



THE THIN PAGE®

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Founder and CEO

1. Who we are ?



THE THIN PAGE®

Empowering the communities to use the Mobile Based Application for Disaster Risk Reduction (DRR) in the face of Climate Change

ICT-ASIA, 2015

25-26 May 2015

SEARCA, Los Baños Laguna, Philippines



SEAMEO
SEARCA







2. Background

All stakeholders working in Climate Change and Disaster are struggling to disseminate updated information and knowledge to the communities in understandable way. Most of the technological tools that can ease the understanding are focused to the center and communities are left behind.

All disaster related information that is generated at community level is not reflected to the same level. Information on disaster is available at center but dissemination of such information to the communities is lacking (Gettelman 2003). The first tool to strengthen communities towards adaptation to climate change could be information itself (Aalst, Cannon & Burton 2008)

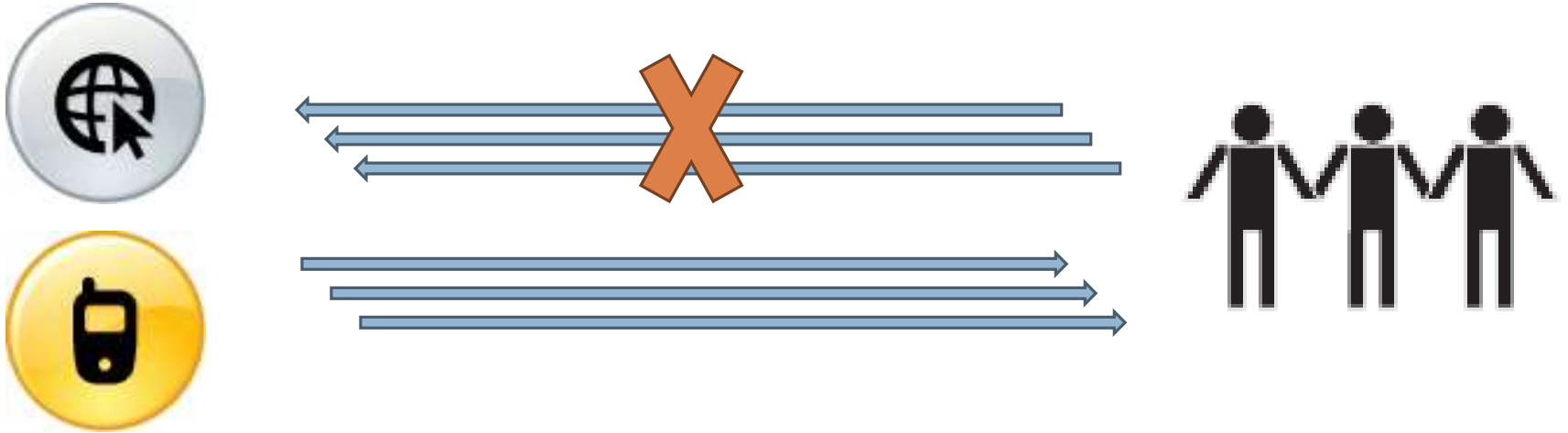
The overall concept is to enhance information sharing by promoting mobile-based application and empowering adaptation activities (Samarajiva & Waidyanatha 2009).

2. Background

This project will contribute to climate change adaptation and disaster risk reduction by developing mobile application to increase access to such information at local level (Troy et al 2009).

This project is expected to improve Disaster Risk Reduction using mobile application and leverage the explosive diffusion of the technology even among the poor in developing countries (Yap 2011).

2. Background



Are we getting any real time information on disaster from community ?

