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# Disasters

## An Overview

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# Disasters

- Water and climate related
- Geologically related
- Chemical, industrial and nuclear
- Accident related
- Biologically related

# Water and climate disasters

- Floods and drainage
- Cyclones
- Tornadoes and hurricanes
- Hailstorms
- Cloud burst

# Water and climate disasters

- Heat wave and cold wave
- Snow avalanches
- Drought
- Sea erosion
- Thunder and lightning

# Geological disasters

- Landslides and mudflows
- Earthquakes
- Dam failures/ dam bursts
- Mine fires

# Chemical, industrial and nuclear disasters

- Chemical and industrial disasters
- Nuclear disasters

# Accident related disasters

- **Fires – forest, urban, village**
- **Mine flooding**
- **Oil spill**
- **Building collapse**
- **Serial bomb blasts**

# Accident related disasters

- Festival related disasters
- Air, road, rail accidents
- Boat capsizing



# Biological disasters

- Epidemics
- Pest attacks
- Cattle epidemics
- Food poisoning

# India is the most disaster prone country...

- **85% of land area vulnerable to disaster**
  - **54% prone to earthquake**
  - **8% prone to cyclones**
  - **5% prone to floods**
  - **190 districts multi-hazard prone**

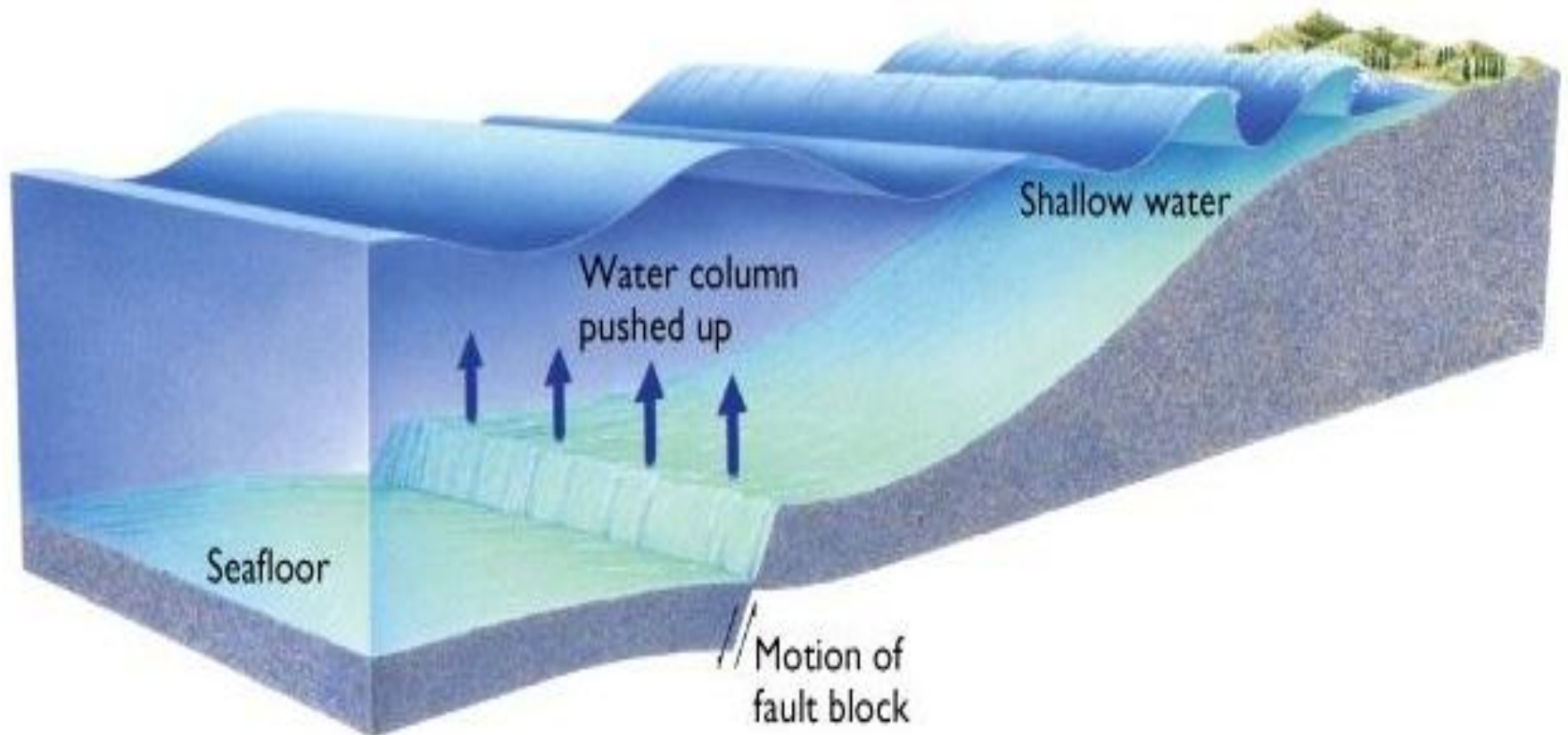
# Annual Average Number of People Affected by Disaster Between 1987-1996: Top 10 countries

