



Technical
Cooperation
Programme

Supporting Emergency Preparedness and Response in Member States



*The IAEA helps
Member States to
improve their capabilities
to respond effectively to a
nuclear or radiological emergency*

Nuclear science and radiation technology make an important contribution to the well-being and prosperity of people around the world, in areas as diverse as electricity generation, industry and medicine. However, radiological emergencies can occur due to accidents, natural disasters, human failure or malicious acts. It is essential that Member States have adequate and efficient response systems in place to avoid major radiological and non-radiological consequences at both national and international levels.

One of the statutory functions of the IAEA is to strengthen nuclear safety and security by supporting the efforts of Member States to strengthen their emergency preparedness and response (EPR) capabilities. As established in the IAEA Safety Standards Series Preparedness and Response for a Nuclear or Radiological Emergency (GS-R-2), the practical goal of emergency response is “to ensure that arrangements are in place for a timely, managed, controlled, coordinated and effective response at the scene, and at the local, regional, national and international level, to any nuclear or radiological emergency”.

Through the technical cooperation (TC) programme, and facilitated by the Incident and Emergency Centre, the IAEA helps Member States to improve their capabilities to respond effectively to a nuclear or radiological emergency.

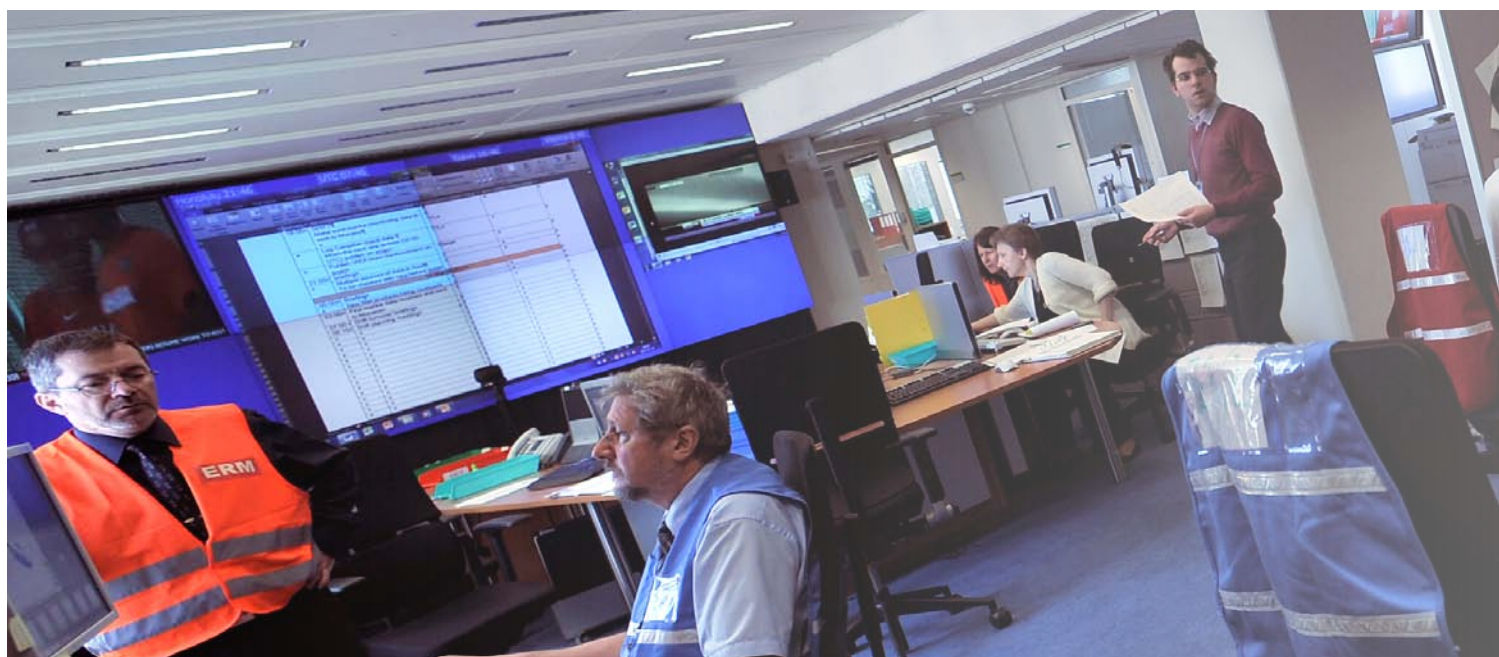
What kind of EPR support does the technical cooperation programme offer Member States?

