

2004/68

Science and technology for development

I. Promoting the application of science and technology to meet the development goals contained in the United Nations Millennium Declaration

The Economic and Social Council,

Welcoming the work of the Commission on Science and Technology for Development on its theme “Promoting the application of science and technology to meet the development goals contained in the United Nations Millennium Declaration” and taking note of the findings, which include, inter alia, the following:

1. Most developing countries are unlikely to meet the internationally agreed development goals, including those contained in the United Nations Millennium Declaration,¹ without a clear political commitment to making science and technology top priorities in their development agenda;

2. Many developing countries lack solid science and technology bases. Science and technology institutions and national innovation systems in many developing countries are fragmented and uncoordinated and links between them and the private business sector are poorly developed. Review and analysis of national science, technology and innovation policies and institutional and legal frameworks, including advisory bodies and mechanisms, are urgently needed to ensure that they serve the needs of development effectively;

3. The lack of a solid science and technology base not only results from poor human and capital resources, but also stems from a lack of appreciation of the critical role of science and technology in development, as well as from an incoherent methodology for establishing such a base and the absence of a coherent policy addressing national needs and human and capital resources;

4. For developing countries to meet the internationally agreed development goals, including those contained in the United Nations Millennium Declaration, they need access to new and emerging technologies, which requires technology transfer, technical cooperation and the building and nurturing of a scientific and technological capacity to participate in the development and adaptation of these technologies to local conditions;

5. Promoting the development and application of new and emerging technologies, most notably biotechnology and information and communication technologies as well as biomedical and environmental technologies, will both reduce the cost and increase the likelihood of attaining the internationally agreed development goals, including those contained in the United Nations Millennium Declaration;

6. Academia/government/industry partnerships and networking are essential in building scientific and technological capabilities and fostering policies and developments. Science and technology parks, business incubators and support organizations for innovation are effective mechanisms for promoting academia/government/industry partnerships and entrepreneurship;

¹

See General Assembly resolution 55/2.

7. The current North-South gap in respect of the generation and application of new and emerging technologies and their contribution to economic and social development constitutes a “technological divide” which must be bridged if developing countries are to participate effectively in a global inclusive knowledge society;

8. States need to invest in publicly funded universities and research institutions to improve infrastructure, quality of education and human resources. To enhance the impact of investment, Governments should consider linking funding of universities to performance in teaching and research;

9. Despite the efforts of various development agencies, poverty still persists in many parts of the world. There is a need to coordinate technical cooperation programmes and to monitor progress so as to ensure policy coherence and socio-economic benefits for the poor;

10. In recent years, there has been a rapid rise in the number of open and collaborative projects to create public goods. These projects are extremely important, as they affect the ability of countries to achieve the development goals contained in the United Nations Millennium Declaration;

Decides to make the following recommendations for consideration by national Governments and the Commission on Science and Technology for Development:

(a) Governments are encouraged to undertake the following actions:

(i) Demonstrate their political commitment by increasing research and development expenditure in science and technology to at least 1 per cent of gross domestic product and encourage research and development, engineering and design, inter alia, in areas involving the assimilation of existing knowledge that address the needs of national development;

(ii) Establish and/or enhance national advisory bodies and their linkages to provide systematic and institutionalized science and technology advice to various branches of government responsible for coordinating and implementing development strategies;

(iii) Implement fiscal and other incentives to encourage research and development in the private sector and joint projects between private companies and public research and development institutes;

(iv) Strengthen universities and research institutions and develop centres of excellence in the fields of science and technology and encourage them to contribute to national development;

(v) Increase investment in scientific and technical education, particularly at tertiary and vocational levels, and adopt concrete measures to increase the enrolment of girls and women in scientific and engineering disciplines and ensure their representation in science and technology, particularly in decision-making positions;

(vi) Adopt special measures to attract and retain young and talented scientists and technologists, and establish close ties with expatriate scientists and engineers and encourage their participation in national development;

