



SCIENCE FOR PEACE AND SUSTAINABILITY

OAXTEPEC DECLARATION
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"In the course of some thousands of years the human species has established a great civilization. It has produced a multifarious culture which accumulated enormous treasures in art and literature. And it has created supreme edifices of science. Therefore, it is of supreme irony that these very developments, intellectual developments of the human species have lead to the creation of the tools of its self-destruction. There are many ways in which life on this planet can be extinguished. Of course there is the slow lingering death by poisoning the environment ... But there is also a way of extinguishing life in one act. That is made possible by the advent of nuclear weapons."

-- Joseph Rotblat, Closing words of the 1996 INES Conference, "Challenges of Sustainable Development," Amsterdam, 22-25 August 1996

At the beginning of the 21st century, our planet is in severe danger. Many problems are threatening humanity and the biosphere we live in, including environmental destruction, climate change and biodiversity loss, poverty and hunger, population growth and refugees, drugs and crime, the spread of armaments and violence, and the threat of nuclear war. A mutually enforcing triangle of economic growth, concentration of political power and destructive military force and conflict is driving the world toward global disaster.

Billions of people have no access to clean water, sanitation, sufficient food or electricity. Climate change caused by greenhouse gas emissions from energy and other sources will further diminish the supply of water and food, threaten many world regions with disasters and force millions of people to migrate. Environmental degradation will lead to new security risks and aggravate conflicts in many regions. Most vulnerable will be poor people and developing countries, although the rich and developed regions of the world have a much higher responsibility for these problems and also have better capacities to adapt and protect themselves, further aggravating the inequities in the world.

Despite the end of the Cold War, still more than 1,200 billion US dollars (\$1.2 trillion) per year are spent for military budgets, 70% by the NATO countries and 50 % by the United States alone. This does nothing to solve the key problems of our times, but rather makes them worse. The continued existence of nuclear weapons poses a direct threat to peace and sustainable development. Nothing symbolizes the principles of unlimited growth, power and force more than the chain reaction of a nuclear explosion which inflicts maximum possible damage upon life. Nuclear weapons represent a world order based on old thinking, destructive means, hostility and exploitation of resources. Getting rid of the huge nuclear arsenals should be the first priority of sustainability strategies, and would create new opportunities for a more cooperative and peaceful world society that addresses the key challenges of our times.

The solution to the complex web of problems and challenges we are facing requires enormous efforts by the world community. To leave the road toward global disaster, the world needs to enter a new path toward sustainable development that can be extended to the whole planet, a path that is compatible and in harmony with the social and natural environment. Sustainable development tries to achieve a balance between human beings, their societies and nature that meets the needs of the present without compromising the ability of future generations to meet their own

needs. Sustainability calls for a significant reduction in use and a fair distribution of natural resources between individuals, societies and generations so that a maximum of well being and dignity is achieved for all. It calls also for the creation of safe and peaceful living conditions and for respect of human, cultural and biological diversity.

While sustainable development is an essential condition for peace, the preservation of peace is an essential condition for the cooperative implementation of sustainable development. A violent and non-peaceful world threatens sustainable development and the cooperation it requires, proliferating more causes for environmental conflict and violence. To succeed, the world has to break the vicious cycle between environmental destruction, under-development and war, and strengthen the linkage between peace and sustainable development in a mutually stimulating way.

In order to achieve a transition towards a more peaceful and sustainable world, a bundle of measures can be suggested:

- Eliminate all weapons of mass destruction, above all nuclear weapons; restrain military forces and arms exports; abandon war as an established form of conflict; develop peaceful mechanisms of conflict resolution.
- Prevent global warming and protect against its harmful impacts; work for deep cuts of carbon emissions and help to enlarge renewable energy.
- Protect the integrity of the biosphere; practice sustainable agriculture and forestry; preserve marine resources and biodiversity; establish networks of nature protection.
- Use resources efficiently; foster social innovation in production, distribution and use of goods; develop new sustainable technologies and designs.
- Strengthen self-reliance; enhance endogenous production capacity in the non-industrialised countries; add value to the resources and create jobs in the countries and communities of origin.
- Build participatory democracy; create institutions that ensure fair access to education, jobs, civil and political life, health care, food and other resources, without discrimination based on gender, race or income level.
- Encourage people to bring their creativity into the political planning and decision process; contribute new ideas and life styles to global sustainability.
- Establish fair distribution of resources, trade patterns and regulatory mechanisms.

Science and technology are playing an ambivalent role in this context. They are part of the problem and are a necessary part of the solution. They help to accelerate and globalize the complex nexus of world problems through innovations that multiply impacts and risks on the environment and society. But they can also contribute to solving the problems through better understanding and developing more sustainable technology. A transition to a sustainable science requires breakthroughs within the science system and its place into society. Science and education are essential in this process as they can strengthen and channel the enormous innovative capacities of human beings and society toward problem solution. To achieve this, science needs to become more interdisciplinary, integrated and international; become more solution-oriented through peace and environmental research and education at the universities; and scientific institutions need to become more democratic.

We see ourselves in the tradition of Josef Rotblat, a scientist who has dedicated his life to peace and sustainability and who called vehemently throughout his life for the abolition of nuclear weapons and a ban on war. His legacy remains alive as an example to create a culture of sustainability and non-violence and to establish and strengthen the structures for peaceful resolution of conflicts.

We, the undersigned engineers and scientists, commit ourselves, as professionals and citizens, to pursuing and supporting innovative and interdisciplinary approaches to creating peaceful and sustainable societies.

We pledge to work locally, nationally and globally for the constructive uses of science and technology for a peaceful and sustainable future, free of nuclear and other weapons of mass destruction.

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