

# Disaster Risk Management

When, Why & How

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3/12/12

‘The systematic process of using administrative directives, organizations, and operational skills and capacities to implement strategies, policies and improved coping capacities in order to lessen the adverse impacts of hazards and the possibility of disaster.’ ISDR

# Great East Japan Earthquake. March 11 9.0 Magnitude Earthquake. North-East Japan



15,853 Dead

6,023 Injured

3,282  
Missing.

(1 Year on)

# Structure of Session

11.40-  
12.20

- Definitions & Main Institutions
- Disaster Cycle
- Disaster risk reduction - Yokohama
  - HFA
  - Post-HFA
- Emergency Risk Management – Concepts
  - Application

12.20-  
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- Break

12.30-  
13.00

- Case Studies: Bangladesh 1970 - 2000
  - : Earthquake Scenario – 3 Stage

# Definitions

- **Disaster**

*A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.*

- **Resilience**

*The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.*

- **Hazard**

*A dangerous phenomenon, substance, human activity or condition that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage.*

- **Risk**

*The combination of the probability of an event and its negative consequences .*

# Notable Institutions

- Whenever there is a disaster or a humanitarian catastrophe, the UN is on the ground providing relief, support and assistance.
- The **World Food Programme** (WFP) and the **Food and Agriculture Organization** of the UN (FAO), make food available.
- The **Office of the UN High Commissioner for Refugees** (UNHCR) and the International Organization for Migration (IOM), camps and other facilities are set up and maintained for those who have been forced to leave their homes.
- Delivery of humanitarian aid whether provided by members of the UN system or humanitarian bodies eg **International Federation of Red Cross and Red Crescent Societies**.
- The **World Health Organization** (WHO) helps protect those displaced by natural and man-made disasters from the ravages of disease.

