Major health emergencies caused by disease outbreaks, environmental hazards and climate-induced disasters call for holistic and synergic responses based on global partnerships and integrated legal approaches. This section is devoted to WHO law and practice in relation to disasters, covering both WHO’s normative and policy guidance tools and its fieldwork in health and humanitarian emergencies worldwide.

1 The WHO Health Emergency and Disaster Risk Management Framework

In 2019, WHO published the Health Emergency and Disaster Risk Management (EDRM) Framework. This document is the result of extensive consultations between WHO, experts from Member States and partner organizations. It provides a comprehensive and integrated approach aimed at reducing health risks and the consequences of emergencies and disasters.¹

The Health EDRM Framework takes stock of good practices and the major results achieved in many related fields, such as humanitarian action, multisectoral disaster risk management and all-hazards emergency preparedness and response. It substantially builds on World Health Assembly (WHA) and WHO Regional Committee resolutions, the International Health Regulations (IHR 2005) and their implementing guidelines, the UN Sustainable Development Goals (SDGs), the Sendai Framework for Disaster Risk Reduction, the Paris Agreement on Climate Change, the activities of the WHO Thematic Platform for Health EDRM and its associated research network, national policies, regional strategies, as well as international and national standards and guidelines.

The Framework offers an overview of risk management concepts, guiding principles, and the components and functions of Health EDRM. It emphasizes that Health EDRM relies on assessing, communicating and reducing risks across

---

¹ WHO, Health Emergency and Disaster Risk Management Framework (WHO Press 2019), available at <https://www.who.int/hac/techguidance/preparedness/health-emergency-and-disaster-risk-management-framework-eng.pdf>, last accessed (as any subsequent URL) on 10 June 2020.
the continuum of prevention, preparedness, readiness, response and recovery, and on building the resilience of communities, countries and health systems. It also highlights the core principles and approaches on which Health EDRM is founded: the risk-based approach; comprehensive emergency management (across prevention, preparedness, readiness, response and recovery); the all-hazards approach; the inclusive, people- and community-centred approach; multisectoral and multidisciplinary collaboration; the whole-of-health system-based approach; and ethical standards. It describes the functions of Health EDRM, organized under the following components: policies, strategies and legislation; planning and coordination; human resources; financial resources; information and knowledge management; risk communication; health infrastructure and logistics; health and related services; community capacities for health EDRM; monitoring and evaluation.

The Health EDRM Framework advocates a systemic approach that duly takes into account the risks, capacities and availability of resources to implement risk management measures at local, subnational and national levels. Its stated aim is to provide all relevant actors and stakeholders with a summary of multidisciplinary and multisectoral policies and strategies designed to tackle and mitigate the risks and consequences of health emergencies and disasters. Building on existing regional and global legal and operational frameworks, it also aims to assist countries to take joint action and promote coherence in implementing the IHR (2005), the Sendai Framework, the Paris Agreement, the SDGs and other related national, regional and global strategies.

2 The WHO Strategy on Health, Environment and Climate Change

WHO is deeply engaged in protecting people from the multiple challenges posed by environmental risks and climate change. Over time it has achieved important advances in this field by setting norms and guidelines, implementing solutions including regulatory action, and monitoring efforts.

Developments in 2019 include the issuance by the WHO Department of Public Health, Environmental and Social Determinants of Health of a document entitled ‘Healthy environments for healthier populations: Why do they matter, and what can we do?’2 and the submission by the Director-General

2 Available at <https://www.who.int/phe/publications/healthy-environments/en/>. On this topic, see also Stefania Negri (ed.), Environmental Health in International and EU Law: Current Challenges and Legal Responses (Routledge-Giappichelli 2019).
of a Draft global strategy on health, environment and climate change, as well as a Draft plan of action on climate change and health in small island developing States for consideration by the WHA at its 72nd session. All these documents highlight the importance of preparedness and response in health emergencies and disasters caused by environmental hazards and climate change.

