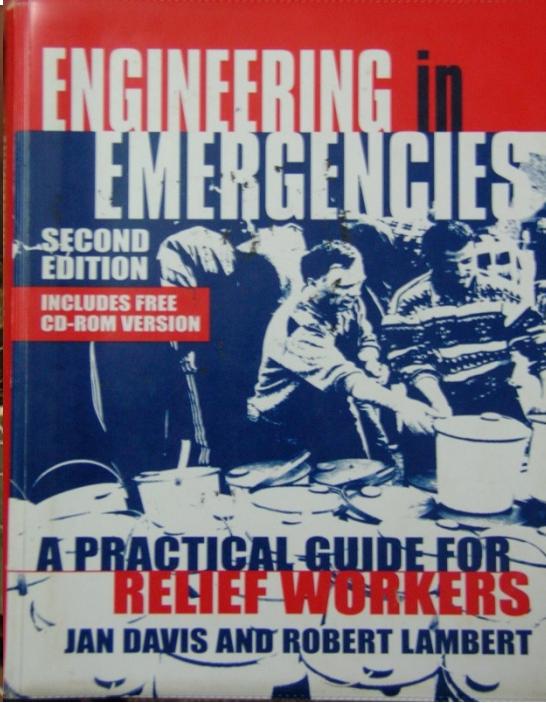


Disasters, Emergencies and Our Work



What is a Hazard? What is a Disaster?

- A hazard is a physical or human-made event that can potentially trigger a disaster.
- Disaster is a serious disruption of the functioning of society causing widespread human, material, economic or environmental losses
- A hazard becomes a disaster only when it affects human settlements and causes loss of life and damage to property.



Types of Disasters

Biological

- **Epidemic**
 - *Viral Infectious Disease*
 - *Bacterial Infectious Disease*
 - *Parasitic Infectious Disease*
 - *Fungal Infectious Disease*
 - *Prion Infectious Disease*
- **Insect Infestation**
- **Animal Stampede**

Geophysical

- **Earthquake**
- **Volcano**
- **Mass Movement (Dry)**
 - *Rockfall*
 - *Landslide*
 - *Avalanche*
 - *Subsidence*

Hydrological

- **Flood**
 - *General Flood*
 - *Flash Flood*
 - *Storm Surge / Coastal Flood*
- **Mass Movement (Wet)**
 - *Rockfall*
 - *Landslide*
 - *Avalanche*
 - *Subsidence*

Meteorological

- **Storm**
 - *Tropical Cyclone*
 - *Extra-Tropical Cyclone*
 - *Local Storm*

Climatological

- **Extreme Temperature**
 - *Heat Wave*
 - *Cold Wave*
 - *Extreme Winter Condition*
- **Drought**
- **Wildfire**
 - *Forest Fire*
 - *Land Fire*

Disasters used in this publication

Hydro-Meteorological

An Emergency Situation...

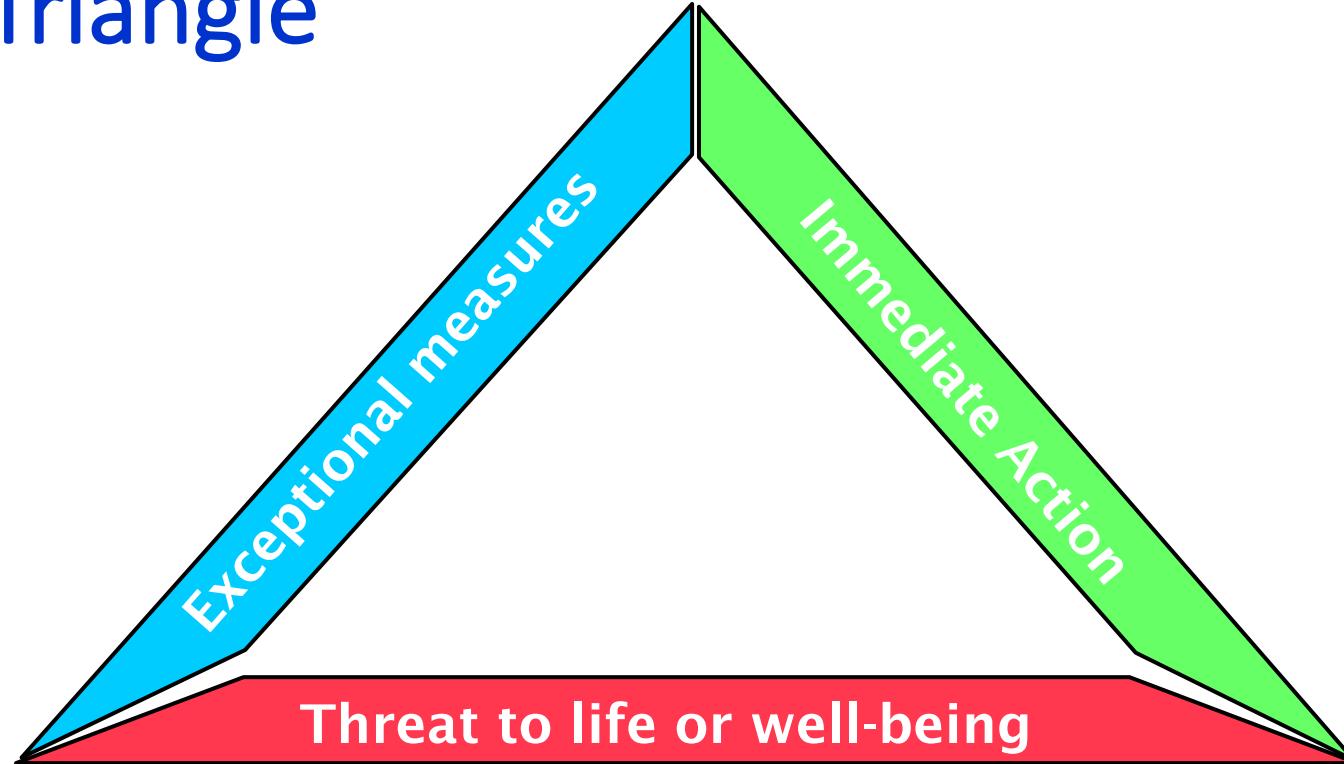


Follows from a disaster, and

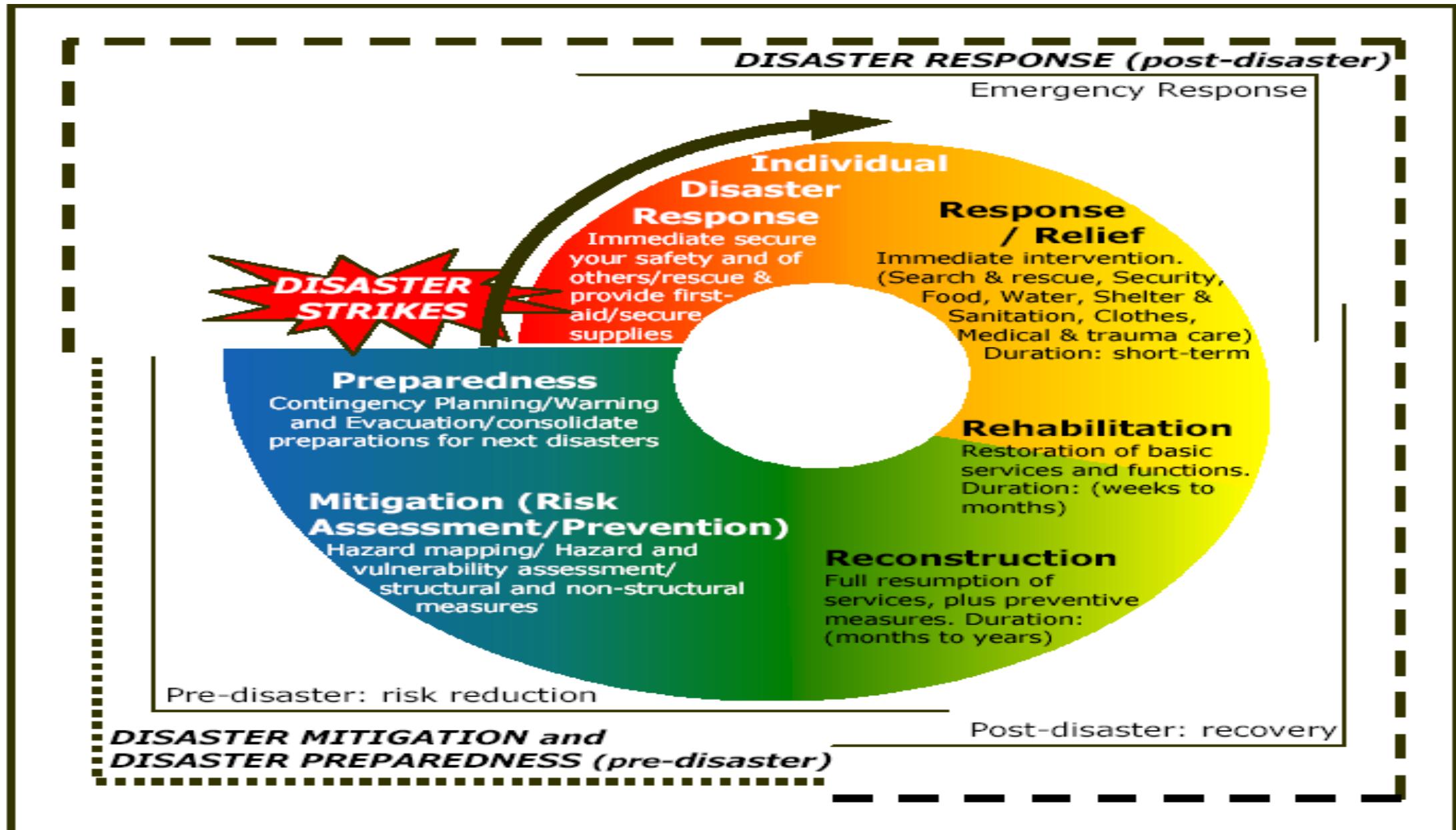
- Puts large no. of lives at risk
- Demands immediate action
- Calls for exceptional measures



