THE ENVIRONMENTAL EMERGENCIES GUIDELINES

2nd Edition

2016

Joint UNEP/OCHA Environment Unit
Prepare. Respond. Protect.

UNEP

OCHA

The Environmental Emergencies Guidelines

Voluntary guidelines for the provision and receipt of international humanitarian assistance for environmental emergencies through the United Nations Environment Programme / United Nations Office for the Coordination of Humanitarian Affairs

2nd Edition

2016

FOREWORD

Rapid urbanization and industrialization, climate change and an ever more interconnected world have led to a drastic escalation in the number and range of natural and technological hazards. An ever-increasing number of disasters now cause human, environmental, financial and socio-economic impacts on an international scale. Consequently, neighboring countries and regional and international partners are increasingly involved in the response to a disaster in a country.

To reflect the changes in and new scope of regional frameworks for response and the international system, the Environmental Emergencies Guidelines from 2009 have been revised, in line with the 2011 United Nations Environment Programme (UNEP) Governing Council Decision 26/15 on "Strengthening international cooperation on the environmental aspects of emergency response and preparedness". The 2016 version is updated to also reflect international thematic and international response frameworks and policies including the Sendai Framework for Disaster Risk Reduction. Lastly, this second edition further clarifies roles and responsibilities of other specialized stakeholders involved in environmental emergency deployments.

The partnership between the UN Office for the Coordination of Humanitarian Affairs (OCHA) and UNEP is working over more than twenty years, during which the Joint UNEP/OCHA Environment Unit (JEU) has been mobilizing experts and equipment to respond to environmental emergencies, backed by a strong international network of partners. In recent years, there has been a clear shift within the international community from emergency response to strengthening emergency preparedness. The JEU has thus stepped up its emergency preparedness work, such as the assessment and mapping of industrial hazards to support emergency preparedness measures in countries and the development of the Environmental Emergencies Centre (www.eecentre.org). Since the first version of the Guidelines in 2009, JEU has been involved in the response to over 35 environmental emergencies globally; including the deployment of technical experts to assist in response efforts during such incidents as the 2011 fuel spill and fire in Nairobi, Kenya; the 2014 oil spill in the Sundarbans mangrove forest of Bangladesh, and the fire involving hazardous chemicals in Paraguay in 2015.

I wish for these revised Guidelines for Environmental Emergencies to help in ensuring that environmental emergencies become an integral part of countries' national disaster management plans, for countries to advocate for better response to and to raise awareness on, the risks and impacts of environmental emergencies.

I would like to thank all those that have contributed to the revised version of the Environmental Emergencies Guidelines.

Ørjan N. Karlsson
Chair, Strategic Advisory Group on
Environmental Emergencies (2013 -2016)
Head, International Relations Department/Assistant Deputy Director
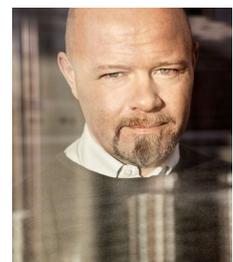**Directorate for Civil Protection and Emergency Planning (CPEP)**
Norway

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INTRODUCTION

The response to the environmental impacts of large scale, sudden-onset disasters and complex emergencies, as well as industrial accidents, often requires technical expertise that exceeds the capacity of the affected state.

For the purpose of these guidelines, an environmental emergency has been defined as a sudden-onset disaster or accident resulting from natural, technological or human-induced factors, or a combination of these, that cause or threaten to cause severe environmental damage as well as loss to human lives and property.[1]

This damage includes secondary environmental consequences from natural hazards such as earthquakes, storms, floods, tsunamis, wildland fires, landslides and/or man-made disasters such as industrial accidents, transport accidents, chemical spills, oil spills and a multitude of other types of emergencies.

Often, governments in countries affected by environmental emergencies may seek expertise and resources available from the international community to manage such crises. In such cases, international support may be provided bilaterally - directly from one country to the affected country - or multilaterally, through international entities like the United Nations Environment Programme (UNEP) / Office for the Coordination of Humanitarian Affairs (OCHA) Joint Environment Unit (JEU).

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1. UNEP/GC.22/INF/5, 13th November 2002.

BACKGROUND

In 2007 the JEU commissioned the development of a "Best Practices Guideline" that addressed issues of requesting and providing assistance during emergencies/disasters, with a special focus on environmental emergencies. These recommendations were formulated as provisions in the "Guidelines for Environmental Emergencies" that were first published in 2009.

The Guidelines for Environmental Emergencies were developed in cooperation with member states and organizations of the Strategic Advisory Group on Environmental Emergencies (SAGEE) and draw on references from a variety of sources, including:

- Administrative Arrangement to enhance operational cooperation and coordination between the European Commission, Directorate-General Humanitarian Aid and Civil Protection (ECHO) and OCHA's Emergency Services Branch (ESB)
- Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013;
- Inter-Agency Standing Committee (IASC) Operational Guidance for Cluster Lead Agencies on Working with National Authorities;
- International Federation of Red Cross and Red Crescent Societies (IFRC) Guidelines for the domestic facilitation and regulation of international disaster relief and initial recovery assistance (also known as the IDRL Guidelines);
- The International Humanitarian Partnership Guidelines;
- The International Search and Rescue Advisory Group (INSARAG) Guidelines of 2015;
- Joint Radiation Emergency Management Plan of the International Organizations;

- JEU Mission Reports;
- The On-Site Operations Coordination Centre (OSOCC) Guidelines;
- OCHA Policy Instruction: The Role of OCHA in Emergency Response Preparedness (February 2015);
- OCHA Policy Instruction: The Roles and Responsibilities of Regional Offices;
- The United Nations Disaster Assessment and Coordination (UNDAC) Field Handbook of 2013; and
- UN Economic Commission for Europe's (UNECE) Guidelines to Facilitate the Identification of Hazardous Activities for the Purposes of the Convention.

OCHA Policy Instruction: The Roles and Responsibilities of Regional Offices;

- The United Nations Disaster Assessment and Coordination (UNDAC) Field Handbook of 2013; and
- UN Economic Commission for Europe's (UNECE) Guidelines to Facilitate the Identification of Hazardous Activities for the Purposes of the Convention.

The Guidelines for Environmental Emergencies also draw upon principles contained in a number of guidelines outlined by other UN agencies not specified in the above list. This second edition is additionally updated with points related to developing national capacities for response.

PURPOSE

The Guidelines for Environmental Emergencies are intended as a reference guide for countries, organizations and other stakeholders wishing to improve their readiness for response.
The Guidelines are not an authoritative instruction, but rather detailed recommendations based on an accumulation of institutional memory and experience related to international environmental emergency response.
The Guidelines consist of five parts.

HOW TO USE THE GUIDELINES

Section 1 describes the JEU, and the linkages between environmental emergencies and the global disaster response system.

Section 2 discusses the options available for receiving environmental emergency assistance according to the type of incident experienced and governance frameworks offering response support.

Section 3 describes a set of recommended "best practices" utilized by the JEU during various phases of an environmental emergency, covering preparedness to post-mission activities.

Section 4 describes selected tools and resources that may be applicable in an environmental emergency.

The Annexes contain forms useful prior to the provision of emergency response.
The Guidelines will be maintained electronically on the Environmental Emergencies Centre website (www.eecentre.org) to allow for periodic changes to Section 3 and regular changes to Section 4 as the supporting tools improve with experience. It is recommended that Sections 3 and 4 be considered field-based tools and be used by experts in hard copy during response operations.

The SAGEE reviews the Guidelines with regular intervals and proposes revisions or updates. Any comments on the Guidelines or proposals for improvements can be addressed to the JEU:

Joint UNEP/OCHA Environment Unit
Email: ochaunep@un.org

Websites:
Joint UNEP/OCHA Environment Unit:
www.unocha.org/unep

Environmental Emergencies Centre:
www.eecentre.org

1.0 Environmental Emergency System

WHO provides assistance

- National Organizations
- Regional Frameworks
- International Organizations
- Bilateral Assistance

ENVIRONMENTAL EMERGENCY

HOW assistance works

Tools & Resources

V-OSOCC
EEC

PREPAREDNESS | RESPONSE | RECOVERY
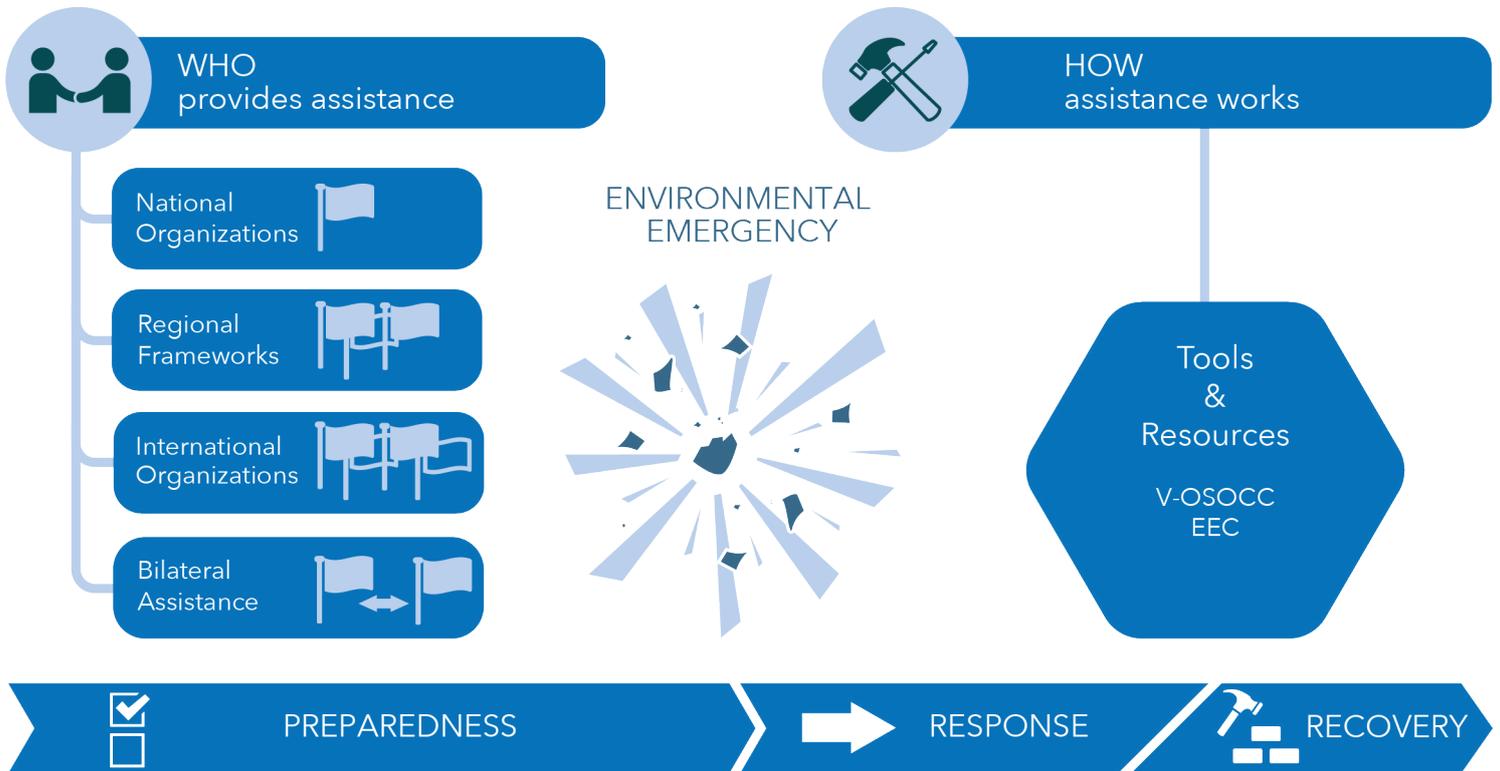
Environmental emergencies are often an effect or consequence of another emergency or humanitarian crisis. Therefore, environmental emergency response must be coordinated with overall disaster and humanitarian response, making use of existing national and local coordination structures.
This section introduces the JEU, the role of focal points of providers, and the mobilization and coordination of assistance through the use of online and on-the-ground coordination centres.