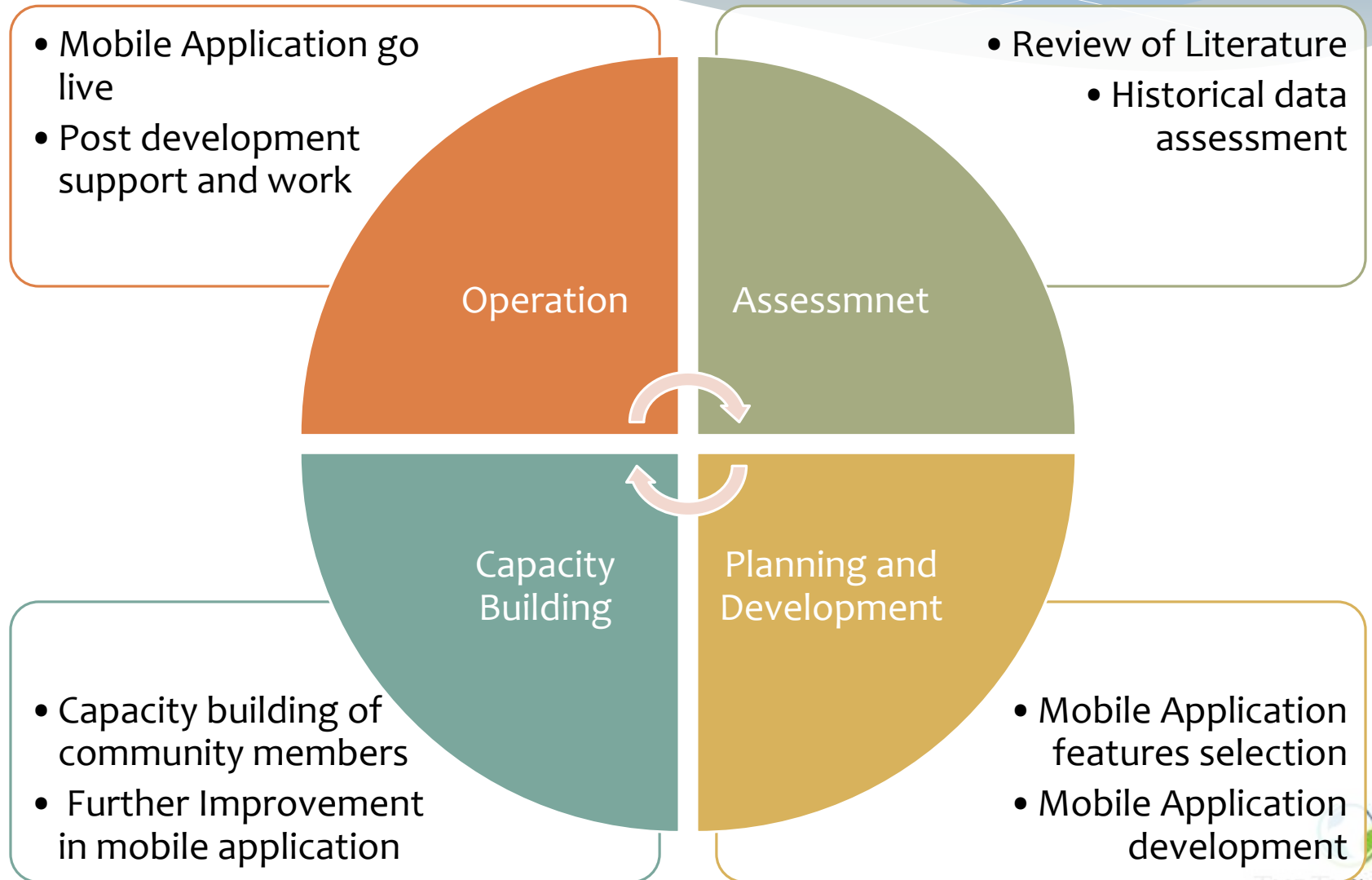
3. Objectives

The overall goal of this project is to strengthen communities with enhanced access to information and promote adaptation with their conscious participation.