Emergency Triangle



A humanitarian emergency is a serious situation or event that demands ***immediate action*** and ***exceptional measures*** to protect the ***lives of a large number of people***.



Disasters- Global Trends

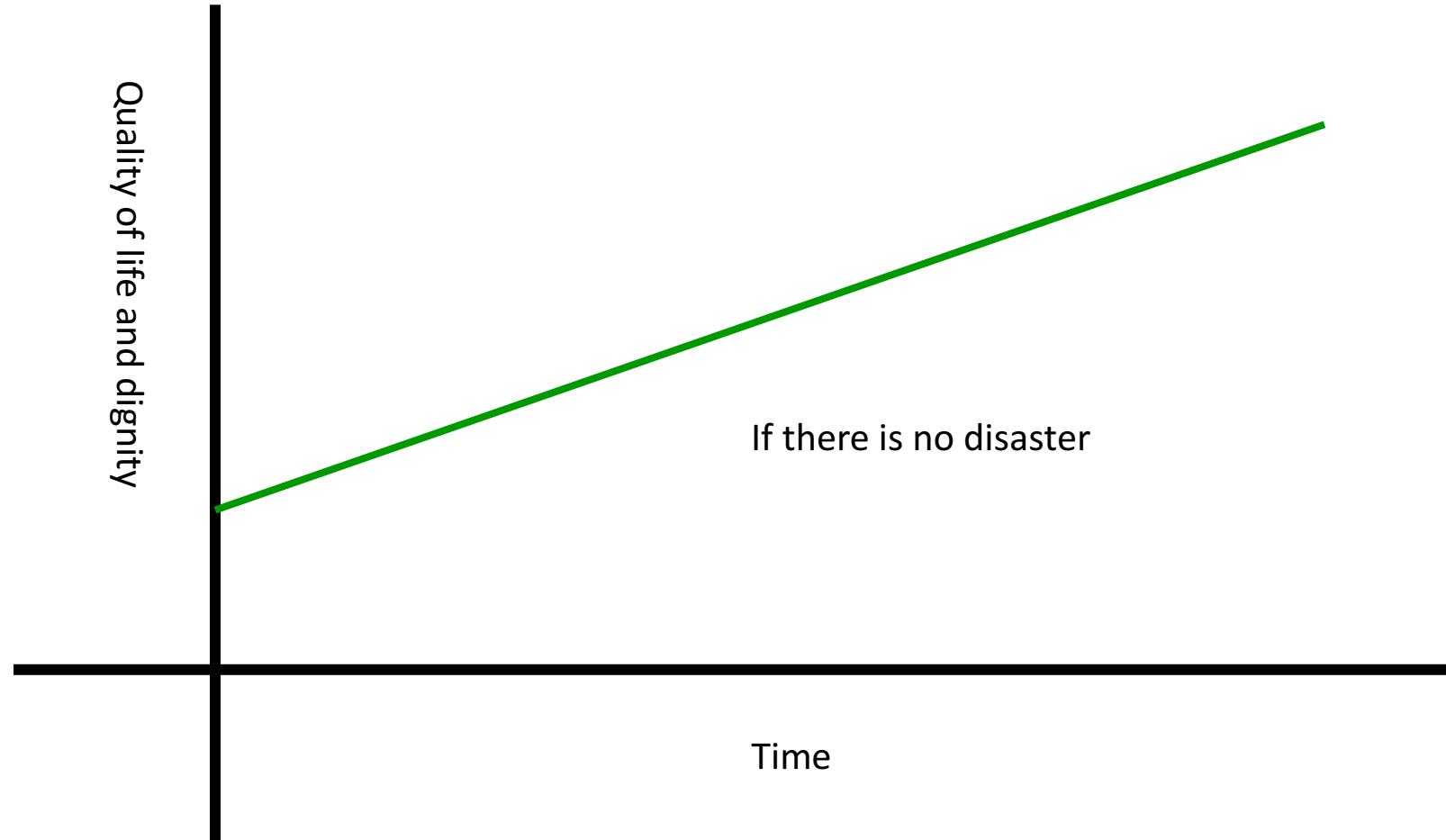
Disaster are increasing, globally, in terms of:

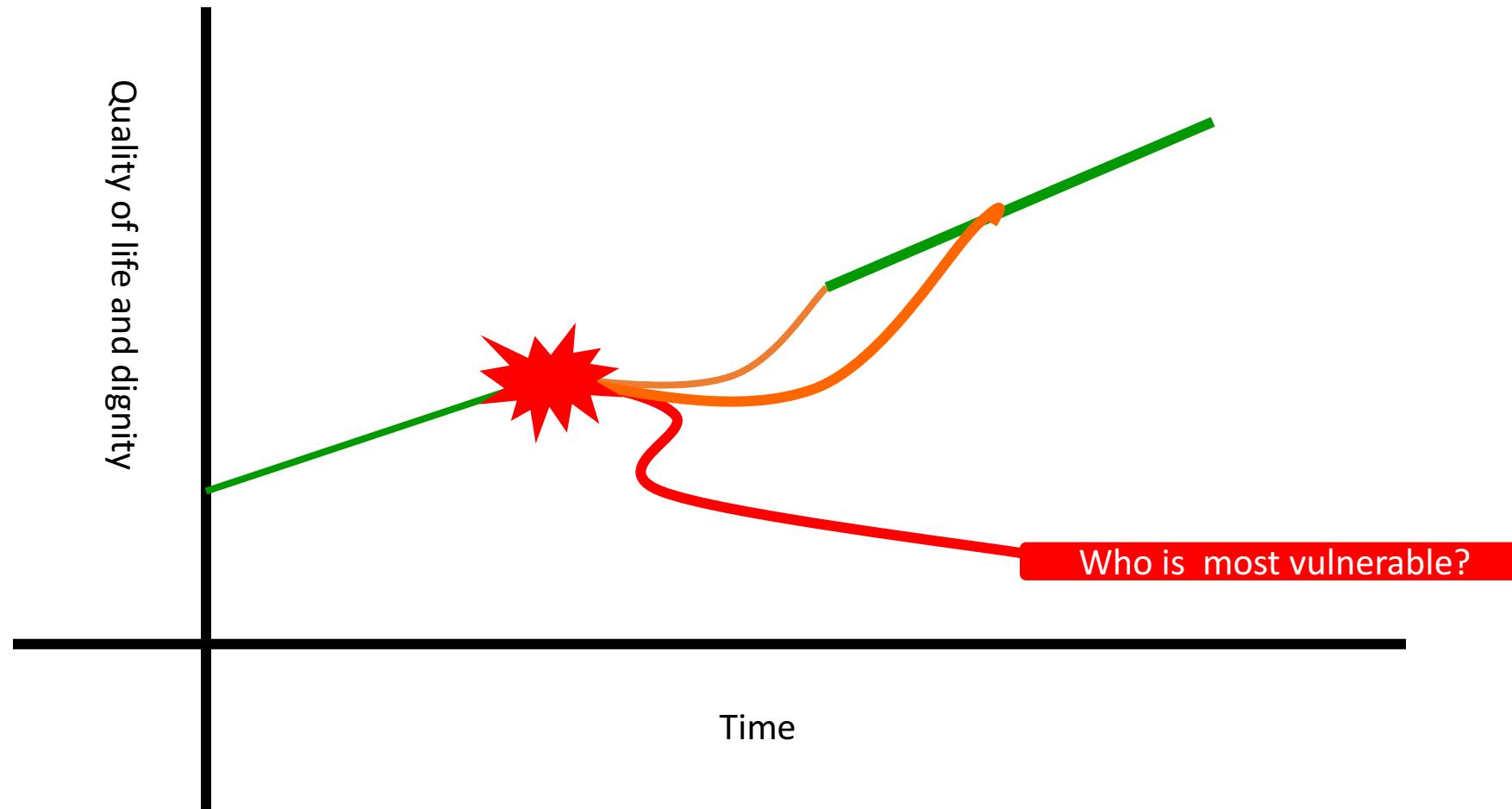
- Number
- Intensity
- Distribution
- Frequency