1.1 National Response Partners

Disaster preparedness and response organizations, including the JEU, work with Member States through focal points nominated by the country for a specific emergency. This could be a person within the national emergency/disaster management agency, the Ministry of Foreign Affairs, the Ministry of Interior or the Ministry of Environment. Usually, separate focal points are appointed for the different types of emergencies and response elements like urban search and rescue, emergency medical teams, industrial accidents, oil spills, transport accidents, forest fires and others. This ensures the most efficient and effective receipt and provision of international environmental emergency assistance.

The focal point for environmental emergencies can thus be the same entity, or be co-located with the same entity, holding the position as focal point for other preparedness and response mechanisms, such as the UNDAC system, INSARAG, the Basel Convention on the Transboundary Movement of Hazardous Waste, and/or the Industrial Accident Notification (IAN) System under the Industrial Accidents Convention.

For the European countries participating in the European Union Civil Protection Mechanism (UCPM), it is recommended that, where possible, the existing contact points also serve as the operational focal points for environmental emergencies. The Emergency Response Coordination Centre (ERCC) of the European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) serves as a regional focal point. The ERCC facilitates and coordinates the European Union's response to requests for environmental expertise and assistance according to an administrative arrangement between OCHA's

Emergency Services Branch and ECHO.[2]

Focal points for environmental emergencies have two main responsibilities:

1. Administrative

Serve as a point of contact for the JEU for non-emergency related activities such as political, institutional and financial matters;

2. Operational

Ensure 24/7 availability through phone, and/or email; serve as the primary contact/interlocutor for the JEU; process requests and/or offers of international assistance for environmental emergencies; and provide relevant information on emergencies.

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2. Administrative Arrangement to Enhance Operational Cooperation and Coordination between the European Commission, Directorate-General European Civil Protection and Humanitarian Aid Operations (ECHO) and the United Nations Office for the Coordination of Humanitarian Affairs, Emergency Services Branch (2014).

1.2 Regional Frameworks

Furthermore, a number of regional frameworks exist which member states may request environmental assistance from. Additional information on their assistance capacities can be found on the organizations' websites.

- **The Association of South East Asian Nations (ASEAN)**: The ASEAN Member States have sought to collaborate and improve preparedness and response to environmental emergencies. Parties can request assistance from other ASEAN nations either directly or through the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre). The ASEAN Emergency Response and Assessment Team (ASEAN-ERAT) is designed to quickly respond to major sudden-onset disasters within the ASEAN region, is activated and mobilized upon request for assistance from affected Member States, or after a Member State accepts an offer of assistance from a supporting Member State. Additional information on the AHA Centre, the ASEAN Agreement on Disaster Management and Emergency Response, and the ASEAN-ERAT can be found on the ASEAN website (www.asean.org).

- **The Black Sea Economic Cooperation (BSEC)**: The BSEC fosters political and economic cooperation among its 12 Member States. If a Party finds that its own disaster response forces are overwhelmed, it can request assistance from other Parties by forwarding a national appeal. Information regarding the process for disaster response can be found on the BSEC website (www.bsec-organization.org).

- **The Caribbean Disaster Emergency Management Agency (CDEMA)**: CDEMA provides coordinated interagency response to natural and human-induced hazards in the Caribbean region. Information regarding the emergency response capabilities of CDEMA can be found on the CDEMA website (www.cdema.org).

- **The Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC)**: CEPREDENAC is a regional organization designed to strengthen the capacity of Central American States to protect their people from disasters. Requests for assistance under the Mechanism must be made in accordance with one of three protocols; additional information regarding this process can be found on the CEPREDENAC website (www.cepredenac.org).

- **The Organization of American States (OAS)**: The OAS provides disaster assistance through the Inter-American Plan for Disaster Prevention and Response and by coordinating activities through sub-regional organizations such as CDEMA and CEPREDENAC. Additional information regarding the processes for disaster response can be found on the OAS website (www.oas.org).

- **The South Asian Association for Regional Cooperation (SAARC)**: SAARC is committed to strengthening regional cooperation among its eight Member States and utilizes a variety of SAARC Centres, chiefly the Centre for Disaster Management and Preparedness, for the development of a mechanism for collective emergency response. In 2011 the SAARC Agreement on Rapid Response to Natural Disasters was signed by five countries, and will become operational once all eight countries have ratified the agreement. Additional information regarding the SAARC Centres and updates to the Agreement can be found on the SAARC website (www.saarc-sec.org).

- **The Shanghai Cooperation Organization (SCO)**: The SCO is a Eurasian intergovernmental organization that provides regional aid in the form of disaster units, supply materials, or in other requested forms to members during a disaster. Additional information can be found on the SCO website (http://www.sectsco.org/EN123/index.asp).

The JEU has agreements and/or interface procedures in place with the following response actors:[3] Secretariat of the Basel Convention, ECHO, Global Fire Monitoring Centre (GFMC), International Atomic Energy Agency (IAEA)/ Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE), Organisation for the Prohibition of Chemical Weapons (OPCW), Ramsar Convention, UN Habitat, United Nations Economic Commission for Europe (UNECE), and United Nations Institute for Training and Research - Operational Satellite Applications Programme (UNOSAT).

The overall aim of these interface procedures is to:

- Facilitate exchange of information
- Provide clear lines of communication
- Avoid duplication of response and relief efforts.

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3. Pursuant to UNEP Governing Council Decision UNEP/GC.26/15.

1.3. Global Frameworks and International Assistance

There are a number of international and regional institutions and governance frameworks offering support to member states affected by environmental emergencies.

These frameworks are elaborated upon below – global frameworks are presented first, and in order by type of accident, followed by regional frameworks, and bilateral agreements. In any emergency where it is unclear whom to call upon for assistance, the JEU can be contacted 24/7 to facilitate the identification of the appropriate response mechanism and/or points of contact.

Environmental Emergency Actors
as of August 2016

ENVIRONMENTAL EMERGENCIES

ACTORS	Contamination: Biological	Contamination: Chemical	Contamination: Weapon	Dam Stability, Landslides & other Env. Emergencies	Environmental & Public Health	Humanitarian Crisis with Env. Impacts	Industrial Accidents	Nuclear and Radiological Emergencies	Oil Spills: Inland	Oil Spills: Marine	Transboundary Movement of Hazardous Waste	Wetlands	Wildland Fires	TOTAL
Secretariat of the Basel, Rotterdam & Stockholm Conventions (BRS)											●			1
Cluster System						●								1
Global Fire Monitoring Center (GFMC)													●	1
International Atomic Energy Agency (IAEA)								●						1
International Maritime Org. (IMO)										●				1
Joint UNEP/ OCHA Environment Unit (JEU)		●		●		●	●		●					5
Org. for the Prohibition of Chemical Weapons (OPCW)			●											1
Ramsar Convention on Wetlands (Ramsar)												●		1
UN Economic Commission for Europe (UNECE)							●							1
Water, Sanitation and Hygiene Cluster (WASH)	●													1
World Health Organisation (WHO)	●	●			●									3

Note for peer-review: Please provide the most relevant website or subdomain for your organisation to be included in this graphic

JOINT UNEP/OCHA ENVIRONMENT UNIT

The JEU is the United Nations (UN) mechanism to mobilise and coordinate emergency assistance to countries affected by environmental emergencies and humanitarian crisis with significant environmental impact.

In 1989, UN General Assembly Resolution 44/224 was adopted, recognizing the need to strengthen international cooperation in monitoring, assessing and anticipating environmental threats including provision of assistance if necessary. In 1993, governments concluded that the environmental knowledge found in UNEP should be integrated into existing UN natural disaster response mechanisms, which resulted in the establishment of the JEU.

Housed in OCHA's Emergency Services Branch (ESB), the JEU has full access to OCHA's tools and services for coordination of response, including the United Nations Disaster Assessment and Coordination (UNDAC) teams.

The JEU also acts as the secretariat to the Strategic Advisory Group on Environmental Emergencies (SAGEE), an inter-governmental consultative mechanism established in 1995.[4] The activities of the SAGEE include advocating for increased support to OCHA and UNEP on environmental emergencies, mobilizing resources for identified priority actions, and ensuring proper consultation among constituents. The SAGEE is also the custodian for the Guidelines for Environmental Emergencies.

Additionally, the JEU supports the Environmental Emergencies Forum (EEF) – a biennial, global conference focused on environment and emergencies. The EEF invites an international community of stakeholders together to improve preparedness, response, and overall resilience to environmental emergencies.

JEU is recognized as the principal multilateral body and primary point of contact for mobilizing and coordinating international response to environmental emergencies[5]. In mobilizing and coordinating response, JEU draws on resources and knowledge of over 15 different networks and partnerships, enabling close engagement with UN agencies, programmes, and affiliated organizations, as well as Member States and regional organizations. The JEU also works closely with approximately 10 non-governmental organizations (NGOs), private sector and industry groups, and academic and research partners.

