

# REDESIGNING URBAN GOVERNANCE: CREATING RISK NEUTRAL CITIES FOR SUSTAINABILITY

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Organização:



Apoio:



## Workshop : As mudanças climáticas e as cidades brasileiras – riscos e medidas de respostas

Data: 22 de junho (quarta-feira)

Endereço: Auditório da Cetesb – Av. Professor Frederico Hermann Jr 345,  
Alto de Pinheiros, São Paulo – SP.

## CONTENTS

- Introduction
- Revisiting recent urban crisis (2013-14 Ebola outbreaks in West Africa, 2015 Nepal earthquakes and 2015-2016 Zika Virus outbreaks)
- Cascading effects of disaster ( eg. The 2015 Nepal Gorkha Twin Earthquakes)
- Challenges in urban risk and response governance
- Need of a local risk neutral planning for sustainability : how can we start ?

# INTRODUCTION

Doctor of Philosophy (PhD), Northumbria University, UK.

Thesis Title : Getting down to local level: exploring vulnerability to improve disaster management systems in Nepal.

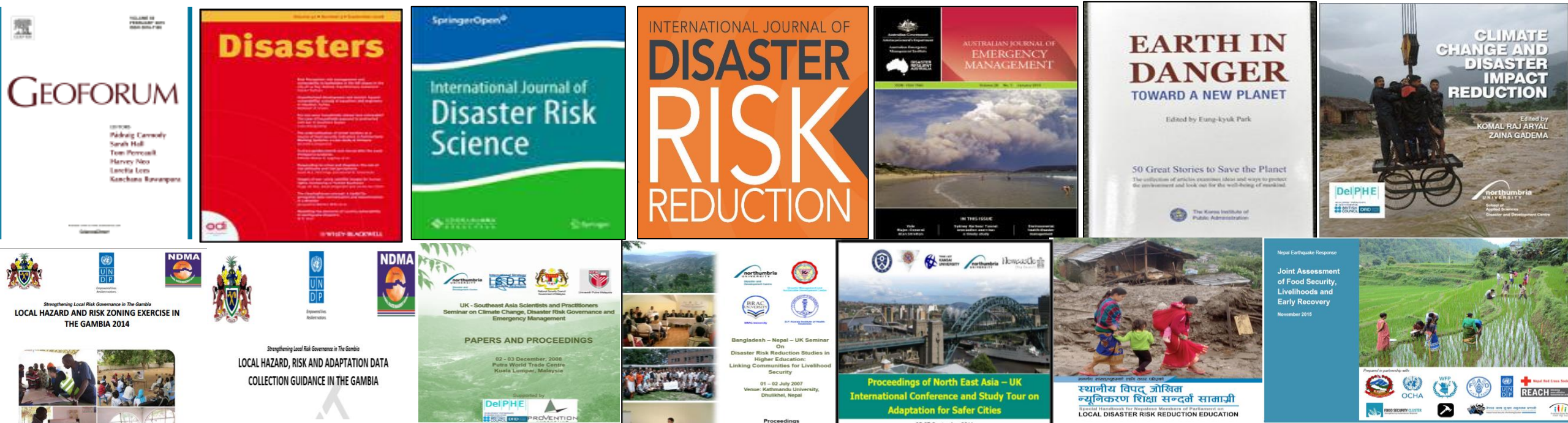
MSc (Disaster Management and Sustainable Development), Northumbria University, UK.

B.Sc. (Environmental Sciences) , University of Delhi, India.

Current research activities :

- to develop a local risks based decision support tool with Dr. Roy Sanderson, Professor Qiuhua Liang and Dr. Sean Wilkinson from Newcastle University, UK