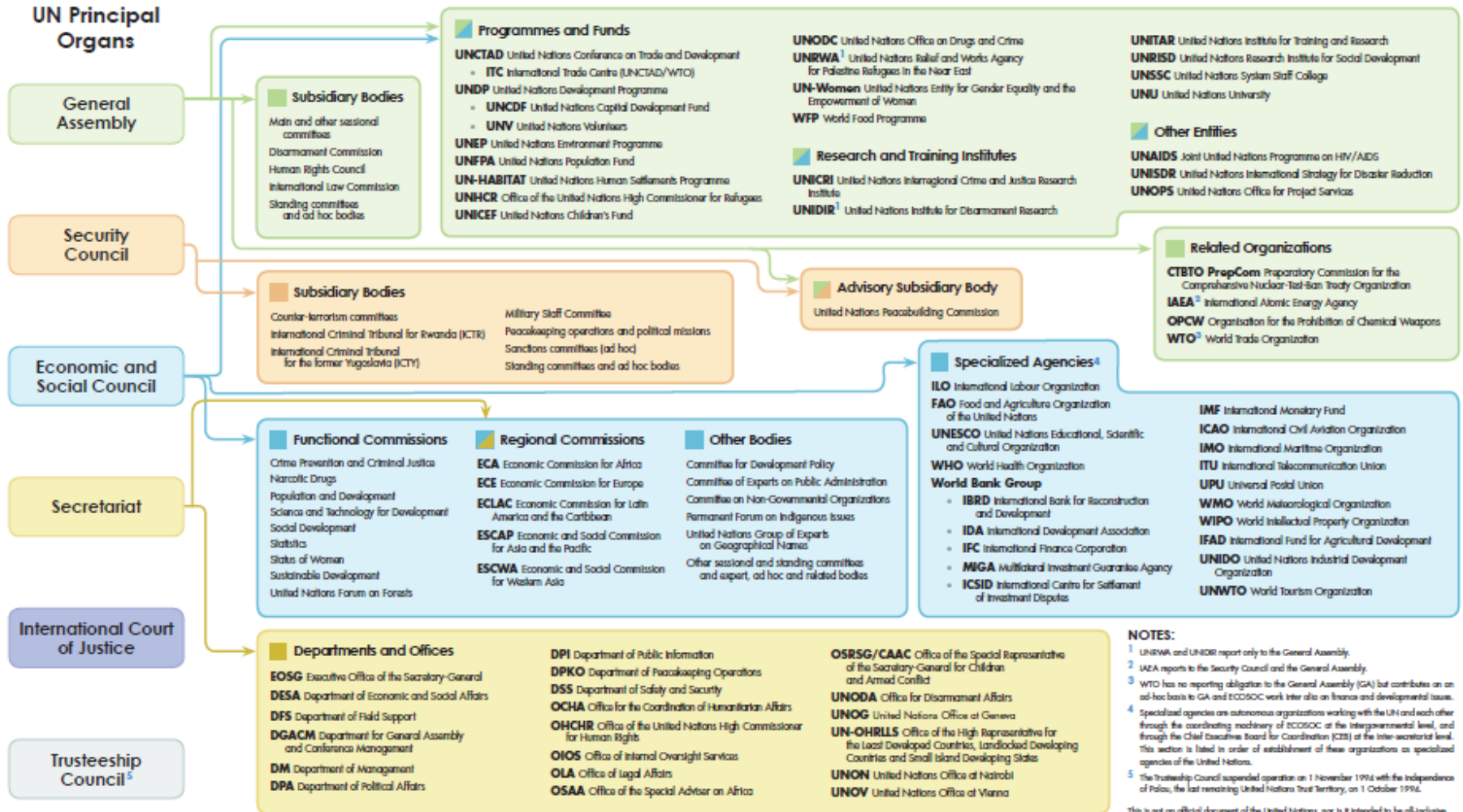
# Notable Institutions

- The **United Nations Children’s Fund** (UNICEF), with the aid of such bodies as the International Save the Children External Link Alliance, provides education for children who have been uprooted by calamity.
- The **United Nations Development Programme** (UNDP) is there to ensure that the recovery process has a firm and stable footing.
- The humanitarian and disaster-relief efforts of the UN system are overseen and facilitated by the **Office for the Coordination of Humanitarian Affairs** (OCHA), led by the United Nations Emergency Relief Coordinator.
- OCHA provides the latest information on emergencies worldwide, and launches international “consolidated appeals” to mobilize financing for the provision of emergency assistance in specific situations.



# The United Nations System

## UN Principal Organs



**NOTES:**

- UNRWA and UNHCR report only to the General Assembly.
- IAEA reports to the Security Council and the General Assembly.
