17 International and transboundary co-operation

This chapter covers the role of intergovernmental organisations in the prevention, preparedness and response to chemical accidents. International organisations have an important role to play in assisting in the development and implementation of policies, regulations and practices for sound chemical management and chemical accident prevention, preparedness and response, and in encouraging the use of and facilitating access to tools and guidelines to help in this process. They can support the sharing of lessons learnt and help ensure that countries are able to take advantage of the many resources and expertise that exist in the area of chemical accident prevention, preparedness and response. The prevention of chemical accidents is also a critical element toward achieving major international frameworks, such as the United Nations 2030 Agenda for Sustainable Development with the Sustainable Development Goals (SDGs) and the Sendai Framework for Disaster Risk Reduction (2030 Agenda).

International frameworks and programmes

Depending on adherence and membership, countries should ensure the application of/compliance with international legal and policy instruments and regulations for the prevention of, preparedness for and response to chemical accidents. They should pursue multilateralism to effectively implement such international legal and policy instruments, including through consensus-building within respective intergovernmental organisations for actions that need to be taken at the national, regional and international levels.

Countries should seek support and guidance from those international organisations, as appropriate, with a programme relating to the prevention, preparedness and response to chemical accidents:

- Each organisation's programme has its specificities that will support countries in particular areas (Box 17.1). Interested parties should contact the organisations through national contacts and focal points.
- Countries should consult with organisations in addressing emerging issues such as climate change, which might impact the future occurrence and intensity of accidents, as well as issues with global impact, such as pandemics.
- Countries should consult with organisations in seeking to understand and address the transboundary effects of chemical accidents, which could be far-reaching, through both air and water paths.
- Organisations are closely working together to strengthen international co-operation and improve co-ordination of their programmes. They do so, for example, through two mechanisms: the Inter-Agency Coordination Group on Industrial/Chemical Accidents and the Inter-Organization Programme for the Sound Management of Chemicals (IOMC) (Box 17.2).

Countries should use international organisations as mechanisms to develop co-operation, including research and development, and to exchange experiences across countries, aiming to identify and seek to facilitate the application of good practices.

Countries should seek to understand and consider the application of international good practices by making use of the Guiding Principles and other safety guidelines and good practice compilations prepared by international organisations.

Countries should consider the prevention of chemical accidents as a key element for achieving sustainable development worldwide and progressing toward enhanced disaster risk reduction in line with the United Nations 2030 Agenda.

Box 17.1. International agencies with a programme relating to chemical accidents

- **European Commission**: In Europe, the accident in the Italian town of Seveso in 1976 prompted the adoption of the Seveso Directive, legislation to address major accident hazards. It is based on four main pillars (prevention, preparation, response and lesson learning). As the EC's scientific support to the Seveso Directive, the Joint Research Centre (JRC) Major Accident Hazards Bureau plays a vital role. For example, it maintains the Major Accident Reporting System (eMARS) that has for objective to facilitate the exchange of lessons learnt from accidents and near misses involving dangerous substances. eMARS is a public database with over 900 reports of chemical accidents and near misses reported by EU, European Economic Area (EEA), OECD and UNECE countries.
  http://ec.europa.eu/environment/seveso; https://minerva.jrc.ec.europa.eu/en/minerva

- **International Labour Organization**: The ILO has more than 50 legal instruments for the protection from chemical hazards of workers but also the public and the environment. In addition to legally binding instruments, the ILO also offers technical assistance programmes and provides training and guidance tools to stakeholders. The ILO issued the Prevention of Major Industrial Accidents Convention (No. 174) and Recommendation (No. 181). It also developed a *Code of Practice: Major Industrial Accidents* as complementary practical guidance to Convention 174, which aims to provide information for setting up an administrative, legal and technical system for the control of major hazard installations.
  https://www.ilo.org/skills/pubs/WCMS_107829/lang--en/index.htm
- **Joint Environment Unit**: The JEU assists countries requesting assistance to address the environmental impacts of sudden-onset disasters and accidents by co-ordinating international preparedness and response activities. In the first hours after a chemical accident, the JEU can mobilise experts and analysis equipment to the affected area. These experts work together with national and local authorities to conduct rapid assessments, test for the presence of hazardous materials, analyse the possible effects on communities and assist with the development of response and monitoring strategies. The JEU created the Environmental Emergencies Centre (EEC – www.eecentre.org) and the Flash Environmental Assessment Tool (FEAT).
- **Organisation for Economic Co-operation and Development**: The OECD's programme on Chemical Accidents aims to share experiences amongst governments and other stakeholders and recommends policy options for enhancing the prevention of, preparedness for and response to chemical accidents. It has developed key guidance documents on topics such as performance indicators, corporate governance, change of ownership, Natural Hazard Triggered Technological Accidents (Natech) as well as the present Guiding Principles. There is also the OECD Decision-Recommendation of the Council concerning Chemical Accident Prevention, Preparedness and Response, updated and consolidated in 2023. Very importantly, it provides a forum for countries and stakeholders to exchange good practices, challenges and lessons learnt from accidents.
  https://www.oecd.org/chemicalsafety/chemical-accidents/
- **Organisation for the Prohibition of Chemical Weapons**: Chemical Safety is one of the primary activities related to the implementation of Article XI of the Chemical Weapons Convention. Through industry-outreach activities, the convention seeks to meet the needs of OPCW member states and their chemical industries in the field of chemical safety. The programmes of the International Cooperation Branch of OPCW are designed to address specific safety management issues related to chemical processes safety and chemical risk management that have a direct bearing on the effective implementation of the convention. It contributes to the exchange and sharing of experiences on the practical implementation of safety and security management programmes.
  https://www.opcw.org/
- **United Nations Economic Commission for Europe**: The UNECE Convention on the Transboundary Effects of Industrial Accidents aims to protect human beings and the environment against the effects of industrial accidents. Its provisions oblige parties to prevent, prepare for and respond to industrial accidents, in particular those capable of causing transboundary effects. The convention promotes international co-operation among states, before, during and after an accident and provides a framework for parties to assist each other in the event of an accident, co-operate on research and development and exchange information and technology. UNECE and its partners have developed guidelines, good practices and checklists to strengthen the implementation of the convention, as a legal instrument for technological disaster risk reduction under the Sendai Framework and support the implementation of the SDGs. The convention's Assistance and Cooperation Programme, operational since 2004, enhances the capacities of countries of Eastern and South Eastern Europe, the Caucasus and Central Asia in implementing the convention.