Through OCHA's Duty System, the JEU is available 24/7 to mobilize assistance for those Member States facing emergencies. Upon alert of an incident or request for support on disaster preparedness, the JEU will advise on immediate actions and, if necessary, forward a request for assistance to its network of partners.

Depending on the nature of the incident (i.e., type of hazard/accident and impact, and/or type of substance involved) the JEU will endeavour to tailor-fit the expertise needed. The expert(s) may be deployed independently or as a part of an UNDAC or EU Civil Protection Team (EUCPT) mission to assess the incident, perform sampling, and, if possible, analyse the samples in-country.

Upon completion of the assessment, the expert(s) will give emergency advice on how to contain the impact of the incident and what urgent mitigation actions need to be taken. In cases where special technical expertise and/or equipment are needed to manage the incident, and these capacities are not available in the affected country, the JEU can facilitate the mobilization of such technical resources.

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4. UNEP Governing Council Decision (18/19)

5. UNEP Governing Council Decision UNEP/GC.26/15

CHEMICAL WEAPONS

The Organisation for the Prohibition of Chemical Weapons (OPCW) and the related **Chemical Weapons Convention (CWC)** provides for international cooperation among states parties from chemical weapon training and capacity building to safe chemical management. In cases of suspected use of chemical weapons, the OPCW can conduct compliance inspections. The organization can also provide aid with the monitoring, destruction and disposal of chemical weapons and the facilities used to manufacture them. Additional information related to chemical weapons can be found on the OPCW website (https://www.opcw.org/).

ENVIRONMENTAL HEALTH (WHO)

The World Health Organization (WHO) addresses the physical, chemical, and biological factors, including the assessment and control of environmental factors that can potentially affect health. WHO addresses these issues by providing guidance literature and data on environmental health, as well as Global Conferences on Health and the Environment. Additional information regarding the WHO's role in environmental health can be found on the WHO website (www.who.int/topics/environmental_health/en/).

## HUMANITARIAN CRISIS WITH ENVIRONMENTAL IMPACTS

The International Federation of Red Cross and Red Crescent Societies (IFRC) is a leading humanitarian organization active in post-disaster and post-conflict relief and rehabilitation. For the IFRC, the key to ensuring that both short- and long-term needs are addressed is in responding to disasters rapidly and effectively, by mobilizing resources, and using its network in a coordinated manner so that the initial effects are countered and the needs of the affected community are met.

Additional information regarding the activities of the IFRC can be found on the IFRC Website (www.ifrc.org).

The Community Civil Protection Mechanism is an initiative of the European Community that constitutes a framework for cooperation in disaster preparedness, prevention, and response. Any country in the world can call on the EU Civil Protection Mechanism for help. The Emergency Response Coordination Centre (ERCC) operates within the European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) and acts as a coordination hub to facilitate coherent European response during emergencies. Find access to the ERCC portal and information on the provision of response on the ECHO Website (www.erccportal.jrc.ec.europa.eu/).
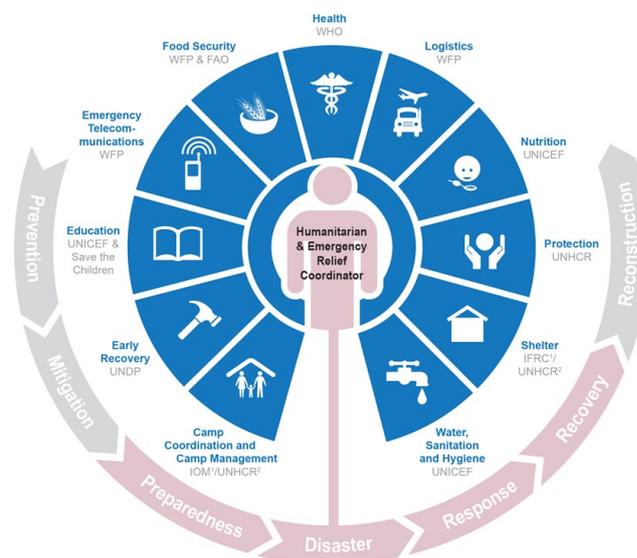
Environmental issues are handled as part of the cluster approach, where each cluster is responsible for a main sector of humanitarian action, e.g. water, health and logistics. Within the cluster system, UN and non-UN humanitarian organizations come together to coordinate needs assessments and gap analysis and to conduct joint planning, advocacy and monitoring. The cluster system is well placed to provide advice on sector-specific environmental issues, such as green logistics, waste water management, sustainable energy provision, and other key environmental components of a response.

INDUSTRIAL ACCIDENTS

The United Nations Economic Commission for Europe (UNECE) Convention on the Transboundary Effects of Industrial Accidents: The UNECE Industrial Accidents Convention is a regional instrument that seeks to protect people and the environment by instituting measures to prevent, prepare for, and respond to industrial accidents. In the event of an industrial accident, notification, offers of assistance, and assistance requests are all completed through the UNECE Industrial Accident Notification System (IAN) website (www.unece.org/env/teia/pointsofcontact.html).

MARINE OIL SPILLS

The International Maritime Organization (IMO) is the Secretariat to over 40 international conventions addressing various marine issues, several of which contain measures to prevent and respond to accidents. Five of the IMO Conventions for oil spills are particularly relevant to environmental emergency response, including the 1990 International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), and the 2000 Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances (OPRC-HNS). More information on the IMO Conventions and the provision of emergency response assistance can be found on the IMO website (www.imo.org/en/About/Pages/ContactUs.aspx).

Several Regional Activity Centres (RACs) were developed by the IMO and supporting agencies such as UNEP to establish emergency preparedness and response activities related to marine pollution. Each RAC is listed below, along with a brief description:

- **The Marine Emergency Mutual Aid Centre of the Regional Organization for the Protection of the Marine Environment (MEMAC ROPME)**: The MEMAC ROPME works to strengthen the capacities of the contracting states of Bahrain, Iraq, Oman, Saudi Arabia, Iran, Kuwait, Qatar, and UAE, as well as to facilitate cooperation among them in order to combat pollution by oil and other harmful substances. The Centre also coordinates and facilitates information exchange, technological cooperation and training. Additional information on the activities of this regional centre can be located on the MEMAC ROPME website (http://www.memac-rsa.org/).

- **The Northwest Pacific Action Plan Marine Environmental Emergency Preparedness and Response Regional Activity Centre (NOWPAP MERRAC)**: MERRAC is responsible for regional cooperation regarding marine pollution prevention and response in the Northwest Pacific region and is supported by the UNEP and IMO. Additional information can be found on the NOWPAP MERRAC website (merrac.nowpap.org/).

- **The Regional Marine Pollution Emergency Response Centre (REMPEC)**: REMPEC assists the Mediterranean coastal States in ratifying, transposing, implementing and enforcing international maritime conventions related to the prevention of, preparedness for and response to marine pollution from ships. Additional information regarding this process can be located on the REMPEC website (www.rempec.org/).

- **The Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean (REMPEITC-Caribe)**: REMPEITC-Caribe is a Regional Activity Center for the Protocol Concerning the Cooperation in Combating Oil Spills in the Wider Caribbean Region. The Centre assists countries in the prevention and response of marine pollution through contingency planning, training and workshops, technical support and consultancy, and information and public awareness. More information can be found on the REMPEITC-Caribe website (www.cep.unep.org/racrempeitc).

- **The Regional Organizations for the Conservation of the Environment of the Red Sea and Gulf of Aden Marine Emergency Mutual Aid Centre (PERSGA/MEMAC)**: The PERSGA/MEMAC Centre provides regional coordination for Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen. The Centre has an established database on oil spills in the PERSGA region, has produced PERSGA/MEMAC Express Emergency Pocket Directories, and organizes training workshops on enhancing regional capacity for planning and response to marine pollution. Additional information can be found on the PERSGA/MEMAC website (www.persga.org/).

NUCLEAR AND RADIOLOGICAL EMERGENCIES

The International Atomic Energy Agency (IAEA) provides the Secretariat for the **Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE)**, which comprises over a dozen international organizations that have responsibility for preparing for, providing assistance to, and sharing information on nuclear and radiological emergencies. The IAEA is also the main coordinating body for the Joint Emergency Management Plan of the International Organizations (the Joint Plan), which provides the basis for a coordinated and harmonized international response to nuclear or radiological incidents and emergencies. The international emergency preparedness and response framework is based on the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. The IAEA Response and Assistance Network (RANET) is a network for providing international assistance, upon request from a State, following a nuclear or radiological incident or emergency.

The IAEA Secretariat fulfills its roles of emergency response through the Agency's Incident and Emergency System which can be found on the IAEA website (www.iaea.org).

RAMSAR WETLANDS

The **Ramsar Convention** provides a framework for the conservation and wise use of wetlands through local and national actions and international cooperation as a contribution towards achieving sustainable development globally. Recognizing the devastating impacts of disasters on Ramsar sites the Convention's role in natural disaster prevention has been outlined, including agreements with contracting parties in relation to requests for assistance, and shared mission funding. Additional information on the Ramsar Convention and the Convention's role regarding disaster prevention can be found on the Ramsar website (www.ramsar.org/).

TRANSBOUNDARY MOVEMENT OF HAZARDOUS WASTE

The Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal regulates the transboundary movements of hazardous wastes. Parties to the Basel Convention can request emergency assistance from the Secretariat of the Convention in order:

- To estimate the magnitude of damage occurred or damage that may occur and the measures needed to prevent damage;
- To take appropriate emergency measures to prevent or mitigate the damage; and
- To help find those Parties and other entities in a position to give the assistance needed.

In case of an incident occurring during a transboundary movement of hazardous wastes and/or other wastes covered by the Basel Convention, information regarding the request of emergency assistance can be found on the Basel Convention website (www.basel.int).

WILDLAND FIRES

The **Global Fire Monitoring Center (GFMC)** provides an international portal for documentation, information and monitoring for the early warning of fire threats and events in real time. In case of a large wildland fire that threatens national resources and/or national interests and thus requires response by the international community, the country affected may find information regarding response measures on the GFMC website (www.fire.uni-freiburg.de/emergency/un_gfmc.htm).

2.0 Tools and Resources for Information-Exchange

Organisations with the mandate and capacity for environmental emergency response have their own systems for responding to such events. This section describes those tools and resources applicable to all environmental emergencies and open to all response actors. Therefore, it is beneficial for both the receivers and providers of emergency response services to have knowledge of the scope, mandate, and procedures of other relevant organizations. Knowing where to access this information and how to update this information is included in the roles and responsibilities of emergency actors and can be coordinated through direct information exchange using the existing on-line platforms discussed in detail below.