<i>Country</i>	<i>Average Annual population affected(million)</i>	<i>Total Population (1996) (million)</i>	<i>% population affected</i>
<b>China</b>	<b>99.07</b>	<b>1232.08</b>	<b>8.04</b>
<b>India</b>	<b>56.56</b>	<b>944.58</b>	<b>5.99</b>
<b>Bangladesh</b>	<b>18.57</b>	<b>120.07</b>	<b>15.47</b>
<b>Ethiopia</b>	<b>4.02</b>	<b>58.24</b>	<b>6.90</b>
<b>Philliphines</b>	<b>3.69</b>	<b>69.28</b>	<b>5.33</b>
<b>Australia</b>	<b>2.28</b>	<b>18.05</b>	<b>12.63</b>
<b>Thailand</b>	<b>1.67</b>	<b>58.70</b>	<b>2.84</b>
<b>Sudan</b>	<b>1.48</b>	<b>27.29</b>	<b>5.42</b>
<b>Malawi</b>	<b>1.44</b>	<b>9.84</b>	<b>14.63</b>
<b>Pakistan</b>	<b>1.40</b>	<b>139.97</b>	<b>1.00</b>

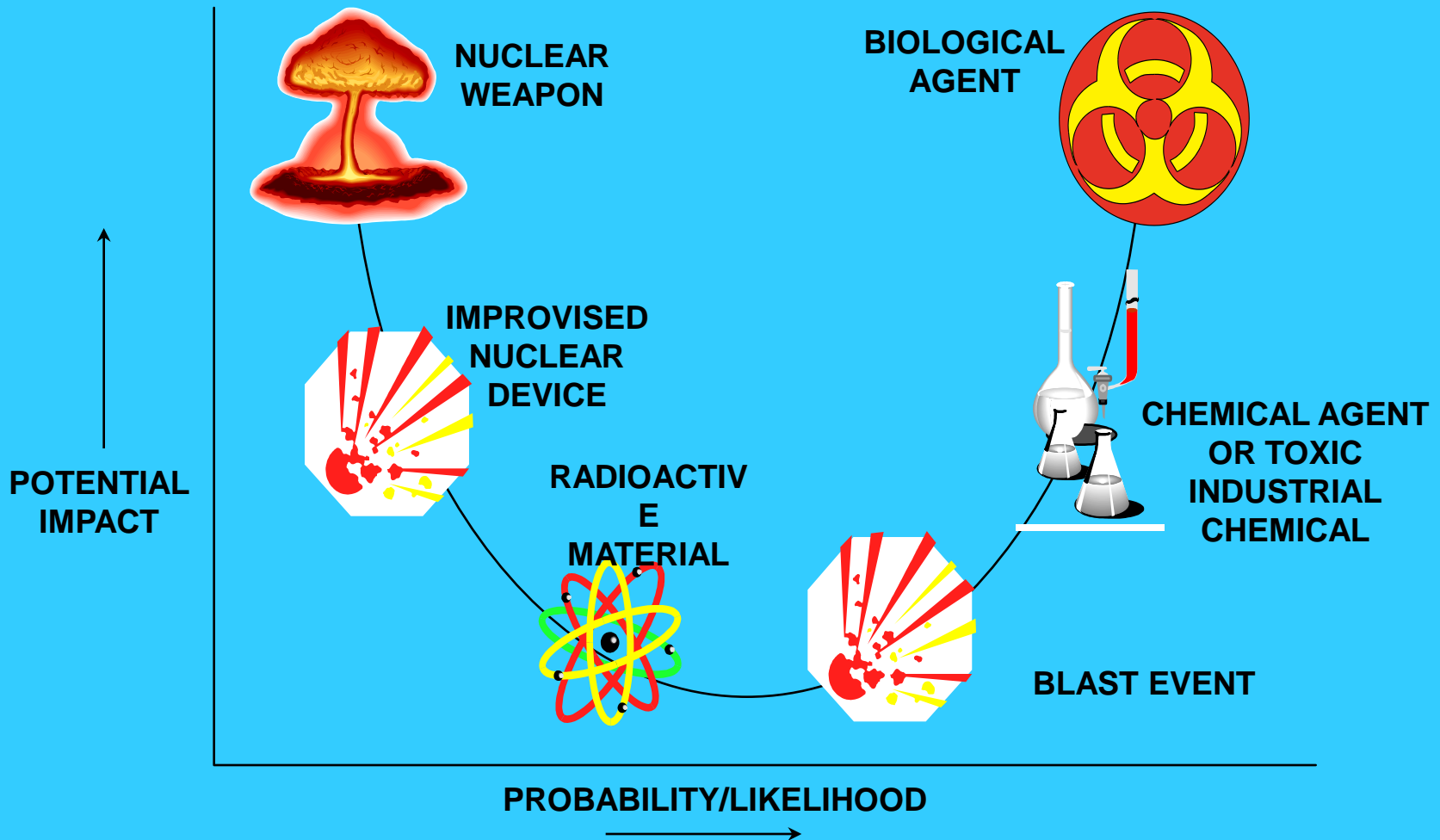
# Disaster Preparedness

- Karnataka is multi-disaster prone
- No part of human habitation in Karnataka is free from disasters
- All of us have a role in mitigating disasters
- A simple act like **“Planting a tree”** can check natural disasters