- WTO has no reporting obligation to the General Assembly (GA) but contributes on an ad-hoc basis to GA and ECOSOC work inter alia on finance and developmental issues.
- Specialized agencies are autonomous organizations working with the UN and each other through the coordinating machinery of ECOSOC at the intergovernmental level, and through the Chief Executive Board for Coordination (CEB) at the inter-sectorial level. This section is listed in order of establishment of these organizations as specialized agencies of the United Nations.
- The Trusteeship Council suspended operation on 1 November 1994 with the independence of Palau, the last remaining United Nations Trust Territory, on 1 October 1994.

This is not an official document of the United Nations, nor is it intended to be all-inclusive.

# Don't forget the n/iNGO's

- MSF
- MERLIN
- ICRC, Red Cross/Crescent Movement
- International Medical Corps
- International rescue committee
- The list goes on.....



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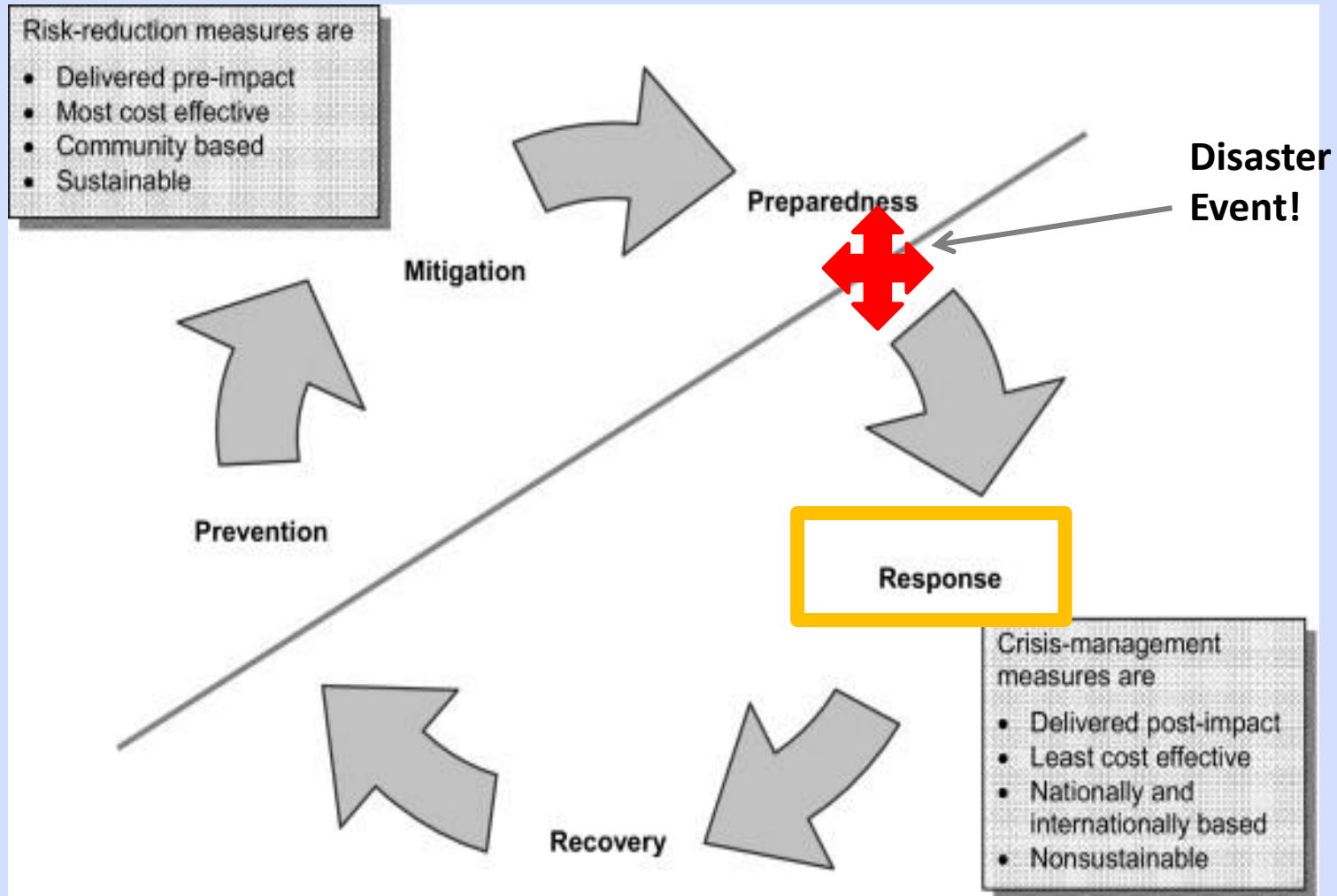
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# Disaster Cycle