Tools & Resources for Info-Exchange

| EEC |
| VOSOCC |
| OSOCC |
| Humanitarian Response |

PREPAREDNESS → RESPONSE → RECOVERY
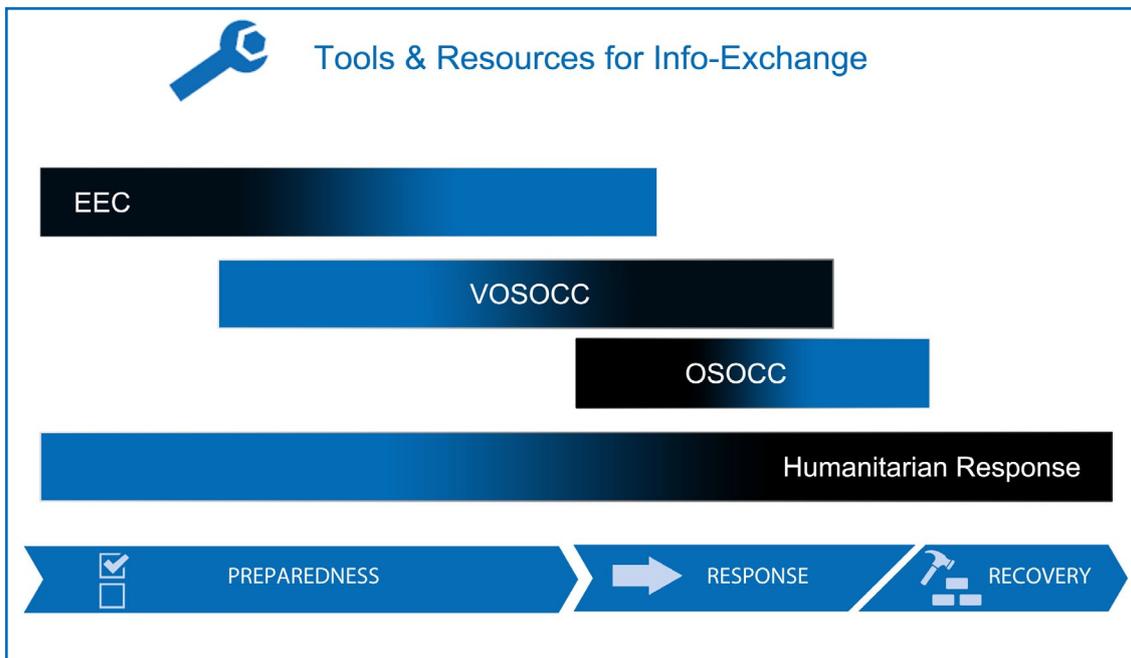
2.1 Online: Virtual On-Site Operations Coordination Centre (VOSOCC)

The Virtual OSOCC (VOSOCC) is a real-time, online coordination platform that allows information exchange in the early stages of an emergency. It is a component of the Global Disaster Alert and Coordination System (GDACS), a cooperative framework led by a Steering Committee and supported by OCHA's Emergency Relief Coordination Centre (ERCC-OCHA). In addition to the VOSOCC, GDACS provides near real-time alerts (e.g., earthquake, hurricane/typhoon, and flooding alerts), impact assessments, mapping, weather forecasting and information exchange standards. See also https://vosocc.unocha.org/

Through the VOSOCC, users have the opportunity to create e-mail and SMS messages that are sent automatically to subscribers to provide critical situation updates during disaster response operations. During ongoing disasters, there will be a separate section dedicated to the environmental aspects of the emergency. Industrial risk assessments for the affected country based on secondary data and other

relevant information are also made available through VOSOCC.

In between emergencies, the VOSOCC can also be used to facilitate training, meetings and workshops through e-mail notification, on-line participant registration and discussion of background material. It also provides the users with a discussion forum for any area of interest, including information exchange on best practice and lessons-learned after disaster response operation.

Access to the VOSOCC is restricted, requiring a password, to disaster managers from governments and disaster response organizations. Actors from the environmental emergency response system are recommended to actively use the VOSOCC for information exchange. Username and password can be requested online through the login page at the VOSOCC at http://vosocc.unocha.org/

OCHA has published a Virtual OSOCC Handbook, including step-by-step procedures for how to use VOSOCC in emergencies.

2.2 On the Ground: The On-Site Operations Coordination Centre (OSOCC)

The OSOCC concept is a rapid response tool for OCHA that works in close cooperation with the affected Government and the assigned national focal points. It provides a system for coordinating and facilitating the activities of international relief efforts at the site of a disaster. It is primarily used in sudden-onset disasters; however, it is applicable in other contexts where a mechanism for operational coordination does not exist or requires enhancement.

The OSOCC has two core objectives:

•   To rapidly provide a means to facilitate on-site cooperation, coordination and information management between international responders and the Government of the affected country in the absence of an alternate coordination system; and

•   To establish a physical space to act as a single point of service for incoming international response teams, notably in the case of a sudden-onset disaster where the coordination of many international response teams is critical for ensuring optimal rescue efforts.

Inside the operations function in the OSOCC, a dedicated Environmental Emergencies Coordination Cell may be established if the situation dictates. See the OSOCC Guidelines for more information.

2.3 Online: Humanitarian Response

Humanitarian Response (www.humanitarianresponse.info) is a specialised service of OCHA, aiming to be the central website for information management tools and services. The global site provides normative documents, guidance notes and templates and is complemented by country-specific emergency sites. Humanitarian Response is used in case of large-scale emergencies as a platform for sharing operational information between clusters and humanitarian organizations operating within a crisis.

2.4 Online: Environmental Emergencies Centre

The Environmental Emergencies Centre (EEC) (www.eecentre.org) is an online tool designed to strengthen the capacity of national responders to environmental emergencies. It builds on existing mechanisms, resources and services of EEC partners and users. It includes tools and guidelines, mission reports and lessons learned, online training modules, updated news and events from the EEC, and regional and global updates on current environmental emergencies.

Environmental emergency responders are encouraged to register on the EEC. Its Learning Management System allows users to search other registered users and to identify colleagues working on similar topics or in specific countries. The EEC thereby provides a platform for connecting responders with each other. For emergency response coordination, the VOSOCC and OSOCC should be used.

PREPAREDNESS FOR RESPONSE

Apart from emergencies, the JEU supports preparedness for response by raising awareness among communities, disaster responders, governments and industries through the development of technical capacity, and knowledge sharing. The Environmental Emergencies Centre (EEC – www.eecentre.org) is used to share resources and guidelines, and contains training modules on a wide variety of topics.

The JEU also supports environmental emergency preparedness through broader disaster preparedness and risk reduction initiatives, such as the IASC Emergency Response Preparedness (ERP) Framework (www.humanitarianresponse.info/en/programme-cycle/space/page/preparedness), and through other inter-agency initiatives including the Capacity for Disaster Reduction Initiative (CADRI - www.cadri.net/) and the UNECE Environmental Performance Review (www.unece.org/env/epr.html).

3.0 Best Practices for Receiving and Providing Assistance

The following section presents a "best practices" guide to environmental emergency assistance based on the experience and functioning of the JEU. International environmental emergency assistance is addressed in a cycle of six stages, to be carried out in each stage as described below. While developed from experiences of the JEU, these activities can equally be applied to the response support activities of other entities.
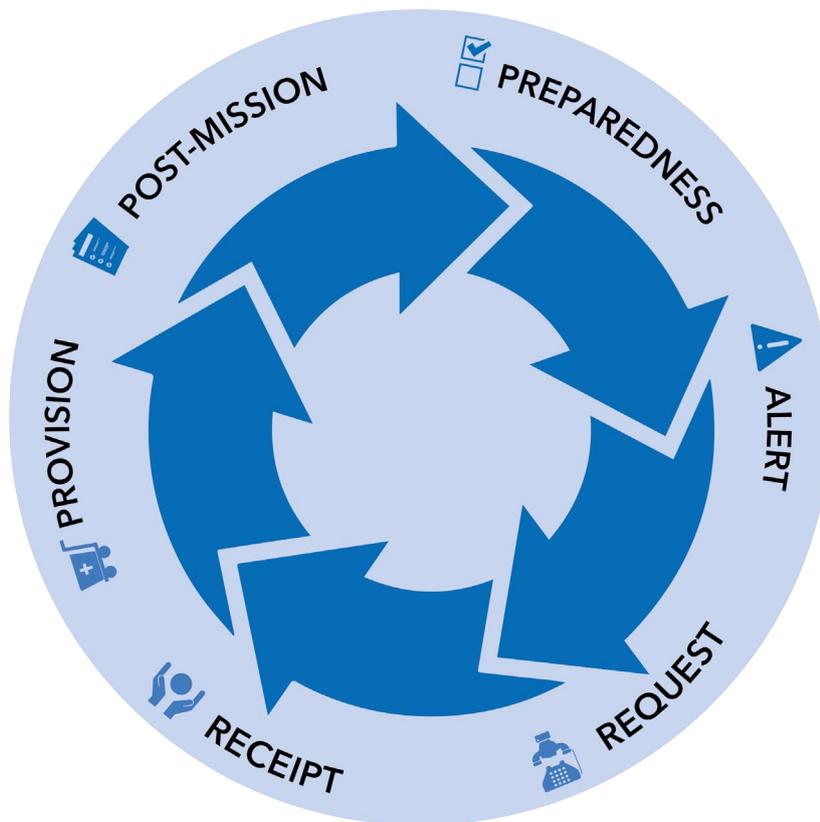
3.1 Preparedness

Preparedness is the knowledge and capacities developed by governments, professional response organizations, communities and individuals to effectively anticipate, respond to, and recover from the impact of likely, imminent or current hazard events or emergency situations warranting humanitarian response.[6]

Preparedness activities may include various forms of international support, such as support to early warning systems, review of legislation and institutional systems, training, exercises, facilitation, analysis of environmental risks and implementation of prevention, preparedness, risk reduction or mitigation measures.

