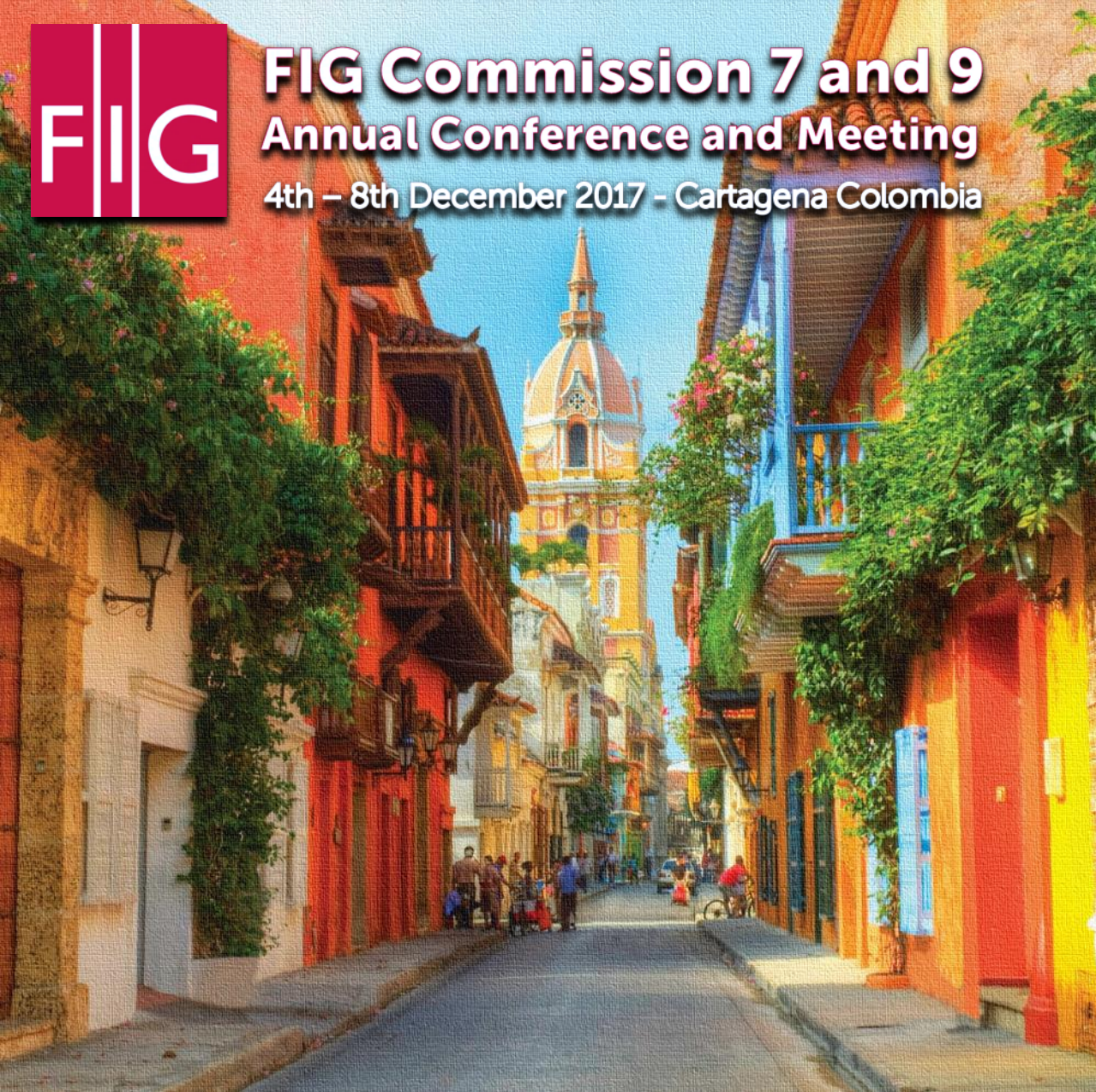




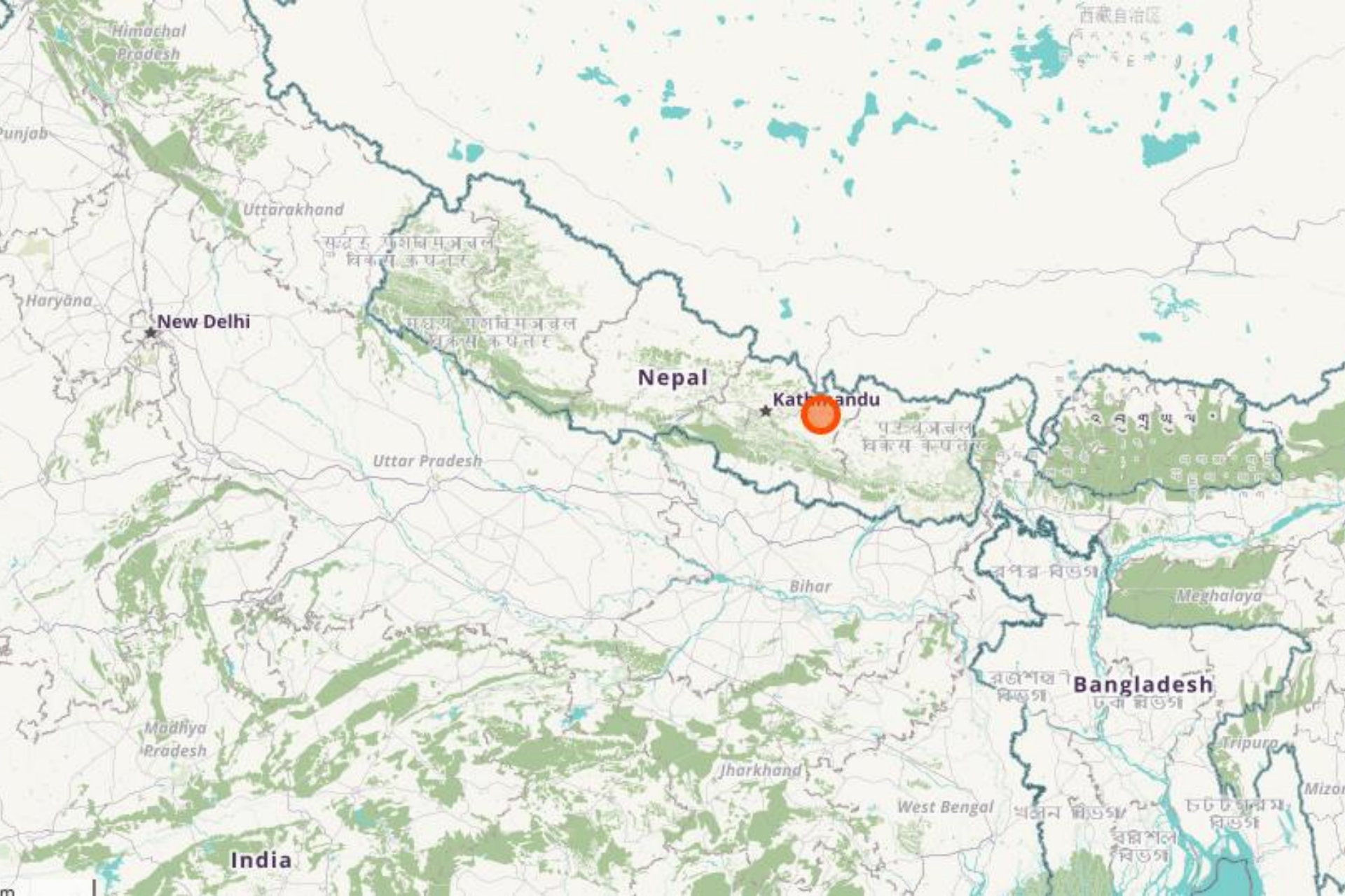
# FIG Commission 7 and 9 Annual Conference and Meeting

4th – 8th December 2017 - Cartagena Colombia



## Implementation of Fit for Purpose Land Administration in Nepal, in a post disaster context.

*Paula Dijkstra, Raja Ram  
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Eva-Maria Unger, Chrit  
Lemmen  
Wondimagegm Tesfaye,  
Shristee Singh Shresta*



# Devastating earthquakes in Nepal

- Two earthquakes in April and May 2015 with a magnitude of 7.9 and 7.3
  - 31 districts affected in the Centre and North of the country
  - 8979 people lost their lives in the Gorkha earthquakes.
  - 22.300 people were injured.
  - 100.000 people are displaced.
  - 8 million people affected.
  - 769.000 structures were destroyed (of which 31.000 class rooms)



# Nepal & Post Disaster Needs

- After the earthquakes, the Government of Nepal made an action plan for the coming 5 years:
  - Post Disaster Needs Assessment (PDNA)
  - Post Disaster Recovery Framework (PDRF).
- The Government of Nepal is committed to address the reconstruction in a practical way and to prevent long bureaucratic procedures.
- Due to the earthquakes there is pressure from the National Reconstruction Authority (NRA) to address land issues in the recovery from disaster.
- NRA supports the use of Fit-for-purpose approaches in the government's effort of fast-tracking recovery initiatives.



