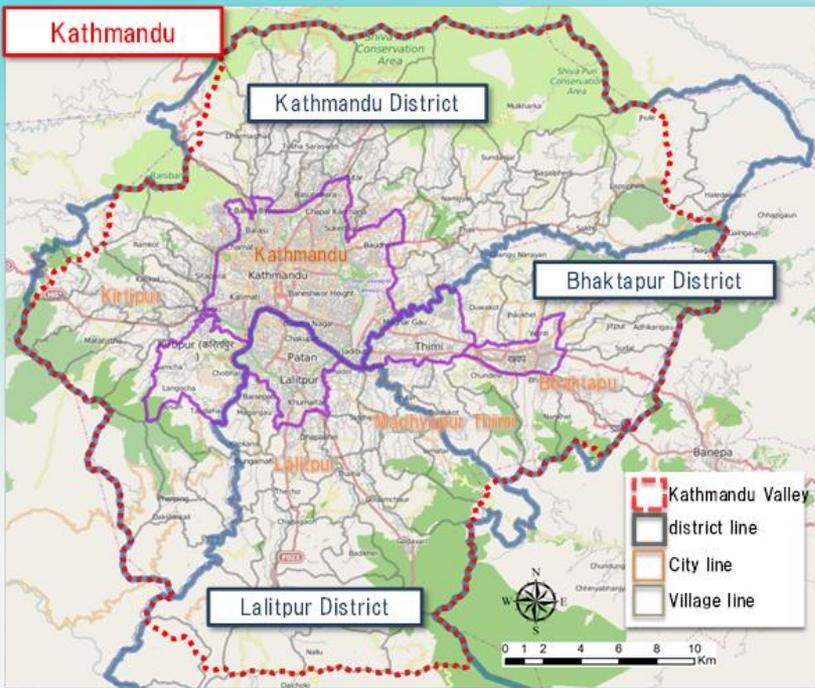
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# 1. Project Outline

The slide features a light blue gradient background. At the bottom, there are several decorative, wavy blue lines that create a sense of motion and depth. The lines vary in thickness and color intensity, ranging from a pale blue to a vibrant, saturated blue.

# Study Area



# 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 0.5million 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 5<sup>th</sup> 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 15<sup>th</sup> 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

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

# Project Time Frame

Implementation Period: July 2015 – June 2017

Year Month	2015						2016						2017														
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul		
Output 1: Formulation of National level and District level plans			Formulation of Kathmandu vally resilient Plan																								
			Grand design for recon. & rehab. for 2 Districts																								
				Digital Topo. Map																							
			Land side Hazard Map																								
Output 2: Promotion and dissemination of seismic resistant buildings and structures		Review Structure Code		Develop Guidelines																							
Output3: Formulation of prioritized reconstruction projects (Program Grant Aid)		Formulate PGA Projects		Implementation of Program Grant Aid Projects																							
Output 4: Formulation and implementation of QIPs		Formulate QIPs		Implementation of Quick Impact Projects																							