RECIPIENTS' RESPONSIBILITIES:

✓ Initiate support for environmental emergency preparedness activities in-country through liaison with in-country/regional international and national organizations, UN agencies and the JEU;

✓ Maintain a focal point available 24/7 through phone and email that ensures that up-to-date contact information is available on the VOSOCC at all times. JEU contact information for non-emergency purposes can be found in the Introduction to these guidelines;

✓ Ensure institutional memory within the ministry/agency or organisation having the responsibilities as focal point for the various types of environmental emergencies and for disasters with significant environmental impacts;

✓ Be an active user of the EEC (e.g., share lessons identified from environmental emergencies, participate in eLearning courses and stay updated on current guidance);

✓ If feasible, host trainings and/or exercises focusing on environmental emergencies;

✓ If feasible, make equipment or resources available for preparedness activities;

✓ Implement and maintain procedures to request, or welcome offers of, international environmental emergency assistance according to sections 3.3;

✓ Implement and maintain procedures for receiving international environmental emergency assistance, or support to preparedness activities, including expeditious processing or complete waiver of customs and visa requirements (information to facilitate support through customs can be found on OCHA's website);

✓ In case of missions to support preparedness activities, ensure that all affiliated governmental institutions and private corporations are aware of the mission and that all arrangements for field visits/interviews are made in advance;

✓ Develop capacity to implement international environmental emergency assistance in national or organisational coordination mechanisms;

✓ Should JEU support for preparedness activities be requested, the procedures outlined in section 4.2 should be followed.

> ### PREPAREDNESS IN ACTION
>
> The Armenian Crisis Management State Academy, together with JEU and the United Nations Development Programme (UNDP) in Armenia, conducted a Training of Trainers (ToT) on environmental emergencies and the use of the Flash Environmental Assessment Tool (FEAT).

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6. OCHA Policy Instruction: The Role of OCHA in Emergency Response Preparedness (2015).

JEU'S RESPONSIBILITIES:

- ✓ Advocate and promote awareness about environmental emergencies and the international environmental emergency response system;

- ✓ Promote awareness within concerned governmental or organisational entities about international environmental emergency resources, particularly the JEU and SAGEE;

- ✓ Disseminate information from the JEU, such as reports and invitations to EEF meetings, workshops and training opportunities;

- ✓ Maintain a directory of focal points of environmental emergency providers, in cooperation with OCHA's Field Coordination Support Section (FCSS);

- ✓ Act as resource centre for the facilitation of technical advice in national environmental emergency preparedness planning;

- ✓ Act as broker of support to preparedness activities, and, if required, support the mission in a similar fashion as during environmental emergencies;

- ✓ Ensure 24/7 availability to give technical advice on environmental emergencies and assist affected countries in assessing the need for international assistance.

ENVIRONMENTAL EMERGENCY PROVIDERS' RESPONSIBILITIES:

- ✓ Ensure appropriate procedures for processing of requests received from affected countries or through the JEU according to sections 3.3 and 3.4 are in place;

- ✓ Ensure that all environmental experts are trained and ready to deploy, such as participation in UNDAC (Environmental Emergencies) Trainings, EEC online trainings, and others as appropriate;

- ✓ Ensure that all environmental experts likely to be deployed internationally in response to an environmental emergency are properly vaccinated according to international standards, have valid travel documentation, and have sufficient knowledge about the international emergency environment, including proficient safety and security training;

- ✓ Have preparations in place for sufficiently packing, marking and classifying equipment according to international standards. (See also Section 4.4);

- ✓ Clarify reporting lines, administrative routines, and funding issues with JEU when providing support to preparedness activities;

- ✓ Bear all costs related to international deployment and ensure self-sufficiency of deployed resources;

- ✓ Bear all costs for transport, analysis and interpretation of samples that need to be conducted in other country with required facilities – after agreement by recipients, JEU and providers on sampling plans and costs in the first phase of an emergency mission;

- ✓ Bear all the administrative responsibilities for the environmental expert when on mission, including medical insurance, costs of medical evacuation, consultancy fees. See also section 4.5 for the official "Status of Experts".

3.2 Alerts

The stage when awareness about an incident potentially requiring international environmental emergency assistance is established.

RECIPIENTS' RESPONSIBILITIES:

✓ Monitor potential secondary environmental consequences following the impact of natural disasters, large industrial accidents or other forms of man-made disasters;

✓ Contact, without delay, the UN Resident Coordinator in country, copying – if possible - the OCHA Regional Offices and UNEP Regional Offices, if the incident is not within the scope of the national capacities and resources. The OCHA / UNEP Regional Office will subsequently liaise with the JEU. For initial technical advice, the JEU can also be reached through OCHA's Emergency Duty Officer Number: Tel **+41 22 917 2010**, or advice can be received through the OCHA and UNEP Regional Offices;

✓ Provide available information through email to the UN Resident Coordinator on the nature of the incident, location and description using the "Notification and Request for Assistance" Form (See Annex) as a checklist;

✓ Ensure the appropriate national authority formally requests international assistance through the UN Resident Coordinator or issues a statement welcoming offers of such assistance.

JEU'S RESPONSIBILITIES:

✓ Monitor potential secondary environmental consequences following the impact of natural hazards or large accidents through media, situation reports, and/or through contact with regional and/or in-country UN representation;

✓ Contact without delay either OCHA and/or UNEP Country Office, OCHA and/or UNEP Regional Office, or OCHA's Coordination and Response Division (CRD) and, through the appropriate entity enquire if international assistance is required and coordinate this with other regional and/or in-country UN representation;

✓ Advise the relevant authorities of the affected country on the actions to take and/or what resources may be available to them should they wish to request international assistance;

✓ Inform partners (e.g., UNDAC, ECHO ERCC), potential responders, and international partners with interface procedures according to section 4.1 about the incident and make relevant information available on the VOSOCC;

✓ Prepare to mobilize international resources should the situation require international assistance.

ENVIRONMENTAL EMERGENCY RESPONDERS' RESPONSIBILITIES:

✓ Monitor potential secondary environmental consequences following the impact of natural hazards or large accidents through the VOSOCC, media, and/or situation reports;

✓ Be prepared to mobilize resources and offer assistance either bilaterally to the affected country or through the JEU;

✓ Inform the JEU about capacity and stand-by status, and make relevant information available, preferably on the VOSOCC.

ALERTS

On 9th December 2014, an oil tanker accident occurred in the Chandpai Wildlife Sanctuary of the Bangladesh Sundarbans mangrove forest, releasing approximately 358,000 litres of heavy fuel oil. In the days that followed, UNDP Bangladesh, JEU and OCHA and UNEP Regional Offices liaised with national counterparts to establish whether international expertise would be required to complement the local and national response to the accident.

3.3 Requests

? The stage when a recipient formally asks for international environmental emergency assistance.

RECIPIENT'S RESPONSIBILITIES:

✓ Provide technical information in an email or official letter in cooperation with the JEU using the "Notification and Request for Assistance" Form in the Annex as a checklist, or submit the form directly to the aforementioned contact details (see section 3.2);

✓ If it is, for any reason, not possible to issue a formal request, ensure that a statement, welcoming offers of international assistance, is forwarded to regional and/or in-country UN representation and/or JEU and be prepared to exchange technical information about the incident using the "Notification and Request for Assistance" Form (See Annex) as a checklist;

✓ Inform other relevant national authorities about the request for international assistance;

✓ Prepare for receipt of international assistance (see section 3.4).

JEU'S RESPONSIBILITIES:

✓ In cooperation with the focal point, assess the preliminary information provided using the "Notification and Request for Assistance" Form (See Annex) as a checklist;

✓ Based on the information received, forward a request for assistance to potential providers and, if required, to partners where interface agreements exists (Section 4.1), and post information on the VOSOCC;

✓ Prepare and coordinate deployment of assets, either independently or together with UNDAC or other type of international deployment (e.g., through ECHO ERCC, or other partner where an interface agreement exists);

✓ Provide continuous updates on the VOSOCC on all matters regarding the deployment (e.g., country specific risks prepared overall situation updates, contact information);

✓ Communicate with regional and/or in-country UN representation, especially OCHA and UNEP Regional Offices, and advocate for facilitation of the receipt of international assistance.

ENVIRONMENTAL EMERGENCY PROVIDERS' RESPONSIBILITIES:

✓ Confirm receipt of request to the JEU through email or VOSOCC, see section 1.3.1;

✓ If notification of the incident is also received through other frameworks (i.e., those international providers JEU has interface agreements with (Section 4.1), clarify communication lines and coordination procedures before offer of assistance is given;

✓ Assess own resources and, if feasible, mobilize and offer assistance either bilaterally to the affected country or through the JEU;

✓ Keep JEU informed of any offers of bilateral assistance;

✓ Once a decision has been made to deploy, make an entry into the VOSOCC stating what resources will be deployed, their capacity, and estimated time of arrival.

REQUESTS FOR ASSISTANCE

Following reports of a major fuel pipeline explosion and fire in the Mukuru-Sinai slum of Nairobi, Kenya, the JEU received an official request for assistance from the Kenyan Ministry of Environment and Mineral Resources through the UN Resident Coordinator (UNRC).

3.4 Receipt

The stage when a country receives international environmental emergency assistance in its own national territory.

RECIPIENT'S RESPONSIBILITIES:

✓ Facilitate the arrival of international environmental emergency assistance, including expeditious processing or complete waiver of customs and visa requirements;

✓ Provide regular information to arriving experts/response teams with regard to entry points, customs and visa requirements, and other arrival arrangements and either post this information on the VOSOCC or forward it to the JEU;

✓ Coordinate arrival arrangements with regional and/or in-country UN representation.

JEU'S RESPONSIBILITIES:

✓ Act as a link between environmental emergency providers, recipients, regional and/or in-country UN representation;

✓ Ensure that relevant information is shared in a timely manner, including making it available on the VOSOCC;

✓ Ensure that relevant media statements are prepared and cleared with UN media focal points.

ENVIRONMENTAL EMERGENCY PROVIDERS' RESPONSIBILITIES:

✓ Ensure that all mission-related equipment is sufficiently packed, marked and classified according to international standards (see also Section 4.4);

✓ Ensure that all staff have sufficient and valid travel documentation and vaccinations;

✓ If environmental emergency assistance forms part of an UNDAC team, or other type of deployment, contact the Team Leader as early as possible – ideally, before departure – to agree on further actions;

✓ Upon arrival in the recipient country, contact the requesting party (or their representatives) and/or in-country UN representatives;

✓ Should anything unforeseen occur during travel, such as missing a flight connection, the JEU should be immediately informed.

RECEIPT OF ASSISTANCE

In response to two contamination incidents in La Pasión River, Guatemala, a mission was mobilized in July 2015 through the JEU to provide sampling and analysis advice to local authorities. An official attestation for the experts was prepared in collaboration with the national focal point, who also supported the entry of the experts and their analysis equipment into the country.

3.5 Provision

The stage when environmental emergency responders assist a country with specific resources to mitigate the impact of hazards or accidents.

