

# **FAO's strategy and response to Natural Disasters affecting the fisheries and aquaculture**

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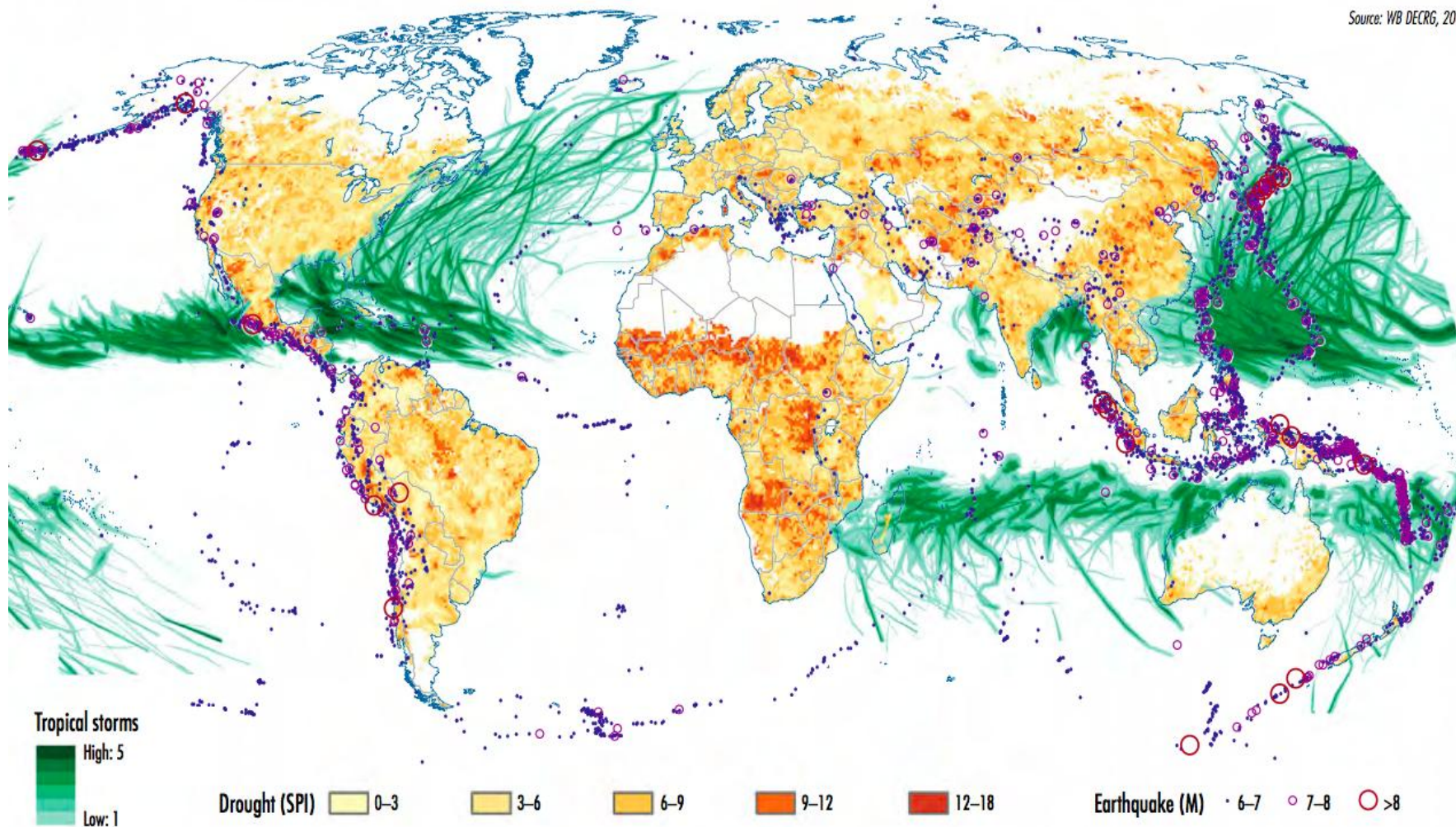
***“Future vision on human being and the sea after  
the restoration from earthquake disasters”***