https://unece.org/environment-policy/industrial-accidents

- **United Nations Environment Programme**: UNEP aims to raise awareness and build capacities of communities, industry and governments for emergency prevention and preparedness with a special focus on chemical and industrial accidents. The Awareness and Preparedness for Emergencies at Local Level (APELL) programme aims to raise awareness about hazards and risks, improve preparedness planning and prepare co-ordinated emergency plans. The Flexible Framework for Addressing Chemical Accident Prevention and Preparedness methodology supports governments to develop, improve or review chemical accident prevention and preparedness programmes at the national level. It encompasses the collection of laws, regulations, policies, guidance and other instruments developed by a country. https://www.unenvironment.org/explore-topics/disasters-conflicts/what-we-do/preparedness-and-response/awareness-and-preparedness; https://www.unenvironment.org/pt-br/node/653
- **United Nations Office for Disaster Risk Reduction**: The UNDRR brings governments, partners and communities together to reduce disaster risk and losses and to ensure a safer, sustainable future. The Sendai Framework for Disaster Risk Reduction 2030 focuses on managing risks with a wide scope covering all types of disaster risks and hazards, caused by natural or manmade hazards including biological, technological and environmental hazards. The UNDRR has developed the *Words into Action Guidelines: Implementation Guide for Man-made and Technological Hazards* that take a practical approach in addressing manmade and technological hazards in the context of disaster risk reduction. https://www.undrr.org/publication/words-action-guideline-man-made/technological-hazards
- **World Health Organization**: The WHO works to raise awareness about the public health impact of chemical incidents, strengthen national capacities, provide international alerts and responses, and maintain international networks for the public health management of chemical incidents. The WHO has developed the International Health Regulations (IHR) that require countries to develop adequate capacities for the surveillance, detection and response to chemical-related outbreaks that may have international public health impacts. https://www.who.int/health-topics/international-health-regulations

For more information on each of the agency's programmes, see https://www.oecd.org/chemicalsafety/chemical-accidents/Brochure-International-efforts-for-industrial-and-chemical-accidents.pdf.

Box 17.2. Mechanisms for inter-agency co-operation and co-ordination

Inter-Agency Coordination Group on Industrial/Chemical Accidents

The Inter-Agency Coordination Group is an informal forum that brings together international organisations and institutions working on the prevention of, preparedness for and response to industrial and chemical accidents. It aims to:

- Strengthen international co-operation for improving the prevention of, preparedness for and response to chemical and industrial accidents.
- Improve the use of resources and avoid potential duplication of work across the agencies.
- Facilitate understanding and co-ordination of the programmes of each agency.

- Carry a common message to the international community on the importance of the prevention of, preparedness for and response to chemical accidents as being among the key elements associated with the sound management of chemicals.

Inter-Agency Coordination Group regular participants include representatives of the European Commission (and it JRC Major Accident Hazards Bureau), the International Labour Organization (ILO), the Joint Environment Unit (JEU) of the United Nations Environment Programme/United Nations Office for the Coordination of Humanitarian Affairs, the Organisation for Economic Co-operation and Development (OECD), the Organisation for the Prohibition of Chemical Weapons (OPCW), the United Nations Economic Commission for Europe (UNECE), the United Nations Industrial Development Organization (UNIDO), the United Nations Environment Programme (UNEP), the United Nations Office for Disaster Risk Reduction (UNDRR) and the World Health Organization (WHO).

Source: OECD (2017[1]), *International Efforts for Industrial and Chemical Accidents Prevention, Preparedness and Response (brochure)*, https://www.oecd.org/chemicalsafety/chemical-accidents/Brochure-International-efforts-for-industrial-and-chemical-accidents.pdf.