RECIPIENT'S RESPONSIBILITIES:

✓ A liaison person with environmental and operational knowledge should be seconded to the environmental emergency responders to act as mission lead, liaising with national authorities, with additional technical focal points to be added as appropriate;

✓ Ensure that the received assistance is integrated into national coordination mechanisms;

✓ Provision of necessary approvals to access areas, conduct sampling and use necessary technical equipment;

✓ Facilitate liaison and communication with all relevant stakeholders ensuring the access to information by the international environmental emergency responders;

✓ Ensure that emergency advice on how to deal with the impact of the hazard/accident is communicated to national authorities and, if necessary, to the affected population.

JEU'S RESPONSIBILITIES:

✓ Manage the information on the VOSOCC and provide regular situation updates;

✓ Ensure that information about the environmental emergency response is included in overall situation reports;

✓ Ensure that sufficient links are established and maintained with regional and/or in-country UN representation;

✓ If necessary, ensure that the assistance is coordinated with other forms of international response;

✓ As required, support the appropriate staffing of an Environmental Emergency Coordination Cell in an OSOCC in cooperation with OCHA's Field Coordination Support Section (FCSS) and the deployed UNDAC team;

✓ Act as backstop for the mission and ensure that necessary administrative support is provided in cooperation with the providing country;

✓ Mobilize and coordinate additional assistance if needed.

ENVIRONMENTAL EMERGENCY RESPONDERS' RESPONSIBILITIES:

✓ Coordinate all activities with national authorities and international coordination mechanism, such as the OSOCC;

✓ Through the expert, assess the impact of the incident and communicate the results in the form of a written mission report promptly to all concerned parties;

✓ If necessary, provide the national authorities and the affected population with emergency advice on immediate actions to be taken;

✓ Promptly communicate needs for additional international resources, including possible additional sampling and analysis, to the JEU (and the OSOCC if such is in place) if necessary;

✓ Provide updates on mission activities through JEU via email;

✓ In all activities, behave with respect for the affected countries' customs, traditions and religion and adhere to the humanitarian principles of humanity, neutrality, impartiality and independency.

PROVISION OF ASSISTANCE

An environmental expert was deployed as part of the UNDAC team deployed during Typhoon Haiyan / Yolanda in the Philippines. The environmental expert used the Flash Environmental Assessment Tool (FEAT) to determine the acute environmental impacts posing risk to humans and the environment in the aftermath of the disaster.

3.6 Post-Mission Activities

The stage when international environmental emergency responders complete their mission and depart to their home country.

RECIPIENT'S RESPONSIBILITIES:

✓ Facilitate the departure of international assistance teams and equipment, possibly including export of samples of hazardous material for further analysis;

✓ Ensure that the mission report is disseminated to concerned national entities and that relevant information is shared with affected communities;

✓ Ensure that recommended recovery actions and disaster risk reduction measures are implemented;

✓ Remain available for follow-up discussions and analysis on implementation of mission recommendations and their impact.

JEU'S RESPONSIBILITIES:

✓ Ensure that the mission report is disseminated to relevant international entities, including regional and/or in-country UN representation;

✓ In cooperation with regional and/or in-country UN representation, ensure that a proper transition between emergency response and early recovery takes place;

✓ If necessary, facilitate technical expertise and resources to support the affected country in the implementation of recommendations;

✓ Facilitate an evaluation of emergency procedures and disseminate findings to all stakeholders and make them available on the VOSOCC;

✓ Follow up on status of mission's recommendations three months after the conclusion of the mission, in collaboration with mission partners;

✓ If necessary, facilitate review of emergency procedures based on lessons learned.

ENVIRONMENTAL EMERGENCY RESPONDERS' RESPONSIBILITIES:

✓ Devise transition/exit strategy in cooperation with national authorities and regional and/or in-country UN representation taking into account measures for early recovery and disaster risk reduction;

✓ Ensure that all mission related equipment is sufficiently packed, marked and classified according to international standards before departure, including samples of hazardous material brought back for further analysis (see also Section 4.4);

✓ Evaluate deployment performance and communicate recommendations for updates of emergency procedures to JEU.

POST-MISSION ACTIVITIES

Following a fire in Paraguay involving polychlorinated biphenyls, a team of experts mobilized through OCHA, UNEP, UNEP Basel, Stockholm, Rotterdam Conventions Secretariat, UCPM and PAHO, were deployed to provide assistance to the Government of Paraguay. As part of their post-mission activities, the team wrote a mission report that proposed a set of risk-reduction measures and key objectives for future implementation. Follow-up missions to the country were subsequently undertaken by the UNEP Regional Office for Latin America and the Caribbean.

4.0 Resources

This section contains resources that may be useful during environmental emergencies.

4.1 List of International Providers

As of March 2016, the following are registered with the JEU as providers of assistance to international environmental emergencies:

- Austria
- Canada
- Denmark
- France
- Germany
- The Netherlands
- Norway
- Singapore
- Sweden
- Switzerland
- (European)Union Civil Protection Mechanism
- United Kingdom
- United States of America
- Veolia Environment Foundation

The providers listed above have a network of technical experts that can be deployed to a mission at the expense of the deploying country.

4.2 Request for environmental preparedness support

? The following criteria have been developed in order to ensure that JEU support for preparedness activities is effective, targeted, strategic and sustainable. Table 1 outlines a minimum set of mandatory process/ operational requirements, and Table 2 outlines criteria to be evaluated as part of a request for assistance. Thresholds for engagement must include at least 2 criteria evaluated as "strong", and not more than one can be listed as "weak".

For countries that do not qualify for focused JEU support based on the above evaluation criteria, limited technical support can still be provided, for example through the EEC. The need and scope of technical assistance can be discussed in detail but could include, for example: online trainings, remote review of plans, establishing connections with other partners and/or requesting follow-up by other international actors or bilateral donors.

Table 1. MANDATORY REQUIREMENTS

	Criteria	Explanation
1.1	Formal request soliciting JEU engagement has been submitted by the Member State to the UN Resident Coordinator/Country Team.	Formal request should be signed by senior official of relevant national authority (Ministry, Agency / Office for Disaster Management and/or Environment).
1.2	The request has been endorsed by the UN Country Team.	Consultations to take place between national focal point, UN Resident Coordinator in country and JEU; ensuring alignment with UN programme and priorities in the country.
1.3	The UN's neutrality and independence is respected.	The request should be in line with the UN principles of neutrality, impartiality and operational independence.
1.4	The security situation within the country or parts of the country permits the requested activities.	Security situation to be assessed based on UN Department of Safety and Security policy.
1.5	Access to all relevant sites will be allowed.	Access to relevant locations, especially for hazard mapping, will be allowed.

TABLE 2. CRITERIA TO BE EVALUATED

	Criteria	Strong	Average	Weak
Ownership				
2.1	Links to national strategy, programme and/or legislation.	At least two national strategies/programmes have clear links to environmental emergencies; as identified and communicated by national focal point (NFP).	At least one national strategy/programme has clear links to environmental emergencies; as identified and communicated by NFP.	Environmental emergencies not listed in any national strategies or programmes.
2.2	NFP with assigned mandate on environmental emergency response and preparedness [7].	NFP assigned;[8] environmental emergencies clearly part of NFP mandate.	NFP assigned; environmental emergencies touches upon NFP mandate but not clearly articulated.	NFP assigned; no environmental emergency related topics mentioned in NFP mandate.
Sustainability				
2.3	Availability of financial resources.	Sufficient financial resources available for country-level work; whether through international or national partners.	Limited financial resources available for country-level work; whether through international or national partners.	Only in-kind resources available (staff time, equipment, etc.).
2.4	Timeframe of planned activity.	Activity is planned as part of multi-year national programme.	Activity is planned as part of an annual national programme.	Activity is stand-alone.
Environmental emergency risk				
2.5	Environmental Emergency Risk Index (EERI) rating [9].	Country is rated top 30 in EERI.	Country is rated top 50 in EERI.	Country >top 50 in EERI.
Partnerships and synergies				
2.6	Opportunities for synergies through engagement of national partners.	At least three additional national partners consulted and engaged.	At least one additional national partner consulted and engaged.	No additional partner consulted / engaged.
2.7	Opportunity for synergies though engagement of international partners.	At least two international partners with in-country presence consulted and engaged.	At least one international partner with in-country presence consulted and engaged.	At least one available international partner consulted and engaged but does not have in-country presence.

7. NFP should be ready to sign a Memorandum of Understanding, or similar written statement, with the JEU as part of project inception. Details of roles and responsibilities vis-à-vis JEU and NFP will be outlined in the MoU/statement.
8. NFP can be the same as the requesting authority, or clearly identified in the official request.

9. Should the threshold number of criteria be met, a second phase of Environmental Emergency Risk evaluation in-country should take place, focusing on the elements of hazard, vulnerability and capacity. This gap analysis should take into account the type of interventions best suited to help with the relevant risk elements, as well as the capacity development endeavors and target audiences. Elements of the assessment would ideally already have been undertaken/conducted as part of previous inter-agency assessments. This stage will also look at the capacity of the NFP.

TABLE 2. CRITERIA TO BE EVALUATED

Criteria		Strong	Average	Weak
Capacity				
2.8	Systemic Capacities	More than one national institution has responsibilities for responding to environmental emergencies within a coordination framework.	At least one national institution is mandated to respond to environmental emergencies.	Environmental emergencies are not specifically the responsibility of any agency, nor is there a mechanism for coordinating a response.
2.9	Institutional Capacity	Specialised organisations are mandated to respond to specific types of environmental emergencies.	One agency has overall responsibility for responding to environmental emergencies.	No agency has the mandate or resources to respond to environmental emergencies.
2.10	Staff Capacity	Individuals are certified according to national/ international standards to respond to specific types of environmental emergencies.	Individuals have general training and knowledge of environmental emergencies, but no specialized skills.	Individuals have not undertaking any training and low level of awareness of environmental emergencies.

4.3 Flash Environmental Assessment Tool (FEAT)

The Flash Environmental Assessment Tool (FEAT) was initially developed at the request of the JEU based on lessons stemming from the 2004 Indian Ocean Earthquake and Tsunami. The aim was to provide a standardised, scientific assessment methodology to prioritize the impacts of chemical accidents following large scale, sudden onset natural disasters. Version 1.1 of FEAT was developed by the National Institute for Public Health and the Environment of the Netherlands, with support from the Inspectorate of the (then) Ministry of Housing, Spatial Planning and the Environment of the Netherlands as well as DHV-Engineering Consultancy.