**University of Tokyo. Japan, 14-15 May**



# Global pattern of natural hazards

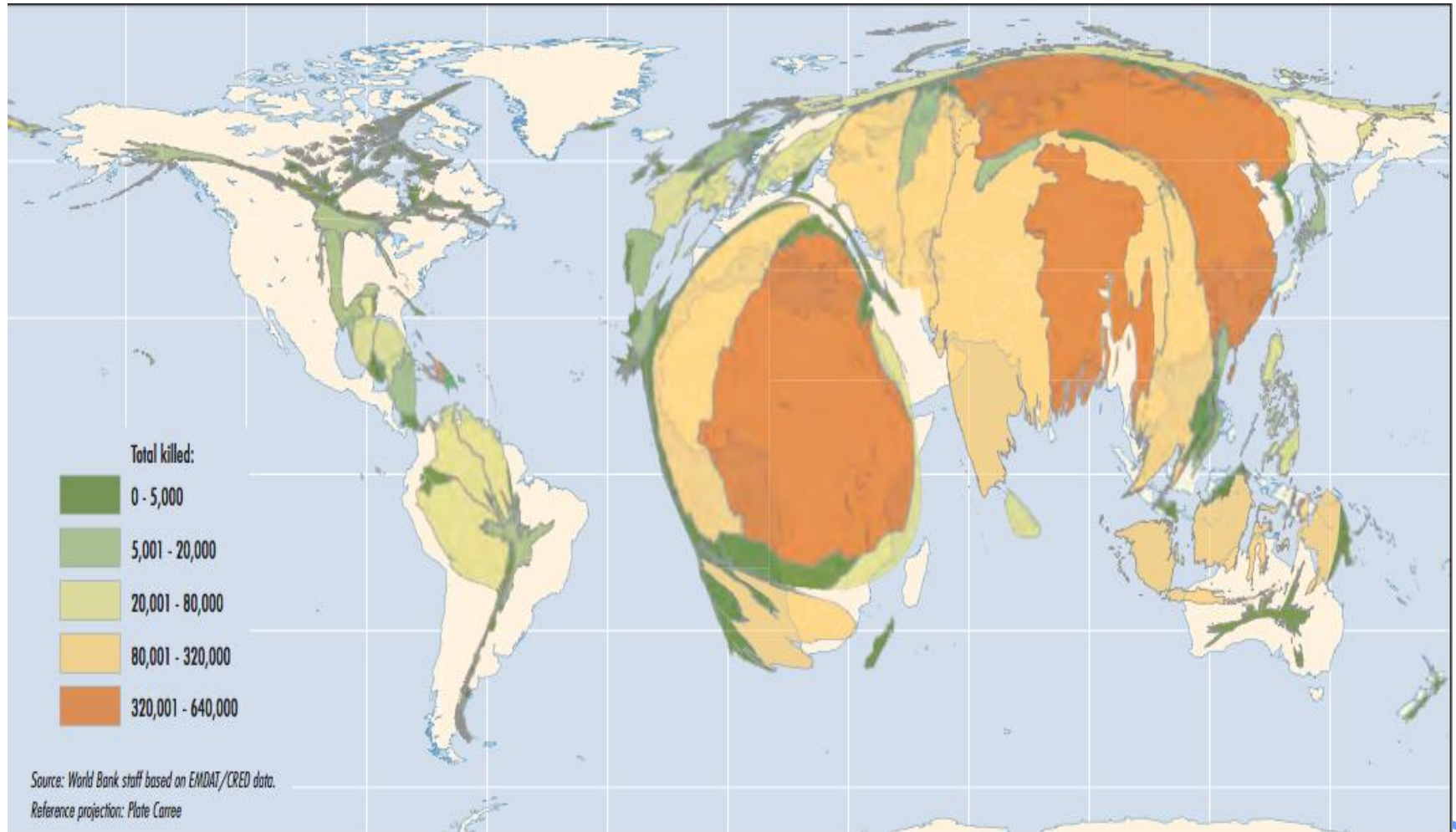
Source: WB DECRG, 2009



The World Bank and The United Nations (2010)



