

Science and technology for development

The Economic and Social Council,

Recalling its decision 2008/219 of 18 July 2008, in which it requested the Secretary-General to report to the Commission on Science and Technology for Development at its twelfth session on the science, technology and innovation priority themes addressed during the current biennium,

Recalling the 2005 World Summit Outcome, which emphasizes the role of science and technology, including information and communications technologies, as vital for the achievement of the internationally agreed development goals, and reaffirming the commitments contained therein, especially support of efforts of developing countries, individually and collectively, to harness new agricultural technologies in order to increase agricultural productivity through environmentally sustainable means,¹

Recalling that the United Nations Conference on Trade and Development is the secretariat of the United Nations Commission on Science and Technology for Development,

Welcoming the work of the Commission on its two substantive themes “Development-oriented policies for a socio-economic inclusive information society, including policies relating to access, infrastructure and an enabling environment”, and “Science, technology and engineering for innovation and capacity-building in education and research”,

Recognizing the critical role of innovation in maintaining national competitiveness in the global economy,

Noting the outcomes of the intersessional panel meeting of the Commission, held in Santiago from 12 to 14 November 2008 and the report prepared by the secretariat of the United Nations Conference on Trade and Development,²

Taking note of the reports of the Secretary-General to the Commission on Science and Technology for Development,

Welcoming the revised terms of reference of the United Nations Group on the Information Society to expand its mandate to include science and technology pursuant to General Assembly resolution 62/208 of 19 December 2007 and the decision adopted by the High-level Committee on Programmes at its seventeenth session,³ on 26 and 27 February 2009,

Extending its appreciation to the Secretary-General for his role in helping to complete the aforementioned reports in a timely manner,

Noting that although there is wide consensus that technological innovation is a driver and critical source of sustainable economic growth in the new millennium, many developing countries have yet to benefit from the promises of science, technology and innovation,

Stressing the role of education for all as a precondition for the development of science, technology and innovation,

Reaffirming that the training and retention of scientific, technological and engineering talent, mechanisms for the funding of research, the commercialization of scientific knowledge, the building of strategic partnerships

¹ See General Assembly resolution 60/1, para. 60.

² E/CN.16/2009/CRP.1.

³ See CEB/2009/4, para. 58.

for the transfer of technology, innovative financing strategies and an innovation-friendly culture can play critical roles in harnessing scientific and technological knowledge for development,

Recognizing the role science, technology and engineering can play in developing solutions for the problems facing the world today, including climate change and the food and energy crises, and that most of the knowledge that countries need in order to address their most urgent social and economic problems already exist,

Extending its appreciation to the United Nations Conference on Trade and Development for the particular attention given to the needs of African countries in the area of science and technology to stimulate economic growth and reduce poverty by undertaking science, technology and innovation policy reviews for Angola, Ghana, Lesotho and Mauritania and organizing training sessions,

1. *Invites* the Secretary-General to initiate a process to develop and make available a guide for United Nations personnel in the preparation of United Nations Development Assistance Frameworks and common country assessments and for relevant stakeholders in the preparation of poverty reduction strategy papers, identifying opportunities that science, technology and innovation can provide at the country level towards eradication of poverty and achievement of the Millennium Development Goals;

2. *Decides* to make the following recommendations for consideration by national Governments, the Commission on Science and Technology for Development and the United Nations Conference on Trade and Development:

(a) Governments are encouraged to take into account the findings of the Commission and undertake the following actions:

(i) Mainstream science and technology promotion and investment into their national development plans;

(ii) Formulate and implement policies and programmes to:

a. Strengthen science and mathematics education and mentorship for students in primary and secondary schools;

b. Expand opportunities for science, technology and engineering education and research for their population, especially women and particularly in the emerging technologies such as biotechnology and nanotechnology, as appropriate;

c. Provide, where possible, suitable working conditions for their scientific, technological and engineering talent, especially young graduates and women, in order to prevent brain drain;

d. Develop mechanisms, including innovative solutions for expanding rural power supply, and the provision of broadband access to poor communities in rural areas not covered by market-driven investment to ensure access to science, technology and engineering for women, youth, the rural poor and other marginalized groups in all countries;

e. Promote research and development in scientific, technological and engineering fields, which supports, inter alia, grass-roots food production and entrepreneurial activities of the rural population;

f. Strengthen, as appropriate, linkages between the private sector, academia and financial institutions and incentives for commercialization of research and development by promoting entrepreneurship, increased venture capital funding, the establishment of technology parks and incubators and greater international collaboration;

g. Increase the number of full-time researchers in science, technology and engineering;