# Response

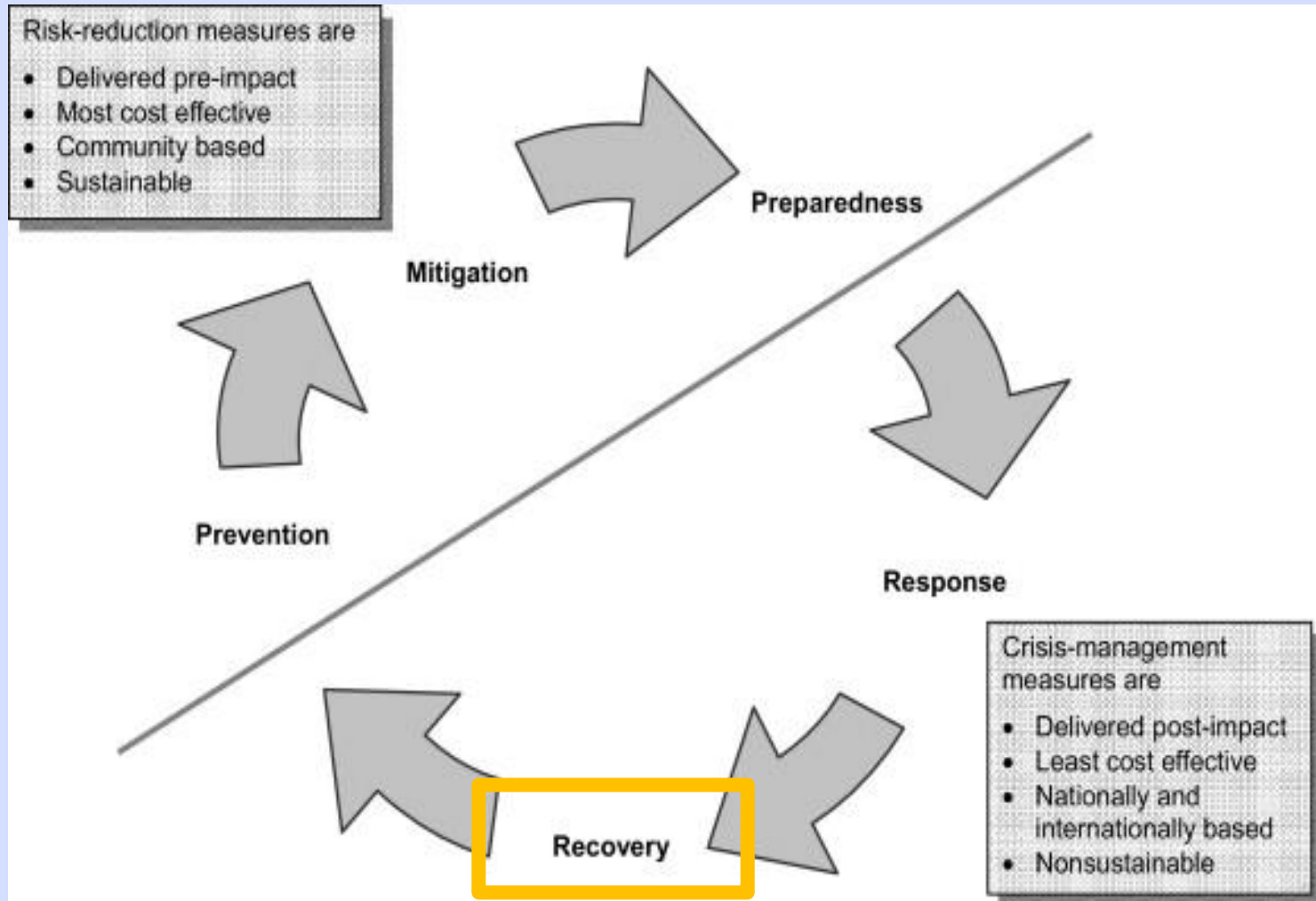
## Definition

- The provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

## Examples

- Disaster Medical Assistance Teams (DMATs) arriving at the disaster zone and assisting with relief efforts.
- Hospital surge, with increased bed capacity and staff
- Financial appeals
- Foreign medical team support

# Disaster Cycle



# Recovery

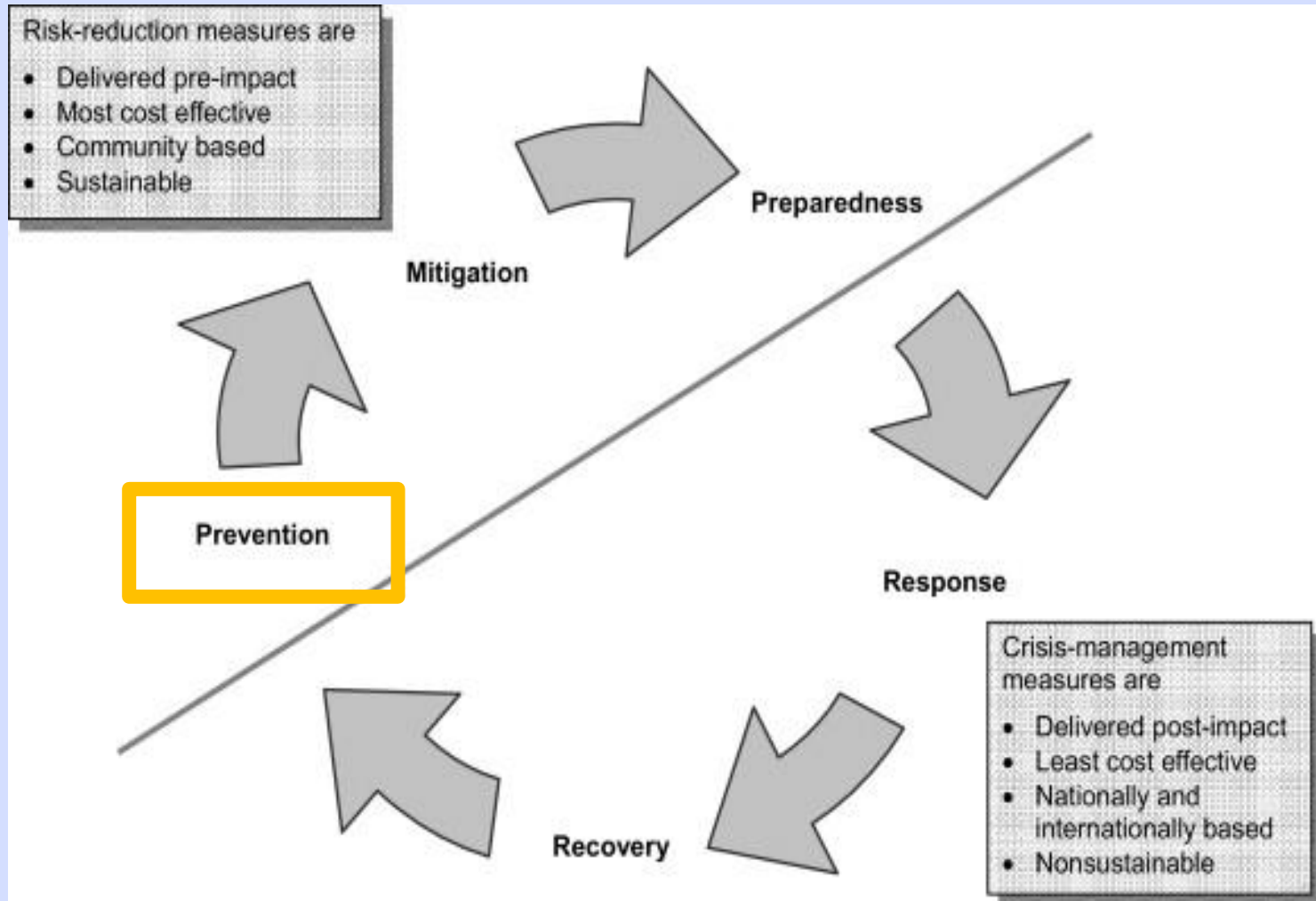
## Definition

- The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors.

