



Assessing Environmental Dimension of Disasters

Muralee Thummarukudy
Post Conflict and
Disaster Management
Branch

om@unep.ch





Why Environment Matters in Disasters

- **All conflicts and disaster causes environmental damage.**
- **This impacts human health, livelihoods and security.**
- **Can contribute to sickness, displacement and economic instability.**





Environmental Damages Also Contribute to Disasters

- **Mismanagement of natural resources also increases vulnerability to natural hazards (primarily floods, storms, earthquakes).**
- **Improved management can contribute to disaster risk reduction**





Relief Operations Have Environmental Impacts

- Issues relating to water supply
- Sanitation
- Fuel wood





Environmental Footprint of Recovery

- Landuse changes
- Construction Materials
- Natural Resources
- Utilities
- Urban Services





Environmental Assessment of Disasters

- Assessment of Environmental Impacts
- Assessment of Damages and Losses
- Assessment of Environmental Needs
- Assessment of Environmental Footprint





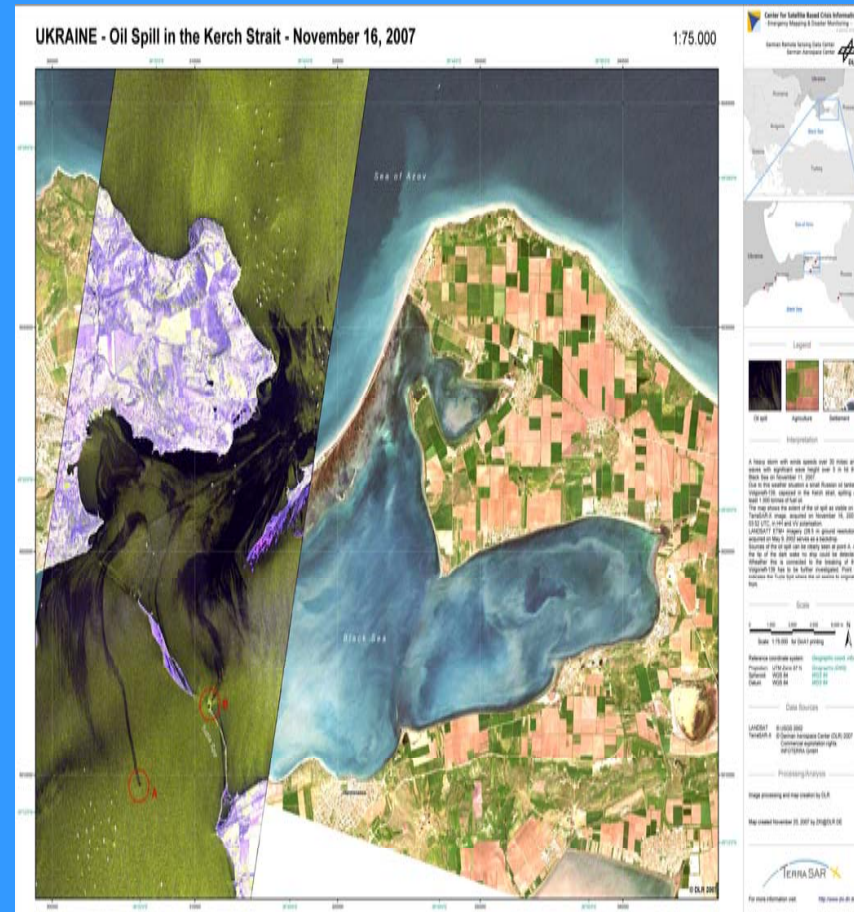
Assessment of Environmental Impacts

- Scientific assessment of environmental impacts caused by the disaster
- Extensive sampling
- May be rapid or long term
- UNDAC Methodology
- FEAT Methodology



Assessment of Damages and Losses

- Primary focus on economic value
- Environmental damages are sometimes difficult to quantify
- However there are economic assessment tools for costing environmental damages
- DALA Methodologies
- Environmental Economics Methods





Environmental Needs Assessment

- Focus on identifying the local and national needs to recover from the disaster
- How can we assist the local/national authority to get back to the development trajectory
- Needs include institutional needs





Assessing Recovery Footprint

- Recovery from a disaster will have an environmental footprint
- This footprint may be far bigger than the disaster footprint
- In a major disaster, this footprint could go across continents
- Need to assess the footprint so that the impacts can be minimised





What is UNEP's role?

To provide independent and scientific expertise to assess and address the environmental causes and consequences of conflicts and disasters.



Programme aims:

- to integrate environmental needs within recovery process to build back better and ensure the UN does no harm.
- to identify how improved management of the environment and its natural resources can contribute to disaster risk reduction and conflict prevention.

