Workshop on "Emerging Disaster Risks and Innovative Solutions"

Disaster Risks and Management Strategies

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Agenda

9.00 – 9.05	–	Welcome speech by Dr. UL Abdul Majeed, Dean, Faculty of Technology, SEUSL
9.05 – 9.15	-	Opening Remarks by Prof. A. Rameez, Vice Chancellor, SEUSL
9.15 – 9.25	-	Speech by Director General, Disaster Management Centre
9.25 – 9.35	-	Speech by District Secretary, Ampara District Secretariat
9.35 – 9.45	-	Session #1: Disaster Risks and Management Strategies by Dr. A.M. Aslam Saja
9.45 – 9.55	-	Session #2: Drought and Food Security by Dr. A.N.M. Mubarak
9.55 – 10.00	-	Question and Answer session
10.00 – 10.10	-	Session #3: Flood Risks by Dr. M.G. Mohamed Thariq
10.10 – 10.05	-	Question and Answer session
10.05 – 10.15	-	Session #4: Coastal Erosion by Mr. M.L. Fowzul Ameer
10.15 – 10.20	-	Question and Answer session
10.20 – 10.30	-	Session #5: Human Elephant Conflict by Prof. M.I.M. Kaleel
10.30 – 10.35	-	Question and Answer session
10.35 – 11.15	-	Group Discussion
11.15 – 11.40	-	Summary of sessions and way forward
11.40 – 11.50	-	Closing Remarks by Dr. A.M. Aslam Saja
11.50 – 12.00	-	Vote of Thanks by Mr. Riyas, DDMC

Disaster Risks and Management Strategies

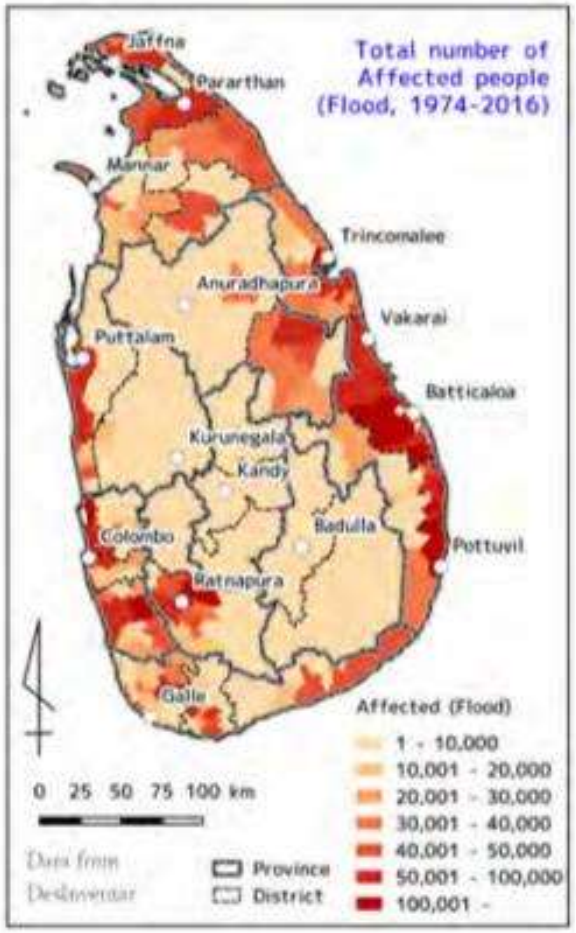
Reducing the vulnerability and increasing the resilience are the key DRR strategies

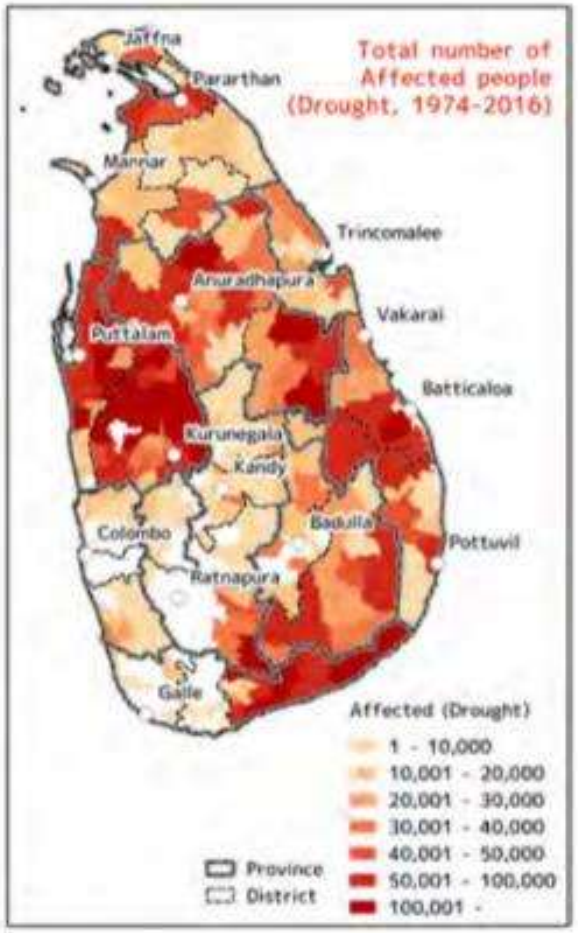
Eco-system based, technology based, school based and community based approaches