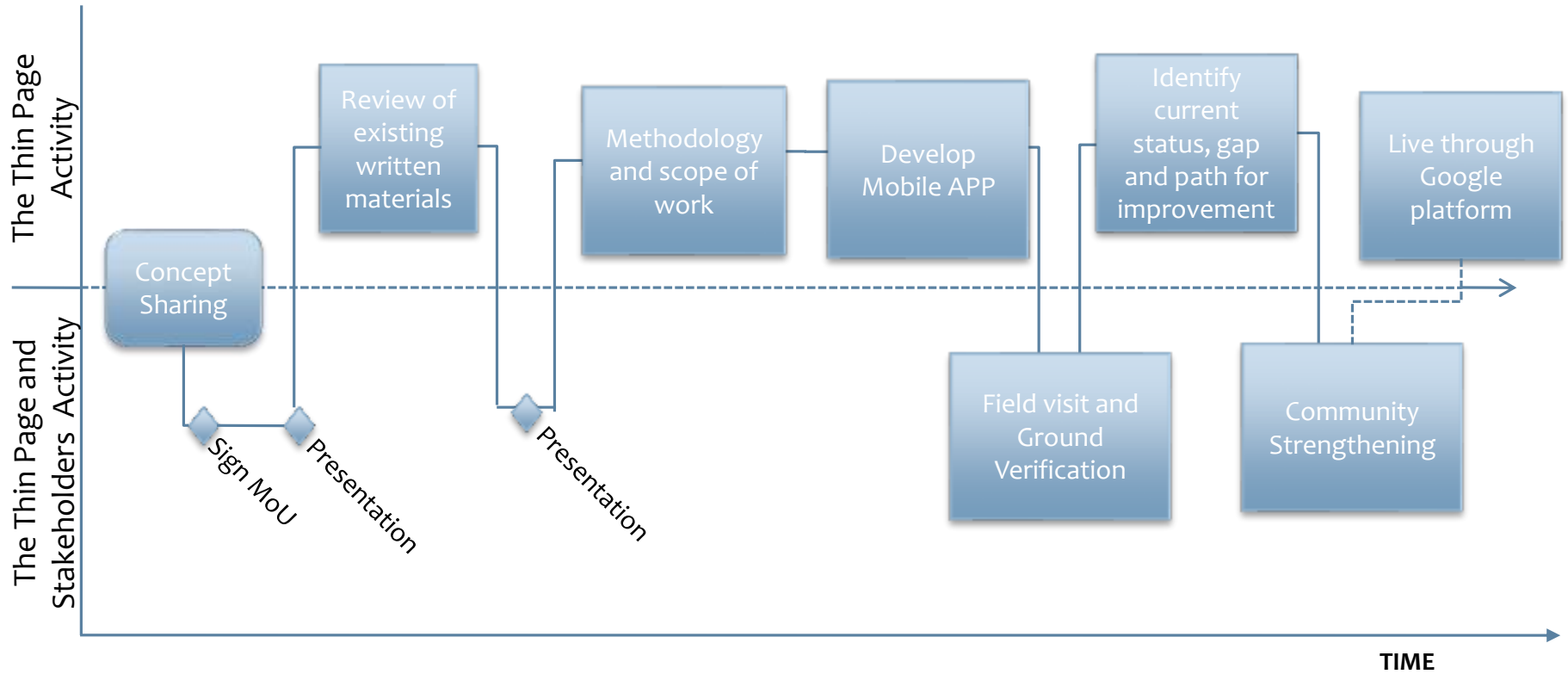
The specific objectives of this project are as follows;

- To develop and pilot a mobile platform for disaster related information collection, feeding and retrieval via mobile platform.
- To empower the selected (pilot) communities to use mobile-based application to regularly update and retrieve disaster related information in their community.



4. Our Approach and Methodology



4. Our Approach and Methodology



KEY

-  = meeting
-  = task

4. Our Approach and Methodology: Review of Lit.

Disaster and Historic Profile

The secondary data and information will be collected and collated from reports, newsletter, research papers, published and unpublished articles, books, journals, annual report of different organizations, and websites.

Project team will review different literatures on disaster risk reduction, climate change and mobile application and its application during the period of project execution.