The **IAEA’s TC programme** is the main mechanism through which the IAEA helps Member States to build, strengthen and maintain human and institutional capacities for the safe, peaceful and secure use of nuclear technology in support of national development priorities. Support is provided through expert missions and meetings, national and regional workshops, national, regional and interregional training courses and fellowships, and through the development and distribution of training material and the procurement of related equipment.

The **Incident and Emergency Centre** is the global focal point for emergency preparedness and response for nuclear and radiological safety or security related incidents, emergencies, threats or events of media interest and the world’s centre for coordination of international emergency preparedness and response assistance.

Participating Member States must be aware of the significance of proper nuclear and radiological emergency preparedness arrangements in the country, and committed to providing the domestic resources needed to establish or upgrade relevant capabilities.

The TC programme provides training on international EPR standards at the country level, and on the application of the revised IAEA Safety Standards in emergency exposure situations.





The IAEA TC programme helps Member States to:

- assess national capabilities to face nuclear and radiological emergencies;
- improve or develop national infrastructures on EPR;
- develop, implement, upgrade and test national EPR plans;
- establish, strengthen or harmonize national EPR capacities;
- build and enhance capacity in specific response elements (e.g. public communication, medical response, first response) and establish national capacity building centres on EPR with a regional coverage; and
- conduct Emergency Preparedness Reviews (EPREVs) at the invitation of Member States

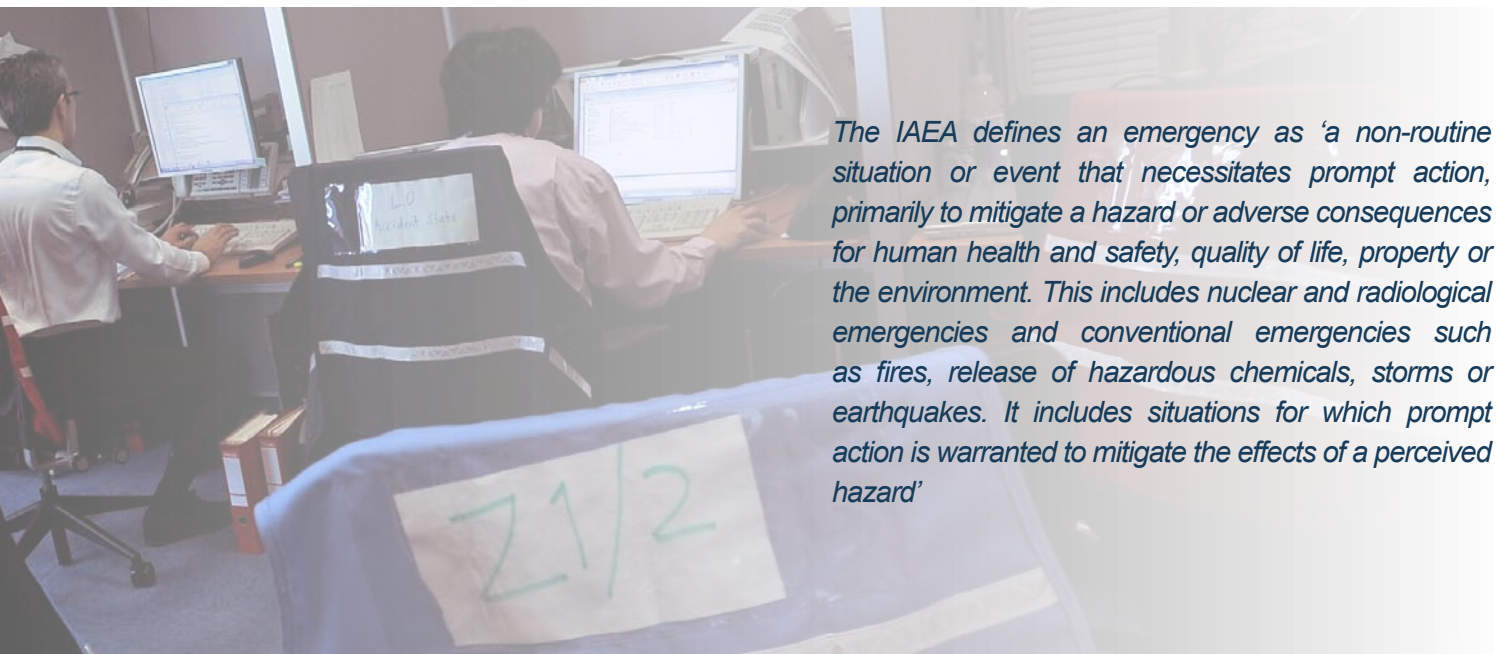
Beneficiaries of IAEA support in EPR include State agencies, governments, regulatory bodies, national coordinating authorities, operators, response organizations, emergency workers, emergency planners and regulators, emergency managers, emergency and medical staff, first responders, radiological assessors, public information officers, and the public in general.

