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Environmental Emergencies: Challenges and Lessons for International Environmental Governance

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This brief examines the strengths and weaknesses of existing instruments and institutions and addresses the efforts to improve coordination among the international sectors of environmental emergency response. Potential operational, capacity-building, and legal options for strengthening prevailing mechanisms are identified and discussed, including the need for stronger political mandates, the need for a stronger framework to address fragmentation, and the need for procedures to support and facilitate environmental emergency responders. The lessons from this discourse can improve the field of environmental emergency response, while also informing advancements in broader context of international environmental governance.

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Many recent developments in the field of environmental emergency response have yet to enter the broader discourse around international environmental governance and international governance for sustainable development. The operational experiences from response providers and disaster-affected countries, the diverse approaches to governing emergency response, and the initial lessons in improving the inter-sectoral responses to environmental emergencies have a broader relevance to international environmental governance. This brief examines the strengths and weaknesses of existing instruments and institutions, and addresses efforts to improve coordination among them as well as integration and coordination between the environmental emergency response regime and other sectors. These efforts can help inform advancements in international environmental governance more broadly.

Instruments and institutions: Strengths and weaknesses

While environmental emergencies (see Box 1 for definition) have existed for decades or even centuries, environmental emergency response is a relatively new and evolving field. Emerging challenges stemming from the increased frequency, intensity, spatial extent, duration, and timing of extreme weather and climate events[1], coupled with rapid urbanization in fragile environments, accentuate the need for stronger and more coordinated environmental emergency responses. A number of international and regional institutions are active in the field and employing a variety of instruments, but coordinating their activities and mandates has proven challenging. The most pressing needs facing the environmental emergency response regime include: 1) the need for a stronger political mandate; 2) the need for an integrated framework to address fragmentation; and 3) the need for procedures to support and facilitate emergency responses and responders.

The need for a stronger political mandate

For almost two decades, the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and the United Nations Environment Programme (UNEP) have been jointly mobilizing and coordinating the response to environmental emergencies through their Joint UNEP/OCHA Environment Unit (JEU). Their work has been guided by the International Advisory Group on Environmental Emergencies (AGEE), which brings together Member States, disaster management professionals, and environmental experts.

The JEU has done a great deal to respond to environmental emergencies and to facilitate and coordinate responses by States. However, it has operated largely on a case-by-case basis. The JEU is not a separate international organization, so it is not surprising that it does not have an explicit, direct mandate. It is, however, surprising that OCHA and UNEP—from which the JEU derives its authority and mandate—do not themselves have explicit mandates on environmental emergencies. The mandate for OCHA and UNEP to address

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Box 1. Definition of environmental emergencies

Environmental emergencies are sudden-onset disasters or accidents 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 of human lives and property
UNEP/GC.22/INF/5, 13 November 2002.

environmental emergencies arises from their broad mandates on humanitarian and environmental issues, respectively, rather than any globally applicable mandate specifically addressing environmental emergencies. Yet many other UN bodies, not to mention regional institutions, work on different aspects of environmental emergencies. The various UNEP Governing Council decisions that apply are important, but lack the status of a UNGA resolution or international convention, which would apply clearly to other UN bodies. The result is a lack of effective coordination, due also in no small part to the lack of an overarching framework for responding to environmental emergencies.

While the AGEE has played a pivotal role in addressing a number of operational challenges, it also showed that to address the strategic challenges of responding to environmental emergencies, the issues need to be addressed at a higher, political platform, notably one where States could take decisions. Switzerland, which chaired the AGEE from 2009 to 2011, garnered political support and subsequently submitted a proposed decision which was adopted at UNEP's Governing Council in February 2011. The decision calls for a series of measures, including further analysis of the gaps and opportunities, and for UNEP to:

> "... facilitate, in cooperation with the Office for the Coordination of Humanitarian Affairs, a process over the coming three years ... to ensure that key organizations involved in responding to environmental emergencies have a clear and mutually agreed understanding of their respective roles and responsibilities in various scenarios."[2]

This process will allow for the comparison of a wide range of structures, frameworks, and mandates, and the application of lessons from initiatives in not only the environmental, but also the development and humanitarian fields.

The need for an integrated framework to address fragmentation

Acknowledging the obstacles to effective international response to environmental emergencies, the AGEE commissioned in 2009 a major Baseline Review of instruments, institutions, and practice entitled "Strengthening International Governance Systems to Respond to Environmental Emergencies."[3] The study reviewed 20 existing international and regional governance approaches addressing forest fires, industrial accidents, international watercourses, marine oil spills, and other types of disasters, with the objective of identifying strengths and weaknesses in the international response system.