## Examples

- Reconstruction of civil infrastructure
- Repair of damaged facilities (power, water etc)
- Resumption of societal activity (Schools open, people return to work).

# Disaster Cycle



# Prevention

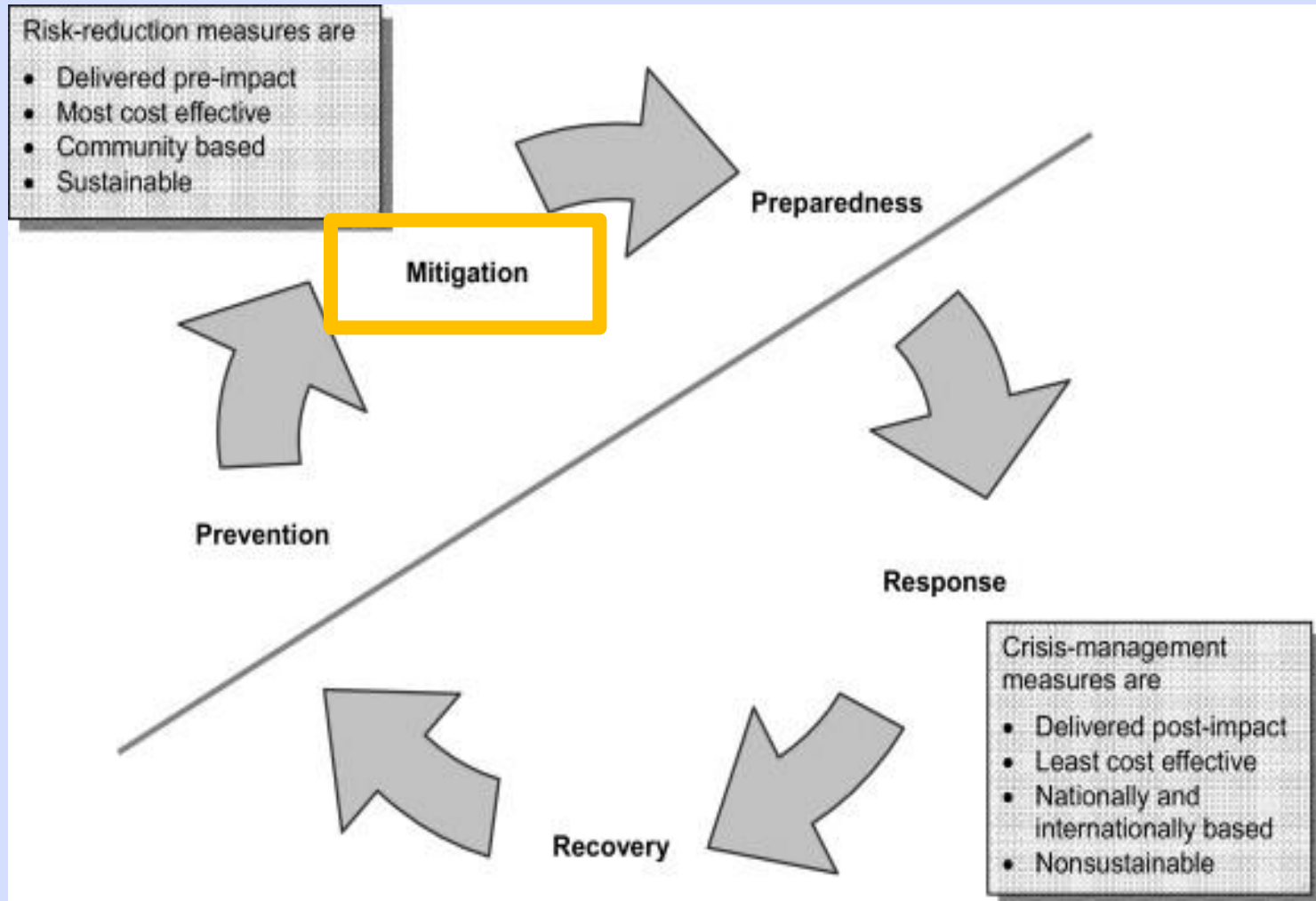
## Definition

- The outright avoidance of adverse impacts of hazards and related disasters.

