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Global Facility for Disaster Reduction and Recovery



Understanding Disaster Risk: Overcoming data scarcity through innovation and open data

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Global Facility for Disaster Reduction and Recovery, World Bank

Risk information for All and a Purpose

Innovative tools and methodologies to engage with all stakeholders to promote collaboration, analysis, sharing and USE of risk data and information

Analyzing Hazards and Vulnerability

Mapping Exposure

Develop an *understanding* of Risks and Impacts & Communicate it

Invest in retrofitting critical assets

Re-think development investment

Consider Financial Protection

Prepare for, and recover from, the worst



Risk information: a data challenge!



Hazard



Exposure



Vulnerability

Fatalities, injuries,
displaced persons
Damage to
buildings,
infrastructure

Impact



An example of the challenge....

Physical Location, Size and Shape

Building and maintaining an integrated, centralised and *spatially-enabled* database is the most effective way to manage exposure information

Administrative Area

Land Ownership

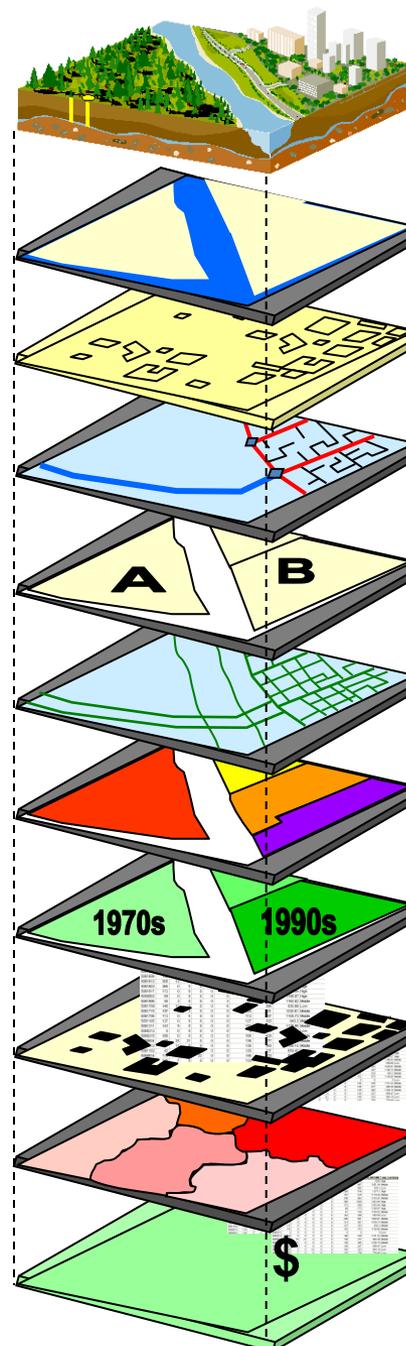
Land Use

Construction Period

Structural Characteristics

Demographic or Social Characteristics

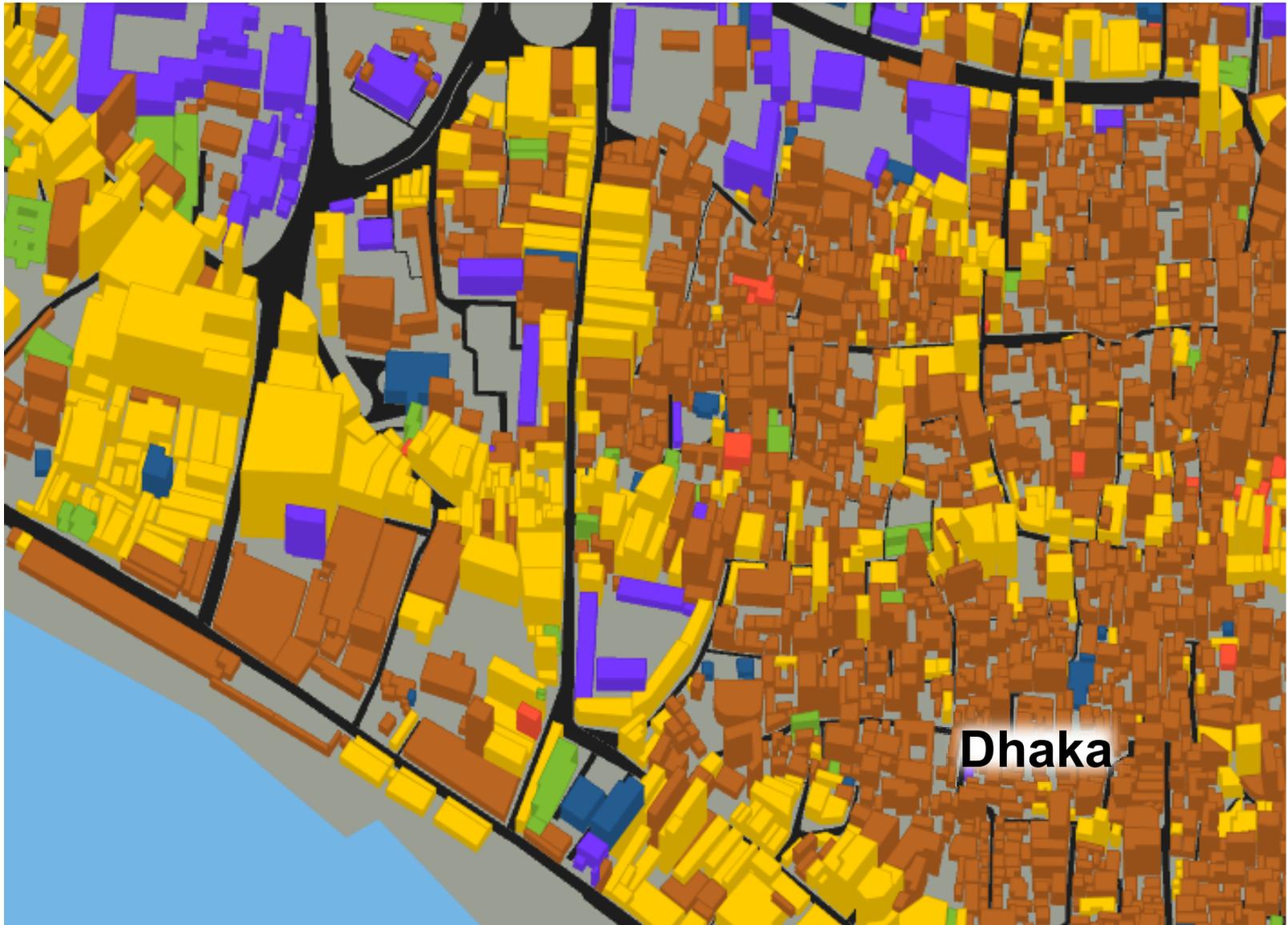
Economic Characteristics



EXPOSURE DATABASE



Opening existing data!



Collecting new data... Haiti

OpenStreetMap

Edit

History

Export

GPS Traces

User Diaries

Copyright

Help

About

Log In

Sign Up

Search

Where am I?

Go



Non-traditional partnerships

© OpenStreetMap contributors



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Collecting new data... Sri Lanka