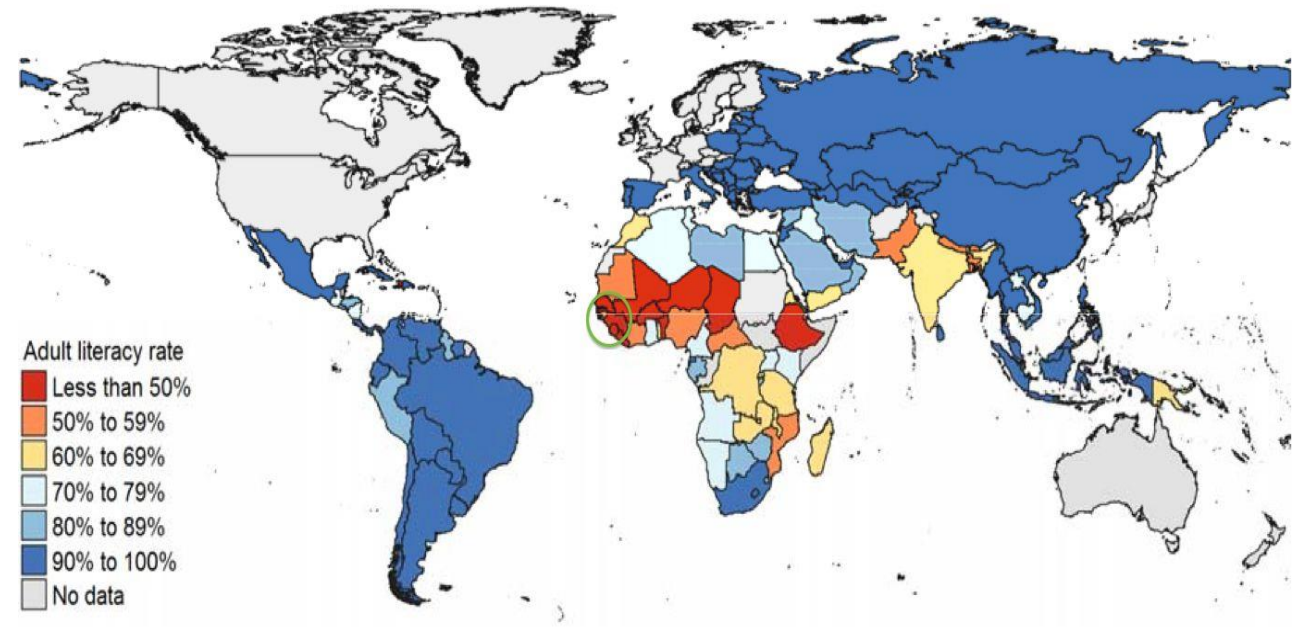
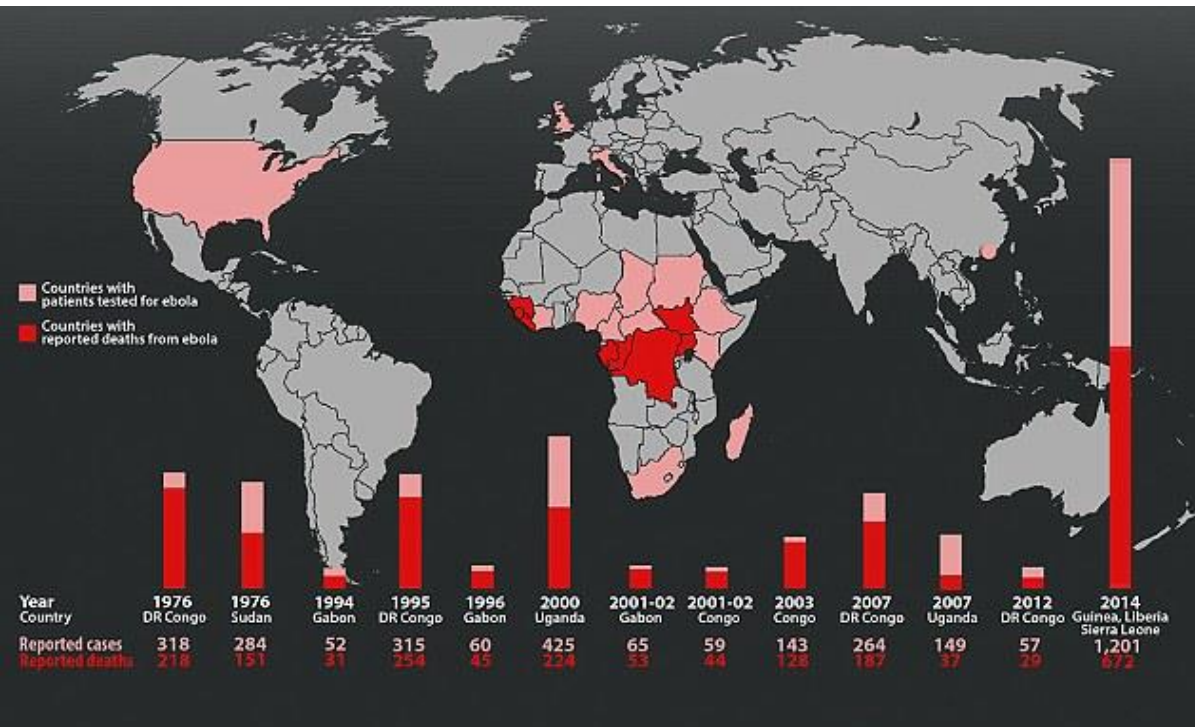
- Affiliated International Researcher, The Gorkha, Nepal Earthquake: A Multilevel Approach to Disaster Resilience Measurement Project (2016-2017) with Dr. R.J Ferreira, Disaster Resilience Leadership Academy (DRLA), Tulane University, USA.



