

UN report on international response to the Fukushima nuclear emergency – CTBTO excerpts

The [report by the UN Secretary-General](#) entitled “*United Nations system-wide study on the implications of the accident at the Fukushima Daiichi nuclear power plant*” was submitted to the UN Summit on Nuclear Safety on 22 September.

It describes how the UN and other international organizations responded to the Fukushima nuclear emergency and includes many references to the contribution by the CTBTO in detecting radiation and predicting patterns of its dispersal. Here are the excerpts mentioning the CTBTO’s role and contributions:

12. In responding to the Fukushima accident, well-developed scientific and monitoring capabilities were employed, especially by IAEA, WHO and WMO, in accordance with pre-existing arrangements. In addition, the global monitoring network maintained by the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization proved its relevance in nuclear emergencies and, together with the existing UNEP capabilities, could be utilized to supplement the capabilities of the organizations that play a central role in responding to radiation emergencies.

110. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization kept its State parties aware of the developing situation with six technical briefings from 15 March 2011. [35] The Preparatory Commission and IAEA started in-depth cooperation on 21 March 2011. Subsequently, the Preparatory Commission had special briefings on the situation for organizations using Preparatory Commission data (WMO, WHO, IAEA and the United Nations Office for Disarmament Affairs). From 11 April 2011 onwards, the Preparatory Commission also participated in the coordination video conferences of the Inter-Agency Committee, at the invitation of IAEA.

122. International and regional organizations have a broad experience of cooperation, including civil-military cooperation, in preparing for and responding to natural hazards. That experience has been established by engaging with a large number of countries. However, it now needs to be broadened by drawing upon the experience of IAEA and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization. Equally, IAEA can benefit from the wide resource base and expertise of the emergency response and preparedness community.

126. The implications of future natural hazards triggering sequential and collateral disasters necessitates that the United Nations response system, along with IAEA and others such as the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, enhance cooperation to better support countries and regional efforts to increase preparedness capacity.

140. The Comprehensive Nuclear-Test-Ban Treaty Organization global monitoring network of radionuclide stations is also important in nuclear emergencies. That kind of network may be used to assess the conditions causing the release at the source location, in order to provide information on the global radiological situation [39] and to predict when radioactivity might be detected at other stations. [40]

143. A comprehensive effort was made to ensure the operational capability of the Comprehensive Nuclear-Test-Ban Treaty Organization radionuclide monitoring network and timely analysis of the

results. Before the first detections were made in the monitoring network (15 March 2011), [42] atmospheric transport and dispersion modelling was used to predict the expected time and date of detections in the network.

145. Comprehensive Nuclear-Test-Ban Treaty Organization data proved to be useful as a global surveillance system. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization could provide automatic warnings in case detected radioactive material contained unexpected radionuclides or abnormal concentrations of radionuclides. To provide rapid response, arrangements between the Preparatory Commission and other organizations are critical. [44]

Recommendations

147. IAEA should establish a global radiation monitoring platform to display realtime data on radioactive releases and integrate data from international and national monitoring and early warning systems. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization should be requested to provide its expertise and radionuclide data for that purpose. The integrated monitoring platform would not supersede national radiation monitoring programmes but would bring additional benefits to all States and international organizations.

Footnotes:

³⁵ The Preparatory Commission operates the International Monitoring System, a global monitoring network that currently includes more than 60 highly sensitive stations for measuring radionuclides.

³⁹ The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization provides results and data for its States parties as soon as they are available; the system is also supported by a human review to ensure the quality of the results.

⁴⁰ Detections made by the network help to validate the atmospheric modelling. The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization also provides assistance to disaster relief by providing data for tsunami warning systems. In that case, the data are provided in accordance with cooperation arrangements with tsunami warning centres recognized by the United Nations Educational, Scientific and Cultural Organization.

⁴² During the course of the release, more than 40 radionuclide stations detected released radionuclides.

⁴⁴ The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization did not participate in the Inter-Agency Committee for Radiological Nuclear Emergencies prior to the Fukushima Daiichi accident.