The image shows a screenshot of the OpenStreetMap website. At the top left, the OpenStreetMap logo is visible, along with navigation buttons for 'Edit', 'History', and 'Export'. A search bar is present with the text 'Where am I?' and a 'Go' button. On the right side, there are links for 'GPS Traces', 'User Diaries', 'Copyright', 'Help', and 'About', along with 'Log In' and 'Sign Up' buttons. The main map area displays a detailed street network in Batticaloa, Sri Lanka. A prominent green path is overlaid on the map, starting from the top left, moving through the city center, and crossing a bridge (Kalladi Bridge) over a body of water. The map includes various labels for roads, buildings, and landmarks. A scale bar in the bottom left corner indicates 200 meters and 500 feet. The text 'Non-traditional partnerships' is overlaid in large red letters across the bottom of the map.

Non-traditional partnerships



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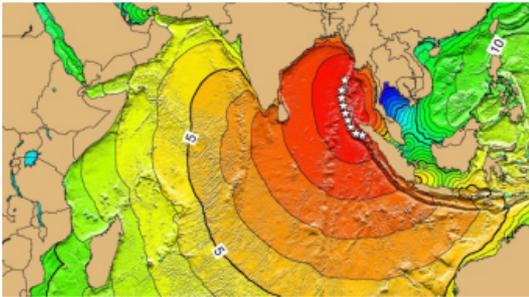
Share it!

RISKINFO Disaster Risk Information Platform
Risk Information for all...



[Sign in for extra features](#)

Welcome



Welcome to the Sri Lanka Disaster Risk Information Platform (RiskInfo). The purpose of RiskInfo is to make disaster risk information available to all the stakeholders and the public in order to facilitate disaster risk reduction and recovery efforts. The initiative is led by the Disaster Management Center (DMC) in partnership with UNDP, NGOs and GDFRR Labs. The data sharing platform is built using the open source software GeoNode that is designed to enable collaborative use of geospatial data and maps. To get in touch and get in account to upload data: riskinfo@dmc.gov.lk

MAPS



RiskInfo lets you compose and share maps. **Create** a map with our cartography tool, or **explore** maps shared by others.

Search

Hazard profile maps

Administrative boundaries

Explore maps

Create a new map

Create map

DATA



RiskInfo lets you upload, manage, and browse data. **Search** for data that is valuable to you, or **upload** your own data.

