



## EDITORIAL TIBOR TÓTH EXECUTIVE SECRETARY

of the Fukushima crisis. His Austrian colleague Gerhard Wotawa gives his account of how International Monitoring System (IMS) data helped worldwide information sharing. CTBTO radionuclide data provided first-hand information on the dangerous situation unfolding at the plant, even allowing scientists to conclude when the fuel rods had been damaged.

The events in Japan helped to foster closer cooperation with other relevant organizations such as the International Atomic Energy Agency (IAEA), the World Health Organization (WHO) and the World Meteorological Organization (WMO), which will assure a strong and coherent response in future disasters. In his article, the WMO's Secretary-General, Michel Jarraud, describes how the joint response system in place between the WMO and the CTBTO performed well during the March crisis.

Had the CTBT verification regime existed in the 1950s and 1960s, it would have tracked radioactive plumes from nuclear tests – many of them more toxic than the Fukushima release – every nine days on average. The levels of radioactivity that accumulated in the atmosphere at that time dwarfed the Chernobyl accident in 1986. And, of course, the 2,000-plus nuclear tests during the Cold War also helped a growing number of nations develop doomsday devices in the megaton range.

One of the defining figures in ending the Cold War was Soviet Union President Mikhail Gorbachev. He was also the first leader to declare a moratorium on nuclear testing in 1985. In this issue, he explains why we should not be satisfied with a virtual moratorium on nuclear testing, and should continue to press for entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT).

U.S. Pulitzer Prize-winning author and historian, Richard Rhodes, reflects on how 20 years after the famous 1986 Reykjavik summit, a group of U.S. statesmen – Shultz, Kissinger, Perry and Nunn – brought the importance of nuclear

weapons elimination and the CTBT back into the political mainstream.

This year the CTBT, which opened for signature on 24 September 1996, celebrates its 15th anniversary. Disarmament expert Patricia Lewis remembers the day when U.S. President Bill Clinton and 70 other leaders put their signatures on the Treaty, describing it as “a great accomplishment, absolutely fantastic”.

While it is admittedly frustrating that the CTBT has still not entered into force, there is no reason for gloom, as much has been accomplished over the last 15 years. Today the Treaty has 182 Signatories or Member States, representing 90 percent of the world's countries. Each signature is in itself a strong commitment to putting an end to nuclear testing, turning the Treaty into a de-facto international norm.

Yet it is more imperative than ever to turn this norm into a legal one, as Uri Rosenthal, the Foreign Minister of the Netherlands, explains in his contribution. We need to find ways to break free from the “debilitating, circular dynamic in which no one State will ratify unless certain other States do so first”, urges arms control expert Christine Wing in her article.

It is therefore heartening to see the unwavering resolve of so many CTBTO Member States in pushing for entry into force. Around 100 foreign ministers will meet at the seventh Conference on Facilitating the Entry into Force of the CTBT on 23 September 2011 in New York to do just that. The conference's Co-Presidents, the Foreign Minister of Mexico, Patricia Espinosa Cantellano, and her Swedish counterpart, Carl Bildt, describe how they will steward this process over the coming two years.

It is the dedication of all these ardent supporters that makes the Treaty shine “as a beacon, lighting the path towards a peaceful world, free from nuclear explosions” as Kamla Persad-Bissessar, Prime Minister of the Republic of Trinidad and Tobago, so elegantly phrases it. Now more than ever it is time to close the door firmly on nuclear testing.

The triple disaster that struck Japan in March – earthquake, tsunami and power plant accident – tragically killed over 20,000 people and left many more injured or homeless. As if that weren't enough, the spectre of radiation sickness had returned to haunt the Japanese people 66 years after the bombings of Hiroshima and Nagasaki. While the final assessment of the consequences for the wider area of Fukushima is still pending, the situation continues to be grave.

At the height of the crisis, minuscule levels of radioactivity spread from the damaged plant first over the Pacific Ocean, then across the United States and finally around the globe. While levels of radioactivity outside Japan were fortunately below those harmful to human health, there could hardly be a better illustration of how nuclear technology – whether in its civilian or military manifestation – can create problems of a global nature.

The Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) helps to address such problems, as it provides a global tool to identify and analyze them. Neither nuclear tests nor emissions from a damaged nuclear power plant can escape detection.

In this issue of *Spectrum*, Wolfgang Weiss from the German Federal Office for Radiation Protection (BfS) describes how IMS data helped BfS to cope with one million online contacts daily at the height