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Empowering the Next Generation of Arms-Control Diplomats: An Interview with Dr. Lassina Zerbo

E. William Colglazier and Amy Shifflette

Lassina Zerbo is executive secretary of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) and the 2018 recipient of the AAAS Award for Science Diplomacy. Dr. Zerbo has been influential in strengthening the CTBTO's position as the world's center of excellence for nuclear-test-ban verification. Zerbo has also led the organization in working toward universalization of the Comprehensive Nuclear-Test-Ban Treaty (CTBT), a legally binding global ban on nuclear explosive testing. He was selected for the award for using his scientific expertise and leadership ability to tackle difficult challenges and promote world peace.

Dr. Zerbo spoke with E. William Colglazier, *Science & Diplomacy's* editor-in-chief, and Amy Shifflette, the journal's editorial manager, about his path as a science diplomat and how he plans to leverage the Award for Science Diplomacy, which he received at the AAAS Annual Meeting in Austin, Texas, in February 2018.

Colglazier/Shifflette: As a young man in Burkina Faso, were you always interested in science? When did the work of the CTBTO come onto your professional radar, and was the juncture of science and diplomacy always part of your career trajectory?

Zerbo: My career path to becoming a science diplomat was paved both by chance and by incredible mentors who believed in me and presented me with opportunities. In Burkina Faso, as in other countries, the government guides students' course of study. As a young man, my initial dream was to become a lawyer; however, I was sent abroad to France to study geology and geophysics. I learned to take advantage of these opportunities and make the best of them when they came along. For example, I went into mining and exploration because it was a logical extension of my PhD in geophysics. Initially, I joined Anglo American, a large multinational mining company, and then went on to work across the world in Australia, Singapore, the United States, and the United Kingdom, and western, eastern, and southern Africa. This was largely scientific and technical work, which exposed me to new technologies while doing mining exploration.

After several years, I began to wonder if this was really what I wanted to do. For example, in mining you don't necessarily see positive impacts on the population. Though I was highly satisfied with the technical aspects of the work, I was always seen as an outsider rather than a local, even in Africa. I wanted to practice science outside mining and exploration, and that is when I became aware of the CTBT, as they were looking for a geophysicist. When I saw the job description, it was as if someone had described exactly what I wanted to do. I applied and found myself director of the International Data Centre (IDC) for nine years, and subsequently ran for the role of executive secretary, for which I was elected in 2012.

Colglazier/Shifflette: You've said before that you think the risk of nuclear war is higher than at any time since you began this work. What is the potential for multilateral diplomacy on nuclear-related issues? How do we advance diplomatic efforts for full implementation of the treaty?

Zerbo: I am optimistic by nature. Serving as executive secretary of the CTBTO is such a dream because I can use my science and technology background while trying to influence policy. There are few instances where one can utilize one's scientific background to directly translate into policy changes. The CTBTO is unique in that it is an international organization that blends science and technology—one where science and technology are used to prove that the treaty is viable. In order to ensure signatories' trust and confidence, one must consistently prove that the technology is verifiably compliant. When countries understand our expertise and see it in action, they can believe in this treaty. There is no way

that any nuclear test explosion would go undetected with our verification regime, international monitoring system, the IDC, and the national technical means of the state signatories. This is exactly what people want from this treaty and this organization.

This is what makes me passionate about my job. I have the opportunity to work with people of a high caliber from more than one hundred different nationalities. They all believe in one common goal: contributing to peace and stability. When the treaty enters into full force, we will have achieved something major for the planet.

Colglazier/Shifflette: Is it difficult to maintain optimism when you see, for example, the U.S. Nuclear Posture Review, which calls for a more robust nuclear weapons infrastructure?

Zerbo: When I was briefed on the new Nuclear Posture Review, I saw a lot of positives. It is clear that the United States believes in the nuclear testing moratorium and is asking all countries to observe it. Also, the United States reiterated that it will not test nuclear weapons until such time that it feels its national security is threatened. If you compare the 2018 Nuclear Posture Review with that of the previous administration, the message is similar—but packaged very differently. However, there is still a perception that the U.S. nuclear stance has changed dramatically.