Inter-Organization Programme for the Sound Management of Chemicals (IOMC)

The programme has the goal of promoting co-ordination of the policies and activities, pursued, jointly or separately, to achieve the sound management of chemicals in relation to human health and the environment. The participating agencies are the Food and Agriculture Organization of the United Nations (FAO), the ILO, United Nations Development Programme (UNDP), UNEP, UNIDO, the United Nations Institute for Training and Research (UNITAR), the WHO, the World Bank and the OECD.

One of the main achievements of the IOMC in relation to chemical accident prevention, preparedness and response is the IOMC Toolbox. The IOMC Toolbox is a tool enabling countries to identify the most appropriate and efficient actions to solve specific national problems related to chemical management. It identifies the available IOMC resources that will help the country address the identified national problem(s) or objectives. Special focus is given to identifying simple cost-effective solutions to national chemicals management issues. A special section in the IOMC Toolbox has been developed to address specifically major hazard prevention, preparedness and response. This section aims to provide support for countries in setting up or improving a chemical accident prevention, preparedness and response management scheme. The chemical accident scheme of the toolbox is accessible at https://iomctoolbox.org/node/50036/steps.

Transboundary co-operation

Chemical accidents can have a transboundary dimension and there are specific international guidance, frameworks and regulations to support the prevention of, preparedness for and response to transboundary chemical accidents. As such, the following principles should be applied consistent with the OECD Decision-Recommendation of the Council concerning Chemical Accident Prevention, Preparedness and Response, and where applicable with the UNECE Conventions on Transboundary Effects of Industrial Accidents and on the Protection and Use of Transboundary Watercourses and International Lakes.

This section contains particular requirements for the potential effect of chemical accidents with transboundary impacts. All of the other sections of the Guiding Principles apply where relevant. For the purposes of this section, transboundary covers land and water frontiers.

On both sides of a boundary, a country should treat the other country (its population and the environment), as far as possible, in the same way regarding the potential impact of chemical accidents.

- Countries of origin and potentially affected countries should exchange information and consult each other, with the objective of preventing accidents capable of causing transboundary damage and reducing adverse effects should such an accident occur.
- To this end, a country where a hazardous installation is located or planned (country of origin) should provide all potentially affected countries with relevant information concerning existing or planned hazardous installations, and the potentially affected countries should provide the host country with relevant information concerning the area under its jurisdiction that could be affected by transboundary damage in the event of an accident.

Countries of origin and potentially affected countries should co-operate with respect to Natech prevention, preparedness and response because natural hazards, which may trigger Natech risks, may be transboundary or the impacts of Natech may be transboundary.

Countries of origin and potentially affected countries should consult one another with a view to co-ordinating offsite emergency planning related to hazardous installations capable of causing transboundary damage. They shall inform one another of the communication systems to be used, the main features of the emergency plans and the means available for emergency response in the event of an accident capable of causing transboundary damage.

Countries of origin and potentially affected countries should inform one another of the instructions given to their respective populations on how to respond in the event of an accident capable of causing transboundary damage, and on any evacuation or protection measures to be taken in the event of such as an accident or imminent threat of such an accident.

Countries of origin and potentially affected countries should establish procedures for the rapid and effective transmission of information related to an accident (or imminent threat of an accident) that might cause transboundary effects, and should set up systems for the communication of pertinent information following an accident.

In the event of a chemical accident (or imminent threat of an accident) capable of causing transboundary effects, public authorities in the country of origin should ensure that appropriate authorities in potentially affected countries are notified without delay and are given appropriate information. In addition, the host country should endeavour to co-ordinate response measures with affected countries.

Representatives of potentially affected countries/communities should have an opportunity to participate in licensing or siting procedures for hazardous installations or their significant modifications that might have transboundary effects in their countries.

To the extent practicable, public authorities should attempt to provide assistance to other countries that have requested help related to the preparedness for or response to chemical accidents.

Public authorities should develop procedures to facilitate the transit through their territory of personnel and equipment to be used for mutual aid in the event of a chemical accident.

Countries' bilateral and multilateral collaboration

Bilateral and multilateral co-operation should be strengthened in order to increase the institutional capability of governments with respect to the safety of hazardous installations.

- Co-operation can engage countries at a similar stage of advancement in the prevention, preparedness and response to chemical accidents that are looking to improve their programmes

or exchange on specific issues, or they can engage countries that are seeking assistance to develop and run a chemical accident programme.

- Countries should make efforts to improve co-operation related to research and development and the exchange of information in the field of preventing chemical accidents and ensuing preparedness for and mitigation of their consequences.
- Countries can, for example, seek support from and exchange with other countries or propose their help through the relevant programmes of international organisations. This can include activities that provide assistance, capacity building and support for the strengthening of the implementation of legal and policy instruments.

Reference

OECD (2017), *International Efforts for Industrial and Chemical Accidents Prevention, Preparedness and Response (brochure)*, OECD, Paris, https://www.oecd.org/chemicalsafety/chemical-accidents/Brochure-International-efforts-for-industrial-and-chemical-accidents.pdf. [1]