The first document aims to provide policy- and decision-makers with the rationale for action to ensure healthy environments. It provides policy directions and guidance on relevant strategies (prevention, cross-sectoral action, capacity-building, monitoring and emergency response) and offers an overview of key actions that should be taken to improve environmental health. It also describes WHO’s main action in each relevant sub-field (guidelines and other normative tools, implementation of global action plans, policy and technical support to countries, monitoring and reporting on SDGs indicators).

The draft global strategy requires ‘action on upstream determinants of health, the environment and determinants of climate change in an integrated and mainstreamed approach across all sectors, using a public health framework enabled and supported by adequate governance mechanisms and high-level political will, tailored to the national circumstances’. It builds on the premise that the mechanisms for implementation of global environmental agreements protecting public health and the environment (e.g., the UN Framework Convention on Climate Change and the Paris Agreement, the Convention on Biological Diversity, the Minamata Convention on Mercury, the Stockholm, Basel and Rotterdam conventions on hazardous chemicals and wastes) do not always adequately reflect health concerns at national, regional or international levels. In this respect, the strategy calls for synergies and the optimization of necessary trade-offs between health, environmental and economic objectives. It also advocates full coverage of environmental risks in the national implementation of international health instruments such as the IHR (2005), with a view to enhancing national capacities to prevent, prepare for and respond to environmental emergencies. To this end it sets six strategic objectives, focusing on prevention, cross-sectoral action based on integrated approaches and

3 WHO, Draft WHO global strategy on health, environment and climate change: the transformation needed to improve lives and well-being sustainably through healthy environments, Report by the Director-General, A72/15 (18 April 2019); WHO, Draft plan of action on climate change and health in small island developing States, Report by the Director-General, A72/16 (25 April 2019).
4 WHO, Draft global strategy (n 3) para. 17.
systematic consideration of health in all policies, strengthening and greening of the health sector, strengthening of governance mechanisms, enhanced evidence and communication, and monitoring.

The draft plan of action is meant to support WHO’s special initiative on climate change and health in small island developing States based on UN conventions on climate change. It aims to provide national health authorities with political, technical, capacity-building and financial support. Moreover, it establishes four interlinked and mutually reinforcing strategic lines of action: empowerment; evidence-based investments; building of climate resilient health systems; access to climate and health finance and resource mobilization.

3 The WHO Health Emergencies Programme

The WHO Health Emergencies Programme manages a global event-based surveillance system that detects all public health events and potential health emergencies across the world, 24 hours a day, seven days a week. Once an event is verified, the Programme assesses and communicates the level of risk, sounds the alarm and responds rapidly under a coordinated incident management system in order to minimize the health consequences of outbreaks, natural disasters, conflicts and other hazards.

According to the WHO Emergency Response Framework, Grade 3 constitutes the highest severity level, corresponding to a single or multiple country event with substantial public health consequences, requiring a substantial response by WHO offices in specific countries, territories and areas or substantial international response. This category calls for the maximum level of mobilization on the part of the Organization and its partners in the field. Within the UN Inter-Agency Standing Committee (IASC) Humanitarian System-Wide Emergency Response, a Level 3 emergency corresponds to a major sudden-onset humanitarian crisis caused by natural disasters or conflict, which requires exceptional system-wide mobilization. The designation of both Grade 3 and Level 3 emergencies depends on the following five grading criteria: scale, urgency, complexity, capacity and reputational risk.

In addition to this, the IHR (2005) confer upon the WHO Director-General the power to determine whether a public health event notified to the Organization constitutes a public health emergency of international concern (PHEIC). An event qualifies as a PHEIC when it is serious, sudden, unusual or unexpected, carries implications for public health beyond the affected State’s
national borders and requires immediate international action.\textsuperscript{5} In case there is no consensus between WHO and the State in whose territory the event is occurring, the Director-General can establish an Emergency Committee to receive advice on whether an event constitutes (or no longer constitutes) a PHEIC and on the issuance, modification, extension or termination of appropriate temporary recommendations.\textsuperscript{6}

In April 2019, the IASC adopted the Humanitarian System-Wide Activation Protocol for the Control of Infectious Disease Events,\textsuperscript{7} which builds on the IASC Scale-Up activation protocols, with adjustments to reflect the potential evolution of an infectious event, the roles of the WHO and its Director-General and Member States under the IHR (2005), as well as the importance of non-IASC organizations’ response. This Protocol outlines the IASC procedures for risk assessment, the consultation and decision-making processes regarding Scale-Up activation, the activation and deactivation criteria and procedures, and implications for IASC members and other key collaborating organizations.