## REVISITING RECENT URBAN CRISIS

- 2013-14 Ebola outbreaks in West Africa,
- 2015 Nepal earthquakes,
- 2015-2016 Zika Virus outbreaks.

## 2013-14 EBOLA OUTBREAKS IN WEST AFRICA AND GLOBAL IMPACT



Maps source: google search

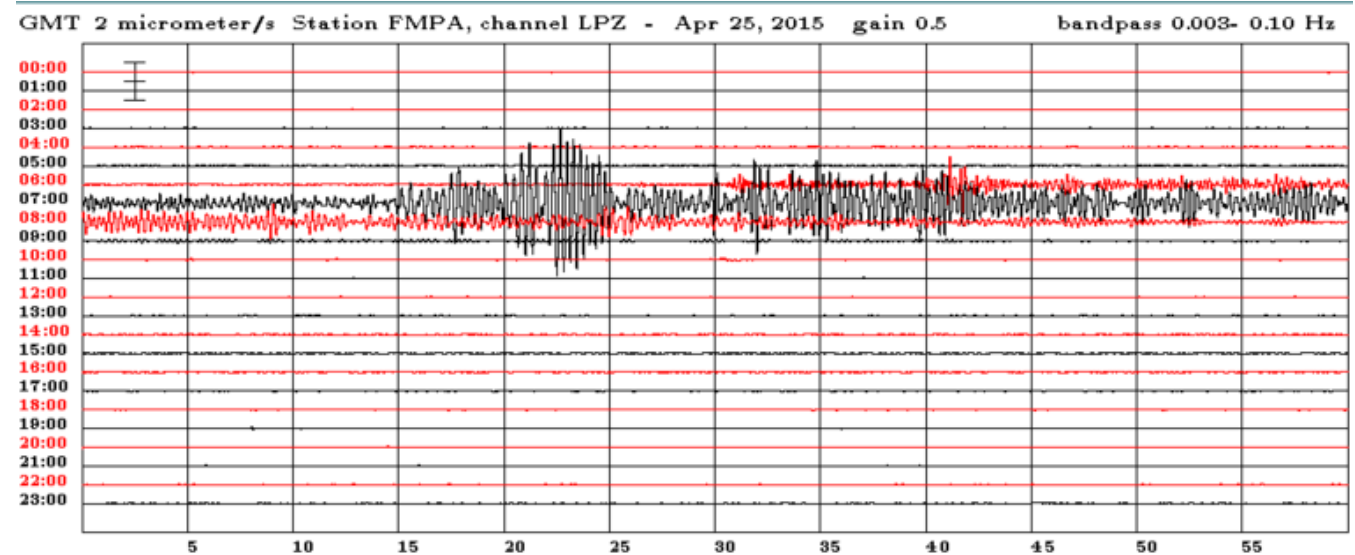
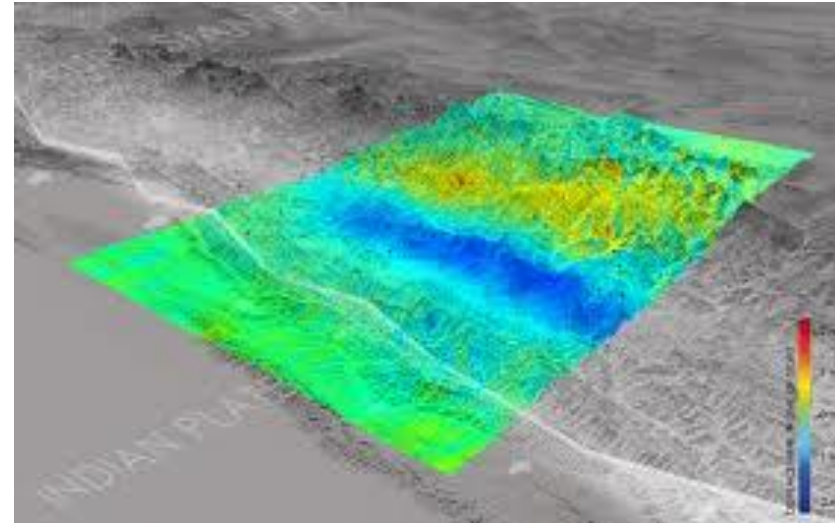
Education and disaster impact are closely related.