Major Mobile Apps on disaster

Major organizations/projects/stakeholders working on DRR and Climate Change

4. Our Approach and Methodology: Mobile APP.

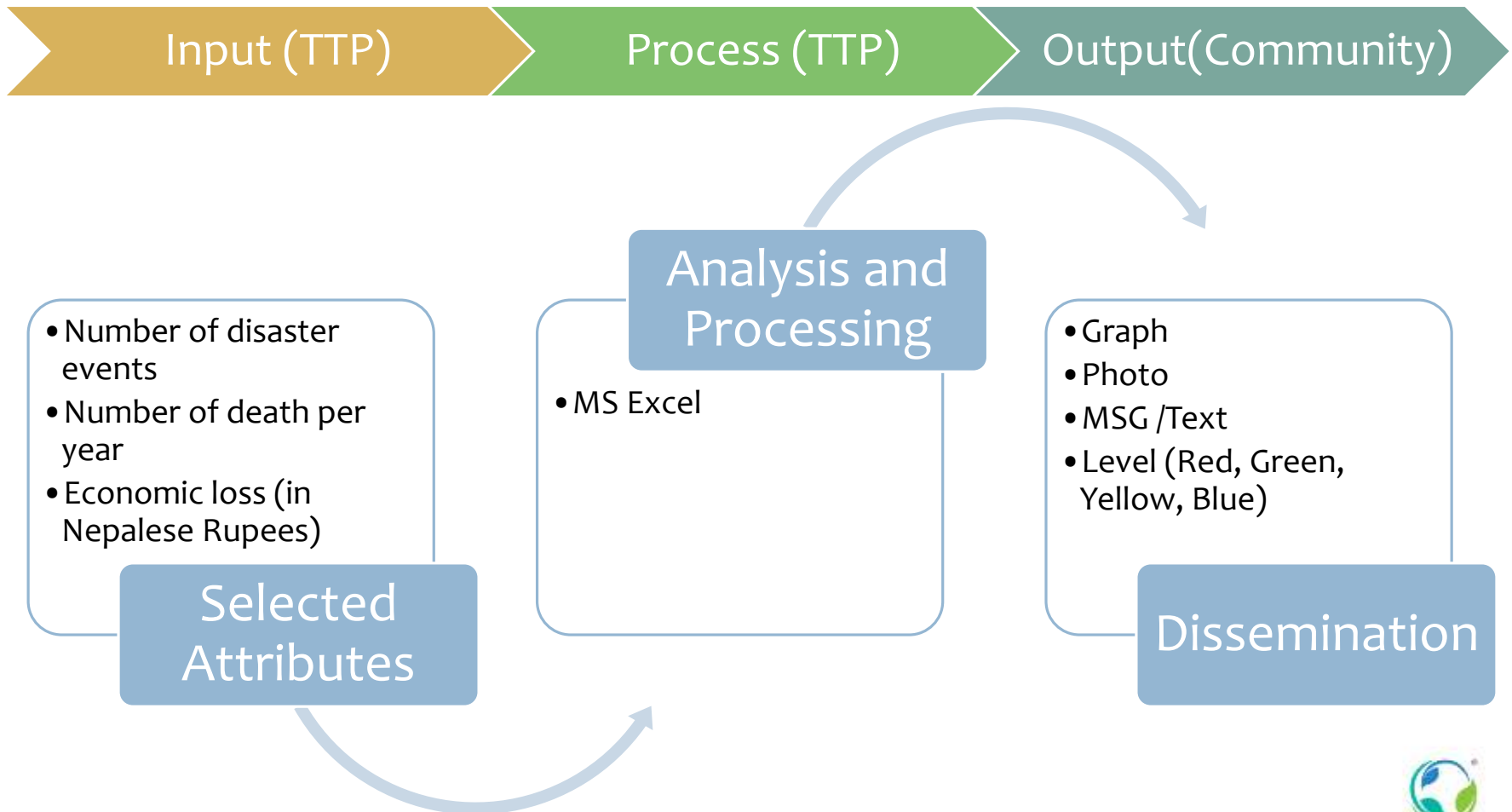
A. Historical Data Assessment on Disaster

- Disaster data available for approx (20 yrs).
- Disaster Management Section, Ministry of Home Affairs, Government of Nepal.
- Collecting the data from the local incident level
- Disaster Types- Earthquake, Flood and Landslide, Fire, Windstorm, Thunderbolt and Epidemics

District	VDC/Municipality & Ward No	Date	People			Affected Family	Animal Loss	House		Shed Destroyed	Land Loss		Public Property Losses	Estimated Loss in Rs	Remarks
			Death	Missing	Injured			Comp.	Partly		No.	Unit			
Arghakhachi	Khan 3 & 3	2065-02-17	1												
Baglung	Pandawakhani - 1 Ramras	2065-05-12						8		2	9.7332	Hect or		2275000	
Baglung	Tara	2065-09-12				65		19			4.548	Hect or	Crops, Toilets, Water mill, Powerhouse	777200	
Baglung	Tara	2065-09-12													
Baglung	Burtibang - 5	2065/9/12-15				2		1	1					550000	
Baglung	Khunge - 5	2065/9/12-15				8		1	1	1				270000	
Baglung	Bhimthe	2065/9/12-15												502000	
Baglung	Ranesingibeni	2065/9/12-15				1	1	1			0.6222	Hect or	Crops loss	1570000	
Baglung	Khunge	2065/9/12-15											6 bellybridge loss		
Baglung	Ranesingibeni	2065/9/12-15											2 Hydropower, 6 belly bridge loss		
Baitadi	Mathairaj-5	2065-01-09				1		1						40000	
Baitadi	Melauli - 5	2065-02-20	1												
Baitadi	Salera - 7	2065-04-05				1		1						107850	

4. Our Approach and Methodology: Mobile APP.

A. Historical Data Assessment on Disaster



4. Our Approach and Methodology: Mobile APP.

A. Historical Data Assessment on Rainfall (Symmetry of Disaster)

Date of Disaster	Rainfall on same day	Rainfall on day Before	Rainfall on day After
12 July 2012	125 mm	85mm	55mm
15 June 2014	85mm	120mm	35mm

Note: The data shown are dummy and only for representation.

Based on this data analysis and processing, SMS alert will be automatically send to community members in around that week.