Search



Hazard data

Exposure data

Base data

View all data

Sharing data with all stakeholders

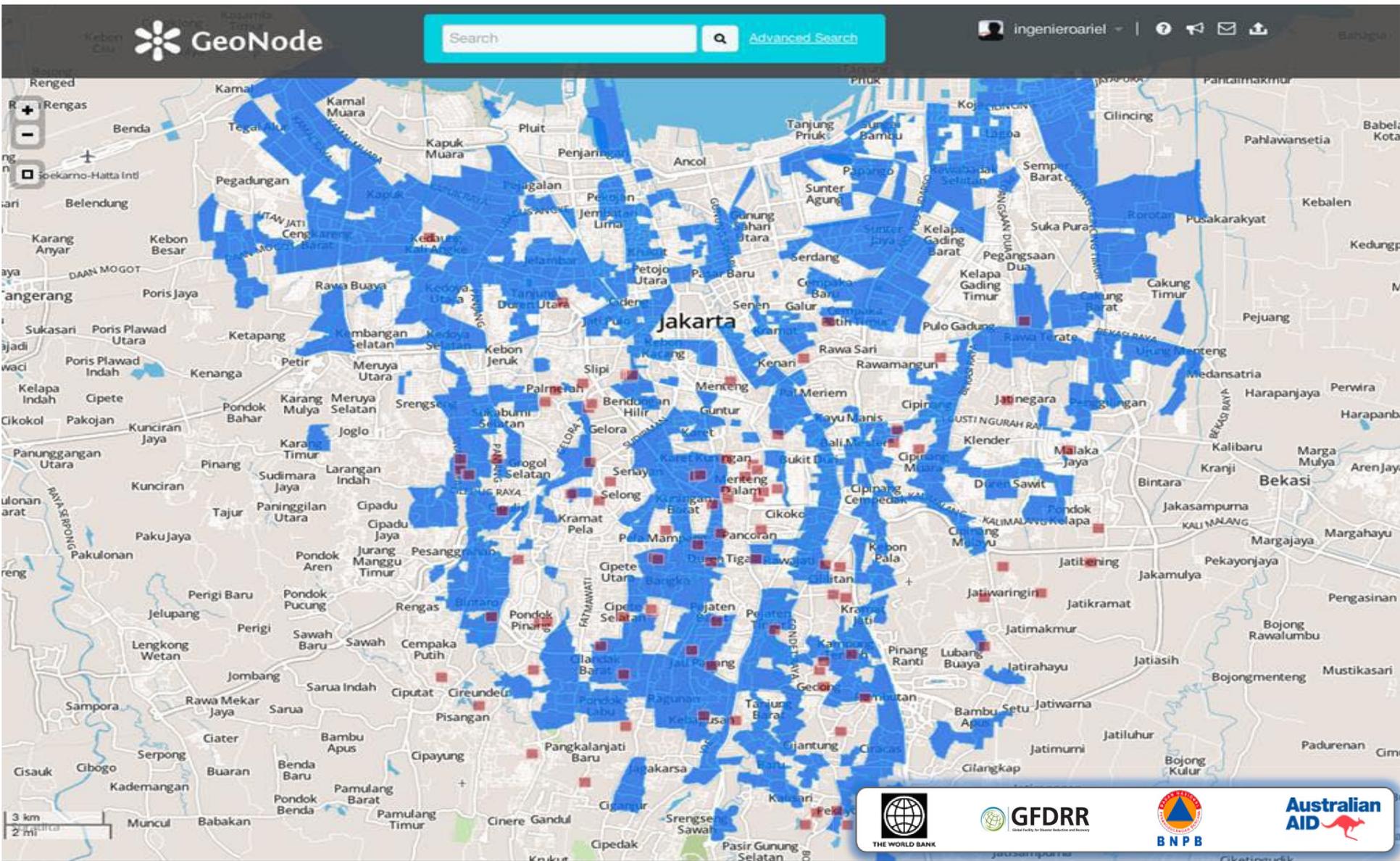


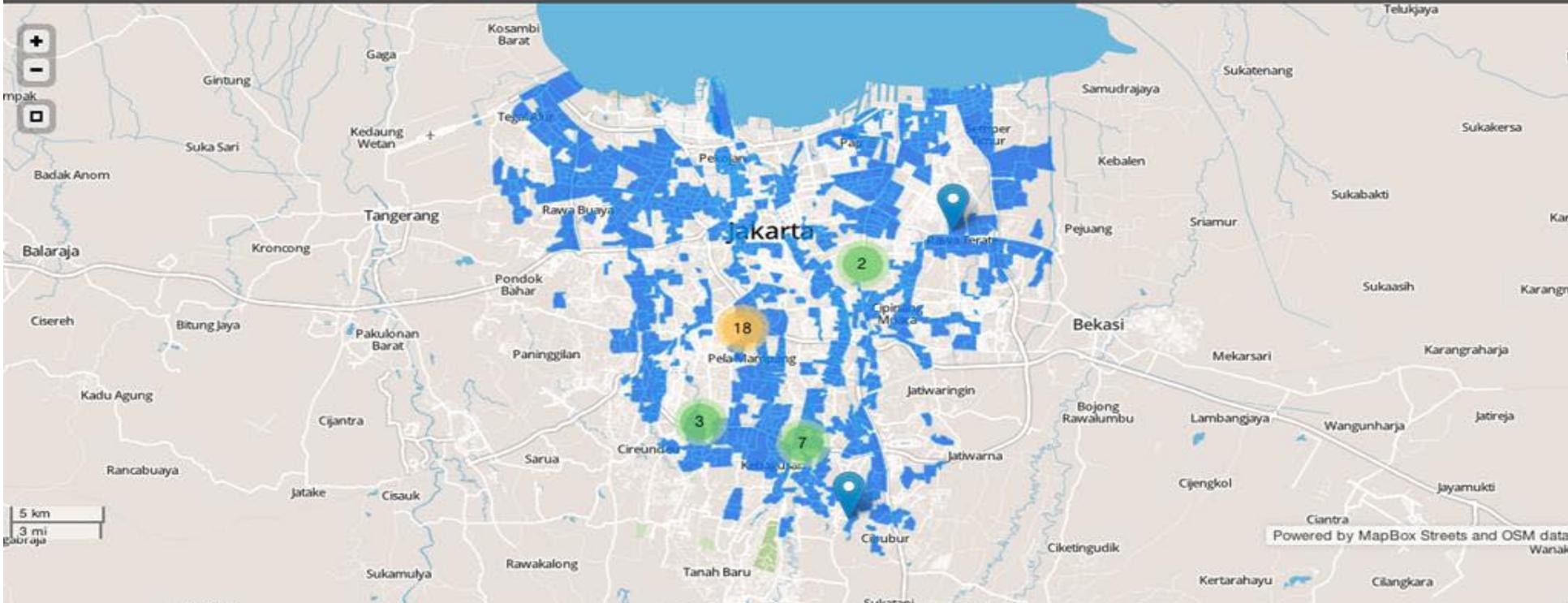
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Embracing the power of open data!