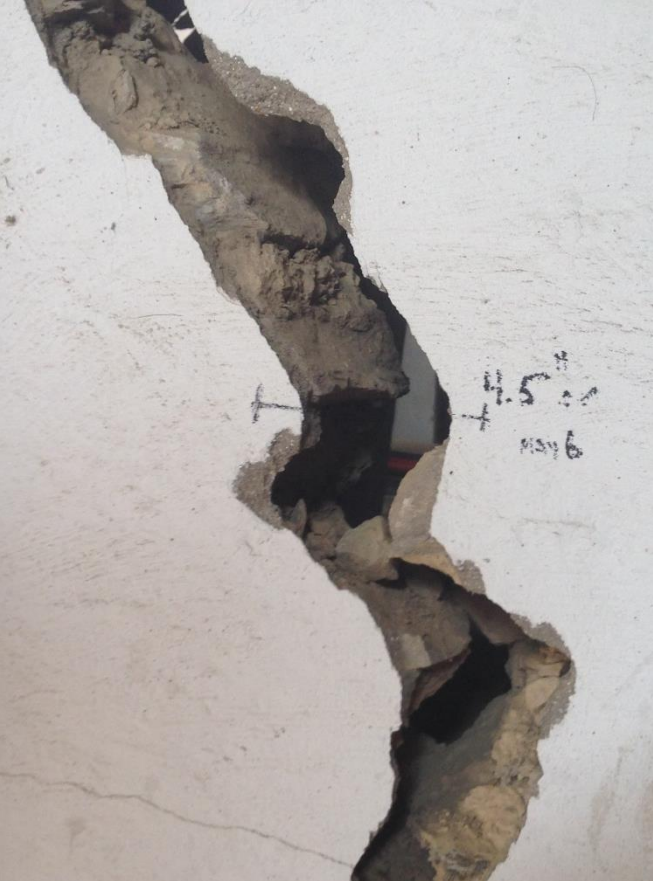
# GLOBAL MAP OF ZIKA VIRUS : AS OF MAY 26, 2016



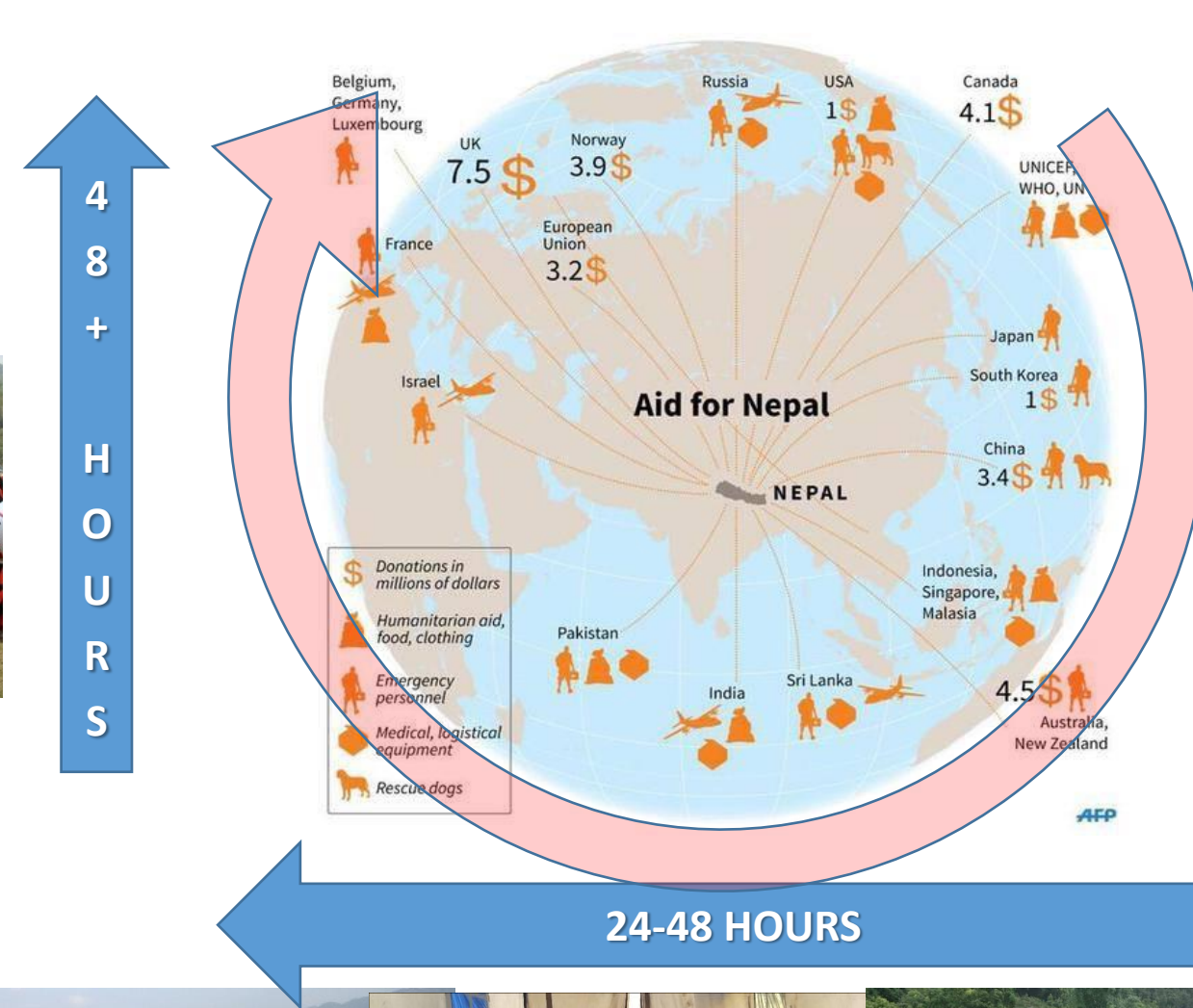
At 11:56:15 on 25<sup>th</sup> April, 2015  
( Local Time , Nepal)