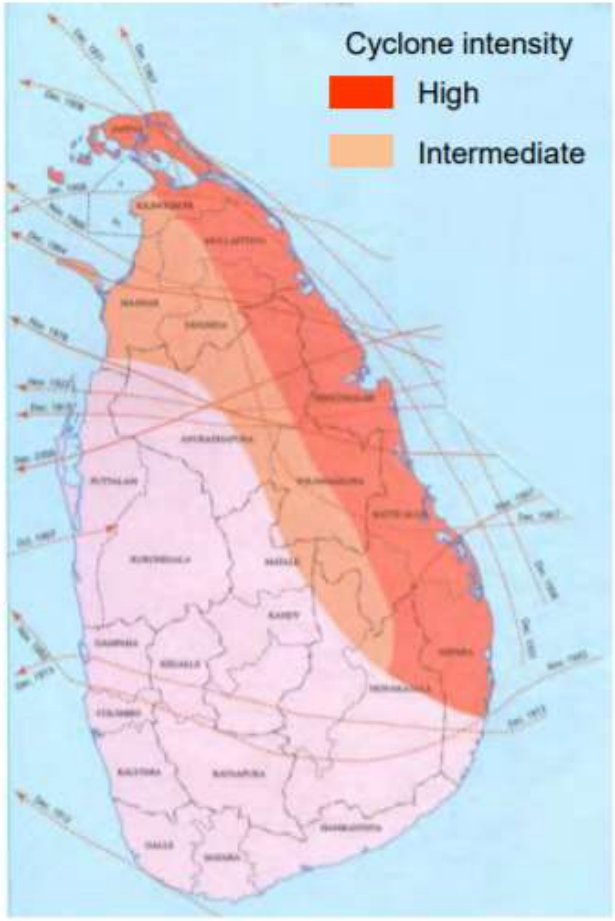
Prevention ---- Mitigation ---- Response Preparedness ----- Recovery

Disaster Risks

Flood & Drought + Cyclone /Tsunami







Ampara District

Disaster Risks

Flood & Drought + Cyclone /Tsunami

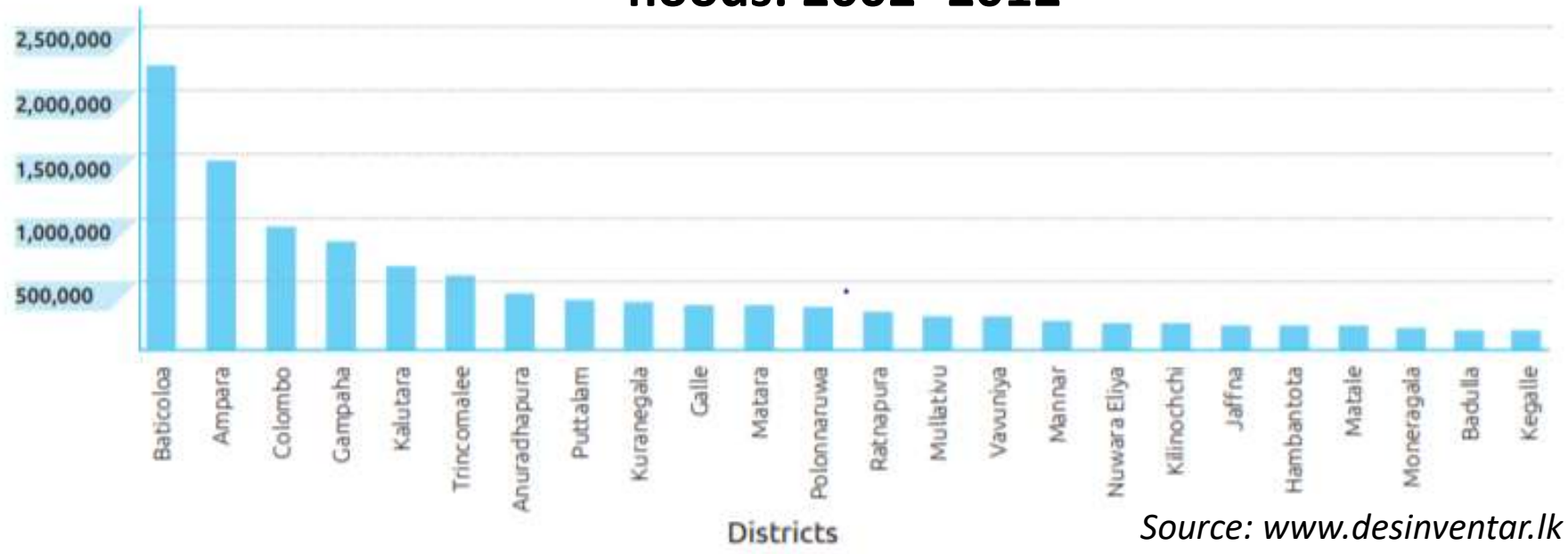
Sri Lanka:

17% of the population – Extreme climate hotspots

73% - moderate climate hotspots

(World Bank, 2018)