# Cumulative deaths from all types of disasters 1970-2010



The World Bank and The United Nations (2010)



# Types of disasters affecting fisheries and aquaculture

- **Natural disasters such as storms, cyclones/hurricanes with associated flooding and tidal surges; tsunamis, earthquakes, droughts, floods and landslides**
- **Man made disasters such as oil and chemical spills and nuclear/radiological material**
- **Food and nutrition security, post conflict and protracted crises, HIV/AIDS**
- **Transboundary aquatic animal diseases (TAAD) and pest outbreaks**



# Vulnerability of the sector

- **Fishers, fish farmers and the communities they live in tend to be particularly vulnerable to the impacts of disasters**
- **The location and characteristics of their livelihood activities add to their high level of exposure to hazards, livelihood shocks and climate change impacts**
- **The economic and social impact of these disasters has been increasing with disproportionate effects on developing countries and the poor**



# Impact on the sector

- In addition to the tragic loss of life, the effects of disasters on the fisheries sector can be:
  1. the loss of livelihood assets such as boats, gear, cages, aquaculture ponds and broodstock, post harvest and processing facilities and landing sites
  2. social and economical impacts throughout and well beyond the sector, including loss of employment, reduced food availability



# FAO disaster response projects that included FI interventions, 1995-2011\*

- **A total of 167 projects in 59 countries**
- **Cumulative budget of USD 213 million**
  1. **Cumulative FI budget approx. USD 75 million**
- **Cumulative direct beneficiaries approx. 1.5 million**
  1. **Cumulative FI direct beneficiaries approx. 330,000 persons/HHs**

\* includes two projects that started before 1995 (1993 and 1994)



# FAO emergency projects

Group	# of projects	Comments
Complex Emergencies	57	includes post conflict, civil strife, food security
Tsunami	53	51 projects linked to the 2004 Indian Ocean tsunami
Tropical Storms	38	i.e. cyclone, hurricane or typhoon
Floods	10	
Earthquakes	6	
Fish disease	3	Belongs to FAO emergency type “transboundary pests and diseases





# Types and frequency of FI disaster response interventions

Frequency	Type of interventions
High ( $\geq 50$ )	<ul style="list-style-type: none"><li>• Food/Nutrition Security,</li><li>• Livelihoods Support,</li><li>• Provision of fishing Gear</li></ul>
Medium (20 – 50)	<ul style="list-style-type: none"><li>• Needs Assessment,</li><li>• provision/repair of fishing vessels</li><li>• Post Harvest/Marketing/Distribution</li></ul>
Low (Less than 20)	<ul style="list-style-type: none"><li>• Capacity Support,</li><li>• Skills/Training</li><li>• Coordination/Policy/Planning/M&amp;E,</li><li>• Aquaculture</li><li>• Fisheries Management,</li><li>• Safety at Sea</li></ul>



**Coordination and Technical  
Support Unit to Tsunami  
Rehabilitation and Reconstruction  
in Fisheries and Aquaculture  
(GCP/INT/984/MUL): Funded by  
Sweden (SIDA)**