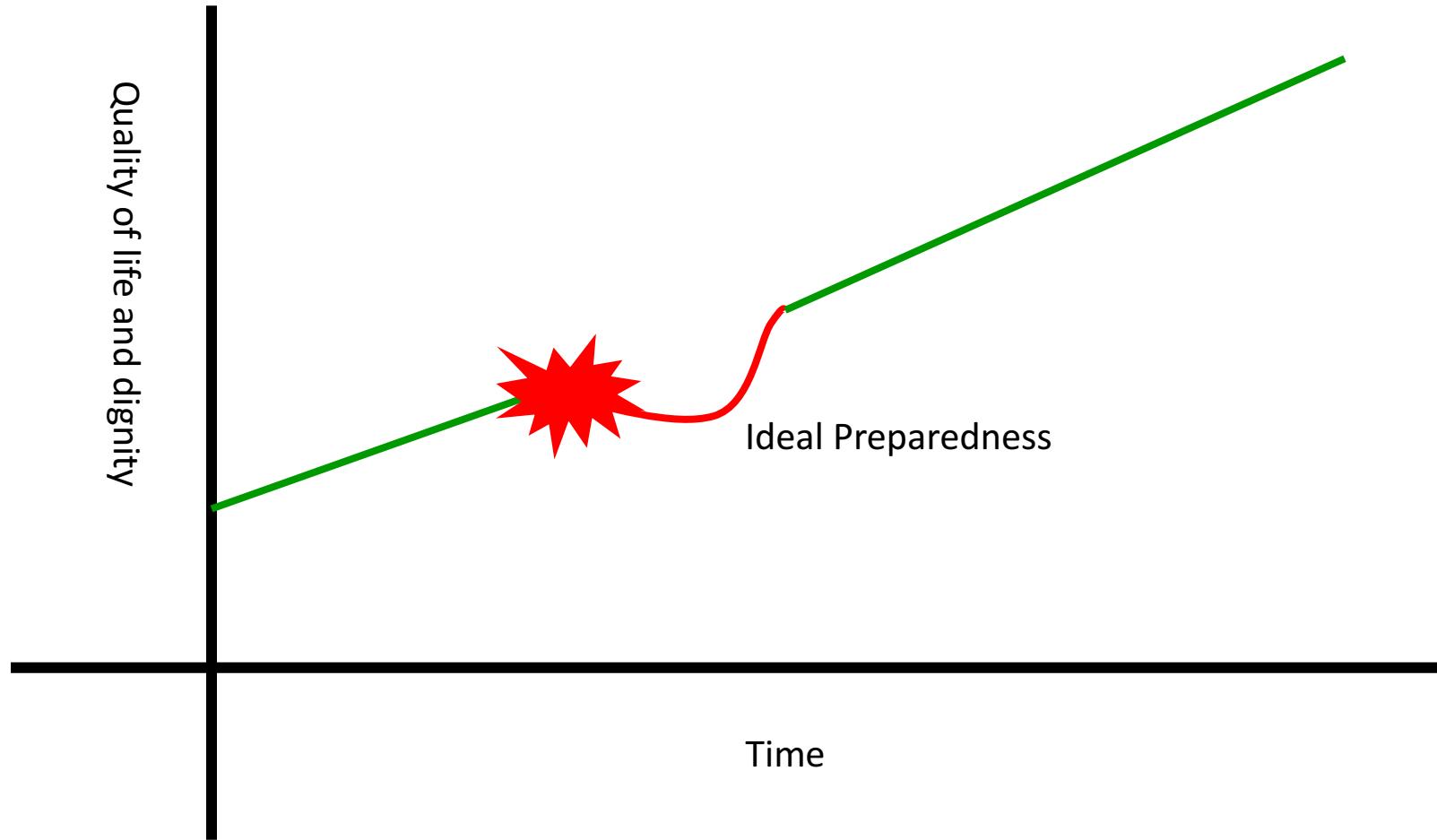
✓ Over a period of time, the impact of disasters have increased significantly.

✓ Climate change induced disasters are also on the rising trend!

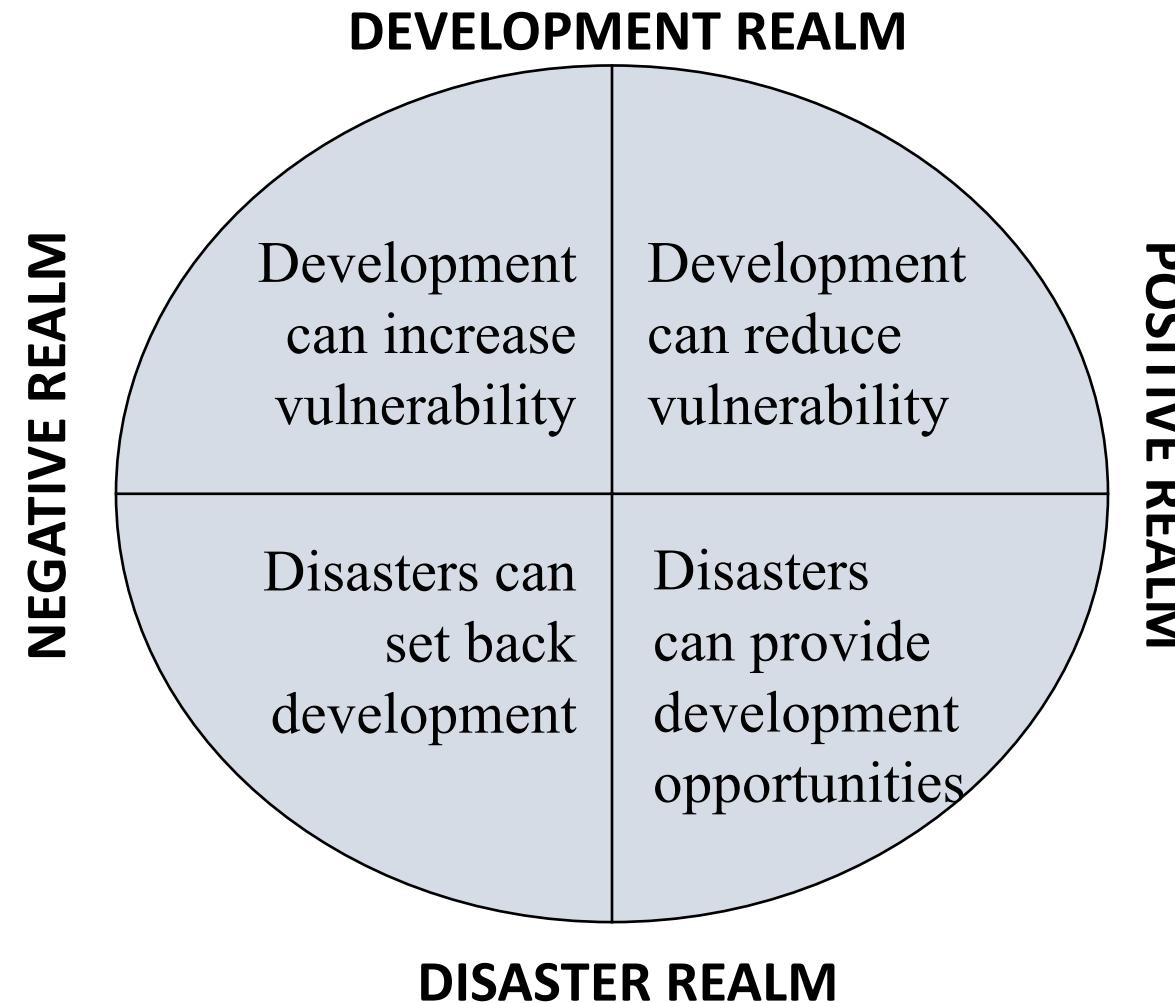
Let us look at what happens to the hard won development due to disaster







