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Resolution adopted by the Economic and Social Council on 22 July 2013

*[on the recommendation of the Commission on Science and Technology
for Development (E/2013/31)]*

2013/10. Science, technology and innovation for development

The Economic and Social Council,

Recognizing the role of the Commission on Science and Technology for Development as the United Nations torch-bearer for science, technology and innovation for development,

Recognizing also the critical role and contribution of science, technology and innovation in building and maintaining national competitiveness in the global economy, addressing global challenges and realizing sustainable development,

Recognizing further the seminal role that information and communications technologies play in promoting and empowering science, technology and innovation for development,

Recalling the 2005 World Summit Outcome,¹ in which it was recognized that science and technology, including information and communications technologies, are vital for the achievement of the internationally agreed development goals, and reaffirming the commitments contained therein,

Recalling also that the United Nations Conference on Trade and Development is the secretariat of the Commission,

Recalling further the work of the Commission on science, technology and engineering for innovation and capacity-building in education and research and on development-oriented policies for a socioeconomically inclusive information society, including policies relating to access, infrastructure and an enabling environment,

Recognizing that local and indigenous culture and knowledge accumulated through the centuries are crucial in solving local problems,

Recognizing also that it is necessary to develop new business models which are accountable and facilitate scale-up of technological innovation that reaches beneficiaries,

¹ General Assembly resolution 60/1.



Noting that geographic information systems and geospatial tools and analysis provide important applications in urban planning and monitoring,

Recognizing that the General Assembly, in its resolution 66/211 of 22 December 2011 on science and technology for development, encouraged the United Nations Conference on Trade and Development to continue to undertake science, technology and innovation policy reviews, with a view to assisting developing countries and countries with economies in transition in identifying the measures that are needed to integrate science, technology and innovation policies into their national development strategies,

Taking note with appreciation of the high-quality science, technology and innovation policy review prepared by the United Nations Conference on Trade and Development for the Dominican Republic, and welcoming the next science, technology and innovation policy reviews, planned for Oman, Thailand and Viet Nam,

Recalling Economic and Social Council decision 2011/235 of 26 July 2011 providing for the extension, until 2015, of the mandate of the Gender Advisory Board of the Commission, as well as General Assembly resolutions 66/129 of 19 December 2011, 66/211 and 66/216 of 22 December 2011 addressing, respectively, the improvement of the situation of women in rural areas, barriers to equal access for women and girls to science and technology, and the integration of a gender perspective into development policies and programmes,

Welcoming the work of the Commission on its two current priority themes, “Science, technology and innovation for sustainable cities and peri-urban communities” and “Internet broadband for an inclusive digital society”,

Recognizing that collaborative learning, cooperation and exchange of best practices are central to innovation, technology transfer and entrepreneurship and involve absorptive and productive capacity-building at the individual and the organizational levels,

Recognizing also that, although rapid industrialization in developing countries is increasing the standard of living for many by offering employment opportunities and services for a better life, it has not been inclusive and has created several cross-sectoral challenges for urban governance, including imbalances in the quality of life and other social issues,

Noting that cities are centres of innovation and that the growth and development of countries as a whole will depend largely on the success, habitability and sustainability of their cities,

Noting also that the challenges faced by cities and peri-urban communities in developing countries, in particular least developed countries and small island States, differ widely from those of developed countries and require special analysis in the context of science, technology and innovation interventions,

Recognizing that science, technology and innovation can help to achieve sustainable urban development through the application of high, low, new and emerging technologies, taking into account innovative approaches to urban planning and institutional innovation, while accounting for the economic, environmental, cultural and social dimensions of urbanization,

Recognizing also that science, technology and innovation are necessary for sustainable urban development, to provide affordable solutions to mitigate the impact of climate change on vulnerable urban populations,

Recognizing further the critical role of institutional reforms, financing and public-private partnerships, in addition to science, technology and innovation, in finding solutions to challenges related to sustainable urbanization,

Noting that architecture and engineering go hand in hand when planning, designing, building, retrofitting and maintaining cities, are holistic, inclusive and mindful of specific requirements of all people, male and female, and ultimately provide places where people can live comfortably,

Noting also the activities of Study Group 5 of the International Telecommunication Union to address environmental dimensions of information and communications technologies in cities and the establishment, by the International Telecommunication Union, of the Focus Group on Smart Sustainable Cities to define the role of information and communications technologies in cities that aim to be environmentally sustainable,

Noting further that the global report of the Broadband Commission for Digital Development on the state of broadband in 2012 and achieving digital inclusion for all is of relevance to sustainable cities and peri-urban communities,

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, individually and collectively, are encouraged to take into account the findings of the Commission and to consider taking the following actions:

- (i) Establish governance mechanisms that facilitate innovative, integrated and multidisciplinary urban and peri-urban community planning, with urban projects to include targeted end users and participation from relevant departments responsible for spatial planning, housing, water supply, energy supply, mobility, communications, health and sanitation, education and skills training, waste management, environmental protection, security and disaster resilience;
- (ii) Put in place regulatory frameworks, at the national, regional and local levels, that mainstream issues of sustainability into urban projects and support business models that scale innovative solutions;
- (iii) Invite local governments to establish public-private partnerships for mutual benefit, including to support higher education and vocational training in skills needed for an augmented urban workforce;
- (iv) Encourage the integration of information and communications technologies into the infrastructure of cities, where appropriate, to increase the efficiency of services, food supply and mobility, to provide for the safety, security and productivity of citizens and to reduce environmental impacts;
- (v) Encourage municipalities to join national and international networks for cooperation to learn from best practices in cities of other regions and countries;
- (vi) Provide support for collaborative research involving universities and municipalities on the socioeconomic impact of urbanization, in order to support informed public policies;
- (vii) Use information and communications technology-based simulation tools that estimate future requirements in terms of food, water, energy, housing,

transport and other services, such as education, health, sanitation, waste management, communication and security, in expanding urban areas, also taking into account the estimated growth of income for planning purposes;

(viii) Establish regional expansion plans that take into account the estimated demand for basic services and infrastructure of growing populations in cities and surrounding peri-urban and rural zones;

(ix) Promote the adoption of urban agriculture technologies as a means to supplement income and food supply;

(x) Also promote technologies and business models that scale affordable, resource-efficient housing for lower-income groups living in slums, as well as new inhabitants of urban areas;

(xi) Explore potential bilateral, regional and multilateral cooperation, especially between municipalities and other types of local government, on improving the resilience of cities and peri-urban areas against natural disasters and the impacts of climate change, for example, with the help of early warning systems;

(b) The Commission and the United Nations Conference on Trade and Development are encouraged:

(i) With respect to the Commission, to continue its role as a torch-bearer for innovation, to provide high-level advice to the Economic and Social Council and the General Assembly on relevant science, technology and engineering for innovation issues, to raise awareness among policymakers about the process of innovation and to identify particular opportunities for developing countries to benefit from such innovation, with special attention being placed on new trends in innovation that can offer novel possibilities for developing countries, especially for local governments, small and medium enterprises and individual entrepreneurs;

(ii) To provide a forum for building repositories of best practices, successful local innovation models, case studies and experience on the use of science, technology and engineering for innovation, in symbiotic relationship with information and communications technologies, for sustainability, management of services, and solutions for challenges in key urban sectors in developing countries, considering the special requirements of least developed countries and small island States;

(iii) To raise awareness among urban policymakers about the role of science, technology and engineering for innovation, and of information and communications technologies, in facilitating integrated regional planning, spatial design, sustainable resource consumption, and efficient management of services in cities and peri-urban communities, in a gender-sensitive manner;

(iv) To establish a systematic approach for strategy development related to science, technology and engineering for innovation, including harmonized norms and definitions;

(v) With respect to the Commission and the United Nations Conference on Trade and Development, to enhance treatment of information and communications technologies as an integral, empowering asset for science, technology and engineering for innovation within science, technology and innovation policy reviews;

- (vi) To proactively seek funding for the expansion of science, technology and innovation policy reviews and their implementation in close cooperation with United Nations-related agencies and international organizations;
 - (vii) To plan for periodic updates on progress made in countries for which science, technology and innovation policy reviews have been performed and to invite those countries to report to the Commission on progress made, lessons learned and challenges encountered in implementation of recommendations;
 - (viii) To encourage the Gender Advisory Board of the Commission to provide inputs to the policy deliberations and documentation of the Commission, to report on progress at the annual sessions of the Commission and to better integrate gender perspectives into science, technology and innovation policy reviews, where appropriate;
 - (ix) To highlight the importance of the work of the Commission related to the implementation of and follow-up to the areas of science, technology and innovation and information and communications technologies related to the Millennium Development Goals and in the post-2015 development agenda, with the Chair of the Commission to report to appropriate Council reviews and meetings, including those related to the Millennium Development Goals review process and the post-2015 development agenda-setting;
- (c) The international community is encouraged:
- (i) To explore innovative financing models as a means to facilitate investments in replicating science, technology and innovation-based solutions to pressing societal challenges and infrastructural needs for sustainable development, including the management of cities and peri-urban communities in developing countries;
 - (ii) To establish science, technology and innovation platforms such as open repositories to share and access knowledge, information, experiences and best practices involving technology developments that address the particular urbanization needs and challenges of developing countries, especially least developed countries and small island States;
 - (iii) To harness information and communications technologies and related social and scientific networks to foster “brain circulation” and the global knowledge society;
 - (iv) To facilitate university-to-university collaborations involving students and faculty exchanges, two-way mobility and cooperative research aimed primarily at increasing science, technology and innovation capacities and the cross-border and transregional circulation of knowledge for sustainable development;
 - (v) To nurture joint collaborations on capacity-building of science, technology and innovation human resources and global research infrastructure.

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