(iii) Create innovative funding strategies and compensation and reward structures in academic and research institutions to provide incentives for scientific and technological talent to remain within their countries and promote research directed to addressing national and regional development challenges;

(iv) Establish international needs-based partnerships, where countries and their private sectors can collaborate on research and development, including the commercialization of research results, to address similar development challenges, especially those related to the areas of health, agriculture, conservation, sustainable use of natural resources and environmental management, energy, forestry and the impact of climate change;

(v) Develop a culture of innovation and entrepreneurship, support the development of technological capabilities in small and medium-sized enterprises and promote incubators for promising technologies;

(vi) Launch campaigns to raise awareness of the importance of innovation for wealth creation and national welfare through mass media and high-profile awards;

(vii) Reaffirm the essential role that official development assistance plays as a complement to other sources of financing for development and fulfil the internationally agreed commitments regarding official development assistance in order to contribute to the efforts of the developing countries in building their indigenous capabilities in science and technology;

(viii) Make considered decisions to balance short-term and long-term science, technology and innovation goals and policies, evaluating the advantages and disadvantages of procuring or licensing technologies, as compared with producing them indigenously;

(ix) Focus national efforts, when facing a generally low level of science, technology and innovation capacity, on building and strengthening indigenous scientific, technical, vocational and engineering capacities to select and use existing knowledge resources, in order to create jobs, generate wealth and achieve the Millennium Development Goals;

(b) The Commission on Science and Technology for Development is encouraged to:

(i) Play the role of torch-bearer for innovation and innovation-oriented planning and support efforts by national Governments to integrate science, technology and innovation into national development strategies by providing a forum for developing countries, the international community, the science, technology and innovation policy research community and other interested parties to:

a. Share and analyse available empirical evidence on technological learning and science, technology and innovation policy impacts;

b. Identify critical gaps in “innovation system” understanding that the policy research community might usefully address;

c. Provide a forum to share best practices and information on new technologies, financing mechanisms and regulatory measures for providing broadband connectivity in their respective communities, as well as a range of access strategies and technologies to supplement broadband Internet

access and support all levels of socio-economic activity in a country, with a focus on reaching women and the population in rural areas;

(ii) Explore the possibility of organizing an Internet-based science, technology and innovation collaborative network, in conjunction with the United Nations Conference on Trade and Development, the regional commissions and other appropriate stakeholders, which could promote regional and global cooperation by collecting information related to science, technology and engineering capacity-building in education, research and innovation, technology development and transfer, prospects for commercialization of knowledge-based products, opportunities for collaboration and joint ventures and related issues, and could also serve as a repository of regional and subregional initiatives that could encourage further use of the Internet by all interested stakeholders;

(c) The United Nations Conference on Trade and Development is encouraged to:

(i) Reaffirm its mandate in respect of science and technology for development and place greater emphasis on the role of innovation within its mandate;

(ii) Improve the existing collaboration on science and technology for development within the United Nations system, particularly with the United Nations Educational, Scientific and Cultural Organization, the Commission on Science and Technology for Development and the regional commissions and with other appropriate stakeholders, including the World Bank;

(iii) Continue providing its expertise and analytical skills for science, technology and innovation policy reviews and by organizing training sessions, particularly for African countries, aimed at providing information-based policy recommendations and proposed action plans to assist developing countries with their specific needs and circumstances;

(iv) Develop a clearing house for common development challenges that can be addressed through scientific, technological and innovation-related issues, including financing and regulation, and convene meetings of representatives of developing countries with similar concerns to explore concrete ways of engaging and partnering in solutions;

(v) Collaborate with less-developed countries to create conditions that make them attractive to foreign direct investment in science and technology, including information and communications technologies;

(vi) Develop a training programme for sharing best practices on science, technology and innovation capacity-building in developing countries, using extrabudgetary resources;

(vii) Continue to assist African countries in their efforts to build science, technology and innovation capacities through training and workshops, particularly in the areas of biotechnology and cybersecurity, and invite donors to support the network of centres of excellence, currently sponsored by the Government of Italy, and expand it to include other regions.

*36th plenary meeting
24 July 2009*