## Examples

- Dams or embankments that eliminate flood risks
- Land-use regulations that do not permit any settlement in high risk zones
- Seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake

# Disaster Cycle





# Mitigation

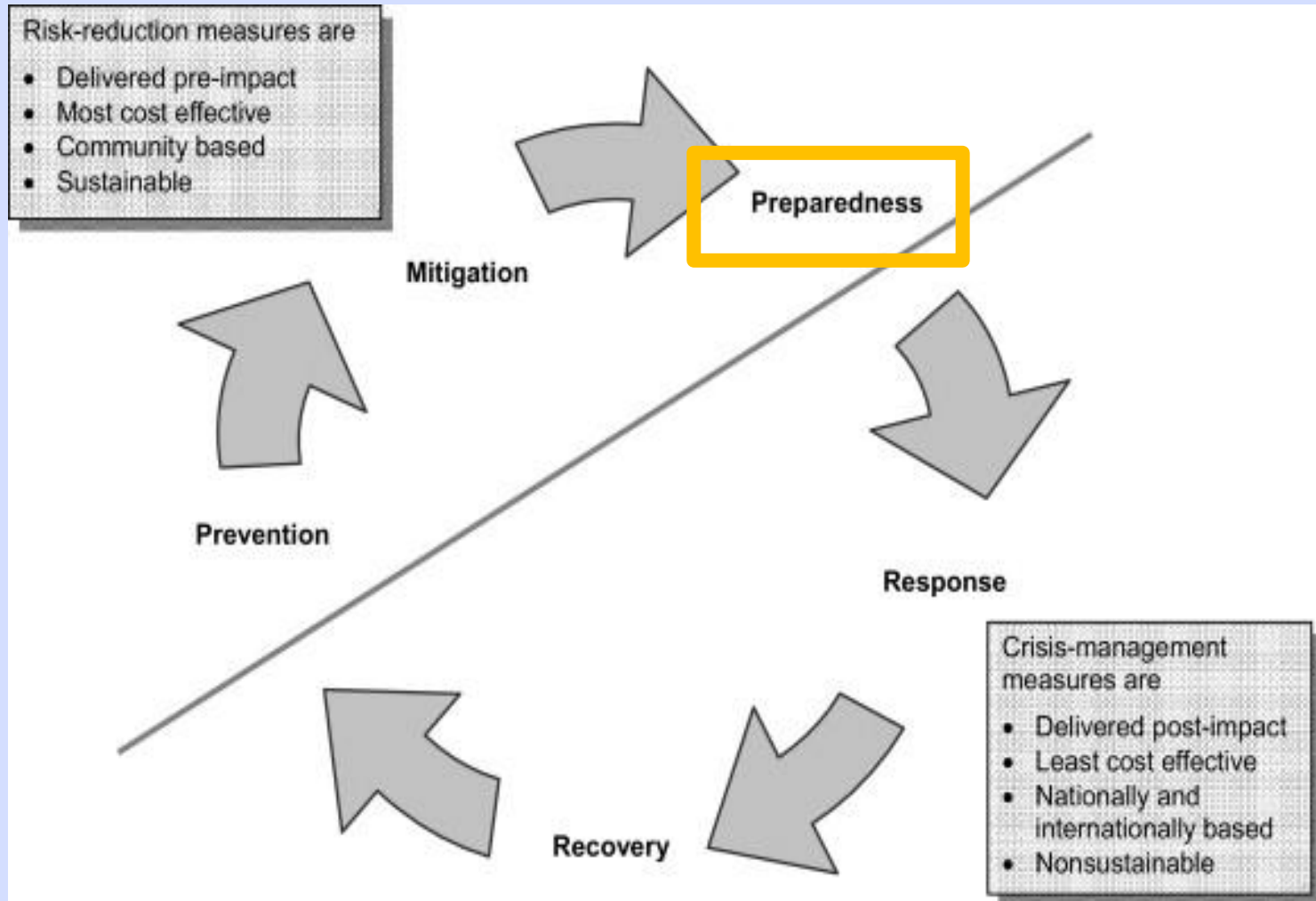
## Definition

- The lessening or limitation of the adverse impacts of hazards and related disasters.

## Examples

- Engineering techniques and hazard-resistant construction.
- Improved environmental policies and public awareness campaigns.

# Disaster Cycle



# Preparedness

## Definition

- The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.

## Examples

- Analysis of disaster risks and good linkages with early warning systems
- Contingency planning
- Stockpiling of equipment and supplies
- The development of arrangements for coordination
- Evacuation and public information
- Associated training and field exercises.