There has been a steady rise of countries embarking on, or expanding, nuclear power programmes. As a result, Member States are placing increasing emphasis on EPR. As at 30 September 2015, the IAEA has 13 active national TC projects in Azerbaijan, Bulgaria, Belarus, Egypt, Latvia, Nigeria, Oman, Philippines, Qatar, Singapore, Syrian Arab Republic, and five regional projects in Africa, Asia and the Pacific, Europe and Latin America and the Caribbean that provide support to Member States' EPR capabilities.

School of Radiation Emergency Management

Following increasing demand from Member States for comprehensive training in nuclear or radiological emergency preparedness and response, the IAEA has established a School of Radiation Emergency Management. The three week long School is designed for staff from organizations that are responsible for the management and coordination of nuclear and radiological EPR. This includes emergency coordinators and planners, decision makers, professionals from civil protection and disaster management organizations, and regulators. The School aims to provide participants with a comprehensive understanding of international principles, requirements and guidelines on EPR, based largely on the IAEA's safety standards and EPR technical tools.

A pilot training course was held in Trieste, Italy, in September 2015, with a follow up, full scale course taking place in November 2015 in Rio de Janeiro, Brazil.



The IAEA defines an emergency as 'a non-routine situation or event that necessitates prompt action, primarily to mitigate a hazard or adverse consequences for human health and safety, quality of life, property or the environment. This includes nuclear and radiological emergencies and conventional emergencies such as fires, release of hazardous chemicals, storms or earthquakes. It includes situations for which prompt action is warranted to mitigate the effects of a perceived hazard'

Recent
IAEA technical
cooperation
projects in emergency
preparedness and
response

EPR is a priority for IAEA technical cooperation in the **Europe** region. A regional workshop on the application of the revised IAEA Safety Standards in emergency exposure situations was held in Vilnius, Lithuania, in May 2014. Participants received IAEA guidance on EPR, and were able to discuss management problems and challenges they faced in ensuring compliance with the advanced EPR requirements. Experts also presented examples of how to ensure adequate EPR capabilities at every level.

In the **Africa** region, a series of emergency preparedness and response activities have included workshops and training courses on generic and specialized responses to nuclear and radiological emergencies. Training activities prepared participants for different emergency situations, including exposure events at research reactors.

An ongoing regional project is assisting 16 participating Member States from the **Latin America and the Caribbean** region to strengthen and harmonize their EPR mechanisms and to improve their compliance with the international requirements set out in GS-R-2. The project also aims to identify and establish national and regional capacity centres to offer periodic training on EPR mechanisms.

Member States from the **Asia and the Pacific** region have participated in a regional project to upgrade safety regulatory infrastructure and associated national EPR standards and procedures. The IAEA provided capacity building through regional and national training courses, workshops, drills and exercises, national consultants' meetings, regional coordination meetings, on-the-job fellowships (including fellowships in the Incidence and Emergency Centre at the IAEA), scientific visits and regional group activities. Training materials, relevant IAEA publications and essential standard equipment were also provided.



For further information, please visit:

www.iaea.org/technicalcooperation

www-naweb.iaea.org/napc/iachem/our_work/radiation_technology.html

www-ns.iaea.org/tech-areas/emergency/

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