4. Our Approach and Methodology: Mobile APP.

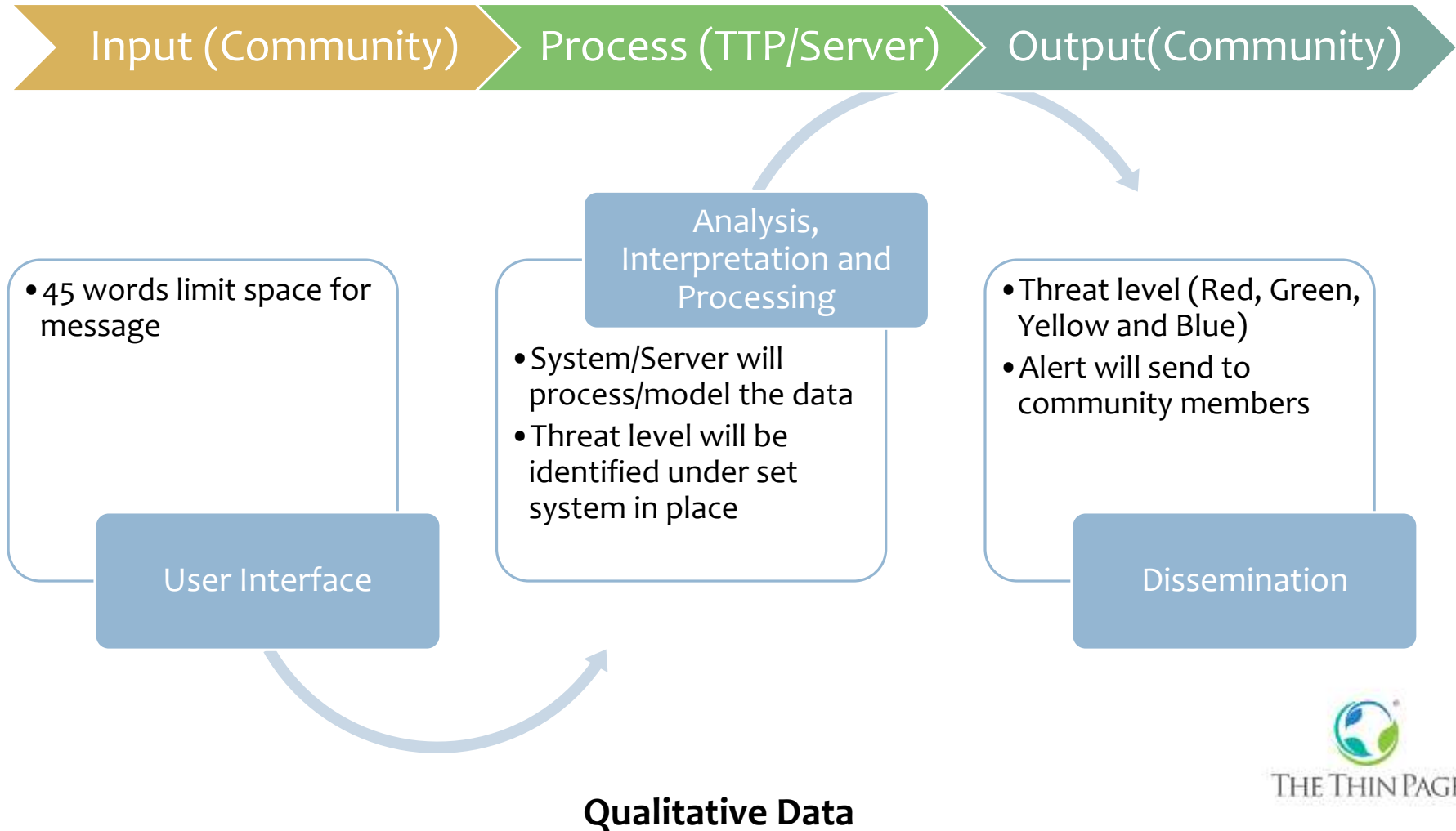
B. Flood Risk Assessment

- Major component
- This project doesn't talk about this part

Collaboration is the Key !!