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# Disaster Risk Reduction

## Definition

- "The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development'

# Yokohama Strategy 1994

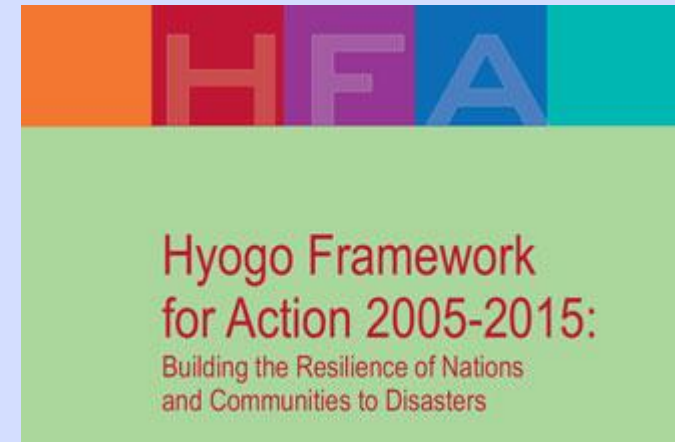
The Yokohama Strategy adopted in 1994 provided landmark guidance on reducing disaster risk and the impacts of disasters, based on a conference of all the UN member states, held in Yokohama Japan.

**7** The adopted Yokohama Strategy and related Plan of Action for the rest of the Decade and beyond:

- A.** Will note that each country has the sovereign responsibility to protect its citizens from natural disasters;
- B.** Will give priority attention to the developing countries, in particular the least developed, land-locked countries and the small island developing States;
- C.** Will develop and strengthen national capacities and capabilities and, where appropriate, national legislation for natural and other disaster prevention, mitigation and preparedness, including the mobilization of non-governmental organizations and participation of local communities;
- D.** Will promote and strengthen subregional, regional and international cooperation in activities to prevent, reduce and mitigate natural and other disasters, with particular emphasis on:
  - Human and institutional capacity-building and strengthening;
  - Technology sharing, the collection, the dissemination and the utilization of information;
  - Mobilization of resources.

# The Hyogo-framework for action (HFA) 2005-2015

- World Conference on Disaster Reduction, held in Kobe, Hyogo, Japan.
- Its goal is to substantially reduce disaster losses by 2015 - in lives, and in the social, economic, and environmental assets of communities and countries.
- 168 Governments adopted the 10-year plan to make the world safer from natural hazards.



# The Hyogo-framework for action (HFA) 2005-2015

## HFA Priorities for Action

- **Priority Action 1:** Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- **Priority Action 2:** Identify, assess and monitor disaster risks and enhance early warning.
- **Priority Action 3:** Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- **Priority Action 4:** Reduce the underlying risk factors.
- **Priority Action 5:** Strengthen disaster preparedness for effective response at all levels.