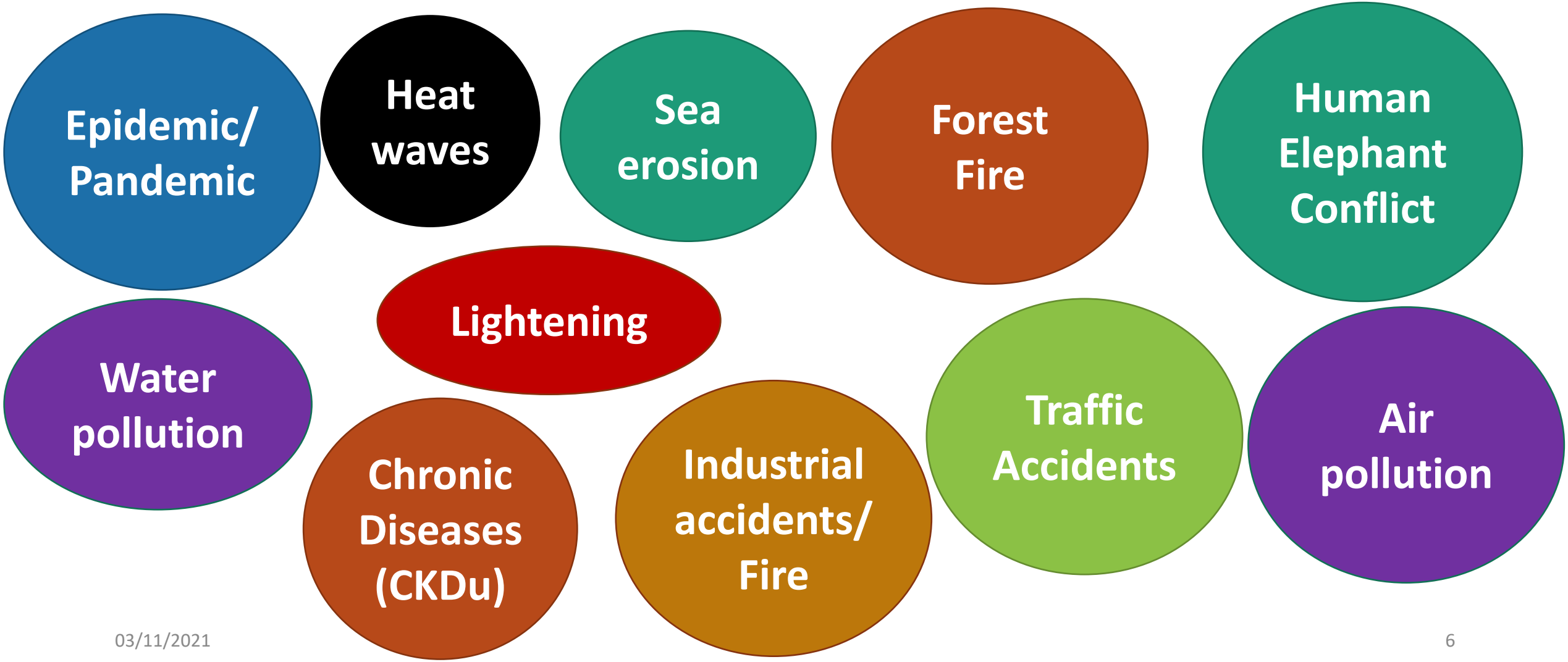
Cumulative number of people affected by floods: 2002 -2012