FIRST 24 HOURS

24-48 HOURS







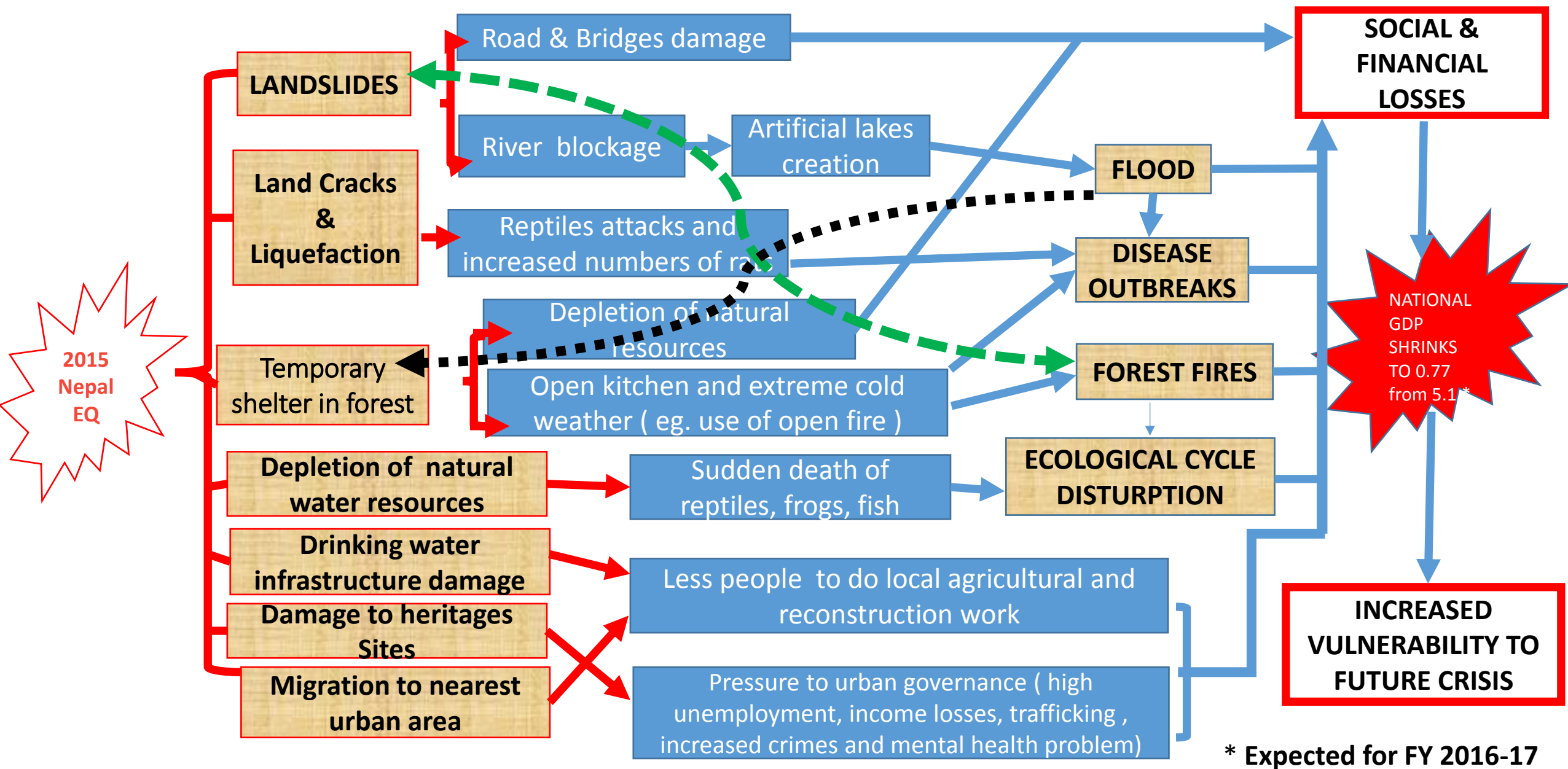
FROM 48 HOURS – 2 MONTHS





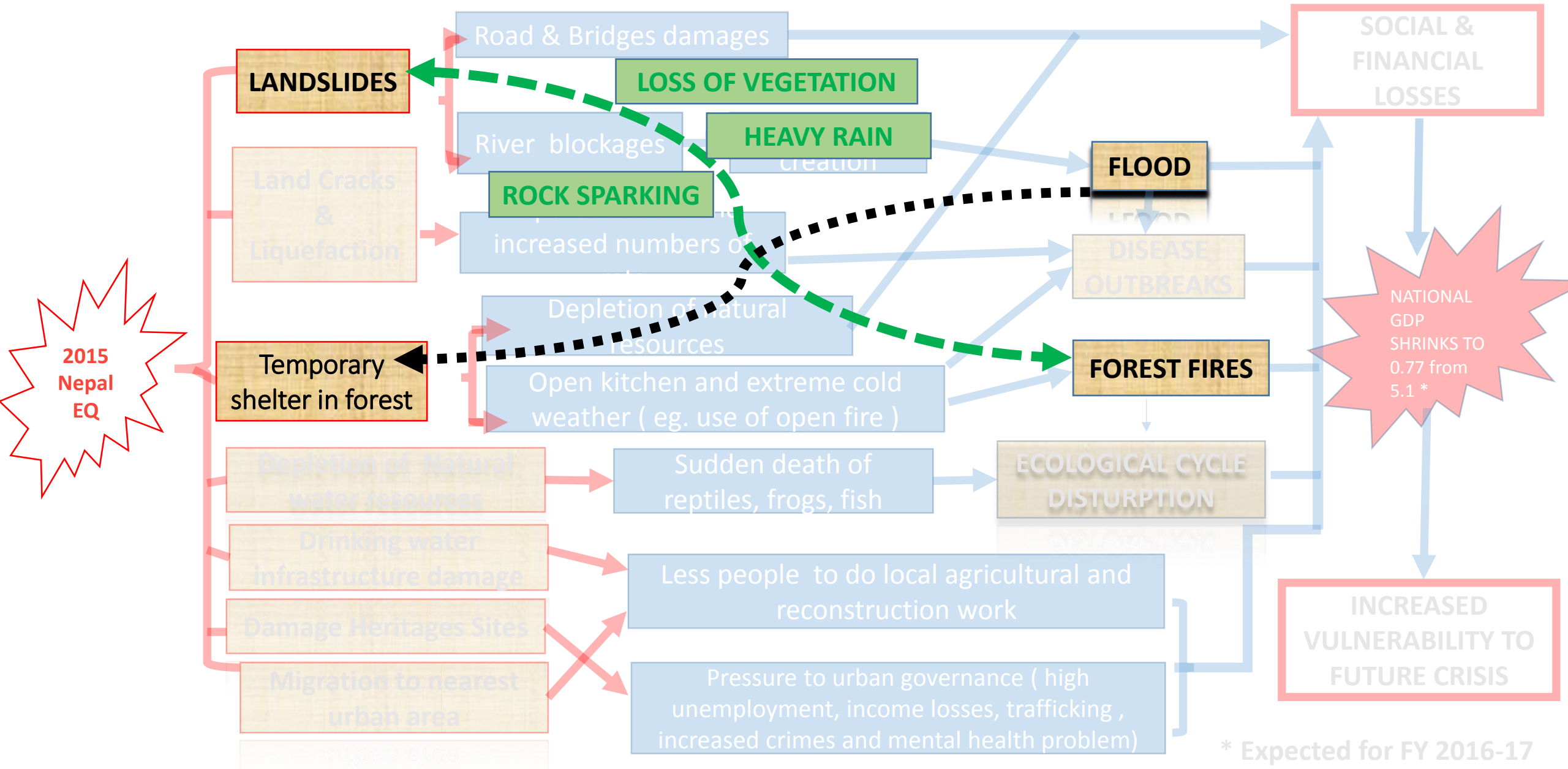
# CASCADING EFFECTS OF THE 2015 NEPAL GORKHA TWIN EARTHQUAKES

## (as of 16 June, 2016)



# CASCADING EFFECTS OF THE 2015 NEPAL GORKHA TWIN EARTHQUAKES

## (as of 16 June, 2016)







EQ OR RAINFALL INDUCED

1.  
Landslides

2. Rock  
Sparking

3. Forest  
Fire

4. Loss of  
Vegetation

IN LONG RUN-  
BASED ON  
LOCALISED  
PRECIPITATION  
CONCENTRATION  
Climate Change ???