Using the FEAT methodology, non-experts can quickly identify and prioritize locations with an evident risk of technological accidents and corresponding chemical releases. The FEAT approach presents expected hazards and their corresponding impacts on humans, life-support functions and the environment. Since 2008, global experts and UNDAC teams have used the FEAT methodology during incidents such as the 2008 Haiti hurricanes, the 2008 Ecuador floods, the 2008 ammunition depot explosion in the Democratic Republic of Congo, the 2008 Zanzibar power outage, and the 2012 Bhopa/Pablo tropical storm in the Philippines. In addition, FEAT has been used in over 35 preparedness activities and for industrial hazard mapping in Kenya, Zambia and Mauritius. A new version called FEAT 2.0 with focus on both preparedness and response was launched in 2016. As an international tool developed and used by several UN agencies, FEAT is available for free for regional organizations and member states.

The intended users of FEAT under preparedness and response are as follows:

*   Emergency Preparedness: FEAT-P is directed primarily at government authorities, technical institutions, and parties involved in the development (or improvement) of chemical accident programmes in order to reduce risks for neighbouring communities.

*   Emergency Response: FEAT-R is directed primarily to international responders, such as members of UNDAC and Urban Search and Rescue (USAR) teams, as well as local authorities, environmental entities and disaster management agencies.

FEAT FOR PREPAREDNESS

The popularity of the FEAT tool among national disaster managers, and the call for the need to identify and address multi-hazard risks as part of the disaster risk reduction frameworks led to the use of FEAT for industrial hazard mapping. Advantages in applying FEAT for preparedness include the science-based and easy-to-use format, the relative limited time needed to use the tool, and low-cost to compile an overview of the "most" hazardous facilities. This advantage is particularly strong when the national legislation regulating hazardous installations is limited or completely lacking. The tool also requires

very low investments by the country: a free online training exists, while a workshop, including a full day FEAT training for stakeholders lasts typically two to three days. FEAT can thus fill a gap while legislation, environmental permitting systems and land-use planning need to be (further) developed.

Hazard mapping using FEAT can be used as a first awareness-raising step when embarking on a more comprehensive chemical accident prevention and preparedness (CAPP - www.capp.eecentre.org/) programme. Similarly the process can be useful for identifying priority facilities for which industrial accident preparedness programmes need to be developed, for example using the UNEP Awareness and Preparedness for Emergencies at Local Level (APELL - http://www.unep.org/resourceefficiency/Business/CleanerSaferProduction/SaferProduction/APELL/tabid/78881/Default.aspx) process. A preparedness FEAT assessment should be followed by identified priority actions such as conduction of detailed risk assessments at the local level, creation of industrial hazard maps, regulation and enforcement of land-use in the vicinity of industrial facilities, and training disaster managers and adjacent communities on chemical accident response.

FEAT FOR RESPONSE

FEAT was originally developed for disaster responders to quickly identify and prioritize locations posing secondary risk to humans, livelihoods and the environment. In 2016, a FEAT Pocket Guide for Response was developed. The FEAT Pocket Guide serves first responders in the field with a compact reference and hands-on reminder for those who are already familiar with the concept and use of FEAT. The impact assessment process is described as short and simple as possible, and is designed for UNDAC members and other responders to conduct rapid assessments in the field. The Pocket guide adds focus and ease of use by providing predefined estimates of most likely and prior hazards.

The output of a FEAT assessment is collected in a FEAT impact table, showing the types of facilities present in an area and the associated expected impacts. The JEU has developed around 40 country-based FEAT impact tables, where known and expected facilities and their associated impact are provided. These tables are provided on the V-OSOCC in case an emergency strikes. As a preparedness tool, these FEAT impact tables provide entry points for environmental emergency responders and environmental experts to identify potential risks from infrastructure installations like dams, nuclear facilities, hazardous waste storage sites and industrial facilities and provides the basis for further field assessments.

The FEAT Pocket Guide and online learning series are available on the Environmental Emergencies Centre (www.eecentre.org).

4.4 Logistics

Environmental emergency responders deploying to disaster-affected areas often carry large quantities of equipment for use in addressing environmental impacts. Many countries have laws in place for customs duty and/or restriction exemptions with regard to certain types of goods imported/exported for humanitarian relief. It is also common for governments to have special emergency provisions in their customs legislation allowing for special arrangements being put in place for processing of incoming relief items following a major disaster.

Nevertheless, international responders should always be able to present detailed manifests of the equipment they carry in order to facilitate expeditious customs processing. A manifest should, at a minimum, contain the following information:

1. Date – Stating the date of the export/import;

2. Reason for Import – A short description stating that the equipment is for humanitarian assistance or emergency relief;

3. Shipper/Owner – Stating who owns and is responsible for the shipment during transport. Shipper and owner will in most cases be the same, unless equipment is sent as unaccompanied cargo;

4. Consignee – Name and contact details of the person responsible for the consignment once it has reached the country of destination. For equipment brought by relief teams, etc. this will usually be the same as shipper/owner;

5. Terms of Delivery – Refers to the international commercial term (incoterm) that applies to the shipment. They are normally used to divide transaction costs and responsibilities between buyer and seller in international commerce and stated on an invoice for customs purposes. For equipment imported by relief teams it is recommended to use the code CIF, which indicates that Cost, Insurance, Freight is included in the invoiced value;

6. Overview – A table specifying the various items imported with description, quantity, weight/volume, estimated value in international well-known currency (e.g., USD) and possibly serial numbers of the items. Above or underneath the table the total quantity, weight, volume and value should be indicated. However, it should be stated that the item is not imported for commercial purpose;

7. Declaration – At the end of the manifest a declaration is normally included stating that the equipment is intended to be used, disposed of, or re-exported. Furthermore, it is also declared what origin the equipment has, often referred to in customs-terms preferential status.

A manifest may be structured as a Proforma Invoice to confirm that the equipment is not intended for commercial purposes, but only for the owner's professional use. See Annex for example.

DANGEROUS GOODS

Packing, marking and transport of samples, chemicals, and toxic materials may be considered a safety risk during air transport. Two international bodies are involved in regulating this:

• International Civil Aviation Organization (ICAO) - Is a part of the United Nations and represents the different aviation authorities of UN Member States. ICAO manages the regulatory aspects of national civil aviation, makes recommendations, and sets standards that should be implemented by national civil aviation authorities.

• International Air Transport Association (IATA) - Represents most major airlines, and deals with

commercial aspect of airline operations (e.g., ticketing, interline baggage transfer, liability limits).

The ICAO Convention on International Civil Aviation — The Safe Transport of Dangerous Goods by Air - contains broad provisions for the international transport of dangerous goods by air. Paragraph 5 provides provisions for the transport of samples when the hazard class of a substance is uncertain and it is being transported for further testing, please see link below.

While ICAO sets the standards for international transport, it is up to each state to incorporate the standards into their national legislation. For contact information on the national designated authorities responsible for ensuring compliance with ICAO guidance, please see link below.

Annually, the International Air Transport Association (IATA) issues a manual of "Dangerous Goods Regulations" specifying how certain items may be transported by air. It is required by IATA that certification through specific training courses be conducted before the regulations can be applied by transporters and shippers of unaccompanied goods. Read more about IATA Dangerous Goods Guideline or contact a nearby consolidator/shipper for further information see link below.

LOGISTICS RESOURCES

If the recipient country accepts the use of an Admission Temporaire/Temporary Admission Carnet (ATA Carnet) for the provisional admission of professional equipment, it may be advantageous to investigate if the issuance of such a document is an option.

The Logistics Cluster may be activated in a large scale disaster and may be able to provide procedures and contacts for incoming relief and responders.

When activated, the Logistics Cluster is responsible for information management and coordination (such as infrastructure assessment, port and corridor coordination, transporters and rates, customs, equipment supplier information), and where

necessary, service provision, in the logistics sector during emergency response operations.

The Logistics Cluster has also published a Logistics Operational Guide (LOG). This guide is designed to be a single source of best practices comprised of a logistics templates, operational tools, references, and guidelines that should be of use to all humanitarian individuals and agencies. Additionally, a Logistics Capacity Assessment (LCA) is an online tool that provides information for multiple countries regarding logistics infrastructure services in a given country and enables the sharing of information both within the World Food Programme and the global humanitarian community.

USEFUL WEB LINKS:

- **ATA Carnet**
http://iccwbo.org/products-and-services/trade-facilitation/ata-connections/
- **National designated authorities for ICAO guidance**
http://www.icao.int/safety/DangerousGoods/Pages/Dangerous-Goods-National-Authority.aspx
- **ICAO Technical Instructions for dangerous goods**
http://www.icao.int/safety/DangerousGoods/Pages/technical-instructions.aspx
- **IATA Dangerous Goods Guidelines**
http://www.iata.org/publications/Pages/standards-manuals.aspx
- **The Logistics Cluster**
http://www.logcluster.org/
- **Logistics Operational Guide**
http://log.logcluster.org/index.html
- **Logistics Capacity - Assessment**
http://dlca.logcluster.org/display/public/DLCA/LCA+Homepage
- **List of hazard symbols for transport of hazardous goods by road and rail**
http://www.unece.org/fileadmin/DAM/trans/danger/publi/ghs/ghs_rev06/English/05e_annex1.pdf)

4.5 Safety and security

All environmental emergency missions will involve an element of risk. Threats to safety caused by natural disasters, or by post-disaster situations, may include the risk of further danger (e.g., landslides after floods or heavy rains, after-shocks in connection with earthquakes, un-safe housing after various disasters, leaking gas pipes and exposed electric cables after earthquakes, floods).

While complete safety and security are unobtainable, good safety and security are not. There should be a balance between security requirements, available resources, and the task at hand (i.e., security precautions should not prevent completion of the task). This is achieved by doing everything reasonable to reduce risk (e.g., Security Risk Assessment, Risk Analysis Table) and then balancing any remaining risk with the criticality of the mission activity.[10] The primary responsibility for the security and protection of international responders rests with the host Government. This does not exempt responders from supplementing measures put in place with additional precautions.

At the country level, the senior United Nations staff member is responsible for the safety and security of all staff in-country. While this individual, along with security and safety professionals within the United Nations Department of Safety & Security (UNDSS), will do everything reasonable to reduce the risk for the staff, each member is expected to take responsibility for their own safety and security. This is especially pertinent when working in areas with possible chemical contamination, which UN staff and associated experts are not expected to do unless appropriately trained and equipped.