# TSUNAMI: Adding a New Dimension?



# Manmade Disaster : Potential Probability vs. Impact



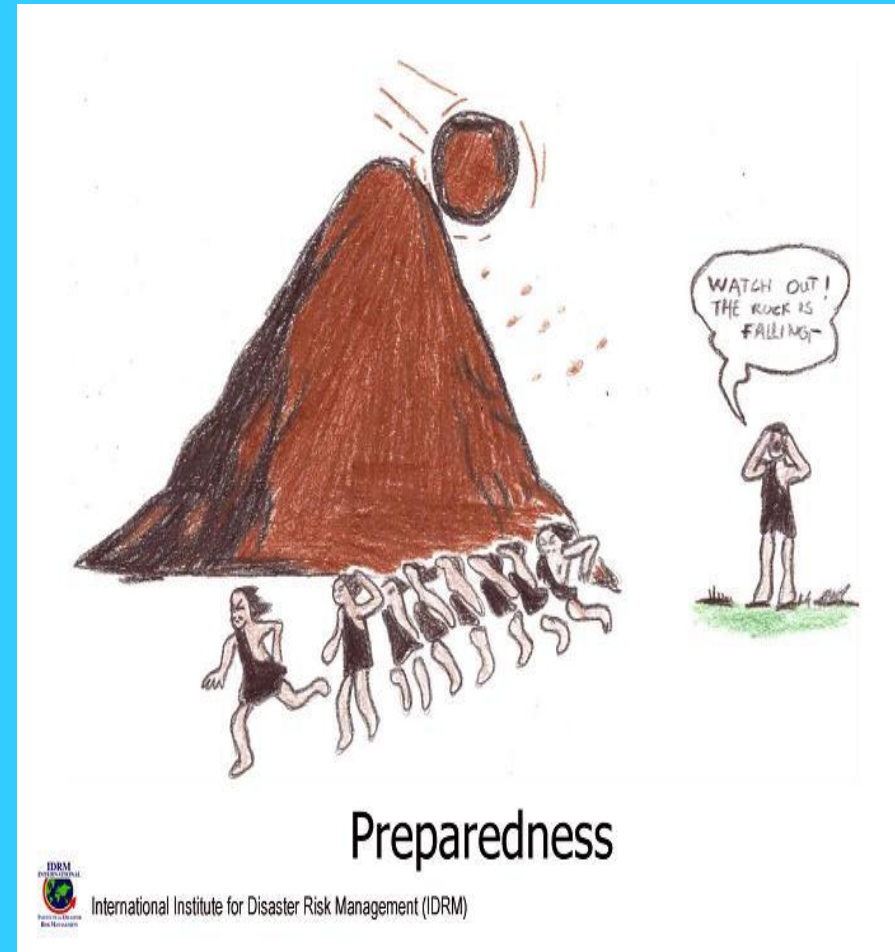


# PREPAREDNESS

Reinforcement of capacity to respond

- **Training** : search and rescue