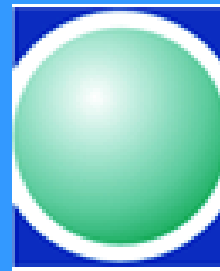


Post-Conflict and Disaster Management Branch

- Located in Geneva with a core staff of 25. Programme offices in Afghanistan, Sudan and Nigeria. Recently closed in Iraq, Liberia, Sri Lanka
- Since 1999, has operated in 25 crisis-affected countries.
- Only operational capacity in a normative agency.
- Mandated by UNEP Governing Council through the Bali Strategic Plan.



Who we are ?



International
Environment
House
Geneva
Environment
Network



UNEP's Division of Labour

UNDAC Joint UNEP/OCHA Environment Unit

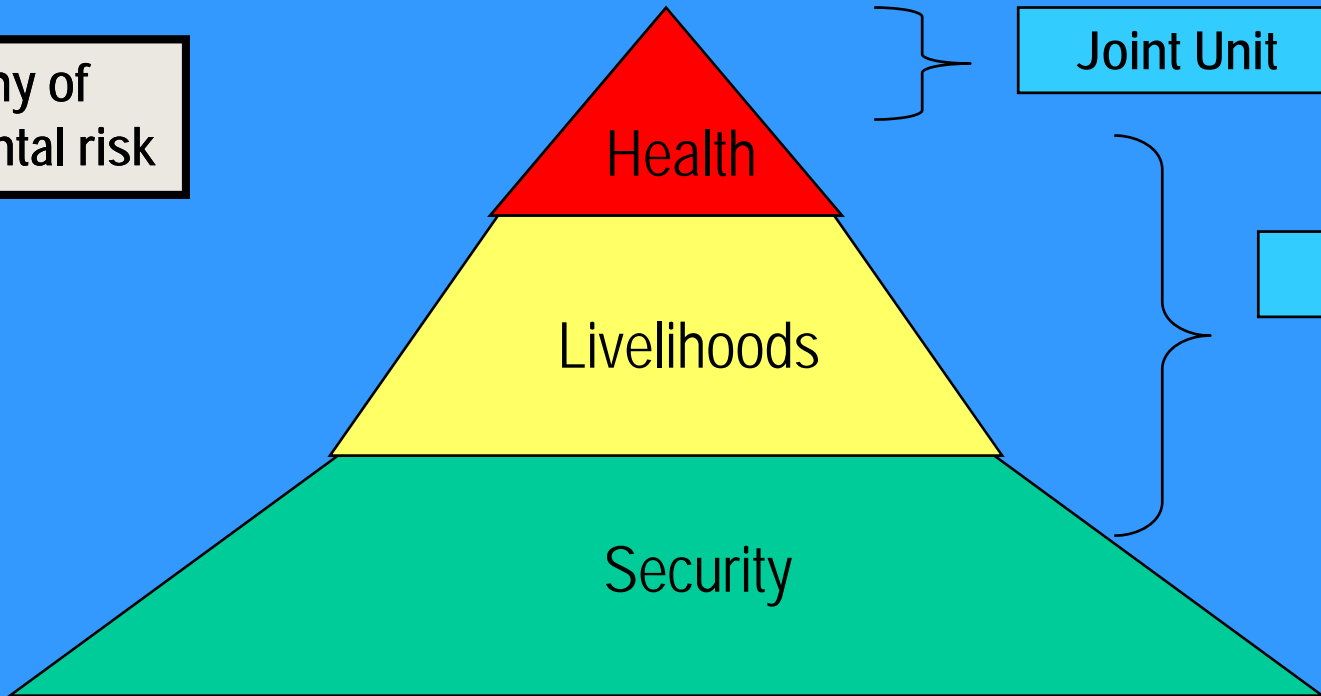
Post-Conflict and Disaster Management Branch

Regional Office



Relief Recovery Development

Hierarchy of environmental risk



Joint Unit

PCDMB

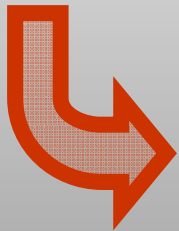


4 Phases of crisis response and recovery

Phase 1: Emergency Response (3-10 days)

- Focal point is Joint UNEP/OCHA Environment Unit
- Monitor potential risks during emergency
- Request from national authorities or UNCT
- Mobilize environmental expert on UNDAC mission
- Identify acute environmental threats to life and health
- Coordinate and mobilize response from partners

If
needed



Phase 2: Detailed Environmental Assessment (3-12 months)

- Focal point is PCDMB
- Request from national authorities or UNDG
- Scoping missions and donor contacts
- Thematic field missions with international experts
- Laboratory and satellite image analysis plus peer reviews
- Release of assessment report



18 flagship reports – a scientific and neutral approach



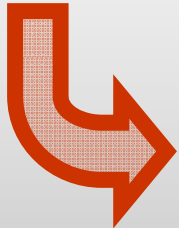


4 Phases of crisis response and recovery

Phase 3: Environmental Recovery Programme (3-6 years)