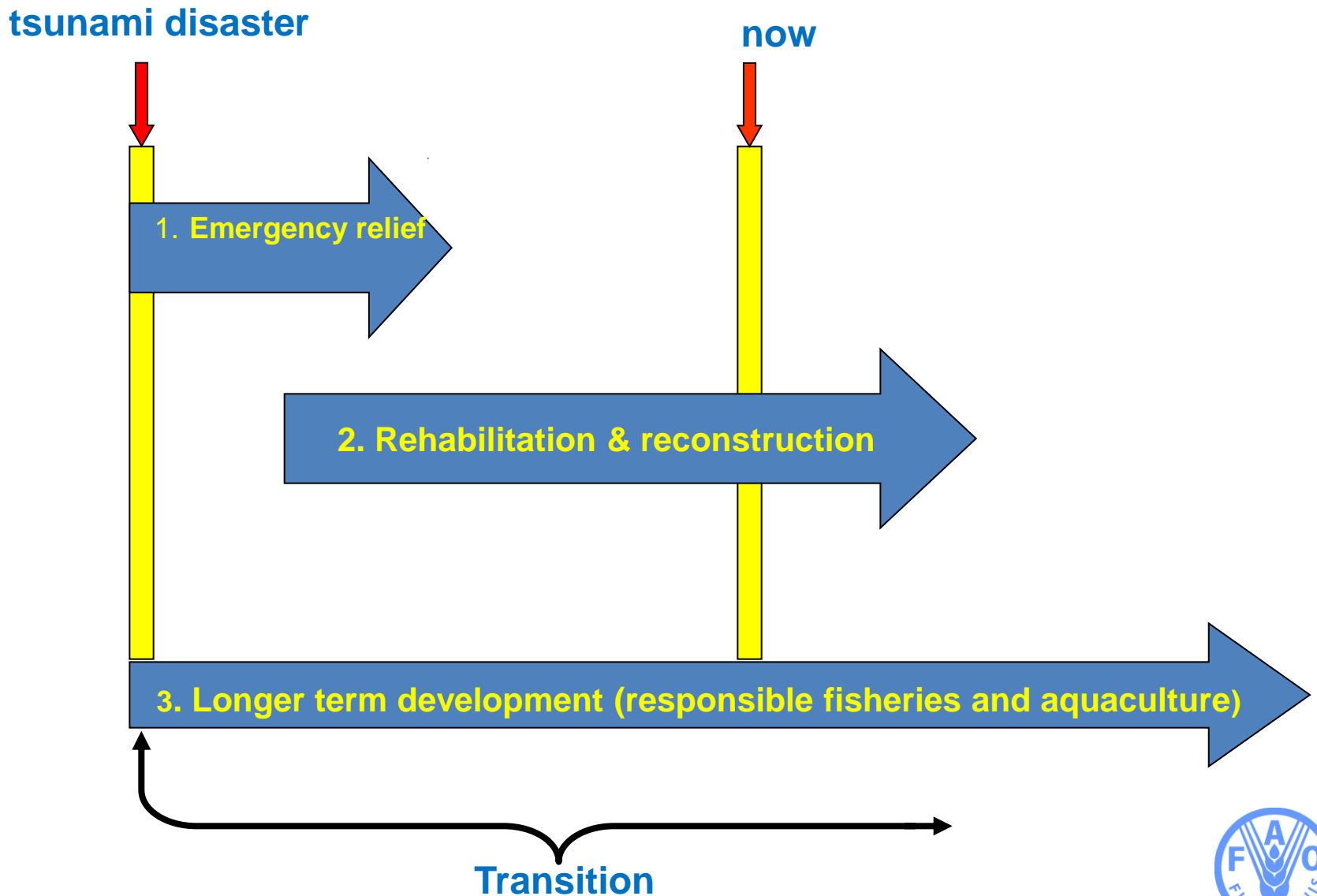


# CTSU Objectives

- To ensure that sound and coordinated sector-wide and long term rehabilitation and reconstruction programs are in place and related activities under implementation, covering all identified priority needs of the fisheries and aquaculture sector, in the earthquake and tsunami affected areas;
- To establish mechanisms for regional cooperation and coordination on the restoration of equitable fishery livelihoods based on sustainable resource use



# Phases of post tsunami response



# CTSU context – the fisheries

- **Before the tsunami, the fisheries of affected countries were considered to have :**
  - weak fisheries management
  - been in decline (prior to the tsunami)
  - overcapacity
  - vulnerability (social, economic)
  
- **Significant risk that the emergency relief efforts would negatively impact the fishery (more and better boats, mechanisation, new gear, new entrants to the fishery), long term damage to livelihoods**
  - the tsunami has resulted in major changes to the affected fisheries.