In 2019, 440 events occurring in 138 countries and territories were investigated and the related risks were assessed and followed up by the WHO: 73\% of these were infectious events, 14\% were natural disasters, 10\% were events related to chemical, radiological or nuclear products or food safety events, and the remaining 3\% were undetermined. According to the data reported to the WHO Executive Board by the Director-General and the Independent Oversight and Advisory Committee, as of November 2019 WHO was responding to 166 events and a total of 54 active graded emergencies in more than 40 countries.\textsuperscript{8} These included seven WHO Grade 3 emergencies and IASC Level 3 emergencies (Democratic Republic of Congo-DRC, Mozambique, Syrian Arab Republic, Yemen, Somalia, South Sudan, Nigeria), one public health emergency of international concern (DRC), and other lower-graded emergencies.

Among the health and humanitarian crises in which WHO took action, two major Grade 3-Level 3 emergencies stand out: the Ebola virus disease outbreak

\textsuperscript{5} International Health Regulations (2005), arts. 1, 12.
\textsuperscript{6} Ibid., arts. 13, 48, 49.
\textsuperscript{7} IASC, Humanitarian System-wide Scale-Up Activation Protocol for the Control of Infectious Disease Events, 4 April 2019, available at <https://reliefweb.int/report/world/standard-operating-procedure-humanitarian-system-wide-scale-activation-protocol-control>.
\textsuperscript{8} WHO, Public Health Preparedness and Response, WHO’s work in health emergencies, Report by the Director-General, EB146/17, 23 December 2019; WHO, Public Health Emergencies: Preparedness and Response, Report of the Independent Oversight and Advisory Committee for the WHO Health Emergencies Programme, EB146/16, 23 December 2019. For more information and the full list of the emergencies addressed in 2019, see the Director-General’s report.
in DRC and Cyclone Idai in Mozambique. WHO’s practice in response to these is briefly discussed below.

3.1 The Ebola Virus Disease Outbreak in the Democratic Republic of Congo

On 1 August 2018, WHO was notified by the Ministry of Health of the DRC of an Ebola virus disease outbreak in North Kivu province, which was later also reported in Ituri province. This outbreak was the second largest in the world and was particularly challenging as it took place in an active conflict zone. It was classified as a Grade 3 emergency. WHO deployed and maintained more than 700 staff on the ground to support the Government-led response, together with national and international partners, and implemented outbreak control interventions in case management, surveillance, infection prevention and control.

Over the course of 2019, the status of the emergency was closely monitored and discussed by the Emergency Committee for Ebola virus disease in the DRC. This committee was established by the Director-General in 2018 and met four times in 2019.

During the first meeting on 12 April, the Committee reached the conclusion that the reported outbreaks did not constitute a PHEIC. However, it expressed its concern for the increase in transmission in certain areas and acknowledged ‘the potential risk of spread to neighbouring countries’. In the light of these concerns, the Committee issued some public health advice (recommend- ing the early detection of cases, identification and follow up of all contacts, achievement of the highest level of vaccination coverage) and urged the Director-General to keep monitoring the situation closely.⁹

On 31 May, the IASC Scale-Up Protocol for the Control of Infectious Disease Events was activated upon recommendation of the WHO Director-General, based on WHO rapid risk assessment and the UN Office for the Coordination of Humanitarian Affairs’ (OCHA) analysis of potential humanitarian consequences. As per standard IASC procedures, this activation triggered the immediate establishment of a Humanitarian Country Team and the deployment of supplies, logistics and funds; the designation of a Senior Emergency Humanitarian Coordinator and of a WHO Incident Manager; and the