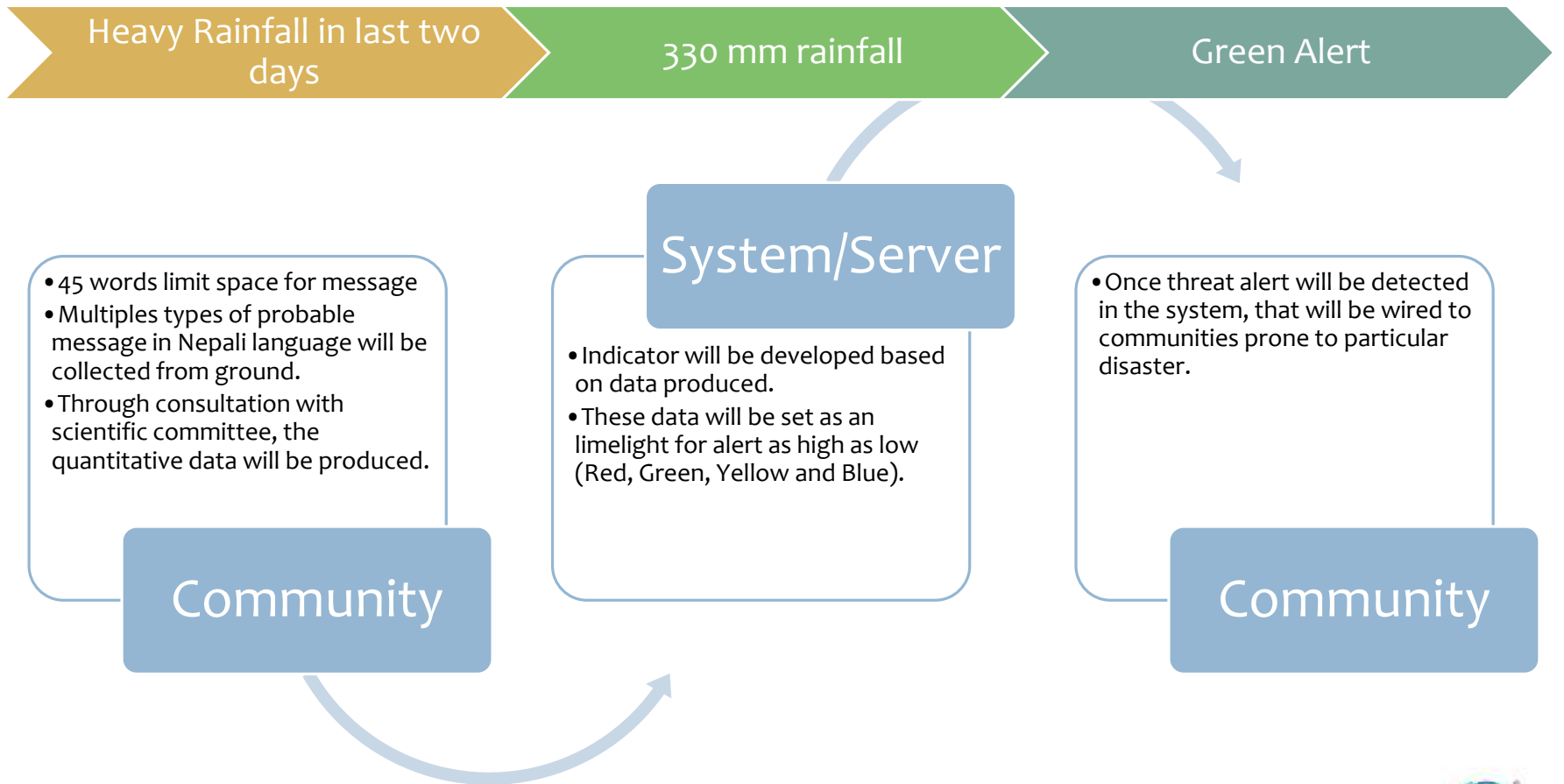
4. Our Approach and Methodology: Mobile APP.

C. Retrieval of real time information on disaster from community



4. Our Approach and Methodology: Mobile APP.

C. Analysis, Interpretation and Processing



4. Our Approach and Methodology: Pilot

Although most of the actions for this project need mobile application development, but the verification and piloting is the key for its smooth and long run. The project will be piloted in Padampur Village Development Committee (VDC) of Chitwan District of Nepal.