## Two streams of assistance

- Assistance with developing short to medium term strategies and programs for reconstruction and rehabilitation of fisheries and aquaculture (this is mostly aligned to emergency relief)
- Assistance with developing and revising long term policies and programs for sustainable use of fisheries (this is aligned to the normal program of the Fisheries Department).
  - Requires the integration of reconstruction and rehabilitation strategies with longer term policy programs



# Climate change

The susceptibility of fishers, fish farmers and their communities to rapid-onset disasters is also being affected by climate change

- Extreme weather events (storms affecting fishing operations),
- Coastal flooding, sea level rise, saline incursion (affecting agriculture and fisheries production)
- Increased rain (erosion of riparian lands and leading to greater sedimentation in coastal areas affecting seas grass and reef production.
- Species distributions changing (increased temperatures are likely to adversely affect coral reefs with greater incidences of coral bleaching occurring).



# Climate change (cont'd)

- Increased ambient air temperatures could have very significant effects on the types of fish that can be cultured.
- Changes in weather patterns will affect traditional fish processing methods
- There are also likely to be changes in access roads to markets where unusual flooding or heavy rains appear.
- Negative and positive effects





# Frameworks of relevance for fisheries emergencies

- **Hyogo Framework for Action (2005)**
- **FAO Code of Conduct for Responsible Fisheries**
- **FAO Disaster Response Management DRM Framework Programme (2011) (e.g: Myanmar DRM strategy)**
- **FAO Small Scale Fisheries guidelines**