teams, provision of material and equipment, organisation of simulation exercises, ...

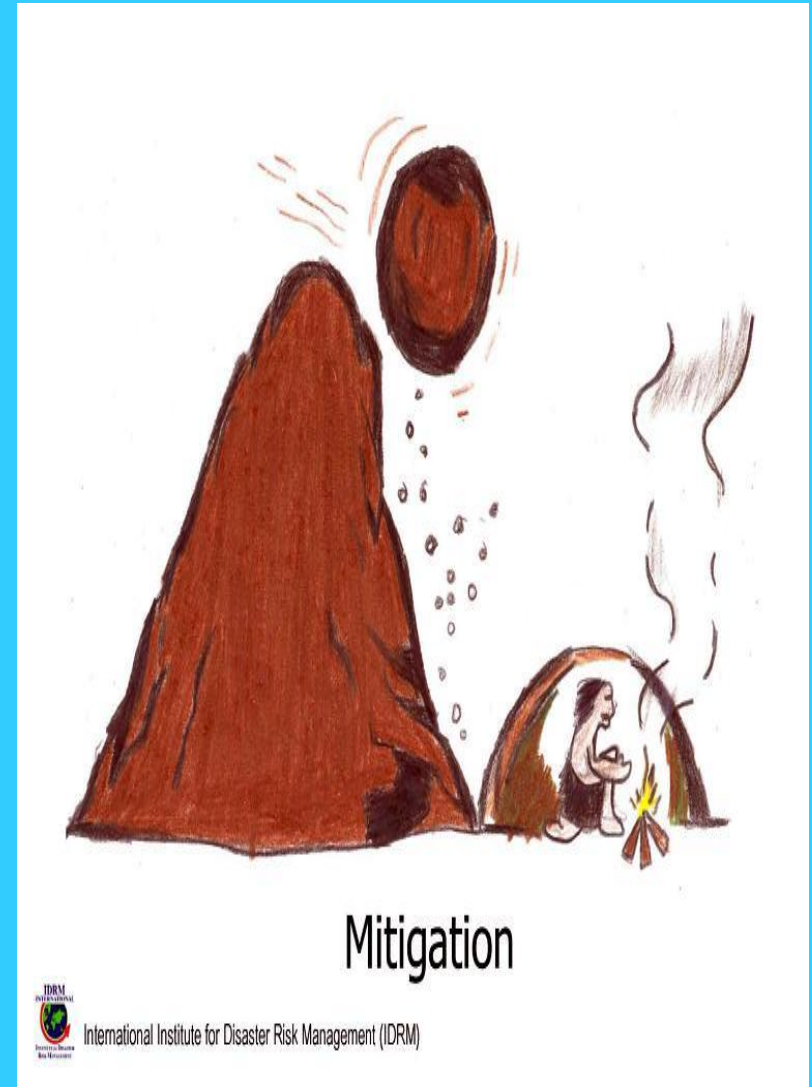
- **Awareness** campaigns with the population to recognise disaster risks & necessary measures.