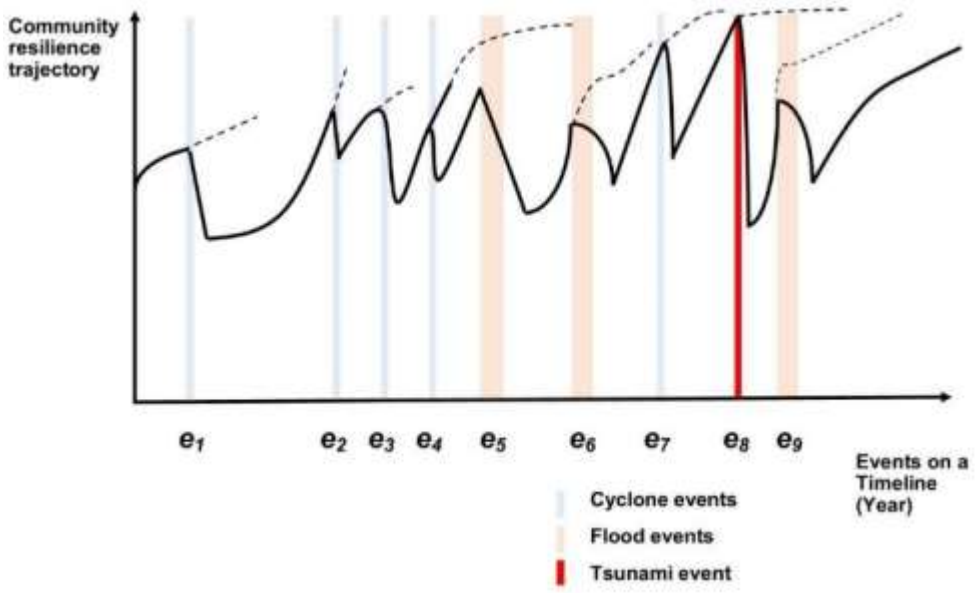
Source: www.desinventar.lk

Ampara District

Other risks to human lives/properties

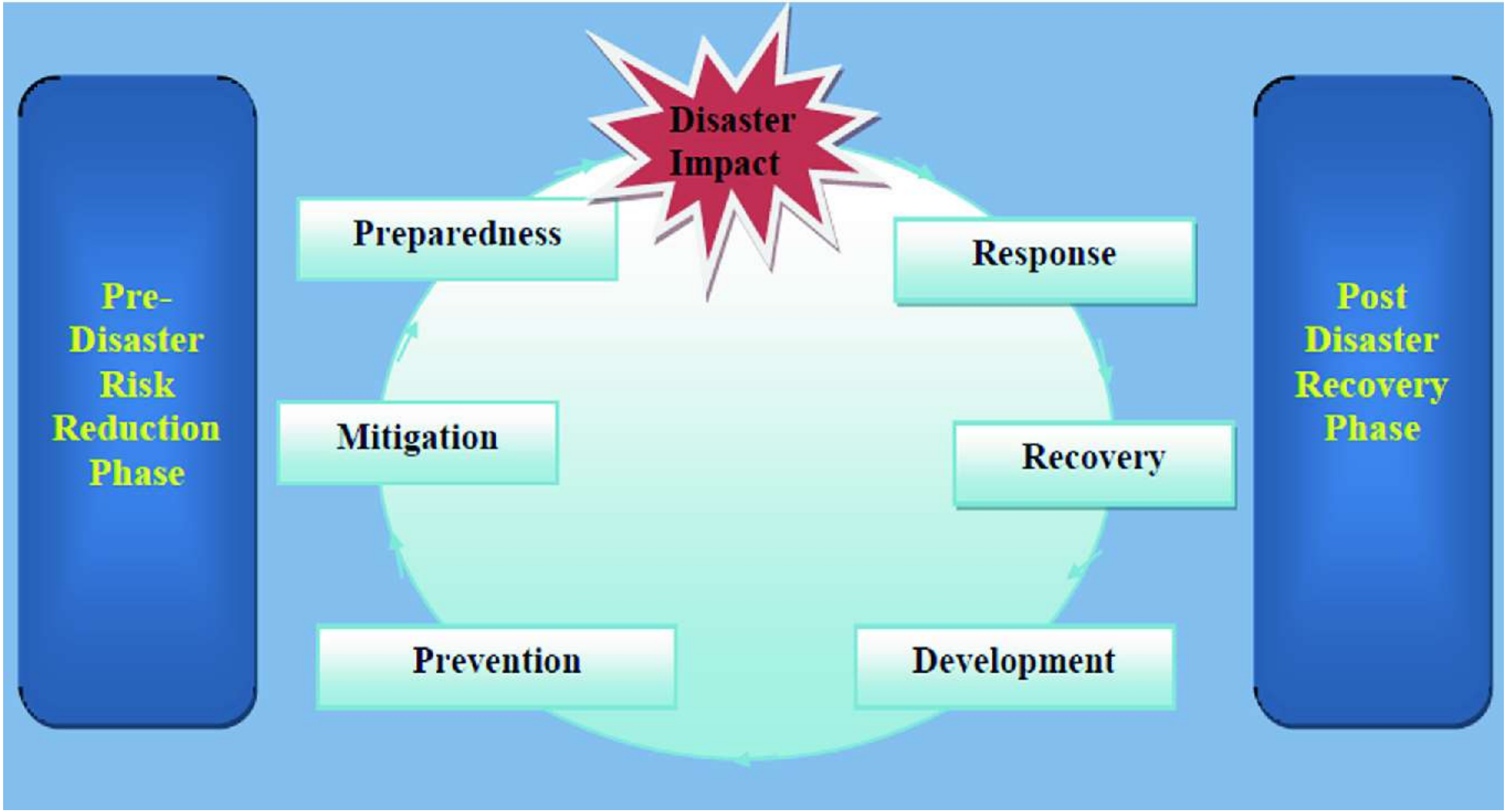


Disaster History – South Eastern Sri Lanka



Disaster	Disaster Event (Year/Date)	Description about the Disaster
Cyclone	1845	No historical records found.
	1891	Called “mini cyclone.” No other records available.
	9 March 1907	Called “major cyclone,” between midnight and 7 a.m. in the morning.
	1921	Mini cyclone.
	23 November 1978	Major cyclone, many houses were partially damaged and severe loss of livestock were reported.
Flood	1933	Flooding due to rain over the four-month period.
	December 1957	Major flood and severe damage to many infrastructures.
	2010 (During December/January)	Minor flood due to heavy rain in the residential areas, major damage to paddy fields.
Tsunami	26 December 2004	The worst disaster in the history of Sri Lanka
Other	1935 famine	Due to no rain for more than six months, all paddy fields were abandoned leading to large scale famine.
	1917 epidemic	Later in 1940, 1970, 1980, and 2006 many different infectious diseases were reported.
	2020-21 COVID19 pandemic	COVID19 infectious disease started spreading in 2021 and had three severe waves