Strikingly, the Baseline Review showed that there is no clear overarching framework for coordinating or integrating international response to environmental emergencies. United Nations General Assembly (UNGA) resolution 46/182 provides a mandate for OCHA to coordinate inter-agency response to natural disasters and other emergencies, but it does not provide explicit operational details for responding to such disasters.[4] For instance, the Resolution delegates the initial responsibility for emergency response to local and national governments, followed by regional, and finally by international organizations. Contrary to this, however, in practice during most large-scale disasters the first step is to immediately request international assistance. With emergencies becoming increasingly complex, with a significant increase in the number and variety of actors working on the ground, additional efforts are needed to strengthen the coordination of responses to environmental and other humanitarian emergencies.

Similarly, the 1989 UNGA Resolution 44/224 recognizes the need for strengthened international cooperation for monitoring, assessing, and anticipating environmental threats, but provides no explicit operational details for how to render these services.[5] Additionally, although some frameworks, such as the International Federation of Red Cross and Red Crescent Societies' (IFRC) guidelines and the European Community Civil Protection Mechanism, acknowledge various UN bodies for their role in responding to environmental emergencies, they do not detail how coordination between them would take place.[6]

The Baseline Review found that international systems governing response to environmental emergencies are at a crossroads. In recent years, states and international organizations have established numerous agreements, frameworks, and guidelines to respond to specific needs at the international and regional levels, which tend to address specific issues, geographic regions, or response modalities. (See Box 2 on Sample Frameworks for Responding to Environmental Emergencies, which highlights several guidelines for environmental emergency response and for disasters more broadly). For example, the ILO Convention Concerning the Prevention of Major Industrial Accidents focuses specifically on major hazard installations that produce, process, handle, use, dispose of, or store one or

"Fragmentation in procedures and regulations facilitates a lack of awareness and capacity of some governments and institutions, which further impedes implementation."

more hazardous substances;[7] the Agreement among the Governments of the Participating State of the Black Sea Economic Cooperation (BSEC) on Collaboration in Emergency Assistance and Emergency Response to Natural and Manmade Disasters creates a framework to respond to a range of disasters, but it applies only to the member states of the Black Sea region;[8] and the Tampere Convention centers on the application of communications technology in disaster response.[9] Both this fragmentation and the lack of detailed provisions and guidance generate uncertainties about application, responsibilities, and procedures, limiting the effective and efficient delivery of environmental emergency assistance.

Box 2. Sample frameworks for responding to environmental emergencies considered in the *Baseline Review*

(ASEAN) Agreement on Transboundary Haze and Agreement on Disaster Management and Emergency Response

Coordination Center for the Prevention of Natural Disasters in Central America (CEPREDENAC)

(European) Community Mechanism for Civil Protection, including the Monitoring and Information Centre (MIC)

(IAEA) Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency

(IAEA) Convention on Early Notification of a Nuclear Accident

(IFRC) Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance

(ILO) Convention Concerning the Prevention of Major Industrial Accidents

(IMO) International Maritime Organization Conventions governing various aspects of response to environmental emergencies (5 different instruments)

(INSARAG) International Search and Rescue Advisory Group Guidelines

Finally, the fragmented development of systems for responding to environmental emergencies has left gaps where no law or institution clearly applies. Such is the case with the management of land-based sources of marine pollution, where some mandates such as the ILO Convention do not specifically exclude land-based sources, but where others such as the UNECE Industrial Accidents Convention holds oil spills at sea to be outside the scope of their mandate.[10] To ensure that humanitarian and development gains are not eroded by the environmental risks and impacts of disasters, it is imperative that the international community address these gaps and challenges.