CHITWAN DISTRICT RIVER SYSTEM

Pilot Site

0 3.5 7 14 Kilometers

Highly Vulnerable to
Landslide and Flood Hazard
(ICIMOD and EU, 2007)

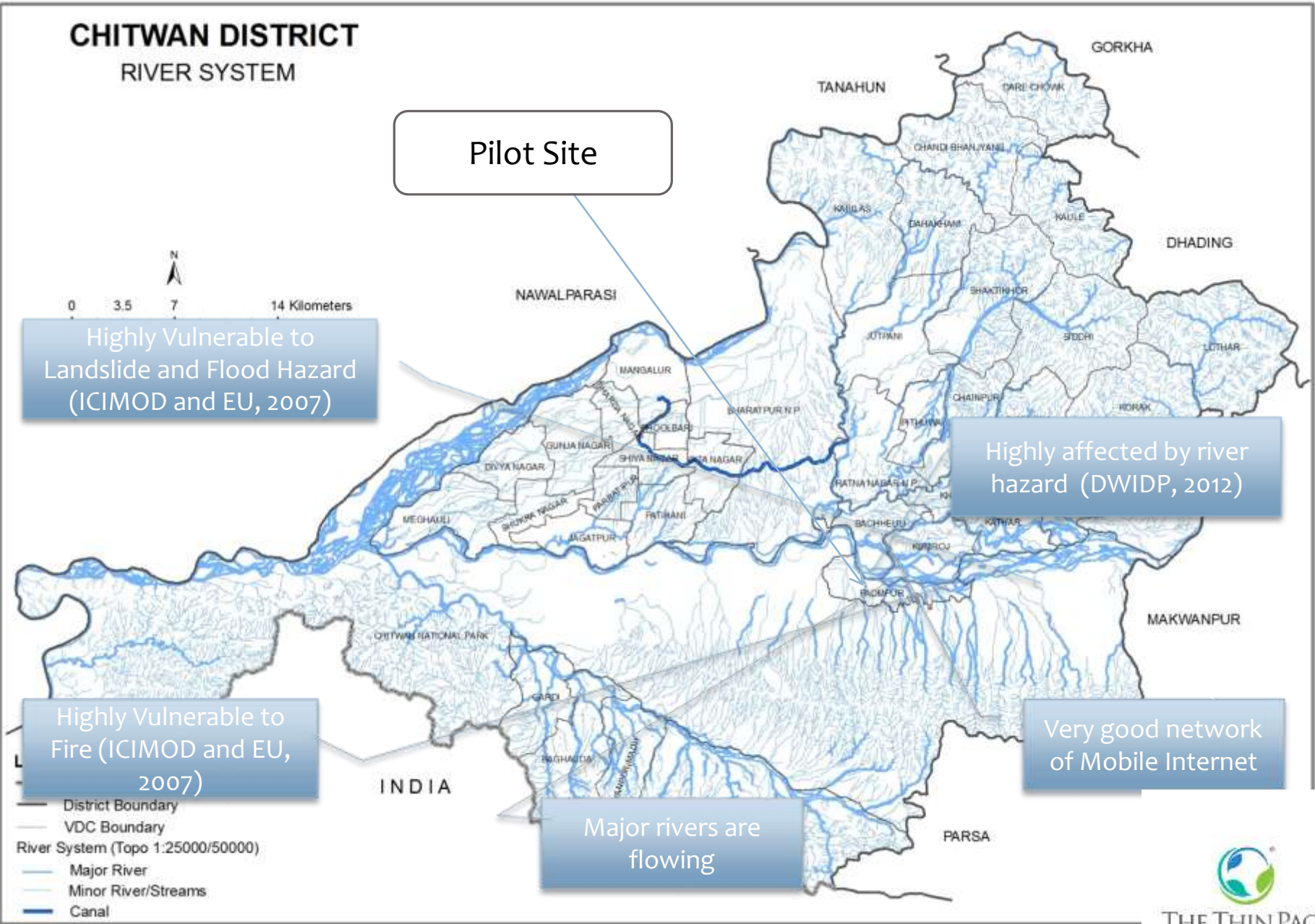
Highly affected by river
hazard (DWIDP, 2012)

Highly Vulnerable to
Fire (ICIMOD and EU,
2007)