(vii) Strengthen the diffusion and commercialization of technology by encouraging venture capital and other forms of financial intermediaries supporting innovation from both public and private sources and establishing facilitatory institutions such as science parks and technology incubators;

(viii) Explore the potential of openly available public development projects for the enhancement of science and technology infrastructure;

(ix) Raise public awareness on the importance of science and technology in development and, in particular, the benefits, opportunities and risks of new and emerging technologies;

(b) The Commission on Science and Technology for Development, within existing resources and within the framework of its role in coordinating science and technology activities in the United Nations system, is requested to:

(i) Forge links between itself and national science and technology bodies in each country, in order to promote networking, share national experiences, facilitate information flows and increase the impact of the Commission's work. In this regard, the Commission is invited to establish an international network of science and technology institutions, including national science and technology commissions and other stakeholders in development such as the international research centres of the Trieste System. The new association would meet annually in conjunction with the regular sessions of the Commission;

(ii) Establish, in collaboration with the United Nations Development Programme and other institutions dealing with the use of science, technology and innovation in achieving the Millennium Development Goals, mechanisms for the ongoing review, evaluation and analysis of national strategies for achieving the internationally agreed development goals, including those contained in the United Nations Millennium Declaration, to ensure that science and technology play a central role. To this end, the Commission is invited to consider the feasibility of developing a reliable tool to monitor implementation and benchmark progress;

(iii) Explore the possibility of establishing new initiatives involving important development partners, such as the New Partnership for Africa's Development,² with a view to enhancing closer South-South and North-South collaboration in the area of science and technology;

(iv) Explore the feasibility of preparing and producing an annual world technology for development report that would include: technology achievement indicators and benchmarks, and a review of emerging technologies and related policies, as well as best practices and case studies on the application of science and technology towards the achievement of the internationally agreed development goals, including those contained in the United Nations Millennium Declaration;

(v) Provide a forum within the Science and Technology for Development Network³ within which success stories and lessons learned could be shared in respect of national efforts to apply science and technology to serve the needs of development;

²

A/57/304, annex.

³

<http://www.unctad.org/stdev>.

(vi) Interact closely with the United Nations Information and Communication Technologies Task Force, the International Telecommunication Union and regional commissions in order to assist developing countries in the implementation of national action plans to support the fulfilment of the goals indicated in the Declaration of Principles⁴ and Plan of Action,⁵ adopted by the World Summit on the Information Society, Geneva Phase, on 12 December 2003, and contribute to the preparation of the second phase of the Summit, to be held in Tunis in November 2005.

II. New substantive theme and other activities

The Economic and Social Council,

Endorses the following decision taken by the Commission on Science and Technology for Development at its seventh session:

The Commission on Science and Technology for Development, recognizing that the implementation of the development goals contained in the United Nations Millennium Declaration entails significant reorientation in the use of science, technology and innovation policies to ensure that they serve the needs of development, especially for poverty reduction, recognizing also that national advisory bodies are essential in providing systematic and institutionalized science and technology advice to the executive and other branches of government responsible for coordinating and implementing development strategies, and taking note of the Declaration of Principles³ and Plan of Action⁴ adopted by the World Summit on the Information Society, Geneva Phase, on 12 December 2003, decides to select as its substantive theme for the intersessional period 2004-2005 “Science and technology promotion, advice and application for the achievement of the internationally agreed development goals contained in the United Nations Millennium Declaration” and considers that specific emphasis should be placed on at least three key areas: the mutual interaction and dependency of science and technology education and research and development; infrastructure-building as a foundation for scientific and technological development; and promoting gainful employment in general and enterprise development, in particular through the use of existing and emerging technologies, especially information and communication technologies and biotechnologies.

*53rd plenary meeting
5 November 2004*

⁴ See A/C.2/59/3, annex, chap. I, sect. A.

⁵ See A/C.2/59/3, annex, chap. I, sect. B.