Disasters and Development



Global Trends (risk)- Disasters are NOT natural

Disasters are socio-natural events.

Socio-economic: poverty, unplanned urban growth, lack of awareness and institutional capacities...

Physical: insufficient land use planning, housing, infrastructure located in hazard prone areas...

Environmental degradation: ecosystem degradation; coastal, watershed, marshland...), etc.

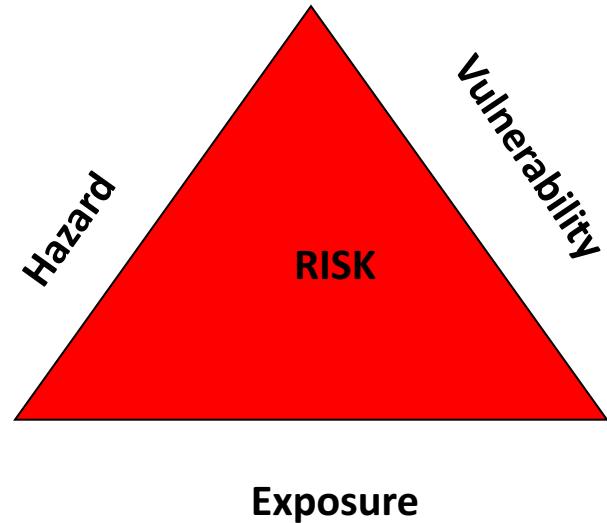


Anatomy of “natural” disasters

$$\text{Natural hazard} \times \text{Vulnerability} / \text{Capacity} = \text{Disaster Risk}$$

Issue of Exposure

The Risk Triangle:

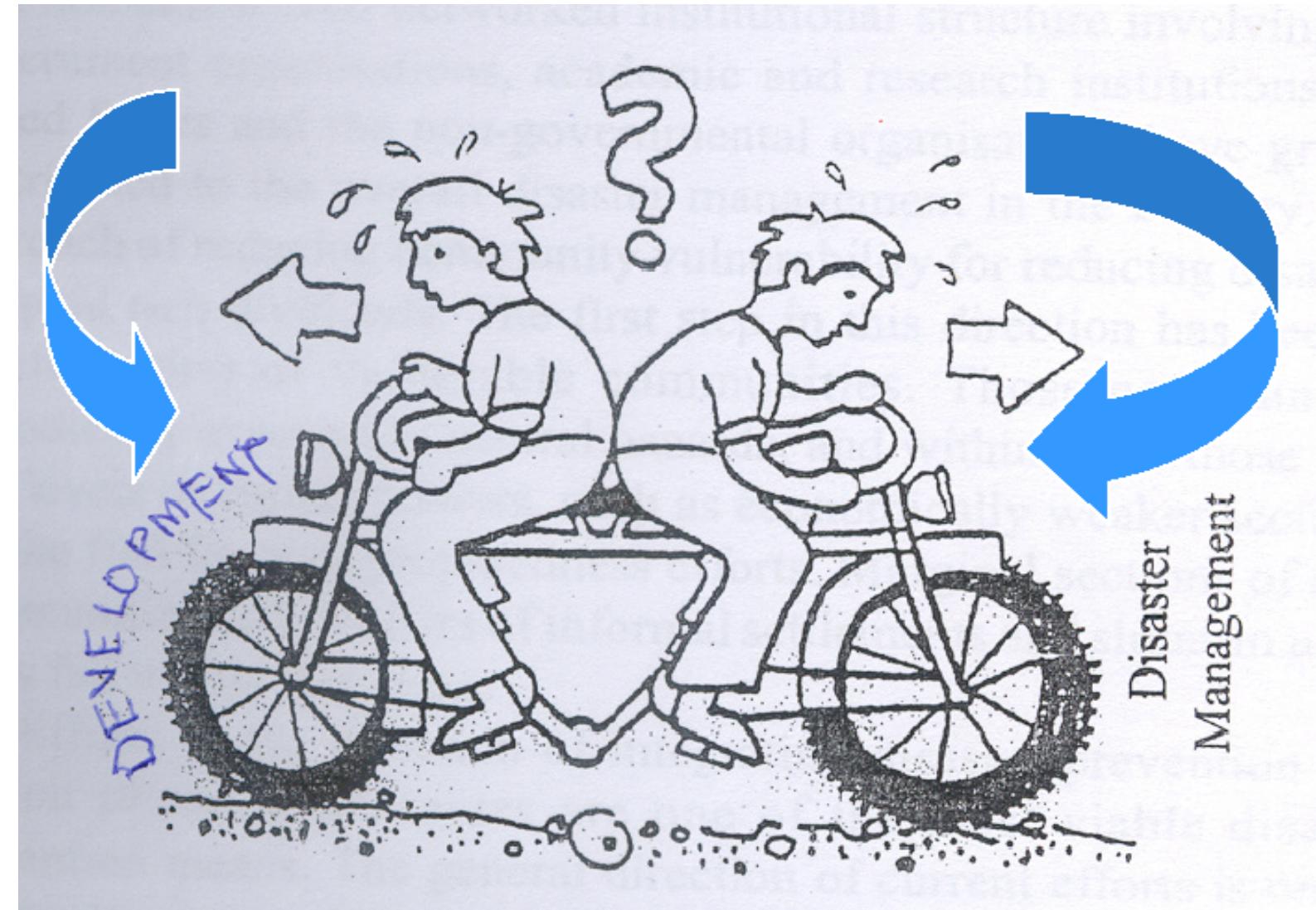


Risk is a combination of the interaction of **hazard**, **exposure**, and **vulnerability**, which can be represented by the three sides of a triangle.

If any one of these sides increases, the area of the triangle increases, hence the amount of risk also increases.

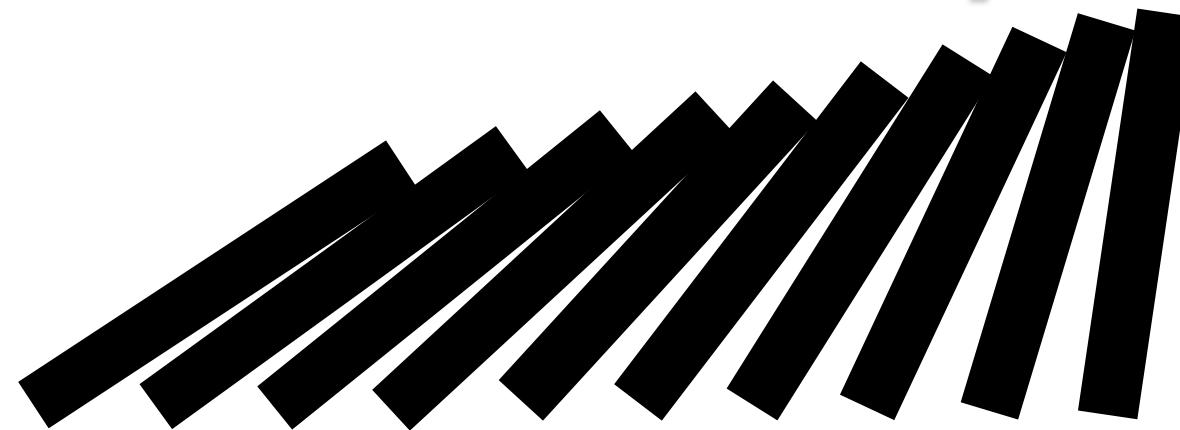
If any one of the sides reduces, the risk reduces.