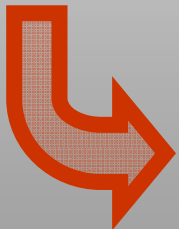
- Focal Point is PCDMB
- Member of UNCT
- Project office within Ministry
- Technical support for environmental law and policy
- Staff training and equipment
- Environmental recovery and clean-up
- Environmental diplomacy for peacebuilding

If
needed



Phase 4: Hand-over

- Integrate programme outputs into UNDP development stream or other partner
- Remote support from UNEP regional office





Conflict and disaster operations

Disaster situation

- Rapid mobilization of experts (PDNA/weeks)
- Existing institutional capacity and expertise
- Site-specific impacts
- Limited security and operational constraints
- Politically neutral
- UNEP supports national capacity

Conflict situation

- Less rapid mobilization of experts (PCNA/months)
- Institutional collapse, questioned legitimacy, limited rule of law
- Impacts at national level
- Major security and operational constraints
- Politically sensitive (winners/losers) plus regional dimension
- UNEP often fills capacity vacuum



Indonesia





Sri Lanka





Maldives



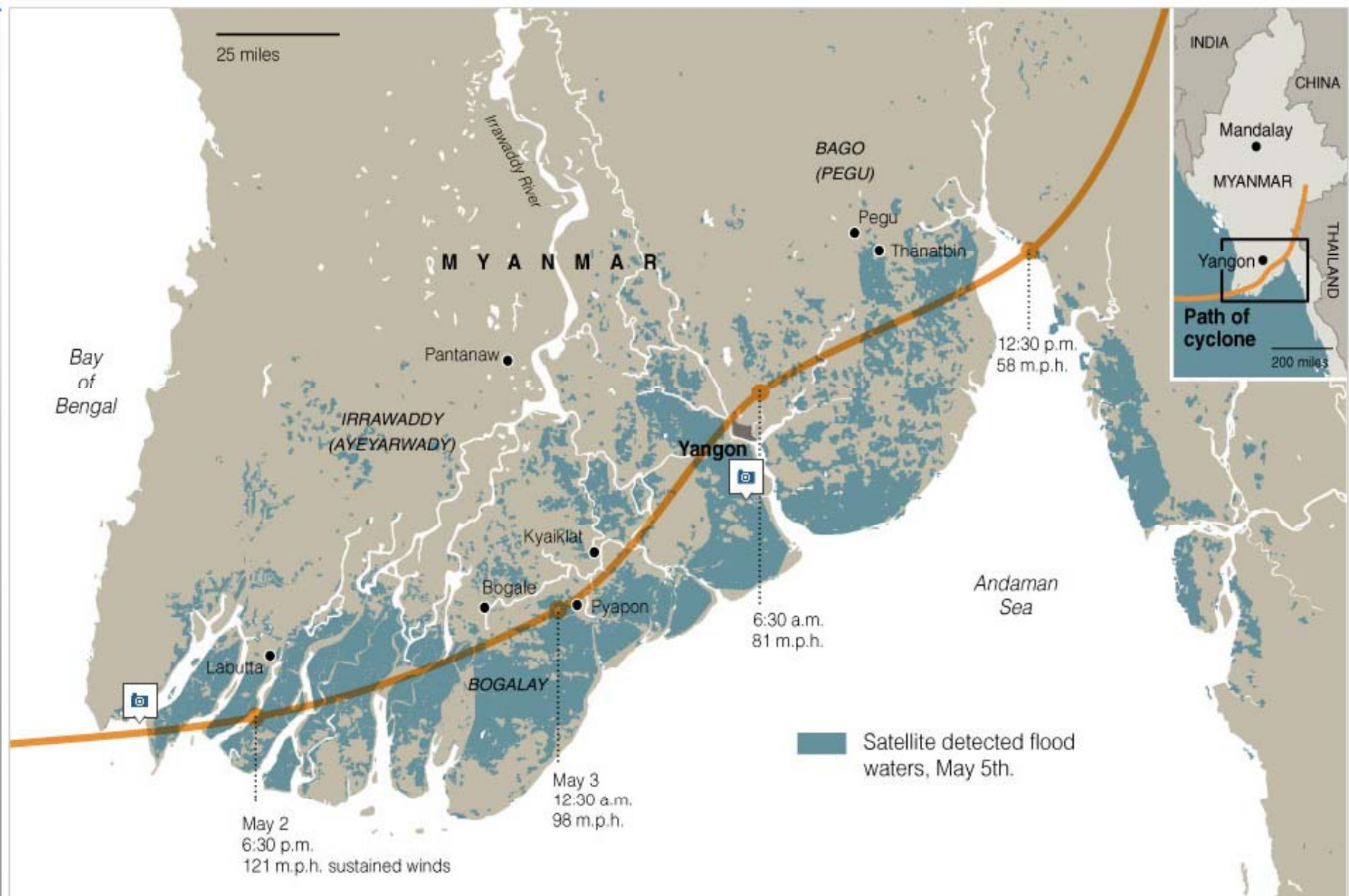


ALBANIA





Cyclone Nargis – Flooded Areas











**Thank
You**