# Fit For Purpose Land Administration Frameworks

## Legal

- Private individual ownership
- No mechanisms for recognition and recordation of informal tenures
- New constitution
  - Recognizes female inheritance
  - Access to land for all
  - New land policy

## Institutional

- Divisions within and between ministries and department (e.g. initial registration / updating)
- Limited exchange of digital data
- NRA creates opportunity to fast track bureaucratic procedures

## Spatial

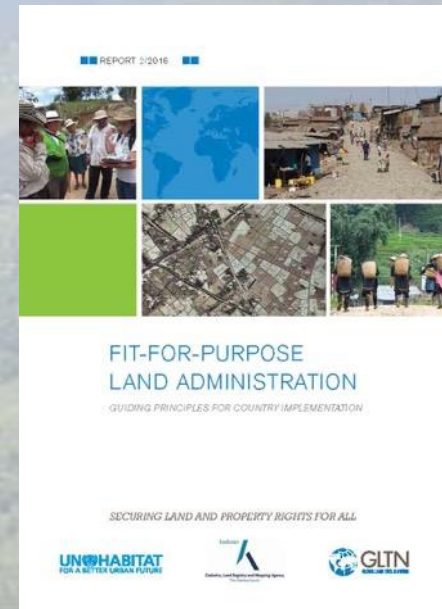
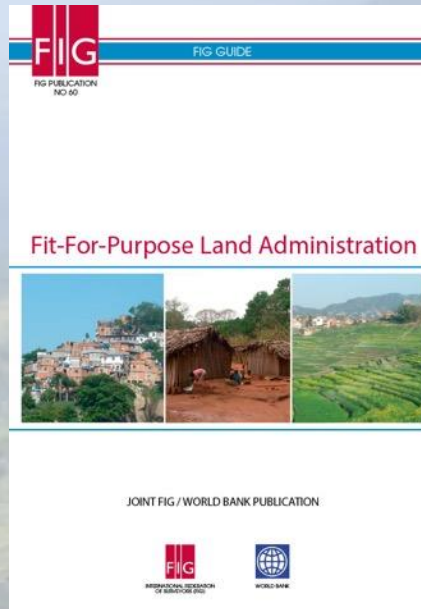
- Manual and paper based, movement towards digitization
- Majority of information was collected with plane tables
- Fixed boundaries
- High accuracy requirements

# 3 Post Disaster Land Challenges

1. Securing informal and non formal tenure
  2. Relocation from vulnerable sites
  3. Integrated settlement planning
- These challenges are addressed in a joint project of GLTN, Kadaster, UN Habitat Nepal and Huradec.
  - In three communities Fit-For-Purpose Land Administration solutions will be applied to document people to land relationships and to get an overview of the recovery needs.
  - Feedback will be provided in the development of the responsive National Land Policy and Fit-For-Purpose Land Administration strategy.

# Principles of Fit For Purpose Land Administration Approach

- Flexible
- Inclusive
- Participatory
- Affordable
- Reliable
- Attainable
- Upgradeable



# Selection of GLTN Tools

- Affordable
- Equitable and gender-responsive
- Governance
- Subsidiarity
- Sustainable
- Systematic, large-scale
- Pro-poor

<http://www.gltn.net/index.php/land-tools/introduction-to-land-tools>



# Selection of Tools

- Participatory enumeration
- STDM(concept & software)
- Gender Evaluation Criteria
- Participatory and Inclusive Land Re-Adjustment (PILaR).

These tools were modified and customized to fit with the local context

# Step 1: Participatory Enumeration

- Household questionnaire
- Farm questionnaire
- In line with the Gender Evaluation Criteria
- Local enumerators were trained and have tested questionnaires and use of GPS handheld
- Handbooks:
  - questionnaires
  - GPS handheld devices

**POLKHA HOUSEHOLD<sup>1</sup> ENUMERATION QUESTIONNAIRE**

**दोलखा घरधुरी गणना प्रस्नावली**

Rev.17.07.2017

A. ENUMERATION गणना	
1. Questionnaire number* <sup>2</sup> प्रस्नावली नम्बर	
2. Name of enumerator* (Last name, other names) तथ्यांक संकलकको (थर, नाम)	
3. English date of enumeration (dd/mm/yyyy) * तथ्यांक संकलन अंग्रेजी मिति (गते/ महिना/साल)	
4. GPS ID number जि पि एस आइडी नम्बर	
5. Camera ID number क्यामरा आइडी नम्बर	