Use it!





SAFE Scenario Assessment For Emergencies

In the event of how many might ?



Ask again

Action Checklist

- Are the critical facilities still open?
- Which structures have warning capacity (eg. sirens, speakers, etc.)?
- Which buildings will be evacuation centres?
- Where will we locate the operations centre?
- Where will we locate warehouse and/or distribution centres?

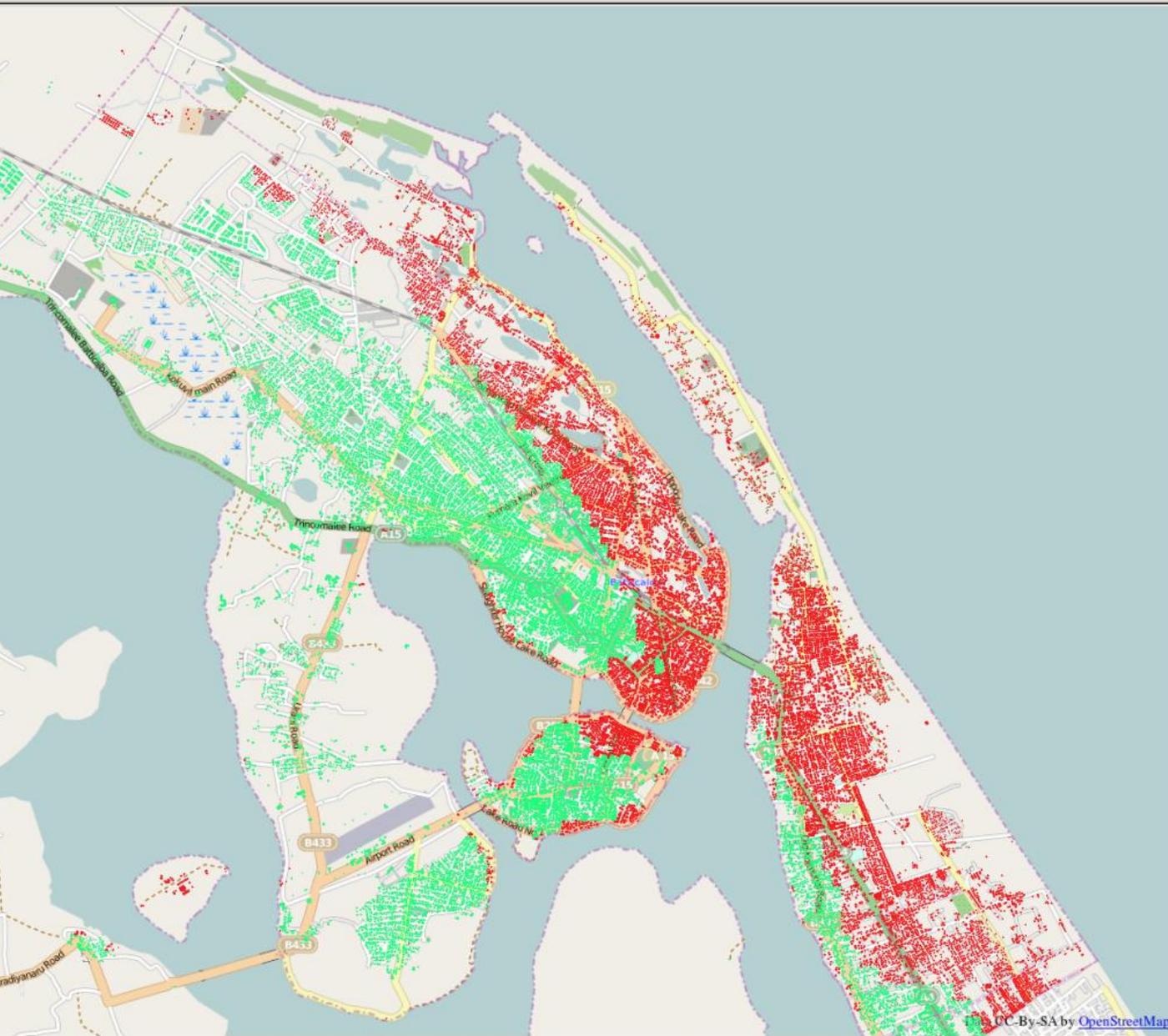
32 buildings

would have to be closed from a total of 96

Running time 8.42 seconds
 Running date 2012-10-22 20:03:00
 Author AIFDR
 Confidence rating low (20%)



Use it!