# MITIGATION

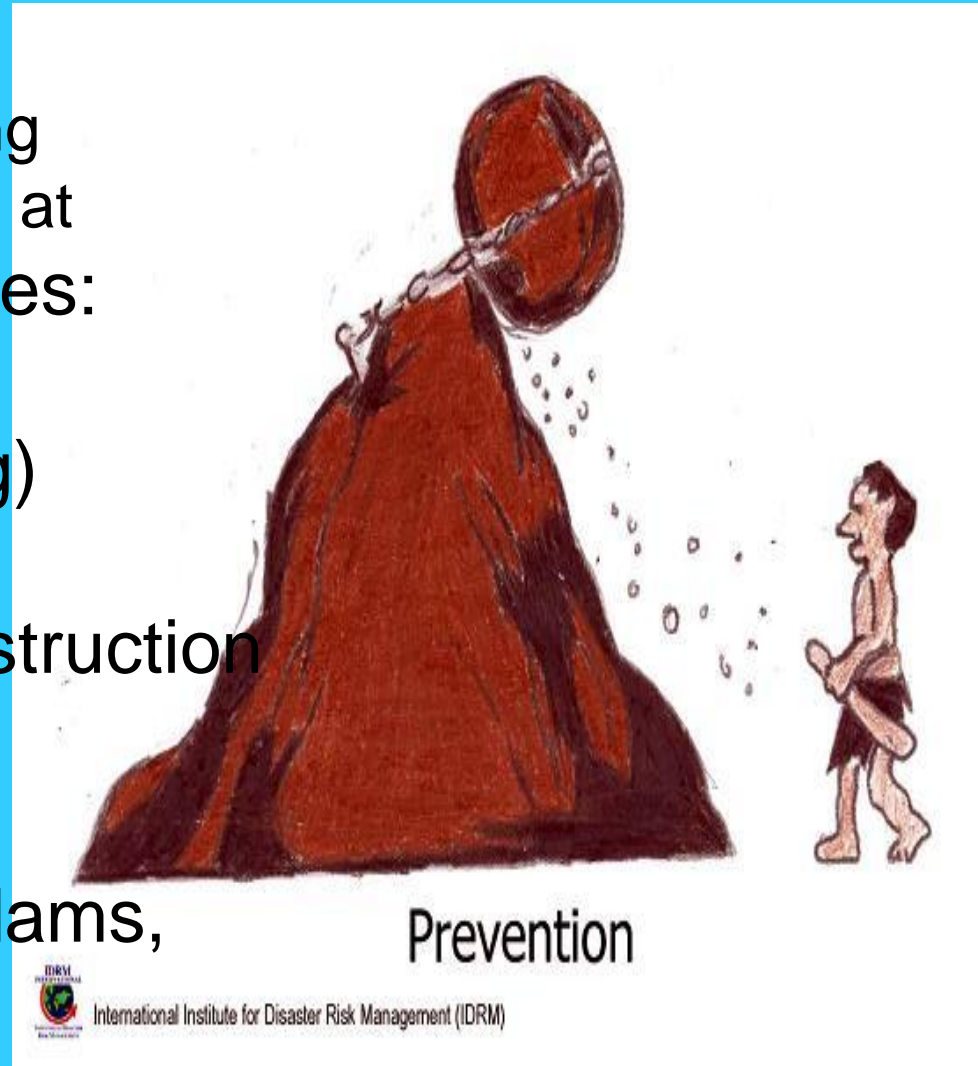
To limit/minimise the adverse impact of natural, environmental, technological hazards by reducing the physical vulnerability of the existing sites / infrastructures. :