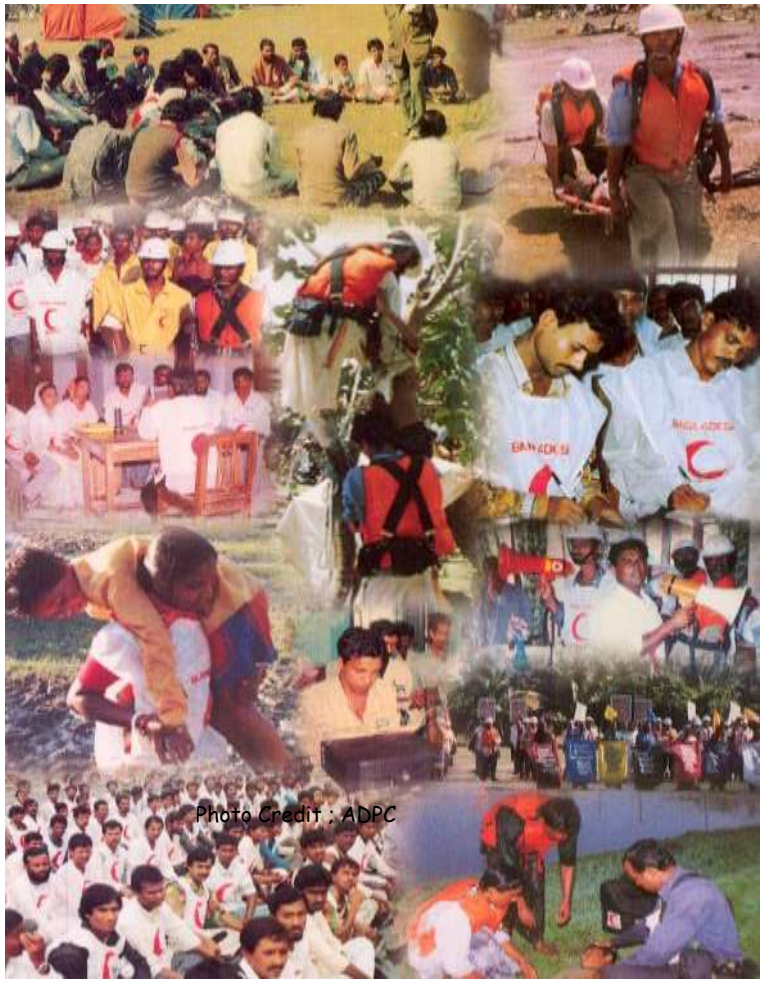
Saja et al. (2021)


Pre-
Disaster
Risk
Reduction
Phase
Disaster
Impact
Preparedness
Response
Mitigation
Recovery
Prevention
Development
Post
Disaster
Recovery
Phase

Vulnerability

Resilience

Aims of Disaster Risk Reduction



A broad range of activities designed to:

- Prevent the loss of lives
- Minimize human suffering
- Inform the public and authorities of risk
- Minimize property damage and economic loss
- Speed up the recovery process

Prevention –Mitigation -Preparedness

Approaches to Disaster Risk Reduction (DRR)

