

## EDITORIAL

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#### CTBTO EXECUTIVE SECRETARY



*I am pleased to present my first issue of Spectrum as the Executive Secretary of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO). With my new responsibility comes a deep sense of gratitude and commitment. Gratitude for the trust that States Signatories have placed in me; commitment to achieving the entry into force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), building on the excellent work of my predecessors, Tibor Tóth and Wolfgang Hoffmann.*

*In this issue, I am proud to see an article by President Blaise Compaoré of Burkina Faso. President Compaoré was the first head of state to address the CTBTO's executive body in June this year. In his article, he underscores that the CTBT "has already been recognized as an international standard" and "that the time has come to strengthen this standard by making the CTBT legally binding and universal."*

*On 27 September 2013, foreign ministers from the 183 CTBT Signatory States will gather in New York to push for the Treaty's entry into force at the Article XIV conference. The conference will be presided over jointly by the Foreign Ministers of Hungary and Indonesia, János Martonyi and Marty Natalegawa, who describe in this issue how they will advance this process over the next two years.*

*The conference comes on the eve of a significant anniversary: the 50<sup>th</sup> anniversary of the Partial Test Ban Treaty (PTBT). The PTBT came into effect on 10 October 1963. The treaty's negotiators sought a complete ban on nuclear tests; this did not, unfortunately, materialize. While the PTBT can be credited with addressing the issue of fallout from atmospheric testing, nuclear testing continued underground, enabling an increasing number of countries to develop nuclear weapons for the first time or to increase the destructive power of their existing arsenals. Today, with half a century's hindsight, we have to ask ourselves how much longer it will take to finish the job and achieve a complete ban on all nuclear tests.*

*This issue introduces the newly established Group of Eminent Persons (GEM), a group of personalities of international standing and renowned experts who will reinforce the Article XIV process. It is my hope that through their vast expertise and experience, the members of this group will help make headway towards the CTBT's entry into force, which Iceland's Foreign Minister Gunnar Bragi Sveinsson describes in his article as "a realistic working goal".*

*Sveinsson also highlights the usefulness of CTBT data for disaster mitigation for Iceland, a country known for its volcanic and seismic activity. CTBTO seismic data are of special interest to Miaki Ishii from Harvard University, who relates how natural or man-made seismic events help her study the Earth's inner structures, down to its innermost core. She further explains how a better understanding of the Earth's inner structures in turn improves the detection of nuclear explosions. This is a perfect example of how the CTBT verification regime and the broader scientific community can benefit from each other.*

*The CTBT: Science and Technology 2013 Conference (SnT2013) held in June in Vienna helped to further strengthen*

*this relationship. Excerpts of the keynote addresses are presented in this issue. A prominent topic at the conference was the impact of emissions by producers of radioactive isotopes used in nuclear medicine on the detection of nuclear explosions. At the conference the Belgium-based Institute for Radioelements (IRE), one of the world's major radiopharmaceutical producers, signed a pledge to cooperate with the CTBTO to mitigate the effects of such emissions. An article on 'Joining forces to address radionuclide emissions' describes the background and significance of this development.*

*Perfecting on-site inspection techniques (OSI), in line with the CTBTO's Medium Term Strategy, was an underlying theme at the SnT2013. The conference discussed the potential of multi-spectral imagery for CTBT verification, in particular for on-site inspections, which CTBTO's Aled Rowlands elaborates on in his article. Multi-spectral imagery was one of many techniques exercised during the latest OSI Build-Up Exercise, the final rehearsal for the next fully-integrated field exercise (IFE14) in Jordan in November 2014.*

*IFE14 will bring the CTBTO's readiness to conduct OSIs to a new level. However, this increasingly powerful verification tool remains idle pending the CTBT's entry into force. The last wake-up call was the February 2013 nuclear test announced by the Democratic People's Republic of Korea. As UN Secretary-General Ban Ki-moon declared in his welcoming address at the Science and Technology 2013 Conference: "The science and technology behind the Treaty's implementation are proven. Now it is time for the international community to exercise political will and act."*

A blue ink signature of Lassina Zerbo, written in a cursive style.