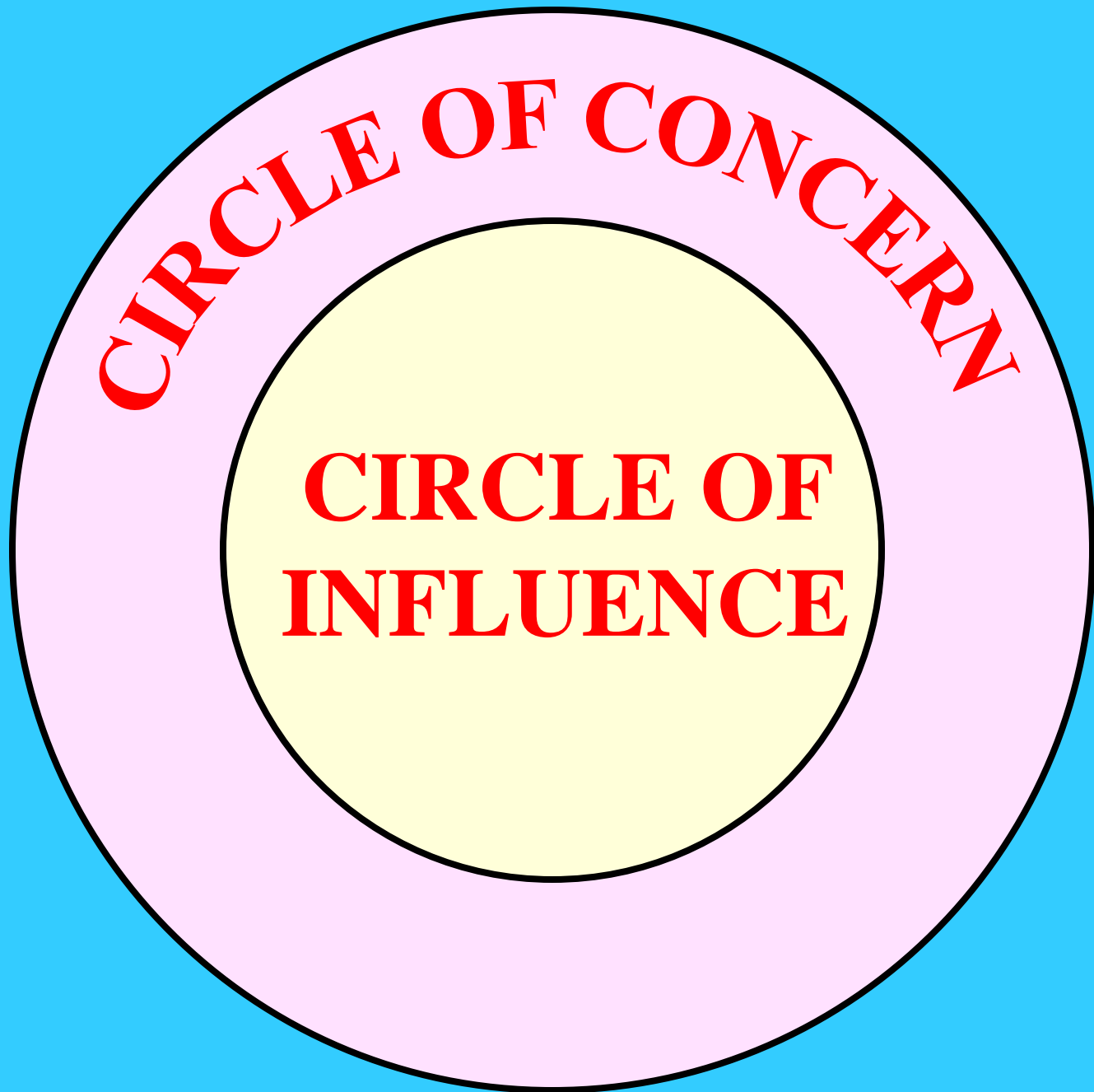


# PREVENTION

Improvement of decision making and reduction of vulnerabilities at a more global level: Includes:

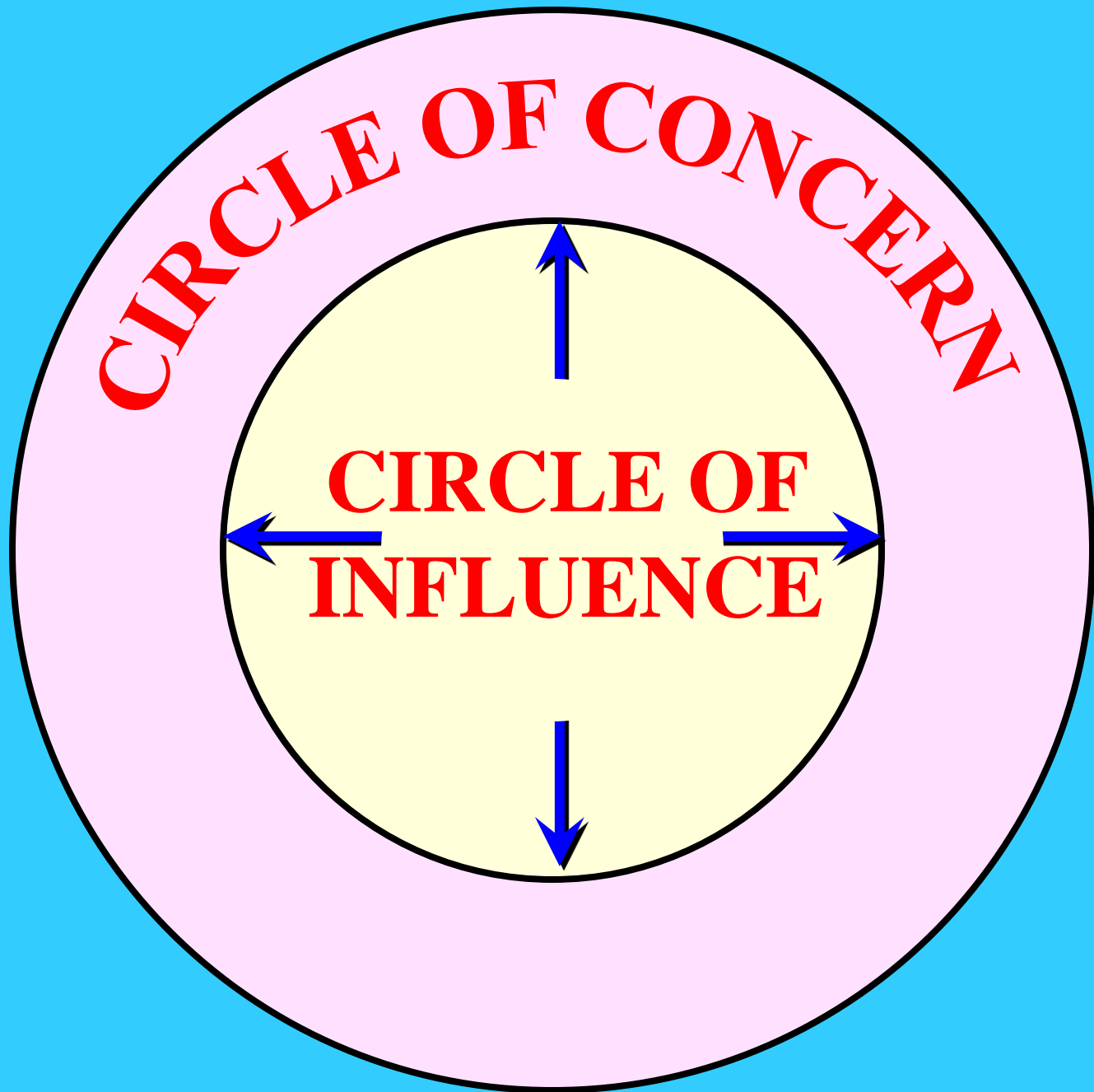
- planning (i.e site planning)
- legal measures (i.e : construction codes)
- infrastructure works (i.e: dams, retrofitting,...), etc.