# Work Items for all Outputs in Common

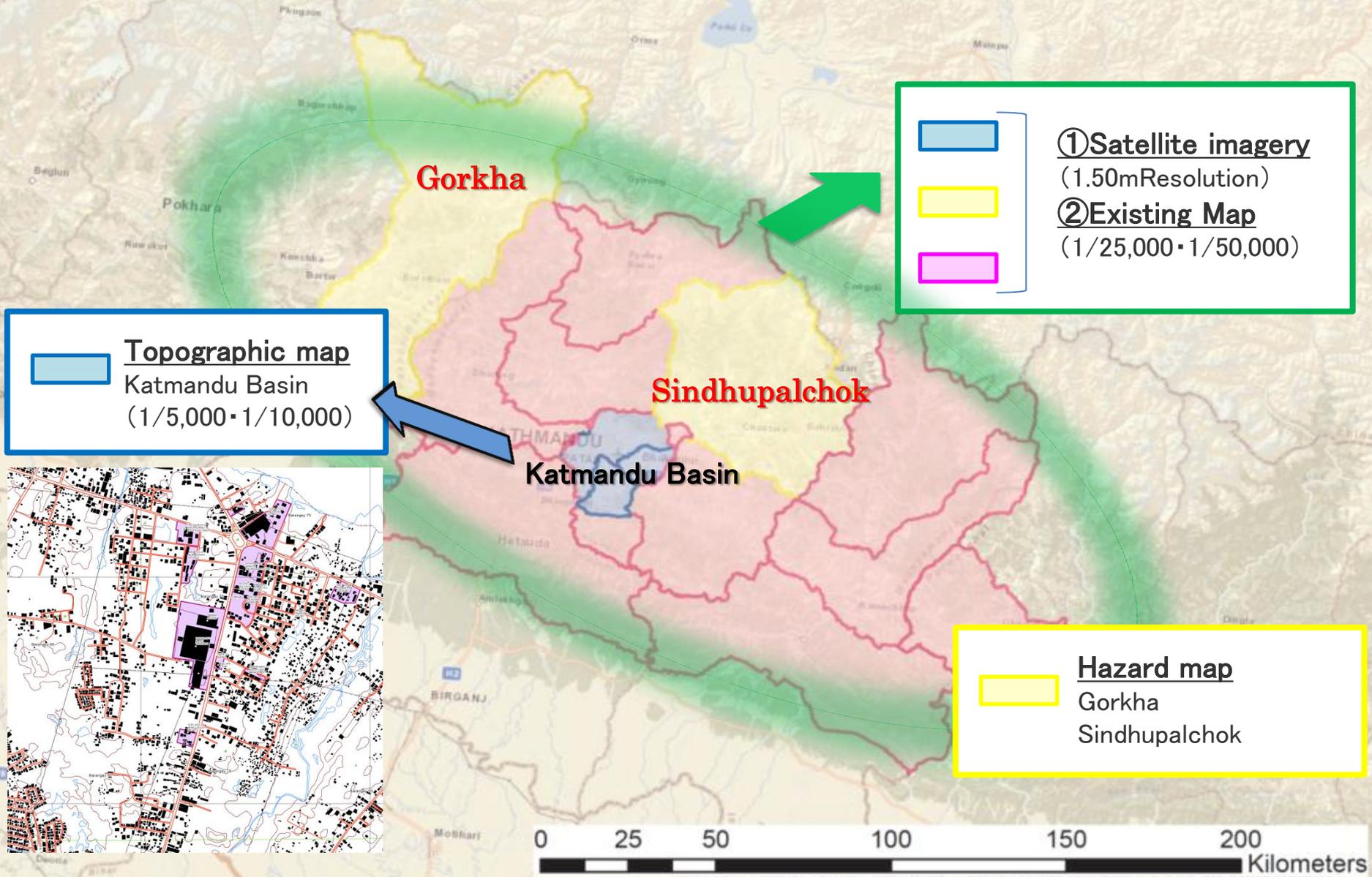
- **Item [1]: Collection, analysis, evaluation of the existing plan and information for developing a framework of the Project**
- **Item [2]: Survey and analysis of the current condition**
- **Item[3]: Study tour in Japan**
- **Item[4]: Implementation of capacity building**

# Output 1:

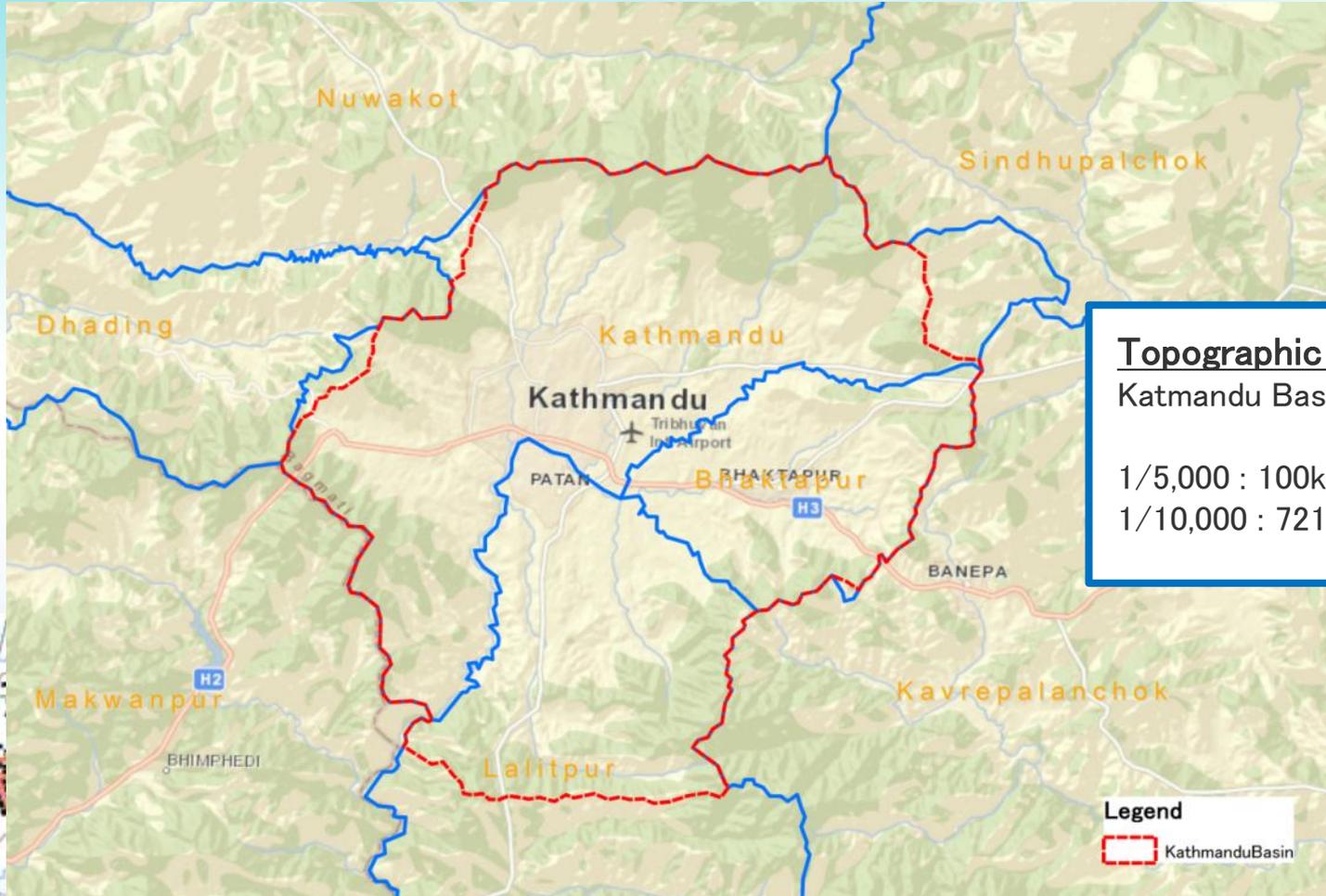
- **Output1 Formulation of Kathmandu valley and district level plan**
  - **Item[5]: Purchase of satellite images or shoot of aerial photos**
  - **Item[6]: Preparation of digital topographic maps**
  - **Item[7]: Preparation of hazard map**
  - **Item[8]: Formulation of Kathmandu resilient plan & grand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

