

# DECLARATION OF THE 8<sup>th</sup> WORLD SCIENCE FORUM ON **Science for Peace**

Text adopted on 10 November 2017, Dead Sea, Jordan

## PREAMBLE

Under the leadership of the Royal Scientific Society of Jordan, the founding organisations of the World Science Forum, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Council for Science (ICSU), and the Hungarian Academy of Sciences, and all invited organisations and fellow scientists, we, the participants of the 8<sup>th</sup> World Science Forum, held from 7-10 November 2017 at the Dead Sea, Jordan, adopt the present declaration.

The World Science Forum (WSF), an outcome of the 1999 World Conference on Science, is a biennial event that since 2003 has been successfully assembling scientists and decision-makers from the world of politics and industry, representatives of civil society and the media to discuss critical global issues and the potential of science to address them holistically.

In line with the outcomes of the 1999 World Conference on Science (WCS), and taking into account the 2011 *Budapest Declaration on the New Era of Global Science*, the 2013 *Rio de Janeiro Declaration on Science for Global Sustainable Development*, and the 2015 *Budapest Declaration on The Enabling Power of Science* we reaffirm our commitment to the responsible and ethical use of scientific knowledge in addressing the great challenges facing humankind.

## **Science for Peace**

Our world is empowered by science as never before. Scientific and technological advances are at a point where challenges to our health, environment and wellbeing may be defined and addressed in increasingly effective ways. Yet, despite these great strides forward, so many communities on our planet remain powerless and deprived of some of the very basic requirements for life, liberty and hope. So many more of our fellow human beings are at the mercy of fear, insecurity and instability in their lives and livelihoods. Additionally, the grave threats posed by climate and ocean change, pollution, and the inefficient management of natural resources and waste, continue to threaten our environmental, social and political stability at local, regional and global levels.

It is in this context that World Science Forum 2017 has assessed the role of science in building a future that promises greater equality, security and opportunity for all, and in which science plays an increasingly prominent role as an enabler of fair and sustainable development. 'Peace' is far more than the absence of conflict. It implies an absence of fear and the full realisation of a whole and healthy life. It encompasses an equal access to the resources and potential of our planet. 'Science for Peace' signifies a call for the attainment of the Sustainable Development Goals, and for the promise of hope and opportunity in the lives of all people in a world where borders must matter little as we struggle to build a better, and inevitably shared future.

‘Science for Peace’ recognizes the global nature of the challenges facing all humankind, and underlines our global responsibility to tackle them through robust science and evidence-informed policy. This must encompass energy, food, water and climate change, the alleviation of poverty and inequality, greater cultural and economic understanding between peoples, and the potential for science and research to create wealth and to provide opportunity within societies.

We are convinced that science and the ethical application of evidence-informed methods offer essential tools to address challenges that leaders and politicians are confronted by at national and regional levels, and we are committed to finding in science the language that connects people across borders, belief systems, and social and cultural barriers. We believe that we must fight for a voice in a world where culture is so often reduced to untruths relating to cultural identity. ‘Science for Peace’ is a banner for all humanity and a call to reject division, short-term and reactionary planning, and the growing gap between rich and poor.

Inquiry-based science education is essential for forming critical thinking to build and sustain peaceful, knowledge-based societies. Lasting peace may only be achieved in our world when scientific knowledge is more equitably produced and shared, when science and evidence-based thinking are supported and empowered in all societies, when diversity is cherished as a vital factor in science and research, and when the universal right to science is promoted and enshrined in regional and global fora. It is in this context that we call for the following:

## **1. The equitable and sustainable management of natural resources is essential to avoid conflicts and to promote peaceful development**

The global demand for food, water and energy has reached unprecedented and unsustainable levels as a result of a growing global population, increased consumption, inefficient resource management and the effects of climate change. Competition for basic resources is a key driver of inequality, uncertainty, instability and conflict. Future global security and prosperity for all will depend on how we respond to pressures on natural resources, and how these resources are managed, distributed and made accessible to all communities. Sustainable and equitable access is imperative to prevent and mitigate crisis, and to promote resilience and recovery.

World Science Forum 2017 explored the critical interdependency of water, energy and food as the most acute challenge to peace and security. In Jordan and the Middle East in particular, water scarcity poses a grave threat to stability. Scientists and science diplomats have central roles to play not only in developing technologies and management systems, but also in enhancing cooperation, institutions and knowledge exchange; improving water conservation and energy efficiency; building local capacity; and ensuring resilience through shared management of transboundary resources. Science offers channels of communication between states to overcome political tension and build trust.

**We affirm the need to collaborate to improve governance, to inform technological choices and investments, and to build social and human infrastructures for equitable and sustainable management of resources.**

The 2030 Agenda sets a blueprint for tackling these challenges across the Sustainable Development Goals but their interdependencies are not yet fully understood and require increasingly interdisciplinary approaches.

**We endorse the three landmark UN agreements adopted in 2015 — the Sustainable Development Goals (SDGs), the Sendai Framework for Disaster Risk Reduction 2015–2030, and the Paris Agreement on Climate Change. We call for science to be given a central role in enabling the analysis and synthesis of**

evidence to inform their implementation, delivery, and compliance through research monitoring and evaluation.