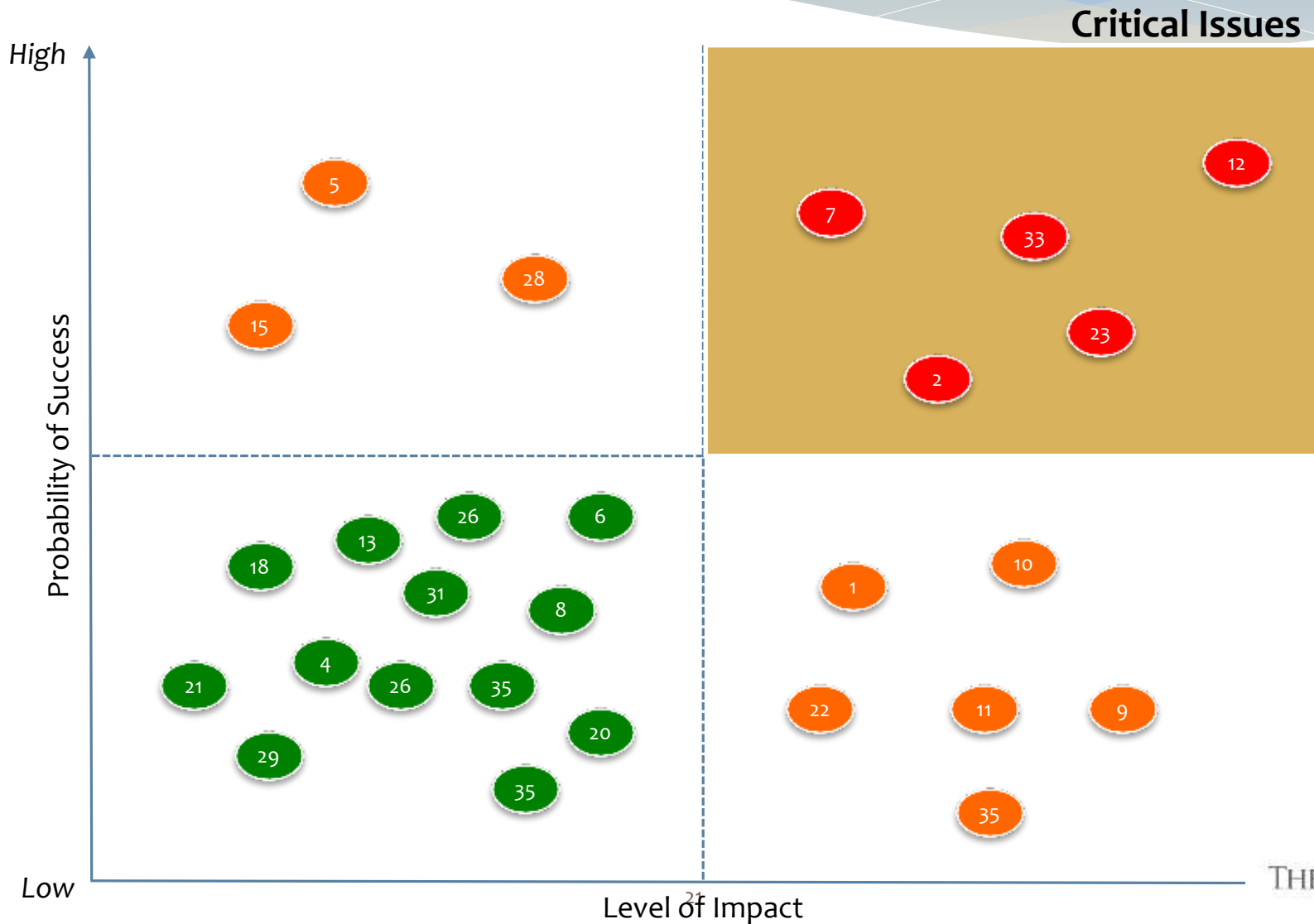
Very good network
of Mobile Internet

Major rivers are
flowing

- District Boundary
- VDC Boundary
- River System (Topo 1:25000/50000)
 - Major River
 - Minor River/Streams
 - Canal



4. Our Approach and Methodology: Verification



4. Our Approach and Methodology: Community Strengthening

Target Group

- Community members (local club, community user groups, youth club, mothers club and community forestry user group, school teacher, youth clubs)
- The participants will be selected in heterogeneous way assuring the participation of women, youth, marginalized and disadvantage groups.

Community Strengthening

- Disaster information-sharing workshop
- Train to capable to use the mobile-based application for updating and retrieval of the information
- Empowering on the use of mobile and mobile application

4. Our Approach and Methodology: Live

Mobile features	Offline/online capability
	Upload or download of data
Data and user management features	User roles
	Backups
	Restore
GIS features	Coordinates
	Interfaces to GIS systems (Google Earth)
	Map-based visualization features
Security	Database encryption
Business model	License free within in Nepal
Language support	Single Language-Nepali
Data content	Text, Images, Tables, Graphs
Supported platforms and hardware	Android
Delivery options	Cloud

6. Supported By



7. Collaboration and Partnership

Government of Nepal

Government of Nepal, Ministry of Home Affairs

Government of Nepal, Ministry of Science, Technology and Environment

Government of Nepal, Department of Hydrology and Meteorology

Government of Nepal, Department of Environment

Collaboration is the Key !!



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