

MINISTER NZIMANDE PARTICIPATION IN THE UNESCO GENERAL CONFERENCE PANEL DISCUSSION " BUILDING TRUST IN SCIENCE AT THE NEXUS OF SCIENCE, POLICY AND SOCIETY" PARIS

13 November 2023

Question 1: Last year South Africa hosted the World Science Forum under the theme "Science for Social Justice". Which are in your view the lessons from that Forum and how can we take them forward to build trust in science?

I would in the first instance like to express my sincere appreciation to UNESCO, and to Assistant Directors-General Ramos and Brito personally, for their outstanding support, which enabled South Africa's successful hosting of the 2022 World Science Forum.

The Forum, which took place in Cape Town last December, focused the attention of scientists and policymakers, on the imperative for science to be an instrument for social justice.

The Declaration made at the end of the 2022 WSF committed us all, policymakers, scientists and indeed society at large, to work together in close partnership towards this overriding objective.

I am delighted that following the Forum, our partners, including UNESCO, are working with us, to advance this science for social justice agenda. This includes initiatives responding to objectives such as harnessing science to ensure climate justice; enhancing the role science plays in the fight against poverty, inequality and unemployment; and crucially leveraging and drawing inspiration from science to promote peace, tolerance and solidarity.

The Forum and the Declaration, however, also included an equally important focus on the need to ensure social justice within the enterprise of science itself.

If we are going to successfully build trust in science, we need to concertedly promote social justice in science, thereby ensuring science reflects the society we want, encouraging greater trust by society in science. And when one refers to 'science', I am of course not referring to only natural sciences, but also the humanities and social sciences.

The WSF Declaration of 2022 called for greater inclusivity in science, for example addressing gender and racial imbalances and eliminating barriers to participation.

The Declaration further also called for support for efforts to promote research integrity and the ethical conduct of science. The latter is crucial in the context of the dual nature of the application of technologies, including Artificial Intelligence, which can be used for purposes of human prosperity and well-being as much as it can also be used for destructive and dehumanizing ends.

Thanks to the efforts of UNESCO, we already have respectively the UNESCO Recommendation on Science and Scientific Researchers, and the UNESCO Recommendation on Open Science, the ideal enabling policy frameworks to guide us in building greater trust in science.

Promoting human rights, inclusivity, freedom and responsibility in science, as well as open access to research results and research data, as called for by the Recommendations, will not only ensure greater social justice but also trust in science. The WSF Declaration, thus, called for and committed to support for the UNESCO Recommendations, a call which I am reiterating here tonight.

Question 2: The African Union will soon develop a new 10-year Science, Technology and Innovation Strategy for the region. How do you see 'promoting trust in science' integrated in this important document and why do you think this would be valuable?

The new strategy will be the successor to current the Science, Technology and Innovation Strategy for Africa, better known as STISA, and is aligned to the African Union's Agenda 2063.

To build trust – particularly public trust – in science requires us to build bridges between the scientific community and science policy decision-makers and our different publics. The language of science needs to be translated in the local cultures, idioms, traditions and ways of life of our diverse communities.

We have to figure out ways in which formal science – as practiced in academic and scientific institutions – can coexist with indigenous knowledge systems (IKS) which itself has a basis in science. This is particularly relevant to the African continent where IKS play a crucial role in providing a deep ontological, philosophical, cultural and social connection between African people and the Earth.

I would like to mention three areas, by way of example, in which trust in science and the politics of science, could conceivably be integrated into the African Union's new Science, Technology and Innovation Strategy.

The first relates to the nature of the relationship between science, scientific practice and citizens. During the COVID-19 pandemic, many countries including in Africa - like in many other parts of the world - saw their public health response efforts thwarted by disinformation spread aimed at discouraging citizens from vaccination.