Technology-based Disaster Risk Reduction

Ecosystem-based Disaster Risk Reduction

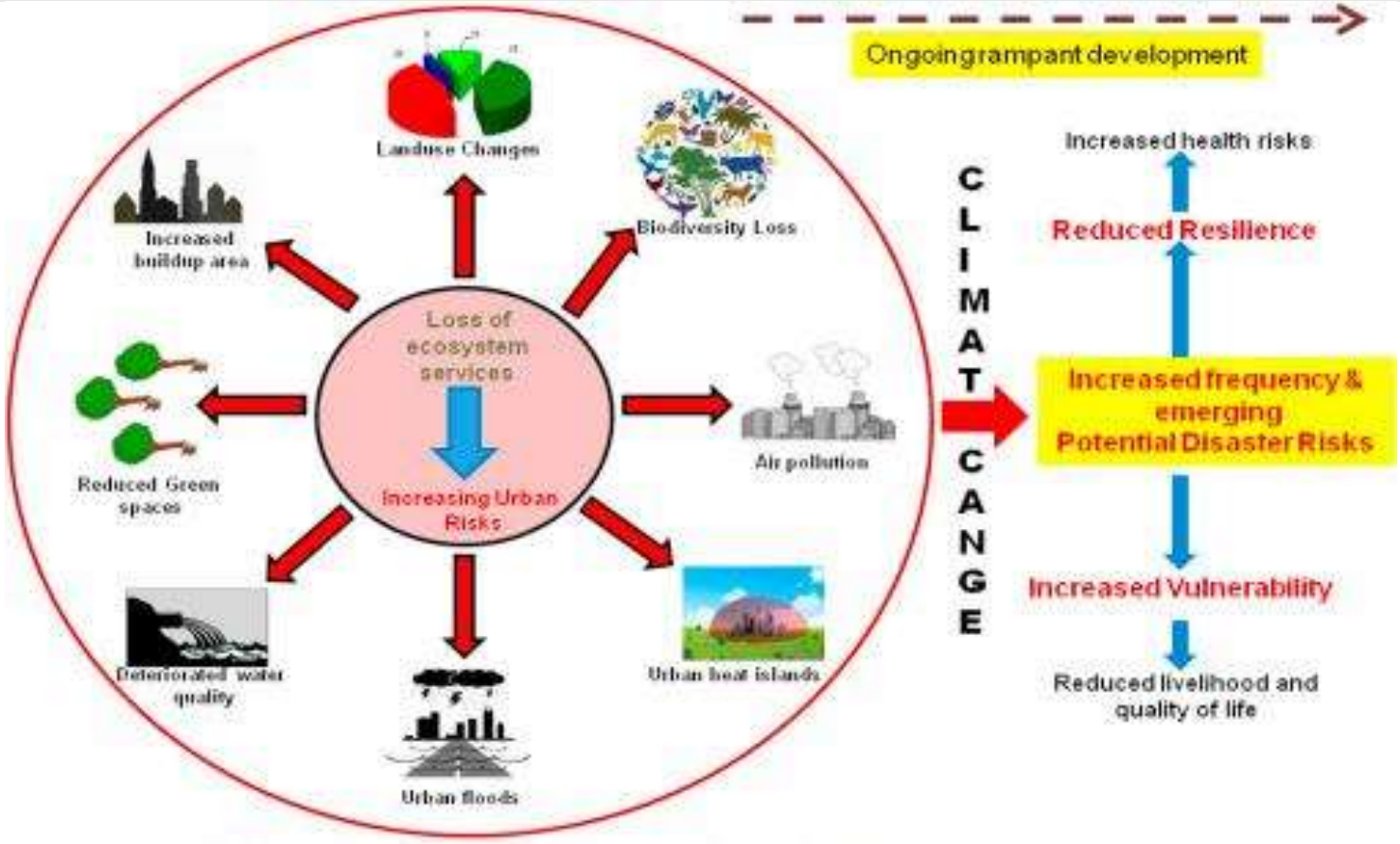
School-based DRR & Child-Led DRR

Community-based Disaster Risk Reduction

Risk-Sensitive Development

Ecosystem-based Disaster Risk Reduction

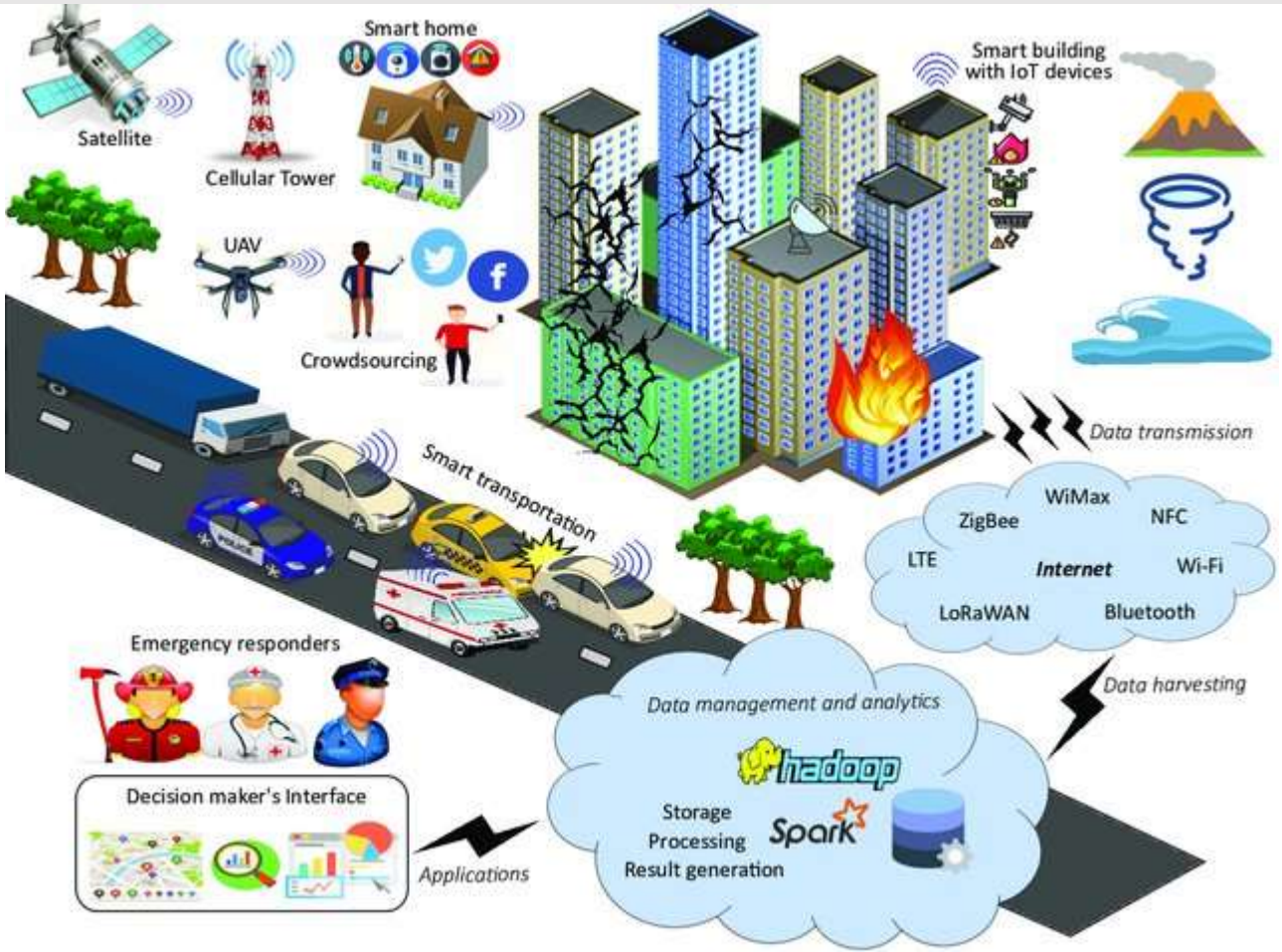
Sustainable management, conservation and restoration of ecosystems to mitigate disaster risks, aims to accomplish sustainable and risk-sensitive development