IMMEDIATELY AFTER MAJOR  
EARTHQUAKE or LANDSLIDES  
EVENTS

# ARE OUR CITIES ADEQUATELY CAPABLE TO RESPOND FUTURE KNOWN AND UNKNOWN CRISIS ?

*Most of our cities are not .....*

## WHY THEY ARE NOT?

➤ High level of corruption due to local social inequity ;

➤ Inadequate local disaster risk governance infrastructures ;

Examples-

*-Not designated unit to deal with local disaster risk management.*

*-Weak fire and rescue service.*

*-Absence of an integrated local risks based data management system (collection, coordination and analysis) for decision support.*

➤ Local risk management is yet to be considered as one of the key factors for local SUSTAINABILITY or local sustainable development.

➤ Most of international development activities are still “project based not process based”.



When disaster strikes in city that lacks local risk governance infrastructure, it hits hard to local and national economy affecting sustainable development process . Examples:

THE GAMBIA



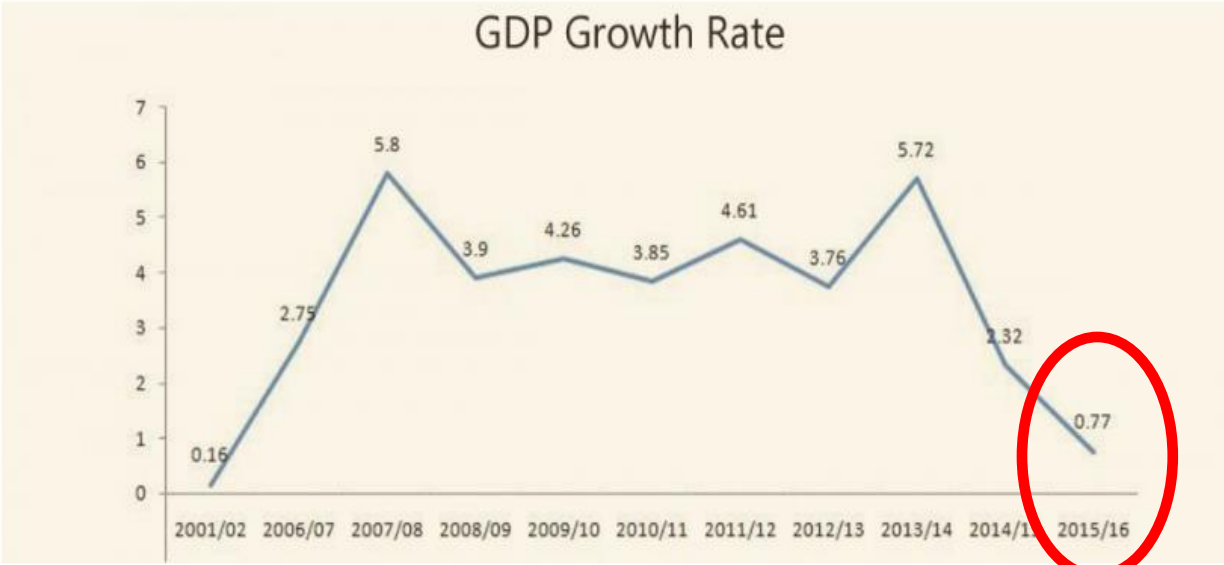
20 % of population affected by flood in September, 2010

2013- early 2014 Migratory birds attacks ( Quelea) and the country highly exposed to Ebola outbreaks.