The need for procedures to support and facilitate emergency responders

A further major challenge to the effective coordination of multilateral environmental emergency response is the lack of a comprehensive international framework of procedures for alerting, notification, provision and receipt of assistance, and the movement of experts, equipment, and materials. Current frameworks generally address only some, but not all, of these procedures – for example, while the UNECE Industrial Accidents Convention and IAEA Notification Convention place great emphasis on notification systems, the Oslo Guidelines, the International Search and Rescue Advisory Group (INSARAG) Guidelines and the BSEC Agreement do not.[11]

The current situation, with multi-layered and multi-faceted thematic and regional arrangements for environmental emergency response, is natural and to be expected. Environmental emergency response is still an evolving field, and the various institutions and frameworks have not yet been effectively integrated, consolidated, or coordinated. More recent frameworks have aimed to establish international approaches for coordination, notably the INSARAG Guidelines, which seek to establish methods for international coordination in disaster response through the facilitation of entry and exit of emergency response personnel, equipment, and materials.[12] Similarly, the IFRC Guidelines for the Domestic Facilitation and Regulation of International Disaster Relief and Initial Recovery Assistance are notable for their methods related to the removal and reduction of legal and regulatory barriers to the effective provision of assistance with entry, operation, and exit of personnel, customs controls, taxation, and transport;[13] while the 2005 Tampere Convention aims to improve emergency telecommunications during international emergencies and also aids in the removal of regulatory barriers when responding to disasters.[14]

Fragmentation in procedures and regulations facilitates a lack of awareness and capacity of some governments and institutions, which further impedes implementation. During the 2004 Indian Ocean tsunami, for instance, many institutions responsible for organizing response efforts were unaware of the Tampere Convention, which provides for cooperation in telecommunication assistance. This lack of knowledge hindered the movement of radio equipment through customs, causing delays which a comprehensive international framework could have helped avoid.

Proposed responses to governance challenges

While these challenges to the environmental emergency response regime are significant, the diversity of existing approaches provides ample opportunity for strengthening the existing international framework. Drawing on the recommendations of the Baseline Review, some possible operational, capacity-building, and legal options for strengthening and coordinating existing mechanisms include:

Develop a joint management plan

A joint management plan for international organizations on responding to environmental emergencies could improve coordination among key international and regional institutions by clearly delineating their respective roles and establishing clear procedures for communication, coordination, and cooperation. Such a joint management plan could build upon experiences of a similar plan designed to coordinate international efforts for responding to nuclear accidents. The IAEA, as the custodian of the Joint Radiation Emergency Management Plan[15] has undertaken to review the joint plan based upon experiences gained in the wake of the Fukushima Nuclear Accident in Japan in March 2011, and revise it based on the experiences of the participating organizations.

Coordinate information sharing procedures

The development of a mechanism and procedures for information sharing would further improve integration, coordination, and implementation. Since the Baseline Review, the AGEE commissioned and adopted voluntary Guidelines on Environmental Emergencies[16] that address notification, focal points, and other aspects of response to environmental emergencies. The Guidelines advise both providing and recipient countries on how to mobilize, receive, and provide international assistance in the event of an environmental emergency. While the Guidelines provide detailed guidance to countries that receive or provide international assistance, they fall short of addressing the coordination among relevant response structures, with one exception – the coordination between the European Community (EC) and the United Nations has been well addressed, with the Monitoring and Information Center of the EC functioning as a regional focal point for its Member States. The Guidelines provide a basis for further information-sharing mechanisms and procedures; moreover, they are a living document that will be improved as lessons are learned and best practices identified in the evaluation of international environmental emergency operations.

Increase capacity building and awareness raising

Capacity building and awareness raising are also necessary to improving the effectiveness of international and regional frameworks. To address this need, OCHA and UNEP have developed an Environmental Emergencies Center that provides information, training, and other capacity development services. The Center supports national and regional capacity-development activities in responding to industrial and technological accidents, and the environmental impacts of natural disasters and complex emergencies. It offers an online, virtual platform as well as classroom-based training, often in partnership with a donor, at little or no cost to beneficiaries. The latter are usually emergency planners, disaster managers, and national and local authorities in vulnerable and low and middle-income countries who must plan for and respond to these types of emergencies; such countries would benefit greatly from further such assistance.

Provide clear political support

Political declarations, such as ministerial and summit declarations, can provide a useful political and administrative touchstone, demonstrating political will and adding legitimacy, as evidenced by the progression of the global environment summits from their early beginnings in Stockholm (1972), through Rio (1992) and Johannesburg (2002), to Rio+20 (2012). These summits focus the international attention of governments, NGOs, private industry, and academia at the highest level, and they have given rise to political declarations that frame political and practical action, as well as action plans such as Agenda 21 and the Johannesburg Plan of Implementation.