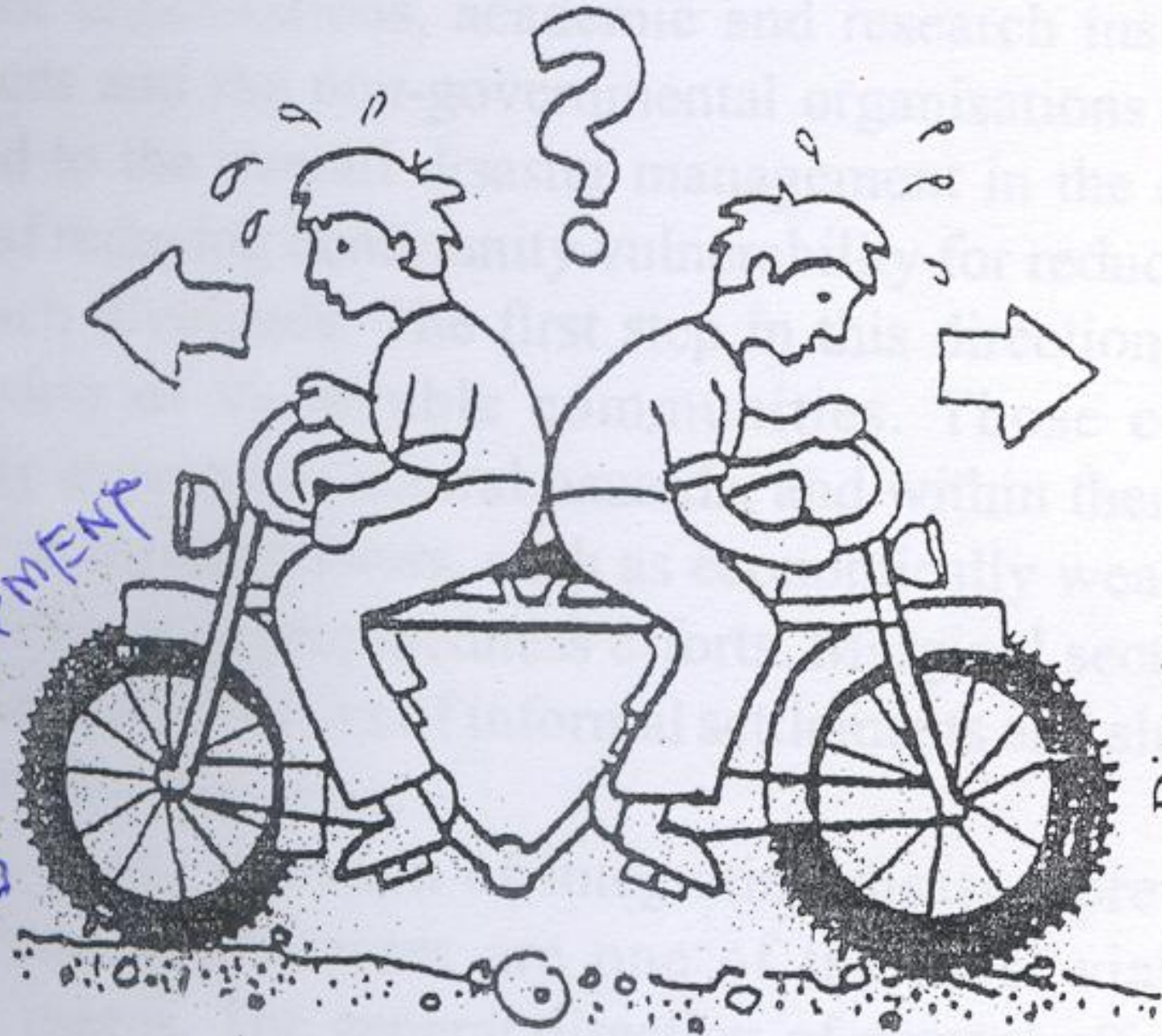


**CIRCLE OF CONCERN**

**CIRCLE OF  
INFLUENCE**



DEVELOPMENTS



Disaster  
Management