## 2. Output 1

# Plan for Geospatial information



# Plan for Topographic Map



## Topographic map

Katmandu Basin

1/5,000 : 100km<sup>2</sup>

1/10,000 : 721km<sup>2</sup>

## Legend

 Kathmandu Basin

# Kathmandu Resilient Plan / Grand Design for Rehabilitation and Recovery

Policy

**Towards Resilience: Disaster Risk Reduction and Build Back Better**

Objectives

**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

The background features a light blue gradient that transitions from a pale cyan at the top to a slightly darker blue at the bottom. In the lower portion of the image, there are several decorative elements: a series of thick, wavy blue lines that curve across the frame, and a grid of thin, light blue lines that forms a perspective effect, suggesting a path or a surface receding into the distance.

## Output 2:

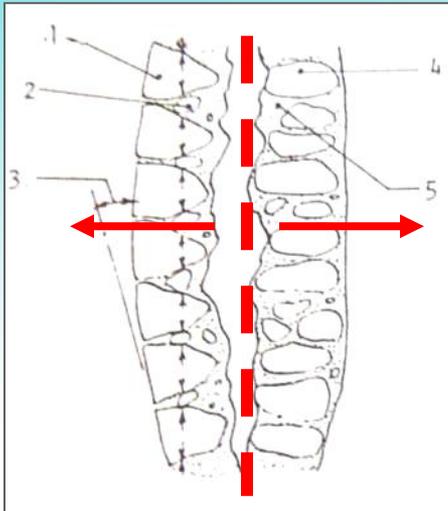
- **Output2 Formulation of a seismic resistant building guideline and its dissemination and HRD**
  - **Item[9]:Confirmation of and review on the building and infrastructure standards**
  - **Item[10]:Formulation of seismic resistant building guideline**
  - **Item[11]: Support to build model housing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