Establish new legal instruments

A new international legal instrument governing notification and response to environmental emergencies could address institutional matters and set forth standards, procedures, and other requirements for notification and assistance. One option would be to adopt an overarching governance framework and system that links the various international and regional instruments. This could take the form of a binding protocol on environmental emergencies, building upon existing international instruments, and establishing standards, procedures, and requirements for preparedness and response. As evidenced by the IFRC International Disaster Response Laws, there is often difficulty in instituting measures like this due to a perceived reduction in autonomy.[17] However, with the increased frequency and severity of environmental emergencies, the political climate could rapidly change, and therefore consideration should be given to options for an international legal instrument.

If an international convention or other legal instrument is not possible at present, compacts, plans of action, principles, declarations, resolutions, and other soft law instruments could help to develop approaches and linkages while building political awareness. For instance, the Hyogo Framework for Action has substantial buy-in and provides a globally agreed upon framework for disaster risk reduction.[18] UNEP Governing Council decisions and UNGA resolutions can also establish a clear political mandate that would provide a foundation and benchmark for many of the measures that need to be undertaken.

"The approaches, experiences, and lessons of environmental emergency response in coordinating distinct but related international frameworks therefore can and should inform the wider debates on international environmental governance and the IFSD."

Lessons for International Environmental Governance

The environmental emergency response regime is part of the larger international environmental governance system, and the international framework for sustainable development (IFSD) under discussion at Rio+20. Environmental emergency response is also relevant to Rio+20 and sustainable development in its own right. Disasters have been identified as one of the 7 emerging challenges to sustainable development,[19] and organizations and bodies such as the AGEE, Green Cross International, the Earth System Science Partnership, Environmental Law Institute, and the Climate Emergency Institute submitted proposals to the UNCSD Secretariat detailing the state of environmental emergencies and their effects on displacement of populations, the economy, and the need for a more effective global framework for preventing, preparing for, and responding to environmental emergencies. Focused efforts to increase resilience to disasters, especially among the most vulnerable populations, are a necessary step towards achieving the global goal of sustainable development for all.

While existing frameworks for responding to environmental emergencies are relatively new, they have of necessity started to develop structural and institutional approaches for coordination. There are striking similarities between the challenges facing environmental emergency response and international environmental governance. Coordination within the UN and between UN frameworks and external (e.g., regional) frameworks is a challenge for both environmental emergencies and for international environmental governance. It is also necessary in both fields to consider linkages to non-environmental sectors, such as humanitarian assistance and development (for environmental emergencies) and trade and development (for international environmental governance).

The approaches, experiences, and lessons of environmental emergency response in coordinating distinct but related international frameworks therefore can and should inform the wider debates on international environmental governance and the IFSD.

States, UN agencies, and others should consider how environmental emergencies should best be addressed in the broader context of international environmental governance, providing ongoing examples of efforts to coordinate activities across sectors. Indeed, it would be productive to engage the AGEE more directly in the international environmental governance reform process, as they could prove useful in determining priority measures, who to undertake such tasks and under what timeframe, as well as to ensure availability of resources to implement such measures.

Existing coordination structures for response to environmental emergencies could provide lessons and guidance on how to address coordination challenges as well, and help to define improved coordination structures that avoid duplication and overlap. Several relevant coordination mechanisms exists, such as the Inter-Agency Standing Committee (comprising humanitarian organizations, both of the United Nations and civil society), the Environmental Management Group (to coordinate environmental issues among UN organizations), the UN Development Operational Coordination Office (which focuses on coordination of development issues among UN organizations), and the Inter-Agency Committee on Radiological and Nuclear Emergencies. These institutions provide both policy and operational approaches that can inform approaches for joint priority setting, identifying gaps, avoiding duplication, and ultimately improving coordination in environmental governance.

On the whole, therefore, there is ample opportunity for cross-fertilization between experiences in responding to environmental emergencies and international environmental governance, and discussions of each should take full advantage of the lessons of the other.

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Endnotes

[1] IPCC 2012.
[2] UNEP 2011.
[3] Bruch et al. 2009.
[4] UNGA 1991.
[5] UNGA 1989.
[6] IFRC 2007a; EU 2007.
[7] ILO 1993.
[8] BSEC 1998.
[9] ICET 2005.
[10] ILO 1993; UNECE 1998.
[11] UNECE 1998; IAEA 1986; OCHA 1994, 2011; BSEC 1998.
[12] OCHA 2011.
[13] IFRC 2007a.
[14] ICET 2005.
[15] IAEA 2010.
[16] JEU 2009.
[17] IFRC 2007b.
[18] ISDR 2005.
[19] UNCSD 2012.

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