



Joint statement by the Network of African Science Academies (NASAC), the Inter-American Network of Academies of Sciences (IANAS) and the Science Council of Asia (SCA) to the G8 on the role of science, technology and innovation in promoting global development.

On the occasion of the G8 Summit in Hokkaido, Japan, 7–9 July 2008, we, the members of the Network of African Science Academies (NASAC), the Inter-American Network of Academies of Sciences (IANAS) and the Science Council of Asia (SCA), submit the following statement to the leaders of the G8+5 countries on the role of science, technology and innovation in promoting global development, fostering human welfare and reducing global poverty as called for in the Millennium Development Goals (MDGs).

Recent global economic growth has been placed at risk by turbulence in financial markets. Yet, between 1998 and 2007, global gross domestic product (GDP) more than doubled. Between 2004 and 2007, it increased at an annual rate of nearly 4 percent. Moreover, for one of the few times in history, economic growth in the developing world exceeded economic growth in the developed world.

Sub-Saharan Africa, the world's poorest region, has actively participated in and benefited from these recent trends. Between 2000 and 2003, sub-Saharan Africa's GDP rose 3.7 percent annually. Between 2004 and 2006, the region's annual growth in GDP accelerated to 5.6 percent a year, and in 2007 GDP growth reached 6 percent. This represents the most sustained period of economic growth in sub-Saharan Africa in more than three decades.

This good news nevertheless does not hide the troubling news coming out of Africa. More than 40 percent of Africans live in extreme poverty. More than 70 percent live on less than US\$2 a day. Some 26 million Africans are infected with HIV, and an estimated 2.5 million die of AIDS each year. More than 40 percent of Africans do not have access to safe drinking water. More than 70 percent do not have access to electricity. According to recent assessments made by the United Nations, no country in Africa is likely to meet all of the eight MDGs by the 2015 target date, and many African countries are unlikely to meet any of the MDGs by this time.

Differences in social and economic well-being between the least developed countries (LDCs) – most notably in Africa – and the rest of the world not only persist but also threaten to become larger. This growing disparity between rich and poor manifests itself in a variety of ways: between countries, within countries, by gender, and among workers.

The disparities are due partly to historical circumstances and partly to misguided economic policies that have resulted in weak institutions and rendered a large number of less privileged countries unattractive places for investment. But the disparities are also due to another factor: massive differences in the ability to generate, master and utilize science, technology and innovation.

One of the most critical issues that the global community faces is to continue to foster GDP growth and, at the same time, to make growth and human welfare more equitable. Building broad-based capacity in science, technology and innovation is fundamental to addressing these issues.



Over the past quarter century, we have moved from a world believed to have an unlimited bounty of resources to one where we must confront the reality of limited resources. Experts agree that people living in arid regions will have to compete for limited supplies of safe drinking water, and that current oil supplies (at least at affordable prices) may be exhausted by mid-century. Moreover, the spectre of global warming, largely generated by the burning of fossil fuels, may pose the greatest environmental challenge in the history of humankind.

We therefore call upon the G8+5 countries to partner with developing countries to achieve our common goals of poverty reduction and wealth creation by fostering international collaboration in science, technology and innovation. Specifically, we propose devising a 10-year action plan that would lay the groundwork for sustainable and equitable global economic growth. We are proposing that the plan, devised in consultation with experts largely drawn from academies of science, focus on the following critical issues:

Promoting quality education for all. There is no better way to foster equality of economic opportunity than to provide all citizens with an excellent education. Education nurtures the skills required for independent analysis and decision-making. Scientific education, moreover, should be a life-long endeavour. We therefore urge increased support for interactive science centres and laboratories to help make the world of science more accessible to both children and adults, especially in developing countries.

Building sustainable capacity in science, technology and innovation. It is essential for each country to develop a critical mass of interdisciplinary problem-solving scientists, technologists and entrepreneurs who possess both scientific expertise and an appreciation of societal and developmental problems. This will require the establishment of world-class research universities capable of attracting the brightest students and setting global standards of excellence for the entire university system. We are requesting G8+5 countries to help fund the establishment of international research centres of excellence in developing countries staffed by local scientists who can collaborate as full partners in projects to be jointly executed by the international scientific community.

Adapting existing technologies to meet critical local social and economic needs, and investing in new technologies to address real-life problems. The pathway to development followed by Brazil, China, India and other emerging economies has focused on developing a well-educated workforce capable of mastering existing technologies and adapting these technologies to meet the critical social and economic challenges faced by their societies. This is a pathway to development that should be followed by other developing countries. There is also a need to increase national and international investments in cutting-edge science and technologies, especially technologies that can stimulate economic growth. These technologies include information and communication technologies, biotechnologies, environmental technologies and nanotechnologies.

Making science, technology and innovation integral parts of national development plans, and devising programmes to foster closer ties between the natural and social sciences and the public and private sectors. Scientific communities in developing countries, and especially in LDCs, have too often

Another critical issue facing the global community is how to foster policies that result in the sustainable use of natural resources, on which long-term social and economic well-being depends.



functioned in a vacuum separated from their societies. Special efforts should be made to design national research plans that are relevant to national needs and contribute to economic growth. These plans should promote interdisciplinary research and engage the private sector to work closely with government and universities.

Promoting the role of science academies. Academies of science have played a critical role in global development, especially in providing independent expert advice to governments concerning science-related issues. These institutions should continue to become actively engaged in national and global initiatives for sustainable development. It is essential that national governments give science academies the resources and independence that they need to play this vital role. To ensure that science, technology and innovation become an integral part of each country's strategy for sustainable growth, science academies must participate in the design and implementation of national development plans.

The Network of African Science Academies (NASAC), located in Nairobi, Kenya, is comprised of 13 merit-based science academies in Africa.

The InterAmerican Network of Academies of Sciences (IANAS), located in Rio de Janeiro, Brazil, consists of 14 merit-based science academies in the Americas.

The Science Council of Asia (SCA), located in Tokyo, Japan, is comprised of 19 scientific organizations in Asia. Each network dedicated to promoting science-based sustainable development.