InaSAFE 2.1.0b0 final

Show question form



Analysis Results

In the event of tsunami (comcot model / batticaloa, sri lanka) how many buildings might be flooded

Building type	Number flooded	Total
All	15,037	32,955

Breakdown by building type

Commercial	998	2,000
Government	510	800
Hospital	31	122
Industrial	68	188
Other	570	2,026
Place of worship	489	1,000
Residential	11,909	25,825
School	284	493
Utility	178	501

Action Checklist:

Are the critical facilities still open?

Which structures have warning capacity (eg. sirens, speakers, etc.)?

Which buildings will be evacuation centres?

Where will we locate the operations centre?



InaSAFE Support

Help

About

Print ...

Run

Coordinates:

000000, 954252

Scale: 1:20,000

Render: EPSG:3857

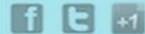
Collectively sharing data

Typhoon Yolanda Maps

Search...

abby |

[HOME](#) [LAYERS](#) [MAPS](#) [DOCUMENTS](#) [PEOPLE](#) [SEARCH](#)



TYPHOON YOLANDA GEONODE

Several organizations are building damage assessments after Super Typhoon Yolanda (Haiyan). This site serves as a repository of the data *behind* the damage assessments which are available on other web sites. The principles are clear: Data must be legally and technically open. Data must be clean, useful, and findable. Curators will do our best to ensure the resources adhere to these principles. Our mailing list is available here: [mailing list](#).

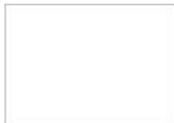
[Explore Layers](#)

[Explore Maps](#)

What is the GeoNode and how to use it? [Getting Started?](#)

LATEST LAYERS

Total: 72



DigitalGlobe:Imagery

Layer from [garnertb](#), 2 days, 5 hours ago
Digital Globe Imagery provided under the NextView license. Imagery is only available at zoom levels greater than or equal to 12.

18

views

0

comments



Average rating (0 votes)

[Download](#)

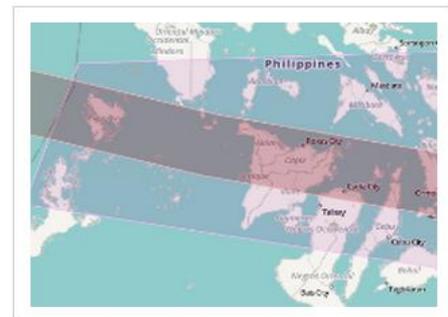
[Create a map](#)



Hospital Polygons Osm

Layer from [boundless](#), 5 days, 3 hours ago
No abstract provided

LATEST MAPS



Powered by GeoNode | [Developers](#) | [About](#)

Language [English](#)



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DAMAGE MAP

Download Map

Edit Map

View Map



Show legend

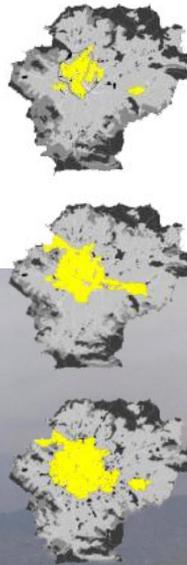
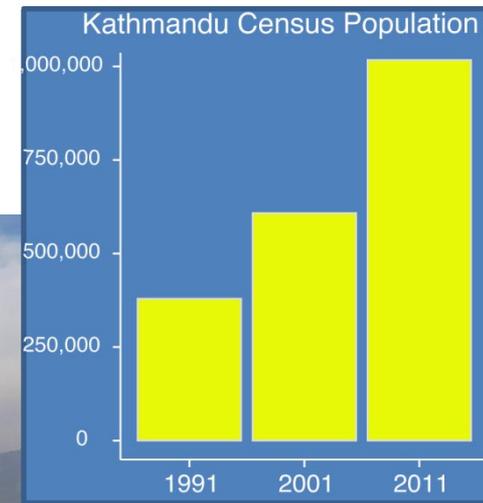
- Collapsed
- Damaged