All environmental experts are advised to take the following UN courses:

• Basic Security in the Field II

• Advanced Security in the Field

Both can be found here: https://training.dss.un.org/courses/login/index.php

SAFETY AND SECURITY PRECAUTIONS

In general, the precautions that may be taken to alleviate risks are three-fold: those to be taken as a group and/or team; those to be taken by the individual; and those to be taken when protecting your essential resources (e.g., equipment).

When working in a team or a group, a Team Leader is appointed, and this person should ultimately be responsible for team safety and security. However, everyone has a co-responsibility for adhering to the measures put in place. Breaches in safety and security procedures may well endanger the team and/or the mission; therefore, it is essential that all contribute to the established security plan.

A plan outlying safety and security rules should be made as soon as possible after arriving in a disaster affected country. The plan should entail procedures for tracking of team members, measures to be taken at various locations of work, contingency procedures for evacuation and incidents requiring medical assistance.

Safety and security measures should be realistic. The level of the risk dictates the level of safety and security measures to be taken. The measures taken should be established on the basis of information received from, among others, the UN, the authorities, and humanitarian organizations in the area together with military and police intelligence, where appropriate. Team leaders should connect with appropriate officials within the affected country, and/or the UN to obtain regular updates.

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10. OCHA United Nations Disaster Assessment and Coordination (UNDAC) Field Handbook (2013).

On a personal level there are several issues one should be aware of when working in a location that may involve safety and security threats. The following are suggestions that may be applicable regardless of level of risk:

- Know and follow security and safety procedures/plan
- Be an asset to your group; not a liability
- Be "street wise" and take precautionary measures other than those from your home country
- Observe local behaviour/culture and adapt accordingly
- Never carry large amount of money in one place.
- Always carry important documents with copies at all times
- Wear safety equipment as appropriate
- Make it obvious who you are (i.e., properly uniformed or visible ID-tags)
- Never drive a car yourself
- Report your movements
- Be cautious with cameras
- Better safe than sorry, but let common sense prevail

STATUS OF EXPERT

When being deployed as an associate expert to an UNDAC team, or upon request of the JEU, the expert does not fall under the auspices of UN security umbrella – unless the expert deploys as a Stand-By Partner and is covered through an MoU between the providing party and UN OCHA.

In practice this means that an expert is a de facto bilateral responder, seconded by his/her employer or government to support an UN mission, but the expert does not enjoy the same privileges as UN staff with regards to employer's responsibilities (e.g., insurances and security); these will be the responsibility of the employer or Government. The associate expert will, however, be included in any procedures and plans put in place (e.g., mission plan of action).

ANNEX 1: List of abbreviations

APELL	Awareness and Preparedness for Emergencies at Local Level
ASEAN	Association of South East Asian Nations
ASEAN-ERAT	Association of South East Asian Nations Emergency Response and Assessment Team
ATA Carnet	Admission Temporaire/Temporary Admission Carnet
BSEC	Black Sea Economic Cooperation
CADRI	Capacity for Disaster Reduction Initiative
CAPP	Chemical Accident Preparedness and Prevention Programme
CDEMA	Caribbean Disaster Emergency Management Agency
CEPREDENAC	Coordination Center for the Prevention of Natural Disasters in Central America
CRD	OCHA's Coordination and Response Division
DTIE	UNEP's Division of Technology, Industry and Economics
ECHO	European Commission Directorate-General for Humanitarian Aid and Civil Protection
EEC	Environmental Emergencies Centre
EEF	Environmental Emergencies Forum
EERI	Environmental Emergency Risk Index
ERCC - ECHO	ECHO's Emergency Response Coordination Centre
ERCC - OCHA	OCHA's Emergency Relief Coordination Centre
ESB	OCHA's Emergency Services Branch
FCSS	OCHA's Field Coordination Support Section
FEAT	Flash Environmental Assessment Tool
GDACS	Global Disaster Assessment and Coordination System
GFMC	Global Fire Monitoring Center
IACRNE	Inter-Agency Committee on Radiological and Nuclear Emergencies
IAEA	International Atomic Energy Agency
IAN	Industrial Accident Notification System
IASC	Inter-Agency Standing Committee
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IFRC	International Federation of Red Cross and Red Crescent Societies
IMO	International Maritime Organization
INSARAG	International Search and Rescue Advisory Group
JEU	Joint UNEP/OCHA Environment Unit
MEMAC ROPME	Marine Emergency Mutual Aide Centre of the Regional Organization for the Protection of the Marine Environment
NATO	North Atlantic Treaty Organization
NOWPAP MERRAC	Northwest Pacific Action Plan Marine Environmental Emergency Preparedness and Response Regional Activity Centre
OCHA	UN Office for the Coordination of Humanitarian Affairs
OPCW	Organisation for the Prohibition of Chemical Weapons

OPRC	International Convention on Oil Pollution Preparedness, Response, and Cooperation
OPRC-HNS	Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances
OSOCC	On-Site Operations Coordination Centre
PCDMB	UNEP Post-Conflict and Disaster Management Branch
PERSGA MEMAC	Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden Marine Emergency Mutual Aid Centre
REMPEC	Regional Marine Pollution Emergency Response Centre
REMPEITC-Caribe	Regional Marine Pollution Emergency Information and Training Centre for the Wider Caribbean
SAARC	South Asian Association for Regional Cooperation
SAGEE	Strategic Advisory Group on Environmental Emergencies
SCO	Shanghai Cooperation Organization
UCPM	(European) Union Civil Protection Mechanism
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNITAR-UNOSAT	United Nations Institute for Training and Research - Operational Satellite Applications Programme
USAR	Urban Search and Rescue
VOSOCC	Virtual On-Site Operations Coordination Centre

ANNEX 2: Notification and Request for Assistance Form

(Please use this form if requesting assistance to an environmental emergency; alternatively enter the information contained in the form in an email or a letter)

THE JOINT UNEP/OCHA ENVIRONMENT UNIT
UNION CIVIL PROTECTION MECHANISM
UNECE CONVENTION ON THE TRANSBOUNDARY EFFECTS OF INDUSTRIAL ACCIDENTS

URGENT

Date /Time: ……………. /…………… UTC………..   Local   Pages (incl. cover page): ………………….

From/Country of emergency: ……………………………..   To (JEU/ERCC/Point of contact):

Name/Position: ……………………………………………..   …………………………………………………………….

Tel: ………………………………………………………………..   E-mail: …………………………………………………

E-mail: ………………………………………………………………

Nature of emergency/accident

Accident	Type of accident	Attack with	Natural disaster
□ Chemical	□ Fire	□ Explosives	□ Earthquake
□ Mining tailings	□ Explosion	□ Chemical agents	□ Floods
□ Transportation	□ Release into water	□ Bio agents	□ Landslide
□ Marine pollution	□ Release into air	□ Radioactive agents	□ Forest fire
□ ……………………………	□ ………………………	□ ……………………………..	□ ……………….

001	Date emergency/accident			
002	Time emergency/accident	UTC		Local
	Location			
011	Country/Town/Area			
012	Latitude			
013	Longitude			
	Request for assistance			
071	On-site assessment/advice			
072	Response teams/equipment	□ Fire □ Hazmat □ Search and Rescue □ Disaster medicine		
		Others:		
073	Humanitarian assistance			
074	Sampling and analysis			
075	Clean-up/restoration			
	When and how (delivery of assistance)			
081	When assistance			
082	How assistance/delivery			
083	Contact person			
	Logistics			Short description of emergency and immediate effects
091	What and where			
	Emergency and mitigation measures already taken			
101	Evacuation	km radius		
102	Sheltering	km radius		
103	Other			
	Other information			**Receipt of this report should be acknowledged promptly by e-mail**
111				
	The status of this report was valid at: (date)……………/ (time)……………UTC			
CONTACT: UN Office for the Coordination of Humanitarian Affairs (OCHA) *Emergency calls (24hrs): +41 22 917 2010*				

ANNEX 3: Proforma Invoice

Date:
(optional)

Logo

Reason for export:
Humanitarian Assistance

Terms of Delivery
CIF

Shipper/Owner:
(name of agency)
(details of agency)

Consignee:
(name and contact)

Crate no:
(marking)

Gross weight Volume:
(use metric)

Size:
(use metric)

Description	Quantity	Weight	Volume	Value	Serial No

TOTAL:

NO COMMERCIAL VALUE

The exporter of the products covered by this document declares that these products will be used, disposed of, or re-exported in due course.

The exporter of the products covered by this document declares that, except where otherwise clearly indicated, these products are of (e.g., name of country or region) preferential origin.

ANNEX 4: Interface Agreements

Partners	Purpose	Summary

This table shows an overview of current interface agreements. Details of each agreement are maintained in a separate database with JEU.

Secretariat of the Basel Convention	Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.	Mutual responsibility to alert and share requests. Arrangements for shared mission funding in place.
ECHO	The European Commission's Humanitarian Aid and Civil Protection department. Regional organisation which responds to crises globally.	Mutual responsibility to alert and share requests. Arrangements for shared missions in place.
GFMC	Global Fire Monitoring Center for early warning, information sharing, alerts and the response to wildland fire emergencies of international dimensions.	Agreement on informing the party on requests for assistance.
IAEA/IACRNE	International Atomic Energy Agency is the global organisation for response to radiation and nuclear emergencies and secretariat of the Joint Plan for International Organizations.	Mutual responsibility to alert and share requests. Arrangements for shared mission funding in place.
IMO	International Maritime Organisation is the global focal point for emergency response to monitor, assess and alert on marine oil and chemical spills.	Agreement on informing the party on requests for assistance.
OPCW	Organisation for the Prohibition of Chemical Weapons is the implementing body of the Chemical Weapons Convention.	Mutual responsibility to alert and share requests. Shared coordination responsibility when required.
Ramsar Convention	Convention on Wetlands of International Importance provides the framework for conservation and use of wetlands and their resources.	Agreement on informing the party on requests for assistance. Arrangements for shared mission funding in place.
UN HABITAT	UN programme working towards a socially and environmentally sustainable human settlements development and the achievement of adequate shelter.	Mutual responsibility to alert and forward requests.
UNECE	UN Economic Commission for Europe is the focal point for Convention on Transboundary Effects of Industrial Accidents in the ECE region. It operates the Industrial Accident Notification (IAN) system.	Mutual responsibility to alert and share requests. Arrangements for shared mission funding in place.
UNOSAT	UNOSAT provides rapid mapping and satellite imagery for coordination of humanitarian operations.	Standing agreement with OCHA to provide satellite imagery.

www.unocha.org/unep

www.eecentre.org

www.humanitarianresponse.info/environment

Contact

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Geneva, Switzerland

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UNEP

OCHA