B. RESPONDENT उत्तरदाता	
6. Name (Last Name, other names*) थर, नाम	
7. Mobile number मोबाईल नम्बर	
8. Gender* <u>लिंग</u>	<input type="checkbox"/> Female महिला (1) <input type="checkbox"/> Male पुरुष (2) <input type="checkbox"/> Other अन्य (3)

# Questionnaires

Information was collected on:

- Respondent
- Household
- Household Members
- House
- House Tenure
- Farm
- Farm Tenure



# Step 2: Collection of Visual Boundaries

- Satellite images (A0)
- Local enumerators were trained on boundary collection in combination with farm questionnaires
- Hand book on data collection with visual boundaries



# Step 3: Data Entry

1:

- Data entry of household questionnaire in STDM

2:

- Data entry of farm questionnaire in STDM

3:

- Georeferencing of A0 plots with camera - with YS from VCSP program

4:

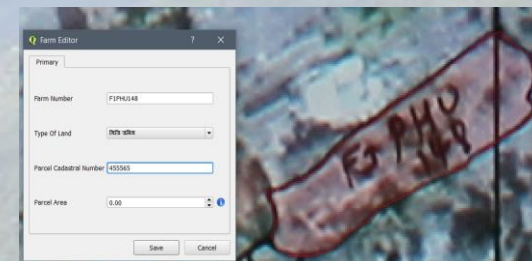
- Digitising boundaries in QGIS - with YS from VCSP program

5:

- Linking data questionnaires with GPS and boundary information in STDM

6:

- Overview of the 'People to Land Relationships'



# Step 4: Data Validation

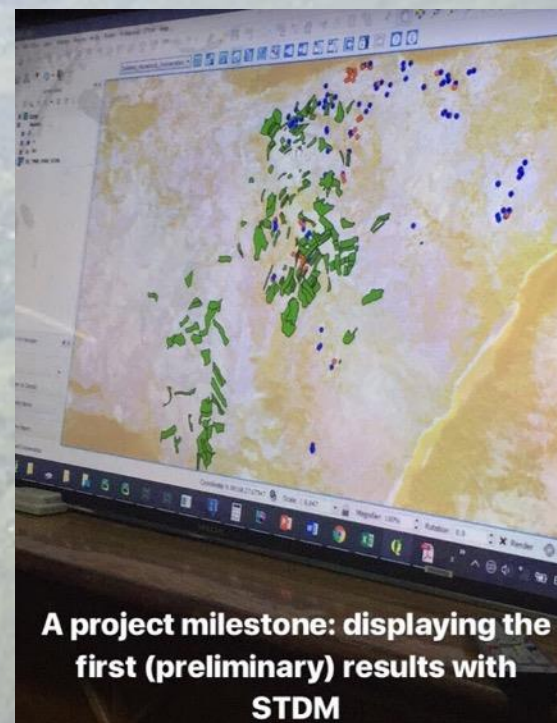
Internal: Check and double check from data entry by data entry persons



Enumerators: Check of (selection of) data



Community: Validation of data by displaying data in each of the communities



# Step 5: Data Analyses

Development of **queries** based on the questionnaires

**Selection** of the most relevant queries, addressing the overall objective of the project

Preparing **analysis** so that it can be used and presented at local, district and national level

Results will be presented in January 2018

# Expected results after the project

- Introduced **Fit For Purpose Land Administration** in a post disaster context in Nepal
- Facilitated an **inclusive, gender sensitive, participatory and transparent** approach
- Identified **people to land relationships** in earthquake affected areas, formal and informal
- Identified issues in **access to land** in the recovery from disaster
- Identified issues in providing **grants** for the recovery from disaster



# Expected results after the project

- Supported the **integrated settlement** plans for two sites
- Produced **6 handbooks** with hands-on instructions on the used approaches and technologies
- **Raised awareness** on land tenure at district and local level
- Recommendations on the **use and maintenance of the data** by community & government
- Provided recommendations from the experiences in the three pilot areas to the **national land policy**
- Provided recommendations on **Fit-for-Purpose Land Administration Strategy** for Nepal

धन्यवाद!  
Thank you!  
Muchas Gracias!





# amsterdam

**FIG**

**WORKING WEEK 2020**

**MAY 9 – MAY 15**

**Smart Surveyors for Land  
and Water Management**