[Former U.S.] President [Barack] Obama is a proponent of nuclear disarmament, and he indicated hope that we will reach full disarmament during his lifetime. He recognized that it was a long road ahead, and that change would not happen quickly. While pursuing disarmament, Obama also indicated that he would continue to use deterrence as long as nuclear weapons existed—if other countries continued to go in a similar direction. This same spirit is essentially carried over in the 2018 Nuclear Posture Review, but the notable exception is that the current administration does not want to ratify the CTBT. This is an inherent contradiction: that they will not ratify the treaty but want the rest of the world to observe the moratorium. One cannot separate the treaty from the verification that was conceived to ensure compliance. It is also a difficult stance, as it feeds doubts in non-nuclear-weapons countries regarding how serious the United States is about the disarmament process. Perception and confidence are important. However, in terms of substance, the U.S. policy has not changed much.

I remain optimistic. With all the rhetoric about the current situation, the United States remains in the CTBT. Also, Americans are overwhelmingly in favor of the CTBT: a 2012 poll indicated that 84 percent had confidence in the treaty and

believed it should be ratified. We need to keep preparing the ground for its full ratification and entry into force.

Colglazier/Shifflette: During your tenure as executive secretary, you have placed a strong emphasis on youth. What is behind this focus?

Zerbo: When I see young people, I see hope. Young people are full of enthusiasm, and it inspires me. I might not be able to achieve all my professional goals, but we have to empower younger people because they need to be masters of the world they want to live in. The world they currently live in is the one we have prepared for ourselves, but we need to give them the tools to prepare *their* world, and not dictate the situation for them.

I was particularly inspired by a Japanese high school student when I was giving a lecture in Hiroshima. She became very emotional during my talk and subsequently sent me an email in which she referred to me at the end as "brother." She reflected about her grandparents who were from Hiroshima, and she told me that my speech gave her hope. Maybe there is a light for peace and stability so a nuclear bombing never happens again. I was so touched by her words that I invited her to Vienna to a symposium on science diplomacy.

It was during this symposium that I decided to launch a youth group, and she is among the leaders. This core group is about a dozen people; we now have more than 350 members. They are organizing themselves beyond what I ever dreamed would happen.

Of course, we have a CTBT group of eminent persons—which is composed of former high-level ministers—but the youth group is the best way to bridge the gap between the generation that negotiated the arms-control and nonproliferation treaties and the next generation of science diplomats, who will be writing and advocating for forthcoming treaties.

Colglazier/Shifflette: You have indicated that you will use your AAAS Award for Science Diplomacy prize as seed money to start a science diplomacy center in your home country. What is your vision for this new science diplomacy center in Burkina Faso?

Zerbo: One of the unfortunate trends in international science diplomacy is that, with few exceptions, training and courses are all in English. We miss reaching out to people who don't speak English. Just before the announcement that I was selected as the recipient of the AAAS Award for Science Diplomacy, I had wanted to organize a science diplomacy conference or symposium in Francophone Africa—

and you won't blame me for choosing Burkina Faso. Winning the award helped solidify this goal.

My vision is of a center where young people and graduate students can reflect on how they use the nexus between science, policy, and diplomacy to push the development agenda in Africa. This goes beyond just disarmament and nonproliferation: topics at the center could be, for example, about science and agricultural policy in Africa. It will provide resources and information technology tools, and center staff will invite mentors and experts in the field to give lectures.

This is my dream. I am in my position due in large part to many great people and mentors who gave me opportunities. People saw in me a bit of talent, and gave me opportunities which I managed to capitalize upon, and I want to give these types of prospects to those who may have lost some hope due to politics, war, or poverty in Africa.

The money from the AAAS Award for Science Diplomacy will be seed funding for this center. I want to leverage the award in a tangible, authentic way. But I don't like little things—I want to create something big and impactful.