If we can eliminate one side there is no risk.

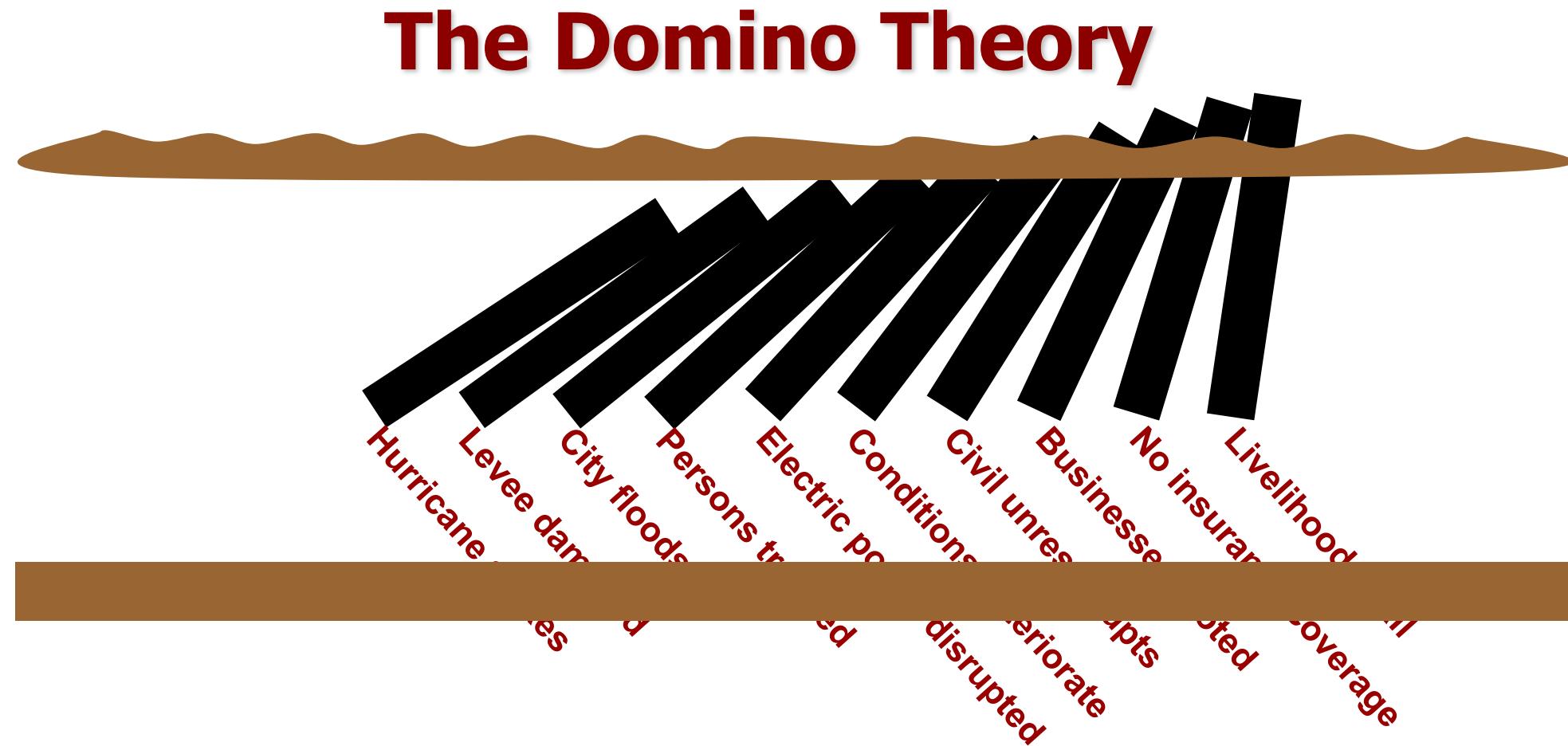


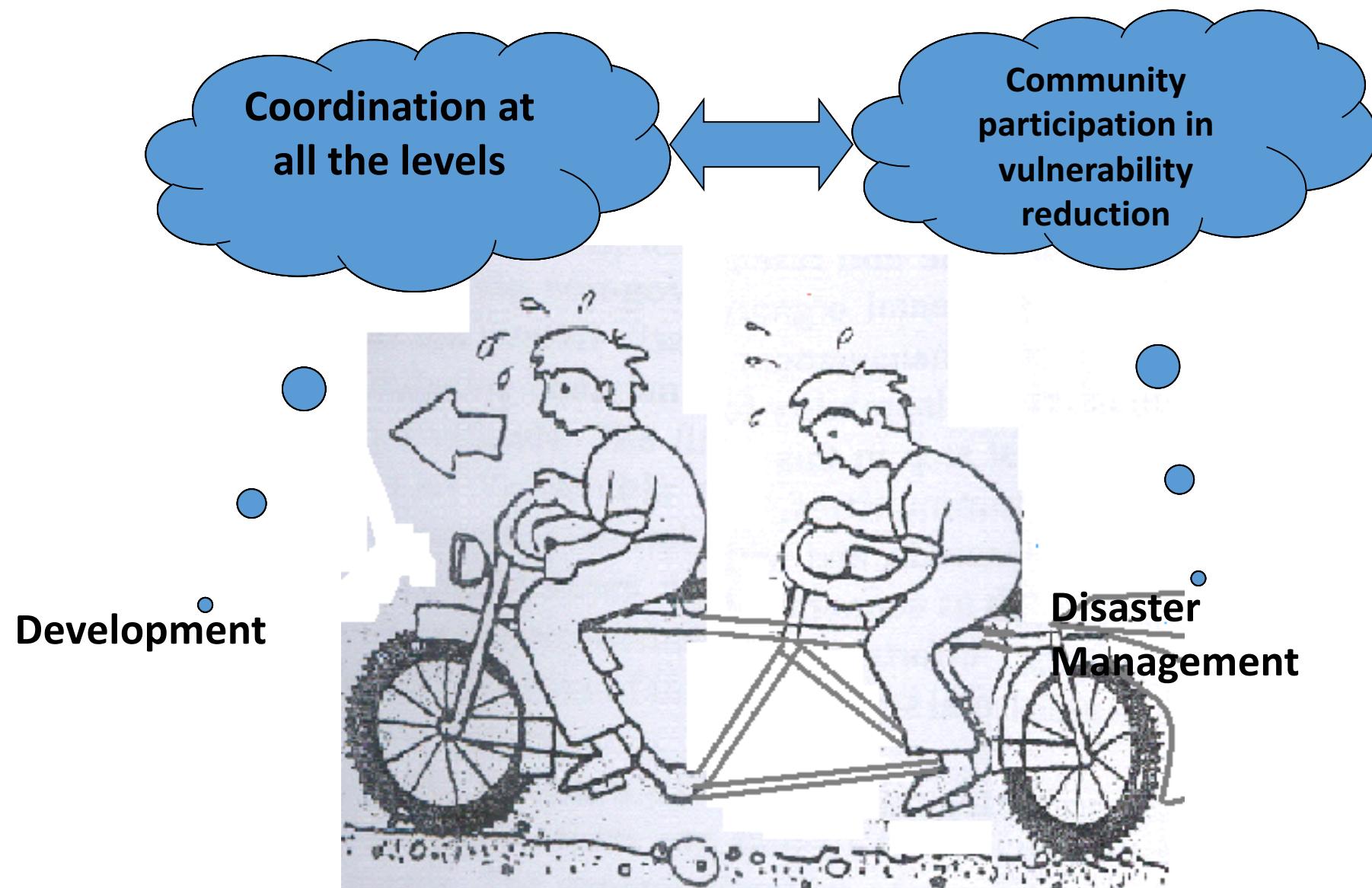
Consequences of emergency can be far reaching