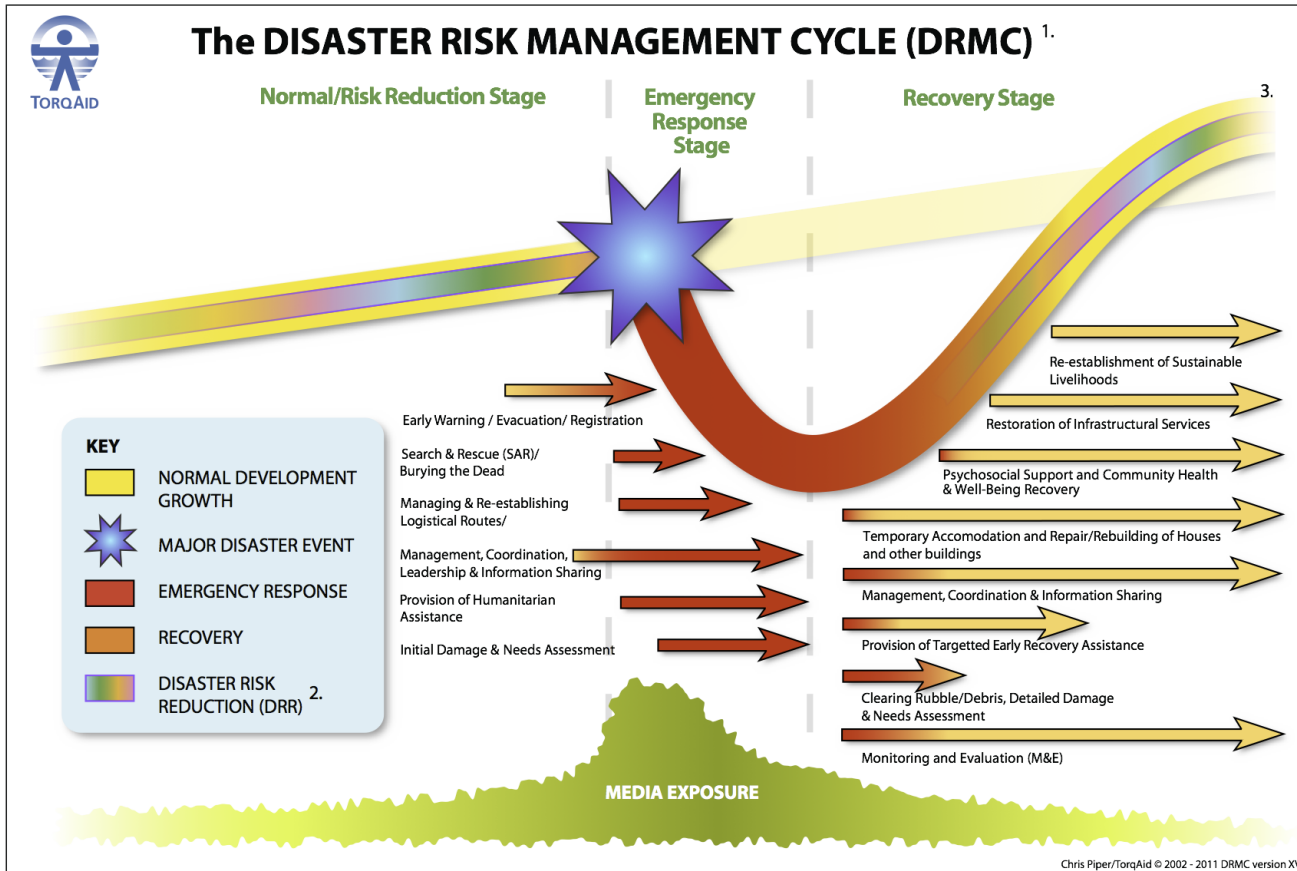


# Disaster Risk Management (DRM) and fisheries and aquaculture

- Managing the effects of hazards and disasters (disaster risk management, DRM) goes beyond preparedness, prevention and mitigation to incorporate emergency response, recovery and rehabilitation within a management framework
- DRM involves three distinct phases:
  - Reducing vulnerability,
  - responding to emergencies when they arise, and
  - rehabilitating communities after the emergency has passed.



# The Disaster Risk Management Cycle



<sup>1</sup>This mainly applies to a relatively quick-onset disaster (such as Cyclone, Flood, Earthquake, Tsunami, Bushfire etc), rather than a slow-onset one such as Famine (due to Drought/War)

<sup>2</sup>For details of this see the Disaster Risk Reduction (DRR) diagram <sup>3</sup>Ideally in the recovery stage the community is able to 'Build Back Better'



# Strategy and future focus for Fisheries and aquaculture department

- **Strengthening policy coherence and institutional structure to ensure explicit and adequate consideration of fisheries and aquaculture activities in disaster preparedness and climate change adaptation strategies**
- **Integrating an understanding of the increasing vulnerability of fishers, fish farmers and their communities to both extreme events and to climate change, and developing and incorporating comprehensive preparedness and response strategies, into fisheries and fish farming sector plans and wider development frameworks**
- **Building an increased understanding of the vulnerability of fishers, fish farmers and their communities into wider social, economic and environmental development plans.**



# Strategy and future focus for Fisheries and aquaculture department

- Working with communities, governments and civil society to help build their productive, coping and adaptive capacity and to ensure that the adaptive, coping and livelihood strategies of fishers, fish farmers and their communities are incorporated into wider disaster preparedness and response strategies
- Developing shared tools, guidance and approaches which combine DRM and CCA at a practical level and which link into fisheries and fish farming development strategies to increase the resilience of communities and of aquatic systems they depend on
- Building partnerships at global, regional, national and sub-national levels between international agencies, national agencies, local government, civil society and communities to learn lessons about, prepare for and respond to slow- and rapid-onset hazards in an integrated and informed way.



**شكراً!**

**谢谢!**

**Thank you!**

**Merci!**

**Gracias!**

**Спасибо**

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