NEPAL

Govt unveils economic survey, projects 0.77 percent growth

- Post Report, Kathmandu



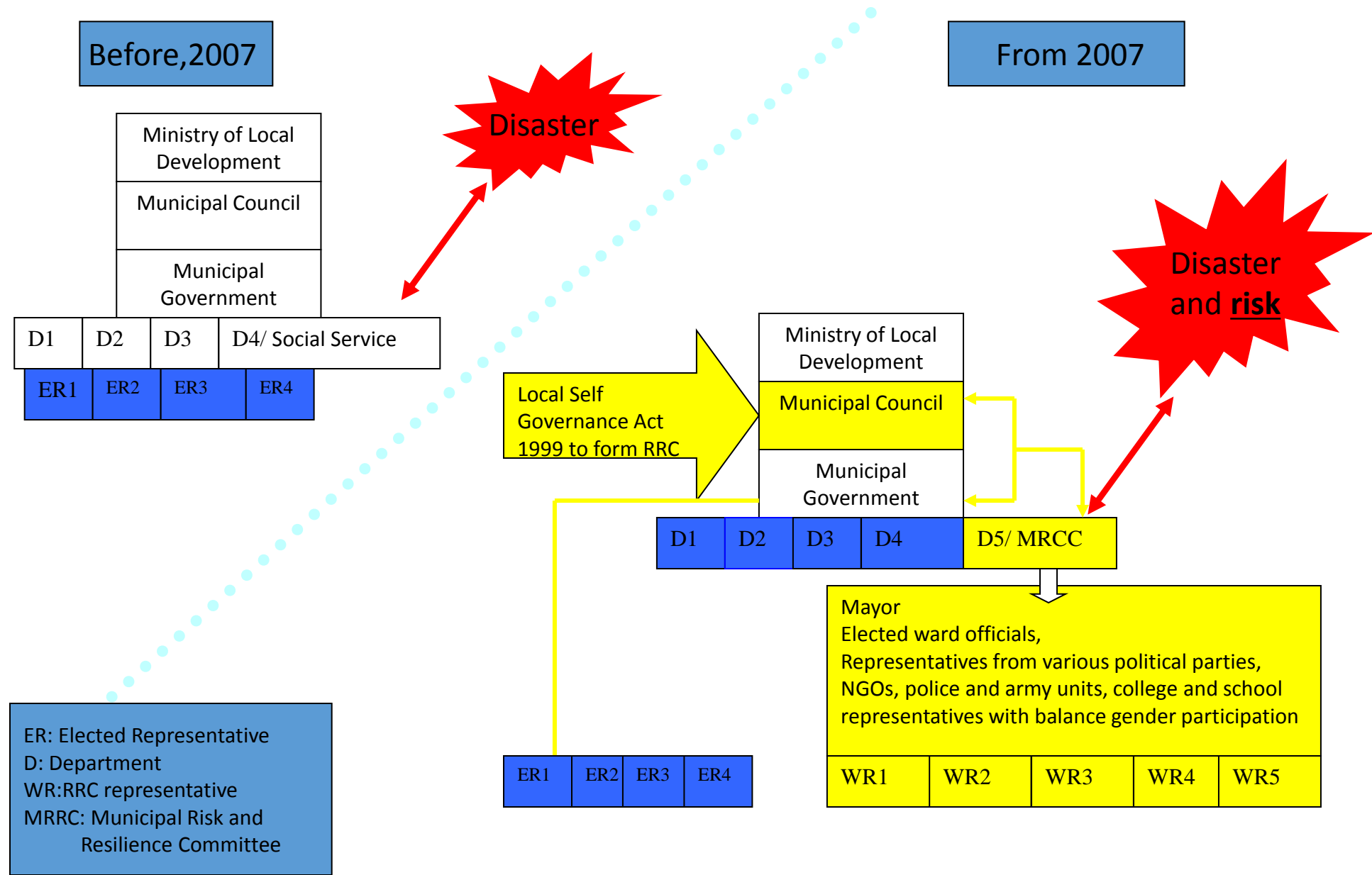
Source: Kathmandu Post Daily, 27 May, 2016

**LOCAL RISK NEUTRAL PLANNING FOR URBAN SUSTAINABILITY : HOW CAN WE START ?**



# Municipal Risk and Resilience Governance Model

(A pilot study funded by British Council and UKaid 2007-2009 in Nepal )



# Project to Process is a long and tiring work, it needs dedication and commitments

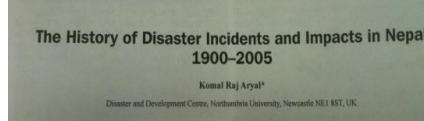
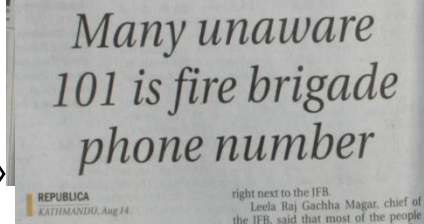
January 2007 -May 2012

August 2012

July 2013 –March 2015

April 2015

Risk and Resilience Pilot Project



- 10 fire response motor bikes form a local business house ( local public –private partnership)
- Urban Risk & Response Training supports from JICA /UNDP/ Australia

- A carbon neutral landfill site in Dhankuta
- 8 Fire engines, and search & rescue equipment and training from the UK and Italy.
- Many municipalities started fire engine procurement process from Nepalese government fund.

25th  
April  
2015  
Nepal  
EQ

Science based Multi levels Engagement and Advocacy

Inputs and Impact



# How project facilitated to maximise the impact of science for adapting risk governance activities and building local resilience ?







THANK YOU FOR YOUR ATTENTION !

Supporting slides

# Linking hazard, risk, vulnerability, disaster and resilience