The Domino Theory

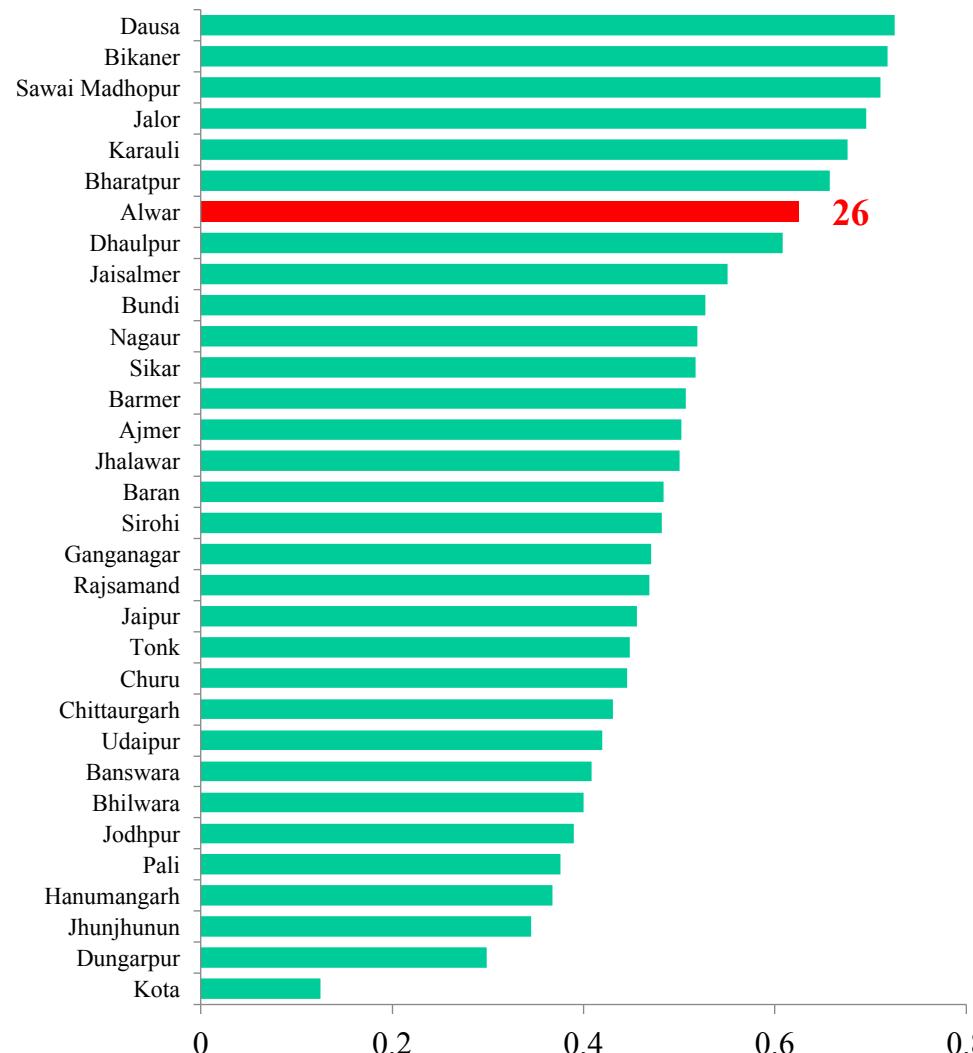


The “Worst Case” scenario

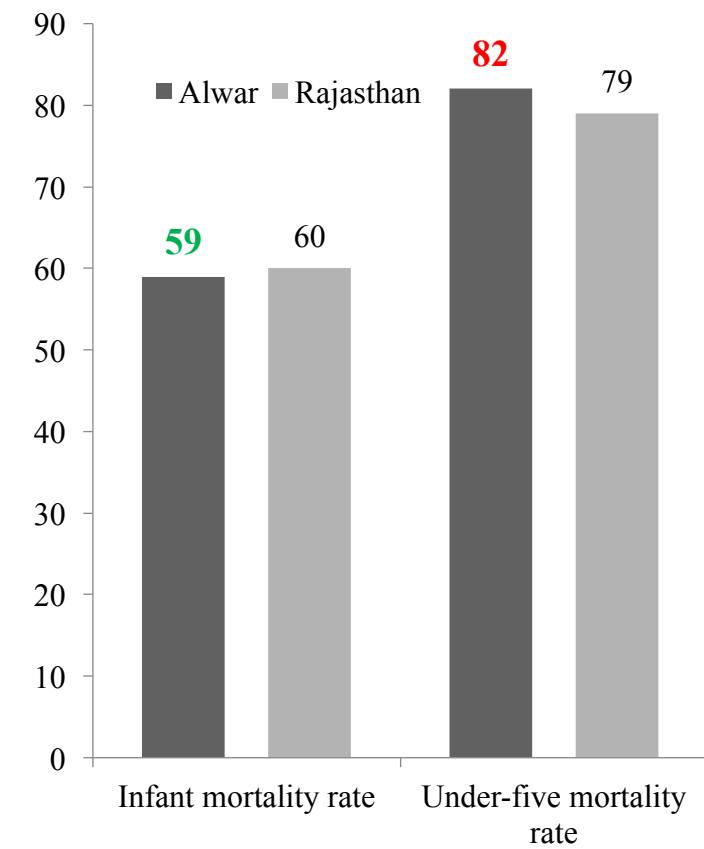




Ranking of District based on Health Index