---

⁹ Statement on the meeting of the International Health Regulations (2005) Emergency Committee for Ebola virus disease in the Democratic Republic of the Congo on 12th April 2019, available (as all other Emergency Committee statements) at <https://www.who.int/ihr/procedures/ihr_committees/en/>. 
development of a Statement of Key Strategic Priorities, followed by a full Strategic Response Plan.¹⁰

At its second meeting on 14 June, the Committee determined that, despite the reported “exportation” of cases into Uganda (which clearly implied an international spread of the disease), not all three requirements for a PHEIC had yet been met. It discussed at length the impact of a PHEIC declaration on the response, possible unintended consequences, and how these could be managed. In the end, although it acknowledged that the outbreak was an extraordinary event with a risk of international spread, it concluded that the ongoing response would not be enhanced by the issuance of formal temporary recommendations. In so doing, the Committee implicitly introduced an additional criterion for declaring a PHEIC – not required by the IHR (2005) – which soon became the object of scholarly debate.¹¹ On that occasion, the public health advice focused on the need to improve at-risk countries’ capacities of preparedness and response, and the importance of cross-border screening in DRC and of mapping population movements as an indicator of the risk of further spread. It confirmed its opposition to measures restricting international travel and trade.¹²

Only on 17 July did the Committee deem that the increased national and regional risks and the need for intensified and coordinated action required an international response under the IHR (2005). The Committee advised the Director-General that the conditions for declaring a PHEIC had been met and that it was appropriate to issue formal temporary recommendations under article 15 of the Regulations. The Director-General endorsed the Committee’s views, declared that the Ebola outbreak in Congo constituted a PHEIC and issued the proposed recommendations. These urged affected countries to strengthen surveillance and screening, to continue to work and enhance coordination with the UN and partners, to rapidly implement

---

¹⁰ See supra (n 7). The Protocol was extended twice and finally deactivated on 27 March 2020.
¹¹ See, in this respect, Adam Kamradt-Scott, ‘The International Health Regulations (2005). Strengthening Their Effective Implementation and Utilisation’, (2019) 16 International Organizations Law Review, 242. See also David Fidler, ‘To Declare or Not to Declare: The Controversy over Declaring a Public Health Emergency of International Concern for the Ebola Outbreak in the Democratic Republic of the Congo’, (2019) 14 Asian Journal of WTO & International Health Law and Policy, 309; Pedro A. Villarreal, ‘Public International Law and the 2018–2019 Ebola Outbreak in the Democratic Republic of Congo’, EJIL: Talk!, 1 August 2019, available at <https://www.ejiltalk.org/public-international-law-and-the-2018-2019-ebola-outbreak-in-the-democratic-republic-of-congo/>.
¹² Statement on the meeting of the International Health Regulations (2005) Emergency Committee for Ebola virus disease in the Democratic Republic of the Congo, 14 June 2019.
optimal vaccine strategies, and to strengthen measures to prevent nosocomial infections. At-risk neighbouring countries were invited to: urgently improve their preparedness for detecting and managing imported cases; map population movements that could predict a risk of disease spread; and put in place approvals for investigational medicines and vaccines as an immediate priority. All countries were strongly discouraged from closing their borders and imposing restrictions on travel and trade, because of the possible adverse impact on local economies and hampering effects on response operations. National authorities were instead encouraged to work with airlines and other transport and tourism industries to ensure that they did not exceed WHO’s advice on international traffic. As general advice, entry screening at airports or other ports of entry outside the region were considered unnecessary.13

On 18 October the Emergency Committee expressed the view that the event still constituted a PHEIC and provided advice for the issuance of revised temporary recommendations, which the Director-General fully endorsed. The revised recommendations added a call to affected countries to: sustain their political commitment and multisectoral coordination approach to the response and expand it to hot spot areas; provide an enabling environment for all response partners to support public health operations as an essential platform for accelerating disease-control efforts; strengthen preparedness in non-affected provinces of DRC, and more generally strengthen the health system across the country to respond to concurrent health emergencies. At-risk countries were further invited to work urgently with partners to improve their preparedness for detecting and managing imported or locally-acquired cases, including the transparent sharing of detailed information on suspect cases, as required by the IHR (2005), and sharing laboratory samples of suspect cases for confirmatory testing in accordance with WHO norms and guidance.14