200 m | 1000 ft | 1 : 17061



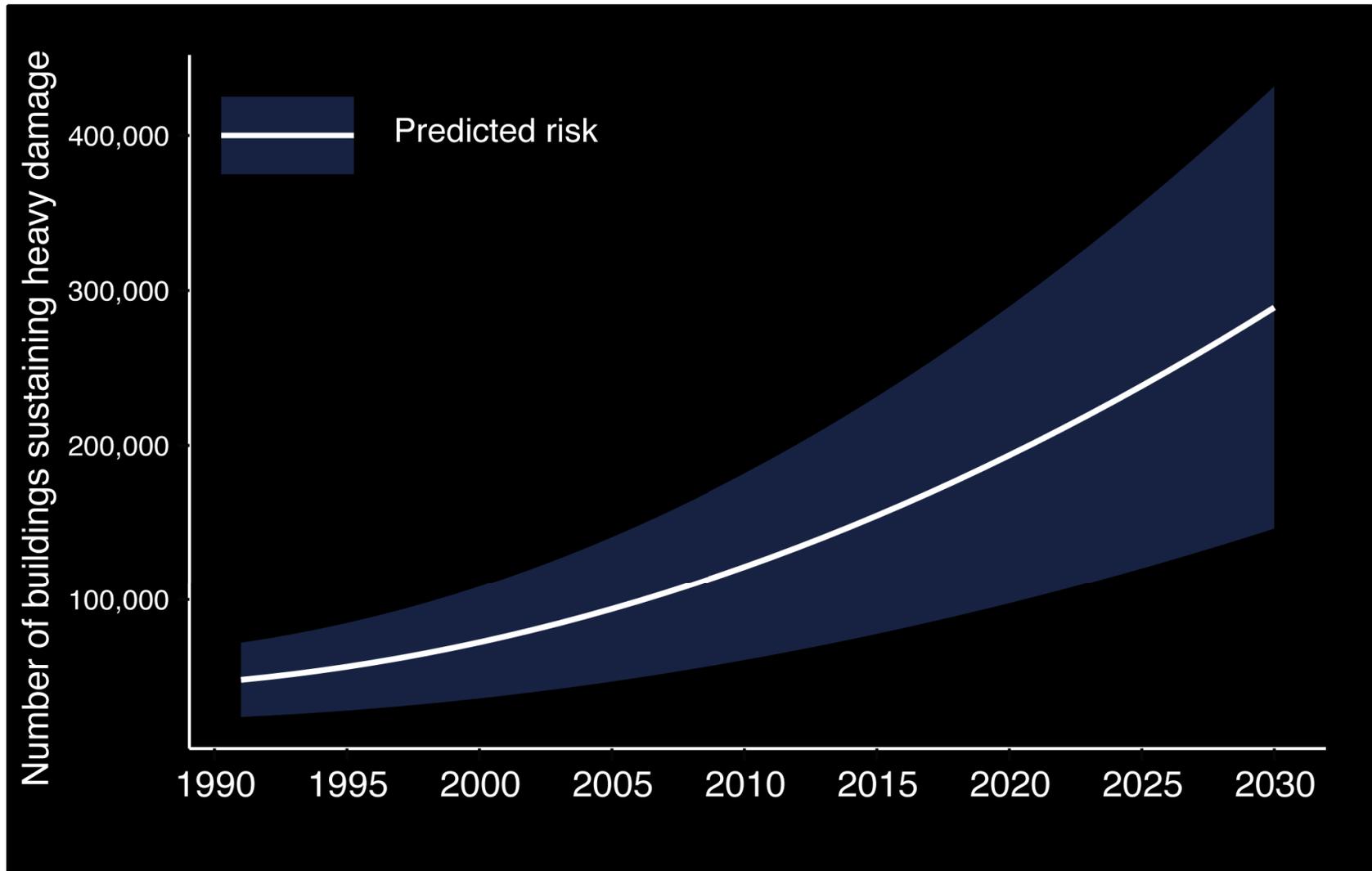
Modeling Changing Risksapes in Kathmandu