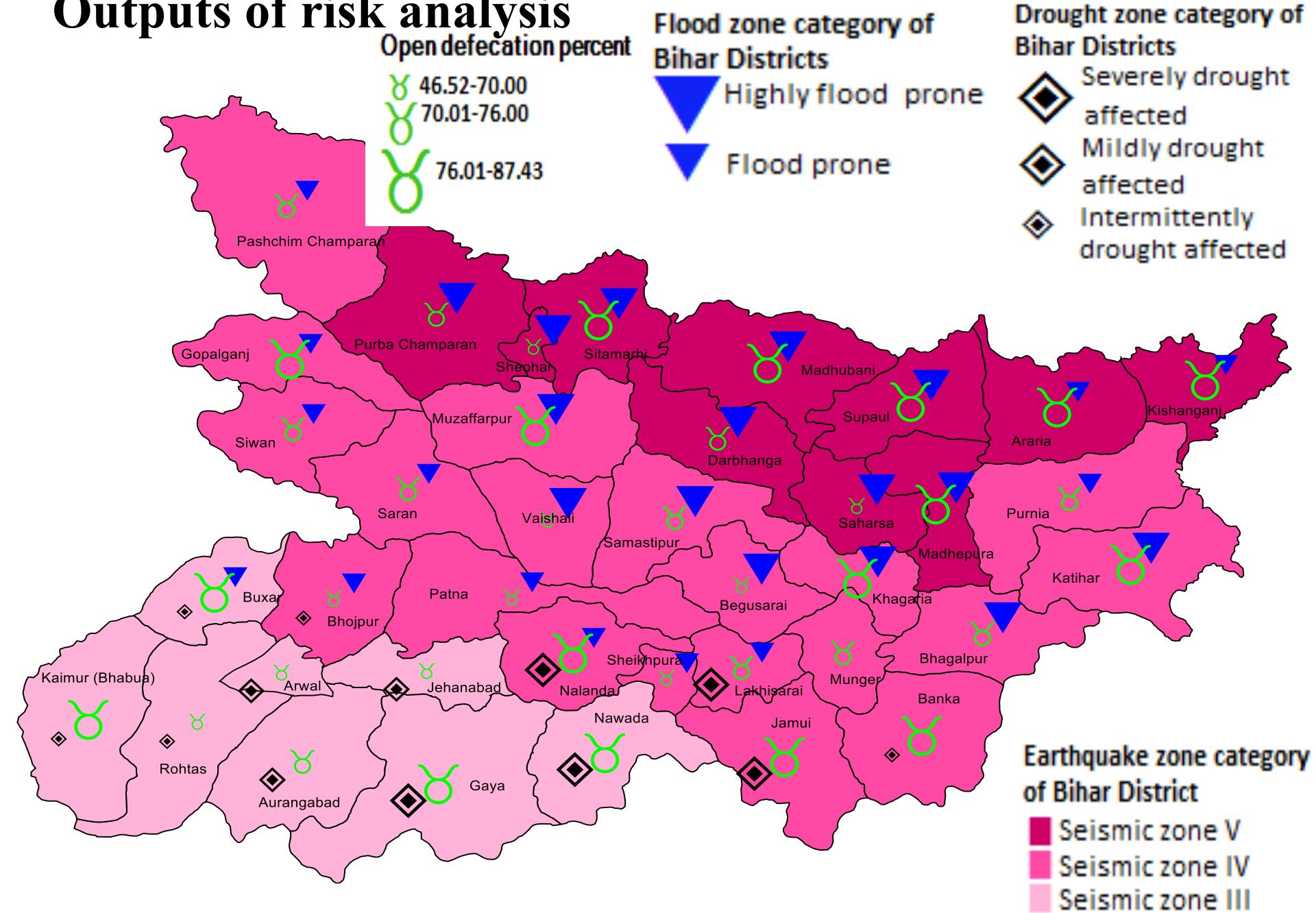


Infant mortality rate & Under five Mortality rate

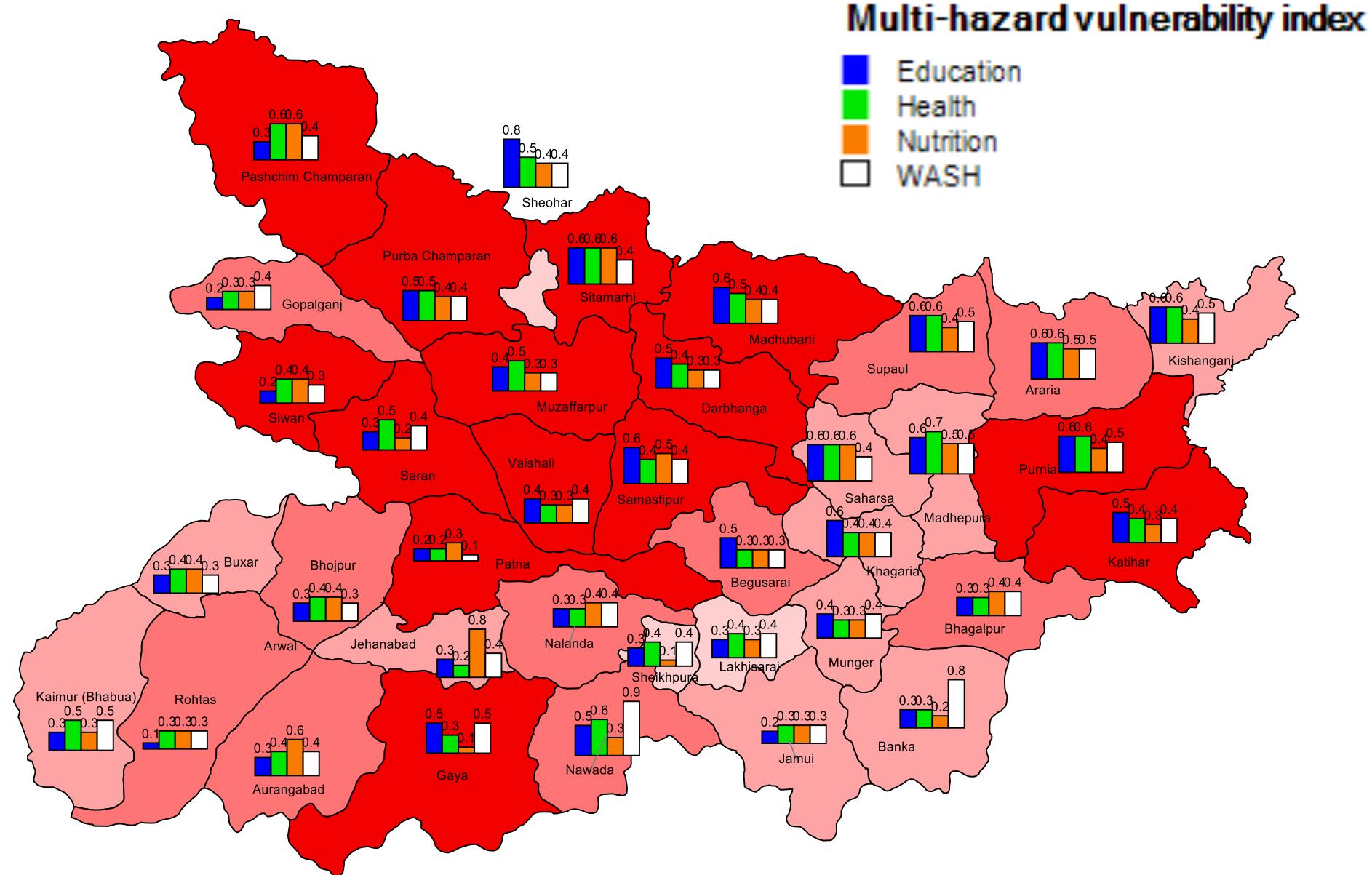


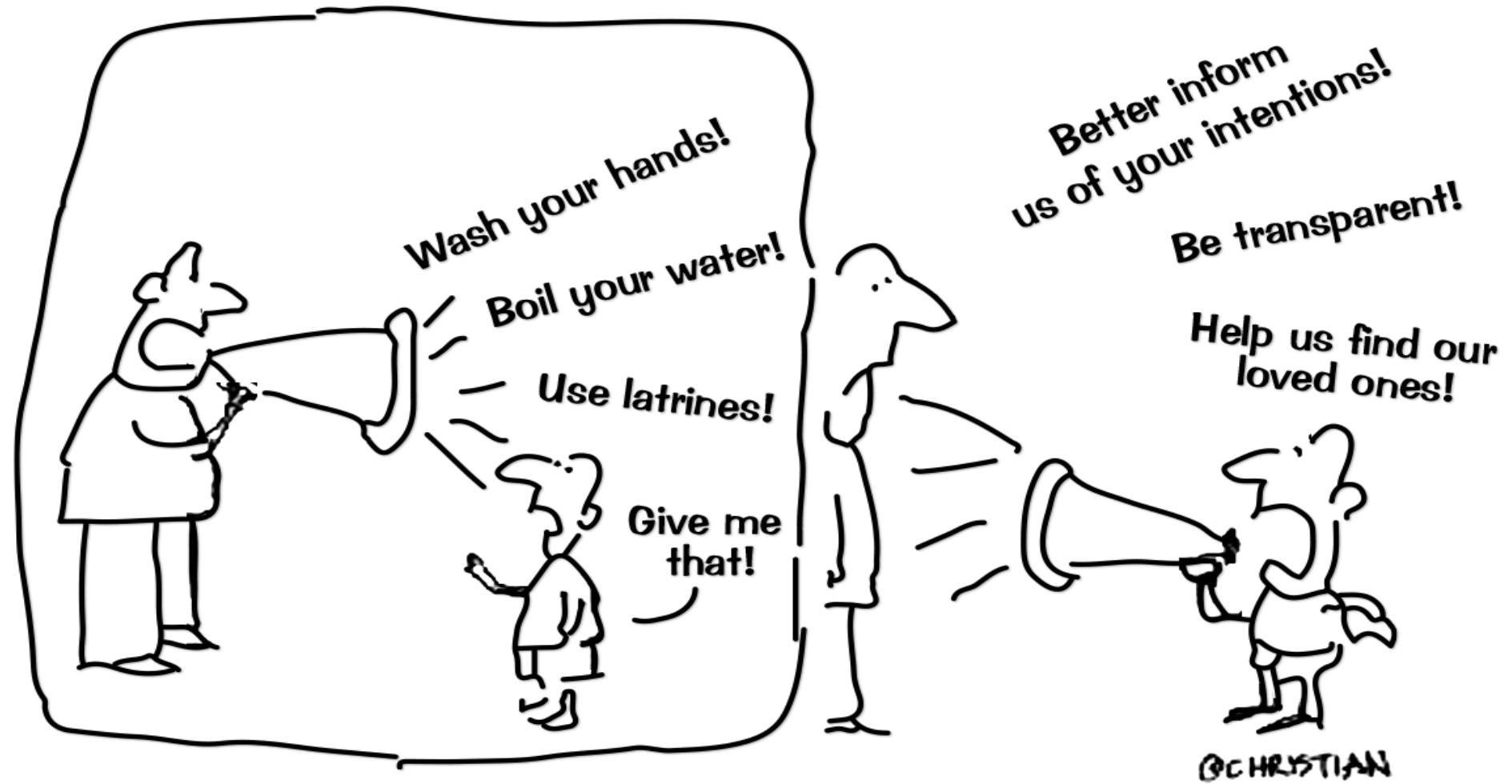
May be there is a relationship?
But.....