On 11 November the European Medicines Agency released a conditional marketing authorisation under Regulation (EC) 507/2006 for Merck’s Ervebo (rVSV-ZEBOV-GP) Ebola vaccine15 and WHO enacted an accelerated

13 Statement on the meeting of the International Health Regulations (2005) Emergency Committee for Ebola virus disease in the Democratic Republic of the Congo on 17 July 2019.
14 Statement on the meeting of the International Health Regulations (2005) Emergency Committee for Ebola virus disease in the Democratic Republic of the Congo on 18 October 2019.
15 For more information see <https://www.ema.europa.eu/en/medicines/human/EPAR/ervebo>.
prequalification programme, culminating in its announcement on 12 November that the vaccine met WHO’s standards for quality, safety and efficacy.\(^\text{16}\)

### 3.2 Cyclone Idai and Floods in Mozambique, Malawi and Zimbabwe

In March and April 2019, Southern Africa was severely hit by two subsequent tropical cyclones, which ravaged three countries and left nearly 2.2 million people in need of urgent assistance, according to OCHA estimates.\(^\text{17}\)

First, on 14 March 2019, Cyclone Idai made landfall near the city of Beira in central Mozambique as a Category 3 tropical storm and from there moved inland, devastating parts of Mozambique, Malawi and Zimbabwe. On 22 March, WHO declared a Grade 3 emergency in Mozambique and the IASC Humanitarian System-Wide Scale-Up Protocol was activated. The situation in Malawi and Zimbabwe was instead categorized as a Grade 2 emergency.

On 25 April, Cyclone Kenneth made landfall near Pemba, Mozambique, as a Category 4 storm. Despite its greater violence, the storm caused fewer deaths and less destruction than Cyclone Idai, due to the fact that it hit a sparsely populated area.

WHO intervened together with partner agencies and NGOs to support the three Governments in ramping up the health response to the disaster. An initial full incident management team of WHO experts and 20 Emergency Medical Teams\(^\text{18}\) were immediately deployed to work in collaboration with the three Ministries of Health and partner organizations. WHO coordinated over 48 partners within the Global Health Cluster and deployed experts from its headquarters, country and regional offices.

Since the related flooding also increased the risk of cholera, malaria and other waterborne diseases spreading, malaria treatment was delivered to the affected populations and a massive oral cholera vaccination campaign began.

---

\(^{16}\) See <https://www.who.int/news-room/detail/12–11–2019-who-prequalifies-ebola-vaccine-paving-the-way-for-its-use-in-high-risk-countries>.

\(^{17}\) See <https://www.unocha.org/southern-and-eastern-africa-rosea/cyclones-idai-and-kenneth>. For full information see also <https://www.who.int/emergencies/cyclone-idai/en/>. 

\(^{18}\) The WHO Global Emergency Medical Teams Initiative assists WHO member States and organizations by coordinating the deployment of verified emergency medical teams (EMTs) in the case of natural disaster or disease outbreaks. The WHO Global EMT Registry includes 26 verified teams, the latest being Fiji’s Emergency Medical Assistance Team, which was certified by WHO on 13 May 2019. For more information, see WHO Representative Office for the South Pacific, Fact Sheet: Emergency Medical Teams (EMTs), May 2019.
in early April 2019 in Mozambique and Zimbabwe.\textsuperscript{19} Gavi, the Vaccine Alliance, supported the operational costs of the campaign, which was managed by an International Coordinating Group including WHO, UNICEF, the International Federation of Red Cross and Red Crescent Societies and Médecins Sans Frontières.

On 4 September 2019 the disaster in Mozambique was recategorized as a Grade 2 emergency.

\textsuperscript{19} See <https://www.afro.who.int/news/cyclone-affected-communities-zimbabwe-being-vaccinated-against-cholera> and <https://www.who.int/news-room/detail/03-04-2019-cholera-vaccination-campaign begins-in-mozambique>. 