## **2. The preservation of scientific capacities, threatened by global migration trends, is key to peace, sustainable development, resilience and recovery**

Peace and prosperity depend not only on economic or natural resources, but also on a society's capacity to anticipate, identify and understand challenges, and to act effectively to generate and deploy scientific knowledge. The capacity to educate, attract and retain professionals in science, technology and innovation (STI) is essential for societies to follow sustainable development paths and is the main pillar of any attempt for successful recovery and reconstruction, following conflict, economic crises, and natural and anthropogenic disasters.

Individual causes for migration among scientists may range from career or economic benefits, discrimination of underrepresented groups, the limitation of academic freedom, and political instability, to famine and armed-conflicts. Regardless of the causes, continuous and long-lasting out-migration of skilled STI personnel undermines present and future capacities for innovation in all countries and leads to an acceleration in development gaps. Such global and regional migration patterns must be acknowledged as a shared challenge and leveraged to create future development opportunities.

Science must make an increasingly important contribution to the discourse surrounding migration: the science community must offer insights into the causes, benefits and challenges connected with migration, give voice to underrepresented stakeholders, and support the development of policies based on empirical evidence to respond to the causes and consequences of migration.

The debilitating effects of brain drain on equitable global progress in recent decades have been exacerbated by rapidly increasing dislocation and forced migration. In the Middle East and North Africa alone, war and civil conflicts have forced millions of people to leave their homes and with migration as their only option. Integration of migrant scientists is marked by inequalities in terms of countries of origin, gender or religion, and the underutilization of skills due to bureaucratic obstacles and a lack of recognition of qualifications.

In order to prevent an irreversible loss of human capital in science, it is imperative to introduce measures to help those displaced to continue their careers, and when the time comes to enable them to contribute effectively to rebuilding and reconstruction.

**We call on science organizations, universities and governments to devise mechanisms to identify professionals among the millions displaced by war, economic hardship and climate change, and set recommendations that protect their status and their ability to create knowledge.**

**We underline the need for education and jobs programs to support mobility and integration of migrant and refugee researchers and students.**

**We call for the inclusion of migrant and refugee researchers in the negotiation process of the Global Compact for Safe, Orderly and Regular Migration due to be signed by UN Member States in 2018.**

### **3. Diversity is a key enabler of excellence in science, technology and innovation and is essential to optimise its relevance and impact**

Diversity is a key enabler of scientific excellence and improves the social, environmental and economic impacts of science, thus contributing to prosperity and peace. For the scientific community to innovate effectively, it must reflect different methodologies, linguistics, life experiences and cultural values.

Diversity and inclusion should address all forms of discrimination. Conscious and unconscious biases and imbalances are even more apparent in leadership roles.

Uniformity breeds a recurring and self-affirming scientific monologue that impairs genuine innovation. The homogeneity of scientific communities discourages diversity from the earliest stages of science education.

**We call for the recognition and promotion of diversity in science as an essential precursor to fully realising the potential of human capacities globally, to cherishing excellence, and to optimising the impact of scientific research for the benefit of humankind**

**We advocate for innovative measures and the assessment of gender-disaggregated data, as well as support for the design and implementation of science, technology and innovation (STI) policy instruments that positively affect gender equality in STEM.**

#### **4. We commit to the fulfilment of the universal right to science**

We reinforce and commit to promote the right for all to participate in the advancement of science and the right to enjoy the benefits of scientific progress and its applications as established in Article 27 of the Universal Declaration of Human Rights (1948), and Article 15 of the International Covenant on Economic, Social and Cultural Rights (1966).

In the five decades since the adoption of these core documents for peace and equitable progress, the world of science has seen fundamental and systemic changes and challenges: The emergence of new actors, new methods, transdisciplinary approaches requiring co-design and co-production of knowledge, increased responsibilities for the global scientific community, and the globalisation of commerce and industry. These changes have challenged partnerships among the stakeholders of science. This transformed global landscape calls for the empowerment of the right to science, and for a normative structure to support and expand its applications. This must be complemented by an interdisciplinary approach to the assessment of new scientific discoveries and technologies that embraces social scientists in mapping systemic impacts on societies.

**We, the partner organisations of the World Science Forum, and all participants of World Science Forum 2017, commit to defend academic freedom.**

**We embrace the Principle of the Universality of Science adopted by ICSU member organisations, the renewed *Recommendation on Science and Scientific Researchers* adopted by UNESCO, the *Statement on Scientific Freedom and Responsibility* adopted by AAAS, and IAP's *Doing Global Science: A Guide to Responsible Conduct in the Global Research Enterprise*.**

**We call for the stakeholders of science to join together in promoting and communicating the universal right to science as an essential precursor to building a fair and durable peace.**

#### **5. We support the launch of a regional science forum for the Arab World**

We recognise the importance of regional initiatives to strengthen cohesion within diverse scientific communities and to build partnerships among them. In this respect we support the organisation and promotion of regional science fora as powerful tools to initiate positive change focusing on regional challenges to science systems.

**In this spirit we support the launch of an Arab Science Forum to draw together science and research communities, to focus scientific capacity to address regional challenges, and to connect regional science voices to the wider discourse of established regional fora.**

**We as partner organisations and participants of World Science Forum 2017 commit our support to the establishment of the Arab Science Forum.**