*In partnership with David Lallemant,
Stanford University*

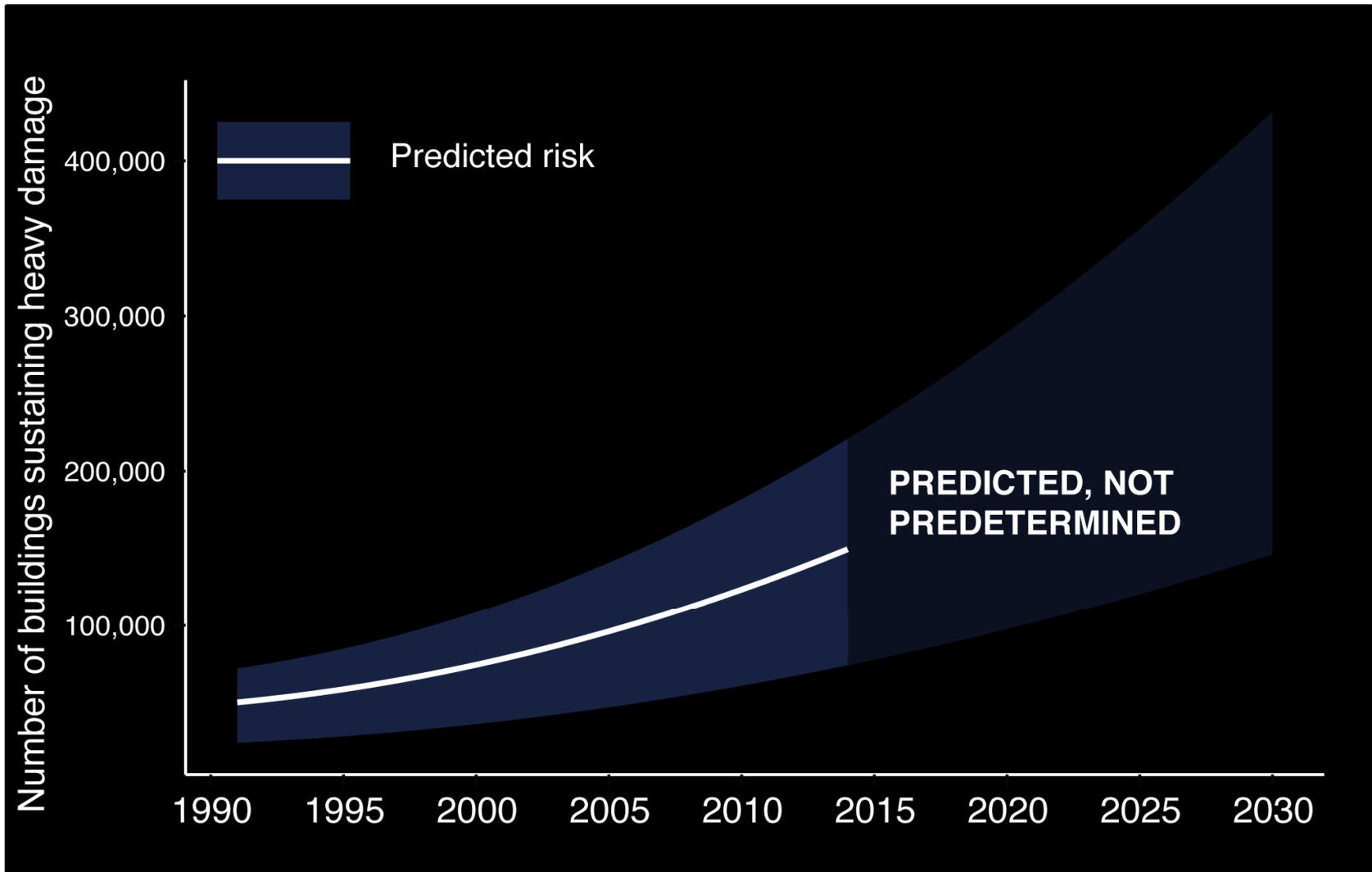


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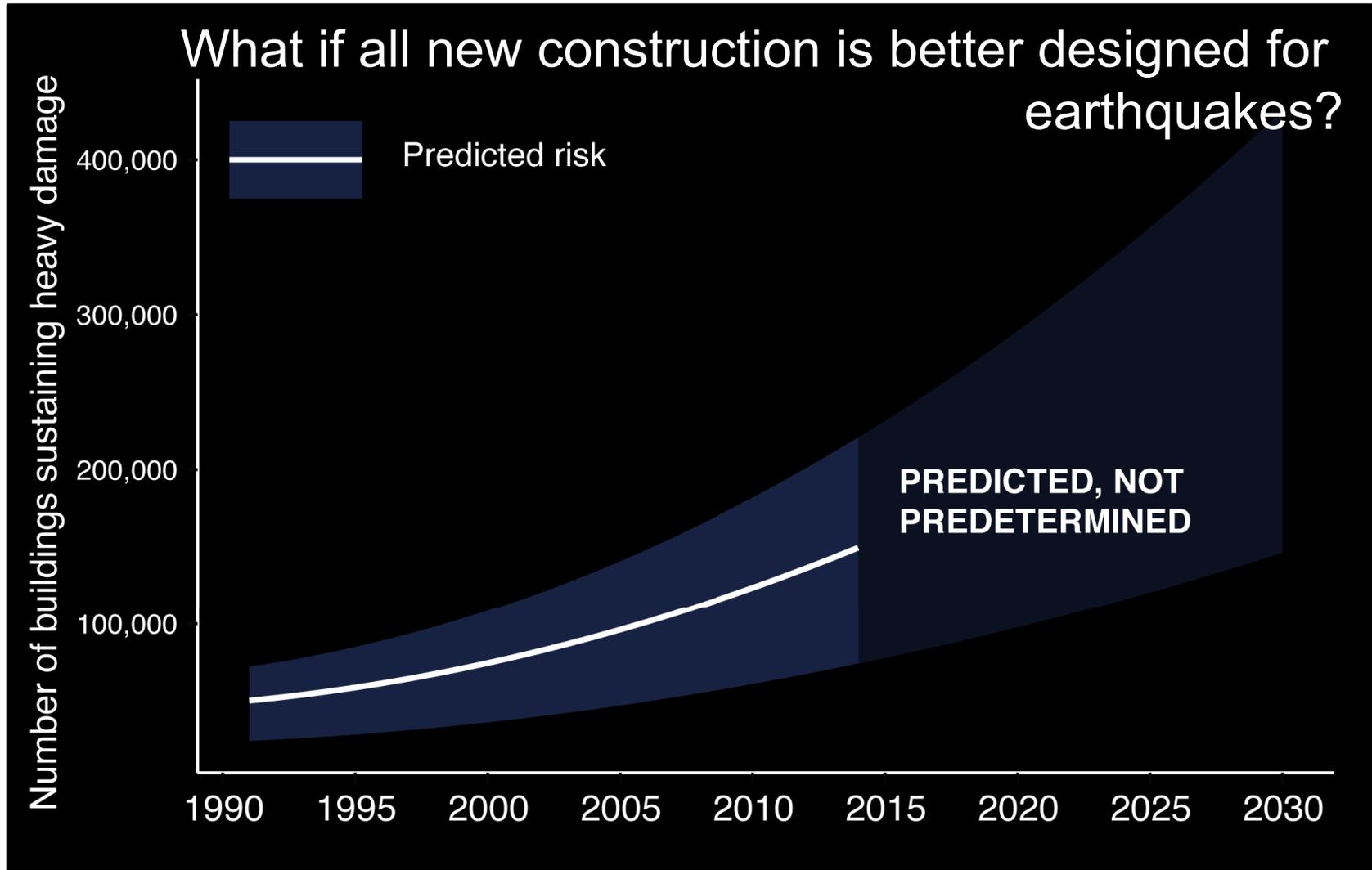
Modeling Changing Riskscapes in Kathmandu