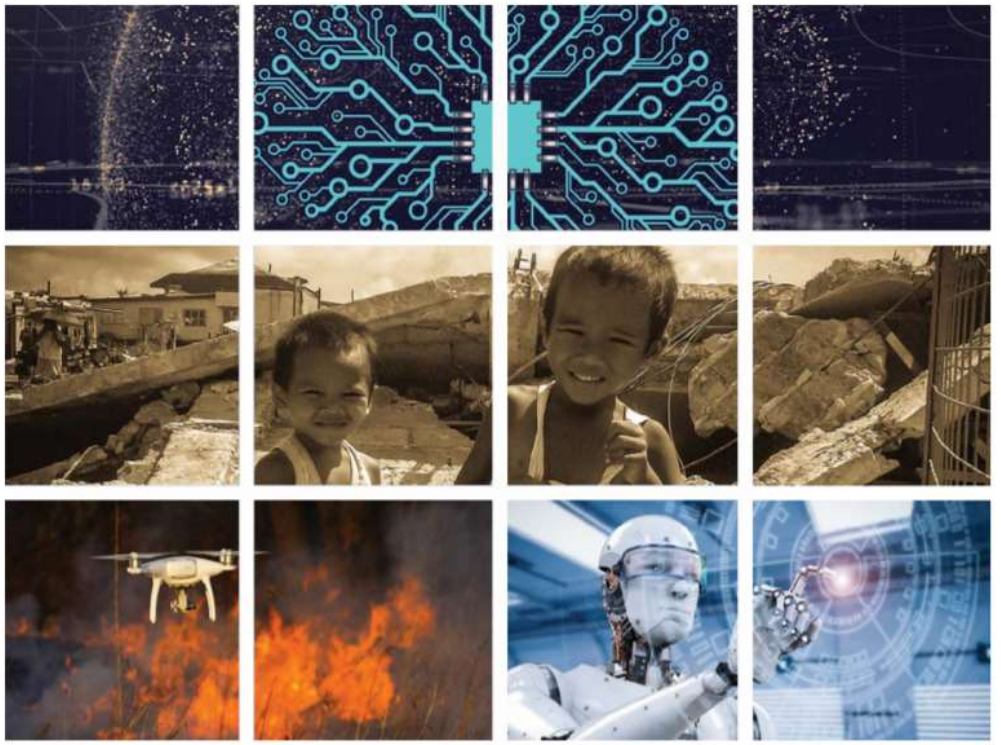


Estrella & Saalismaa, (2013)

Technology-based Disaster Risk Reduction

Science, Technology, and Innovation for disaster and risk resilience through the use of for example, low-cost sensors and application of Artificial Intelligence and advanced ICTs infrastructure

