

Environmental concerns

Natural disasters and conflicts have a significant negative impact on the environment. This also threatens response and recovery.

Environmental threats during response

- **To life** – through hazardous chemicals, infrastructure e.g. dams, nuclear plants
- **To health** – through toxic waste and damage to water sources

Environmental threats to early recovery

- **To livelihoods** – damage to forests, soil, pastures, wetlands, reefs, water sources
- **To security** – fragility of ecosystem and threat to human security, increased conflict over limited resources

Impact of disaster response and recovery on the environment

Conversely disaster response and recovery activities also pose a serious threat to the environment and early analysis of the potential impacts is needed to identify mitigation strategies. Factors affecting the severity of impact include:

Geographic	<ul style="list-style-type: none"> ▪ Number of people affected or displaced and population density ▪ Extent of disaster area and availability of resources
Social	<ul style="list-style-type: none"> ▪ Support from host communities and level of self-sufficiency ▪ Cultural norms and respect for environment ▪ Social / power structures and livelihood options
Environmental	<ul style="list-style-type: none"> ▪ Environmental resilience and sustainability to withstand impact and recover ▪ Ability to absorb waste

Environmental impact risks by sector

Health	Poor management of chemicals, water, healthcare waste, dead bodies.
WASH	Damage to aquifers; water contamination from sewage / salination; poor rehabilitation of wells; over extraction of water; inappropriate systems e.g. septic tanks.
Shelter	Unsustainable construction materials e.g. timber, burnt bricks, sand; inappropriate site selection or design; deforestation and soil erosion; improper disposal of waste or debris.
Camp management	Land degradation; loss of biodiversity; improper waste and chemical disposal; unsustainable use of fuel and materials; poor management/decommissioning of camps and pit latrines.
Logistics	Poor management and disposal of oil, fuel, tyres; improper waste disposal, procurement of goods produced in an unsustainable way.
Early recovery	Failure to conduct environmental impact assessment and plan mitigating activities; inappropriate land use, building /infrastructure designs and urban planning; unsustainable use of natural resources for reconstruction/ livelihoods; unequal access to resources.

Mitigating the risks of environmental impact

- Identify the presence and means for safe disposal of hazardous materials
- Take appropriate measures for safe disposal of sanitation and emergency waste
- Assess the capacity and protection needs for water sources in the short and long-term
- Determine energy consumption demands and available resources
- Assess the long-term impact of the size, siting and potential expansion of IDP/refugee camps
- Seek opportunities for green procurement and ways to minimise transport pollution
- Work within all applicable standards and guidelines e.g. Sphere; HFA
- **Expert guidance in environmental assessments, material selection and project design**

Additional resources on the All In Diary website

Guidelines for rapid environmental impact assessment in disasters
 © Benfield Hazard Research Centre & CARE 2005
 Disaster Waste Management Guidelines © OCHA & UNEP 2011
 Humanitarian action and the environment © UNEP, OCHA 2007
 FRAME Toolkit: Module IV Community Environmental Action Planning, © UNHCR, CARE 2009

Web links for further information

Resources: <http://www.usaidgems.org/>
 UNEP: <http://www.unep.org/disastersandconflicts/>
 Training: <http://www.urd.org/Environment-training-toolkit>
<http://green-recovery.org/>
 Environmental Emergencies Centre: <http://www.eecentre.org/>
 ProAct: <http://www.proactnetwork.org/>

Hazards which threaten the environment

Floods

- transport contaminated material
- cause erosion
- pollute water
- damage infrastructure

Storms and Winds

- damage crops and infrastructure

Fires

- cause air pollution
- destroy housing and infrastructure
- lead to erosion

Droughts

- lead to wind erosion
- loss of crops and water sources

Landslides

- damage infrastructure
- contaminate water

Earthquakes

- damage infrastructure
- risk damage from hazardous materials
- cause landslides etc

Conflicts

- damage infrastructure and basic services
- chemical, biological, nuclear contamination
- destroy livelihoods and increase basic needs

Others

- hazardous materials
- hail or snow
- disease
- volcanoes