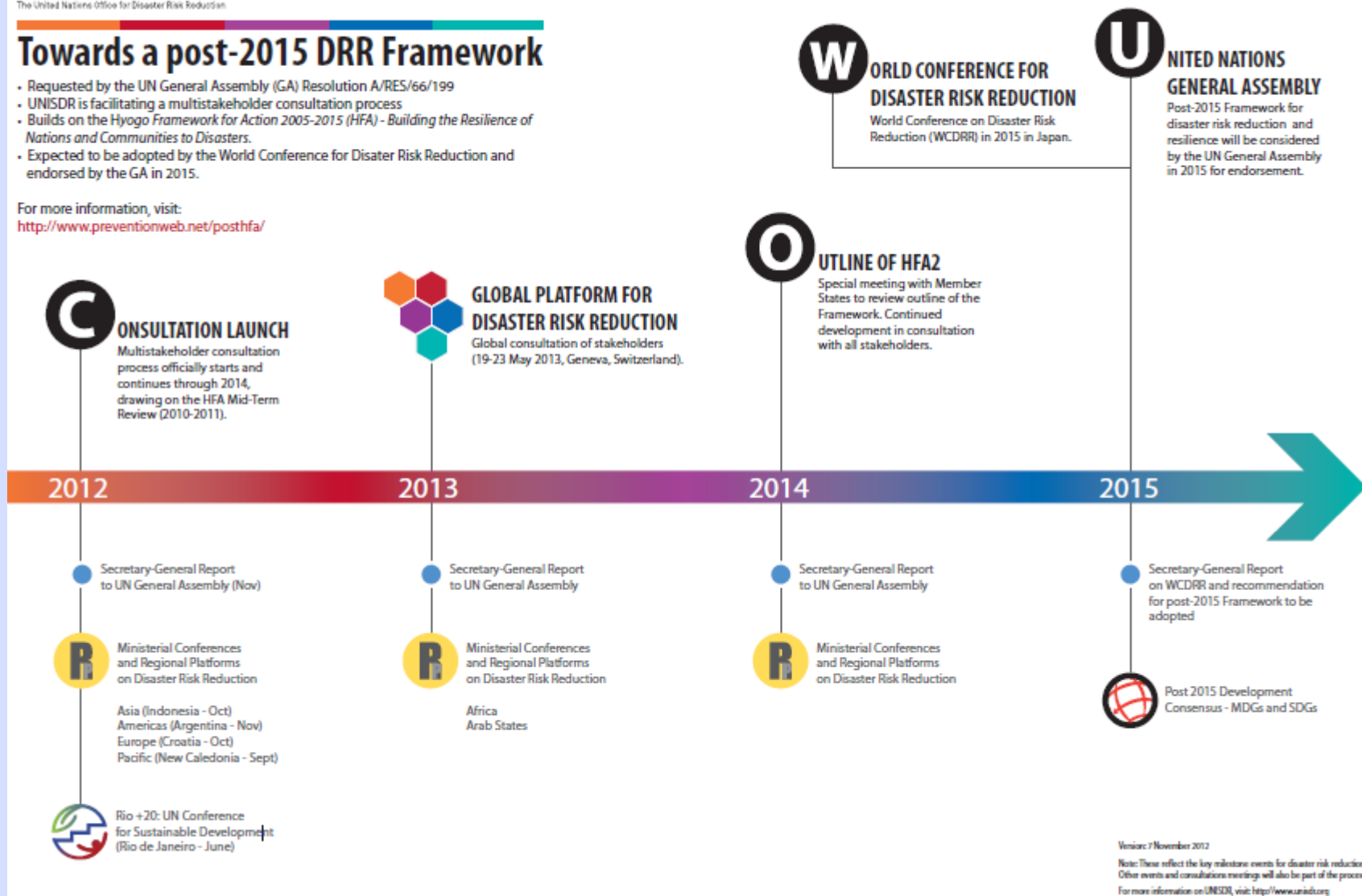
# Post-HFA Discussions



## Towards a post-2015 DRR Framework

- Requested by the UN General Assembly (GA) Resolution A/RES/66/199
- UNISDR is facilitating a multistakeholder consultation process
- Builds on the Hyogo Framework for Action 2005-2015 (HFA) - *Building the Resilience of Nations and Communities to Disasters*.
- Expected to be adopted by the World Conference for Disaster Risk Reduction and endorsed by the GA in 2015.

For more information, visit:  
<http://www.preventionweb.net/posthfa/>



Version: 7 November 2012

Note: These reflect the key milestone events for disaster risk reduction. Other events and consultations meetings will also be part of the process.

For more information on UNISDR, visit <http://www.unisdr.org>

What else expires in 2015?

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# Emergency Risk Management

## Definition

- The organization and management of resources and responsibilities for addressing all aspects of emergencies, in particular preparedness, response and initial recovery steps.
- Concept: Can be any emergency, not just a 'Disaster'.
- However the same rules should be applied including the same phases / cycle.

# 5 Min Break!



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# Case Study

## Bangladesh Floods

- In 1970, the world's most devastating cyclone to date claimed approximately 500 000 lives in Bangladesh, and another in 1991 claimed around 140 000 lives.
- Since 1991, the government with the support of the UN, including WHO and WMO, has established;
  1. Early warning systems
  2. Shelters along coastal areas
  3. Search and rescue teams and first-aid training and equipment.
- Bangladesh now has the capacity to evacuate hundreds of thousands of people from the path of floods and cyclones.
- When Sidr, a very strong, Category-4 cyclone struck Bangladesh in November 2007, the devastation it wreaked was widespread. Sidr was of similar strength as the cyclone of 1991, but its death toll, 3000 lives, was much lower.

# Case Study Exercise

- Megacity Earthquake.
- 2 Groups: Responders and the Managers (Health Orientated).
- Three phases of information with 5 min group discussion at each point.
- At each point; list your 5 priorities.

# Case Study Exercise

- 1. 9.0 Richter Scale earthquake in suburb of >20 million megacity.

*(5 mins)*

- 2. Communications (Phone, Internet) are down at disaster zone. Travel by road vehicle is impossible.

*(5 mins)*

- 3. Aftershock has caused significant damage to the central city region.

*(5 mins)*



# Further reading

- <http://www.who.int/hac/techguidance/preparedness/en/index.html>
- <http://www.preventionweb.net/english/?logotext>
- <http://www.unisdr.org/>
- <http://www.doctorswithoutborders.org/news/allcontent.cfm?id=111>

Thank you and good luck!