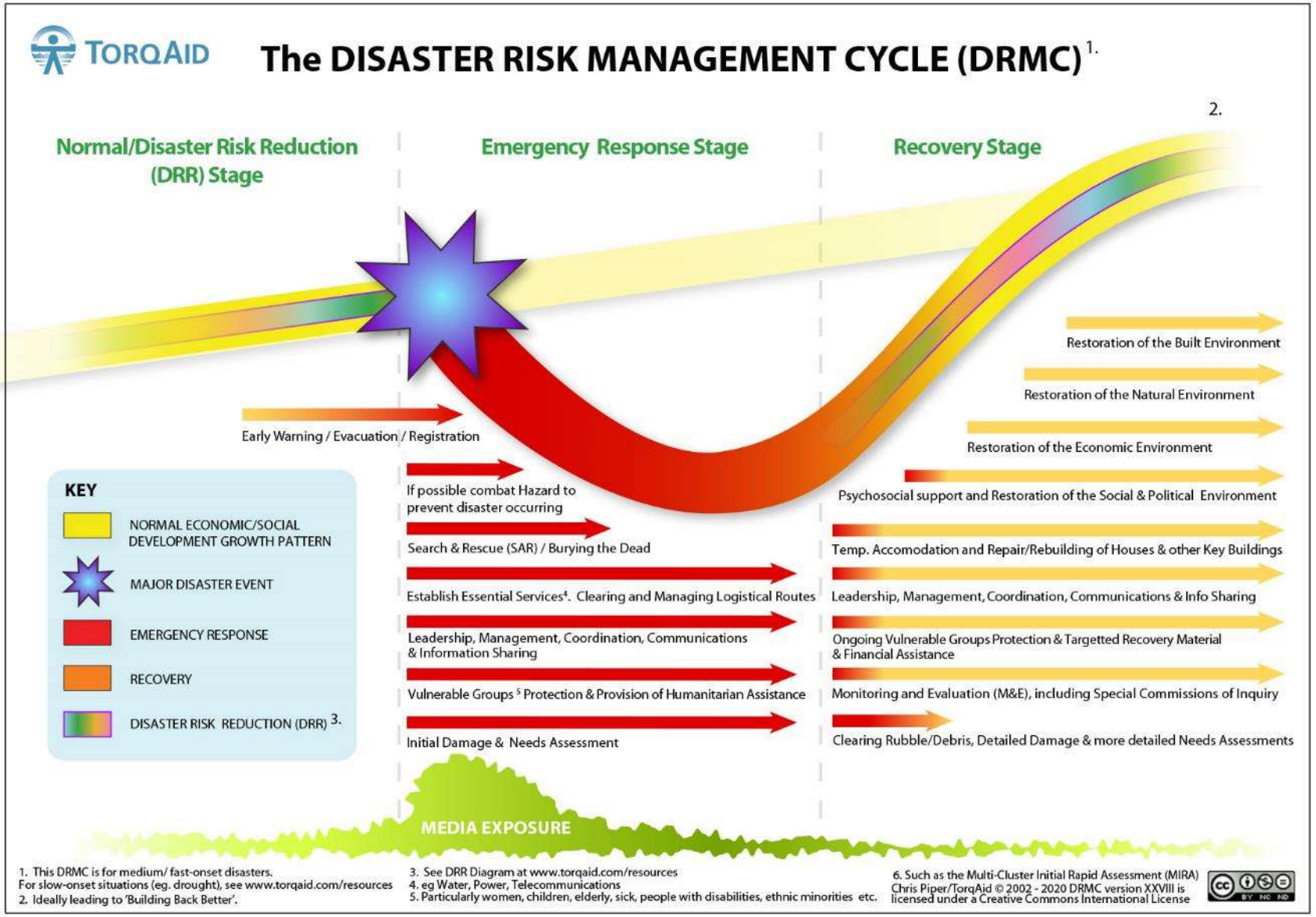




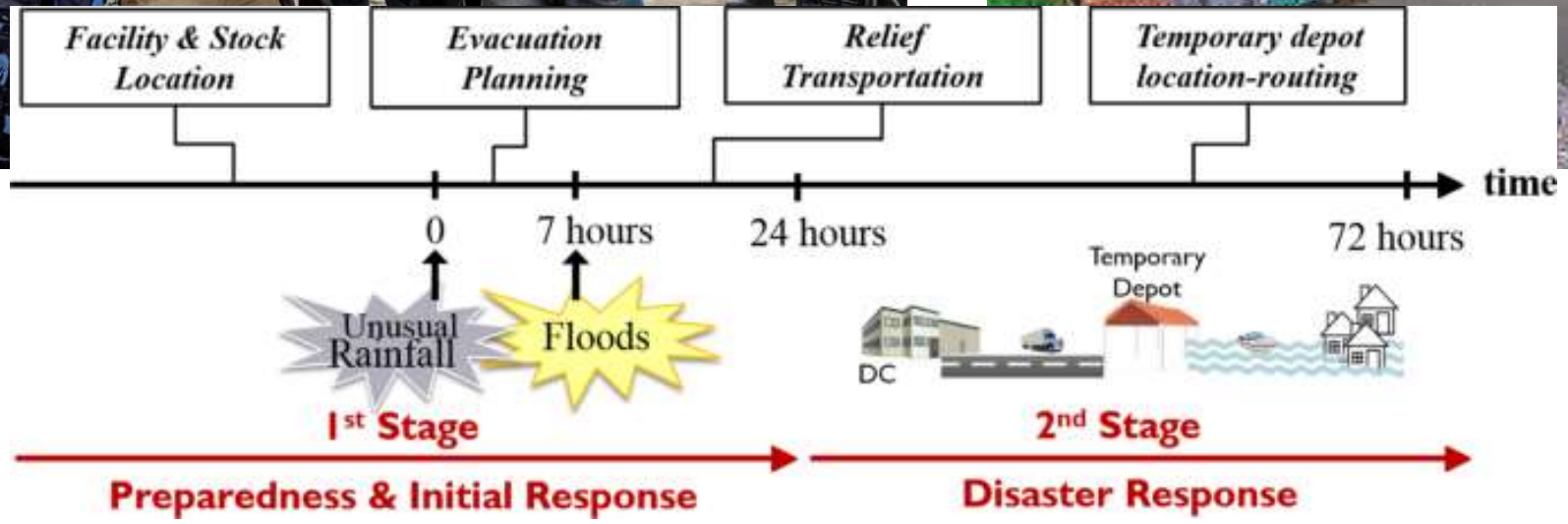
Source: ITU (2019)


DRR Project Cycle
1. Preparations & Sensitization (Org & Community Level)
2. Com based Risk Assessment / Research
3. Organizational Development & Cap Bldg
4. Shared Visioning & Risk Reduction Planning
5. Implementation & Monitoring Progress
6. Networking / Sustaining/ Reinforcing/Re-planning

Disaster Phases



Disaster Response Preparedness



In crisis situations

In complex emergency scenario

Disaster Risks and Management Strategies

Reducing the vulnerability and increasing the resilience are the key DRR strategies

Eco-system based, technology based, school based and community based approaches

Prevention ---- Mitigation ---- Response Preparedness ----- Recovery

Flood
Drought
Sea Erosion
Human-Elephant Conflict

Innovative ideas for reducing the vulnerability and increasing the resilience

Eco-system based, technology based, school based and community based approaches

Mitigation ---- Response Preparedness

Flood
Drought
Sea Erosion
Human-Elephant Conflict

Eco-system based

Technology based

School based

Community based

Innovative ideas for reducing the vulnerability and increasing the resilience

[Mitigation/Preparedness Measures]

Coordination
Collaboration
Complementary
Community Service

Live, Love, Learn, Lead,& Leave a Legacy
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team resilience

EMERGENCIES DO HAPPEN.

#DRR #OnlyTogether