In South Africa, this compelled us to make robust efforts to combat disinformation and explaining how science works, what we know, what we do not know, what measures are in place to better understand both the virus and effective treatments. In this effort, our social sciences and humanities communities played a pivotal role. But we also broadened this effort beyond the 'experts', to include community activists, cultural and religious leaders, as well as traditional healers: those trusted by local communities.

The key insight one can derive of this recent historical experience is that effective communication of science, especially of complex issues, is best done in close collaboration and with participation of citizens. Experts are of course crucial and we must defend and support them, as long as they conduct their craft with integrity, honesty and humility. But involvement of citizens in dialogues over the nature, uses, limits and possibilities of scientific practice is, in my view, an indispensable requirement for 21st century public science. This is particularly important in an age where the digital space has democratized distribution of information (and of course disinformation).

A second way in which one can think of building trust is by demonstrating the commitment of public science to the goals of 'public good' and social justice. If citizens perceive science not only as remote and distant from their everyday lives, and the privilege of elites and experts, we will have problems. This is especially the case when we have to tackle complex social dilemmas where solutions are not straightforward, simple or self-evident for local citizens.

Take for example the challenge of a 'just energy transition'. As we know, the security and well-being of African societies – like other parts of the developing South - is under increased and severe levels of threat from the impacts of climate change. If we are to ensure support from our communities in the noble and correct policy drive towards decarbonized (net-zero) economic future, it must be based on the principle of a 'just transition'.

The new clamour behind the development and deployment of novel technologies, notably green hydrogen, should not blind us from the reality that the challenges of transition for the developing South are markedly different from that of the industrialized north.

We know for a fact that the bulk of anthropogenic emissions produced in the past 250 years of industrialization (until only very recently) derive from the industrialized north and this is what brought us to the climate crisis of today. But we also know that the social and economic impact of rising average temperatures, ocean acidification, extreme weather patterns and the degradation of ecological systems are most severely being felt by developing countries, particularly their most marginalised and vulnerable communities.

If we are to build trust in science in Africa, then we need to make sure that no-one is left behind when policy-makers decide on the nature, tempo and terms of the 'just energy transition' for different African countries. South Africa, for example, has a heavy reliance on coal as a source of generating power and tens of thousands of communities eek a livelihood from this energy source. A too drastic transition away from this without replacing it with sufficiently-substitutionary renewable energy production plants would simply be disastrous.

Again here we will rely heavily on our social scientists to develop more sensitive and meaningful models to enable us to plan just transition interventions which are contextually-specific and takes into account the distinctive socio-economic features of each community affected by such changes.

A third way to build trust in African science is through promoting effective locally-contextual cultures of public engagement in science that can build trust and integrity over the long-term.

We must remember that the history of colonial science in Africa was largely the domain of local elites, practiced largely in a small range of institutions and excluding the vast majority of local communities – who were neither considered as ‘citizens’ (they were subjects) nor part of the scientific enterprise.

In a post-colonial, democratic Africa our task historically-speaking, is to broaden and build-outwards the social composition of the African scientific enterprise. It cannot be confined to urban elites, the middle classes and corporate enterprises.

An elite-based and narrow-based scientific enterprise will be unable to support the mammoth tasks of preparing African societies to find African solutions to both the long-standing developmental challenges of poverty, inequality and unemployment and new existential challenges such as climate change, ecological degradation and uncontrolled use of AI systems.

Therefore, the socialization and massification of African science is crucial and I would encourage the AU to place great emphasis on promoting all manner of public engagement in science programmes.

Experts must work hand in glove with local communities to find effective ways of explaining and engaging in dialogue about the promises, possibilities, limitations and perils of science and technology. In this regard, we must be honest, humble and courageous in upholding the principles of science and technology for public good, social justice and a sustainable Earth.

In all of the above, I see an important role for UNESCO as an active ally with the AU in the task of promoting an open science for public good and social justice.

Building trust in science to deliver the solutions for the challenges of tomorrow, is an imperative in Africa, but also globally, and UNESCO will be essential partner.

May I express my sincere thanks for this opportunity to participate this evening.