# Typical Failure Pattern of Non-engineered

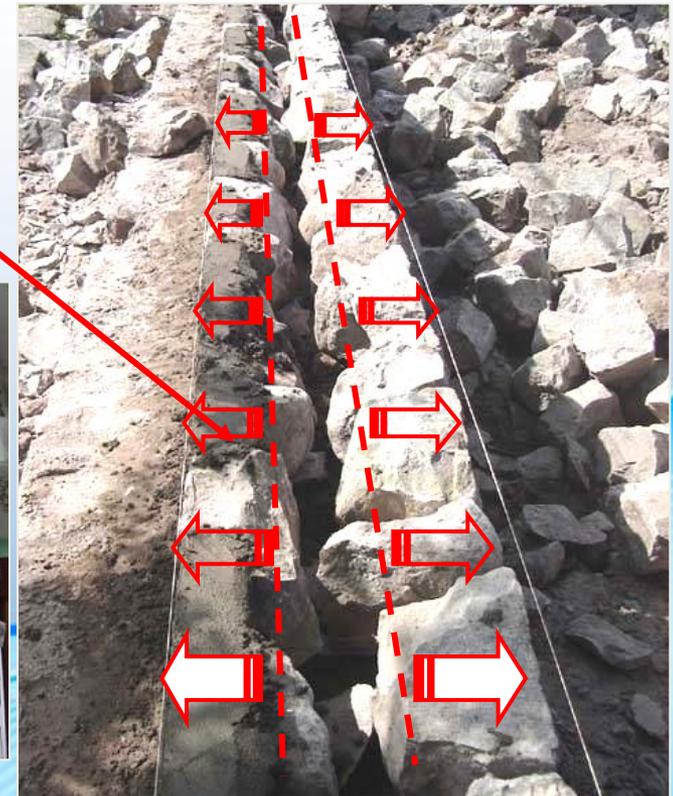
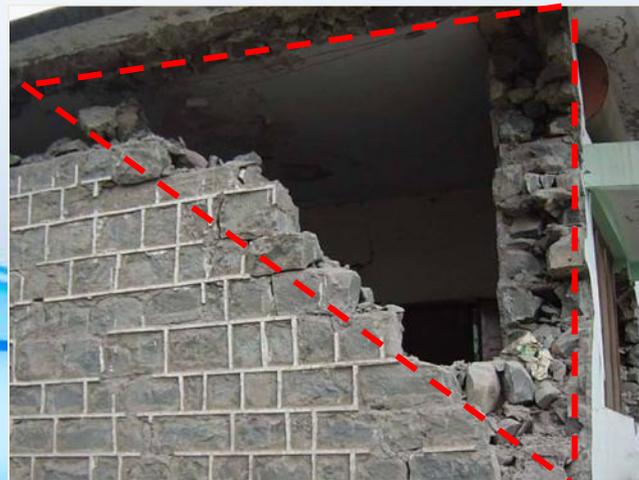
## Delaminating Wall

### Delaminating wall

- Joints filled with stone pieces or joints left unfilled
- Low shear strength, particularly with poor mortals.
- 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

The bottom of the slide features a decorative graphic consisting of several overlapping, wavy lines in various shades of blue, creating a sense of motion and depth.

# Output 3

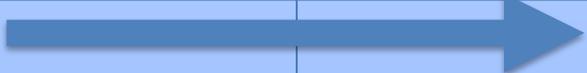
- **Output 3 Formulation of prioritized reconstruction project (Grant Aid Program)**
  - **Item[13]: Selection of prioritized reconstruction project plans**
  - **Design and approximate cost estimation of the prioritized reconstruction project plans**

# Construction of Safe School

## Example of Pakistan Muzaffarabad



# Work Schedule for Output 3

	July	August	September
Review exiting studies			
Sounding at relevant organizations			
Criteria for survey site selection			
Selection of site to be surveyed			
Site survey			
Criteria for selection of Priority Reconstruction Projects (PRPs)			
Selection of PRPs			
Project profile			
Technical note			
Outline design			
Construction plan			
Outline cost estimate			
Reporting			
Natural condition survey			

# 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

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# 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

Longlist of candidate projects

### 3) Establishment of criteria for project evaluation / evaluation 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.

District	Municipality / VDC
Sindhupalchok	1.Melamchi Municipality (Melamchi, Talamarang, Jyamire, Sindhukot, Bansbari, Shikharpur, Phataksila); 2.Chautara Municipality (Chautara, Pipaldanda, Kubhinde, Sanusirbari); 3.Barhabise VDC
Gorkha	1.Ghyachok VDC; 2.Warpak VDC; 3.Simjung VDC; 4.Sairpani VDC; 5.Muchchok VDC; 6.Jaubari VDC; 7.Takmaj Hiakuri VDC; 8.Shrithankot VDC; 9.Tarkukot VDC; 10.Chhoprak VDC; 11.Gaugkhu VDC; 12.Masel VDC; 13.Nataeshwar VDC; 14.Taple VDC; 15.Khoplang VDC; 16.Prithbinarayan Municipality; 17.Phinam VDC; 18.Virkot VDC; 19.Deurali VDC; 20.Bakrang VDC; 21.Manakamana VDC

# 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**

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# Reporting Schedule

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

Report	Date	Copies
Inception Report (IC/R)	July 2015	20 copies
Progress Report (PR/R)	September 2015	20 copies
Interim Report1 (IT/R1)	April 2016	20 copies
Interim Report2 (IT/R2)	November 2016	20 copies
Draft Final Report (DF/R)	April 2017	20 copies
Final Report (F/R)	June 2017	30 copies

# 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**