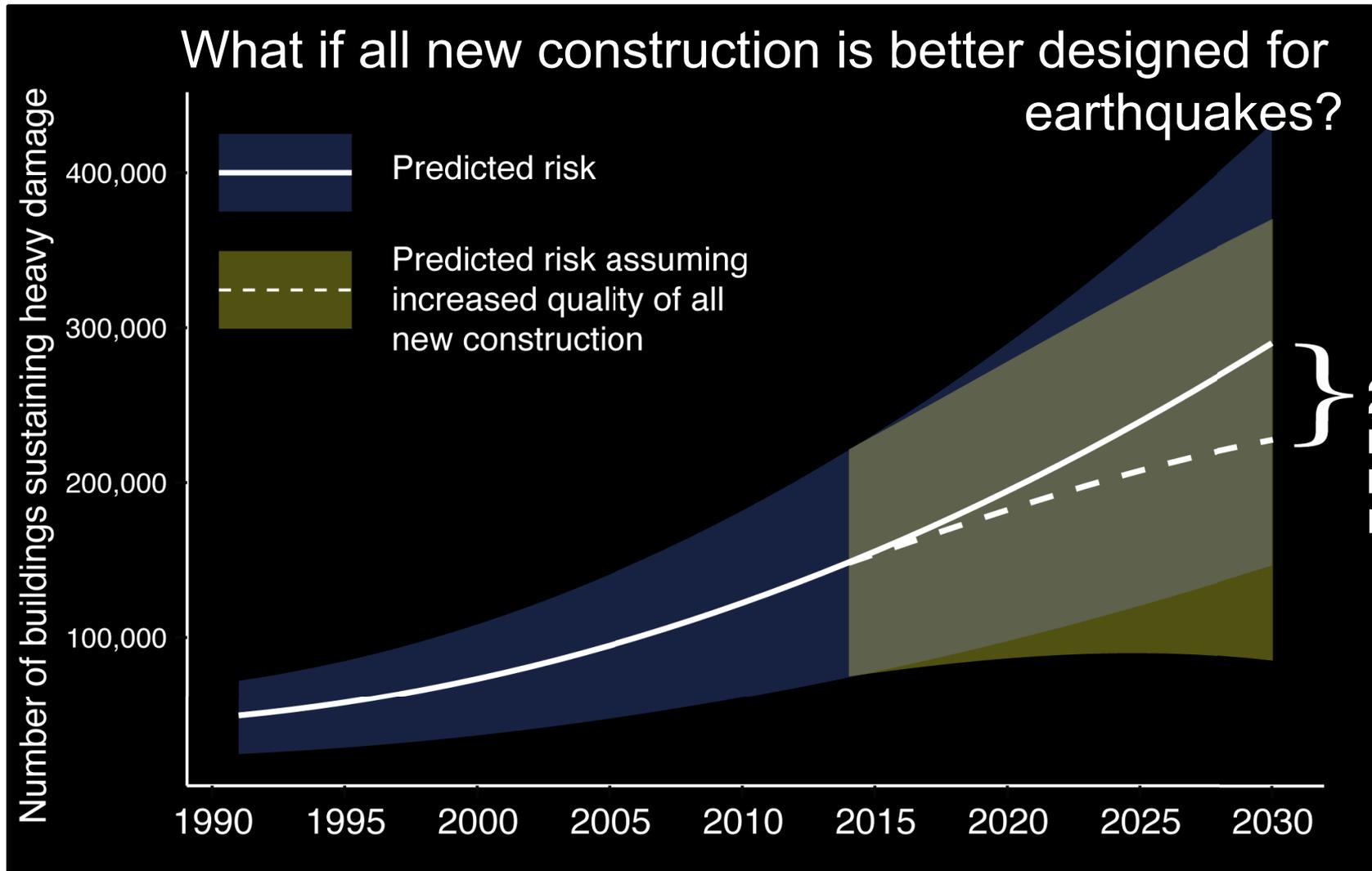
Controlling Changing Risks in Kathmandu



Controlling Changing Risksapes in Kathmandu



Controlling Changing Risksapes in Kathmandu



How can we ensure that Disaster Risk Information is....



Thank you!