Outputs of risk analysis



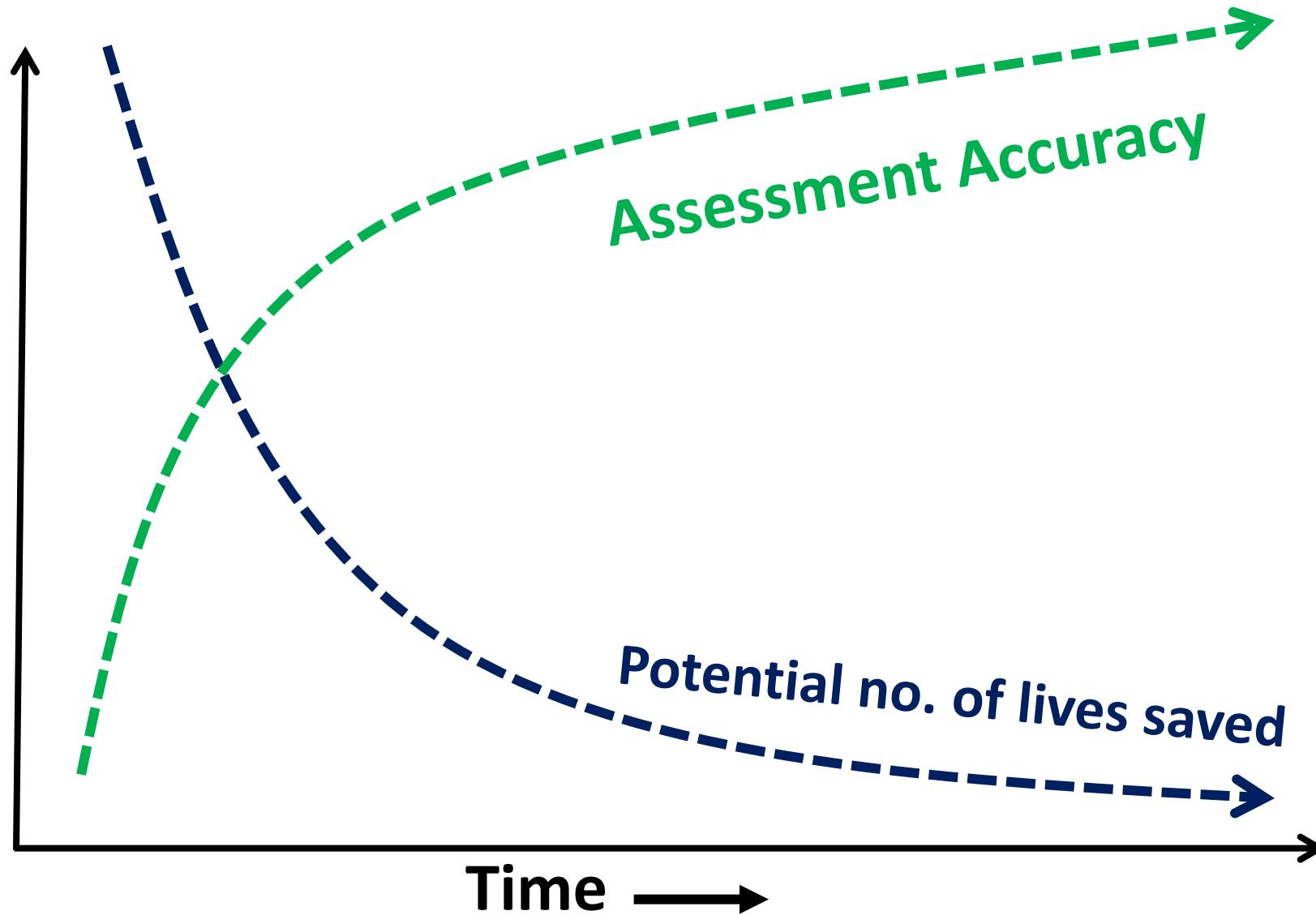
Child population and sectoral performance



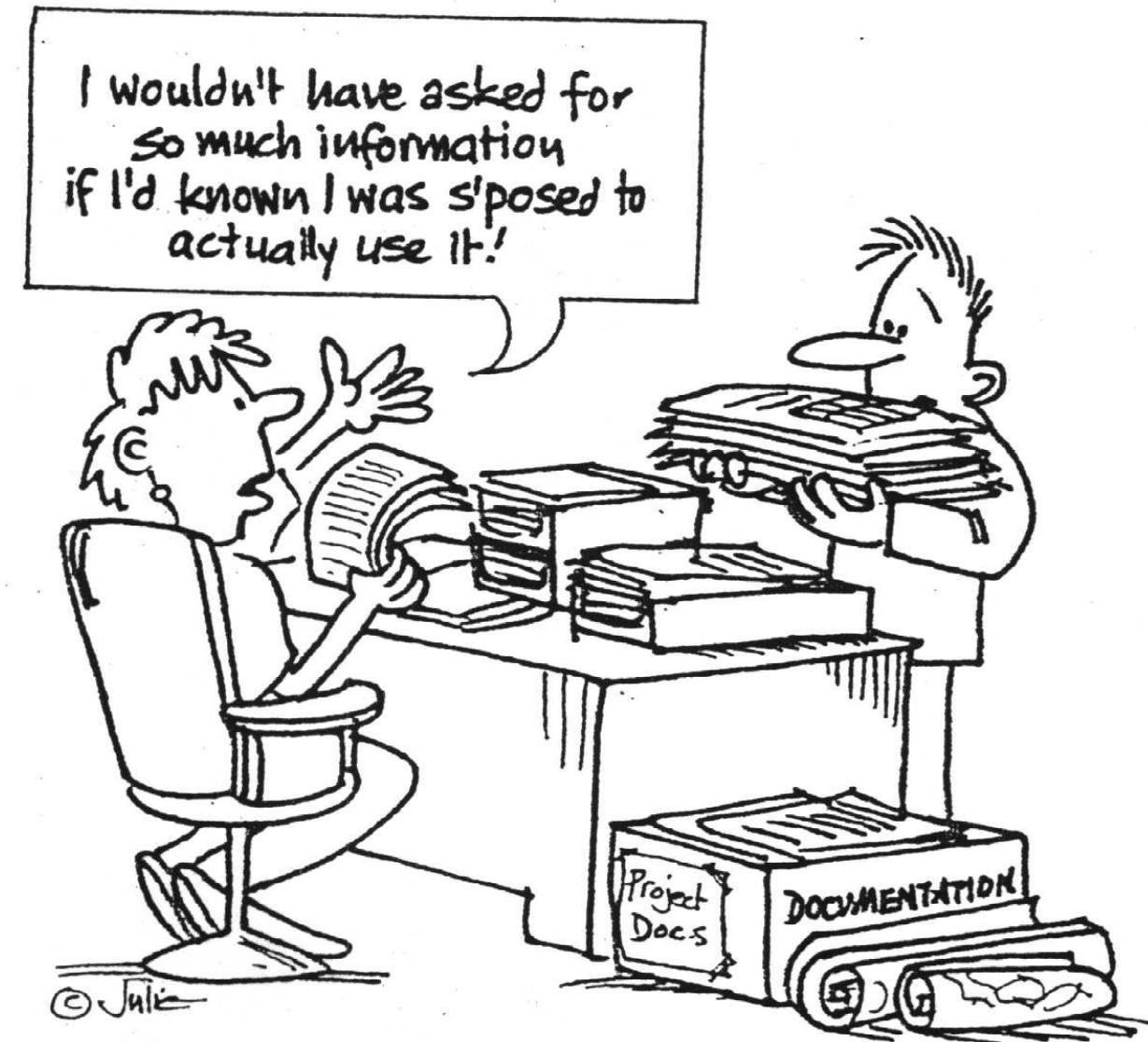




Trade-off between Speed and Accuracy...



How much information do you need?



Assessments should...



- Provide a comprehensive picture of the scope of emergency rather than a blinkered sector specific detail...
- *“Half details of the whole picture is better than full details of half the picture..”*
- Agencies need good information to act on **as soon as possible**





Thank You!

