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## **Economic and Social Commission for Western Asia (ESCWA)**

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# Global and regional issues

# Technology mechanisms to advance the Sustainable Development Goals in the Arab region

#### **Summary**

Technology plays a critical role in transforming societies and economies by enhancing efficiency, connectivity and access to resources and services. Harnessing different technology types can contribute to development and achievement of the Sustainable Development Goals (SDGs). ESCWA supports countries of the Arab region in their efforts to achieve the SDGs by identifying science, technology and innovation (STI) priority areas, enhancing coordination and technology networking between stakeholders, raising awareness, building capacity and promoting regional cooperation and integration. ESCWA plays a key role in working to ensure that regional priorities are effectively represented on the global agenda.

The objective of this paper is to highlight the prominence of STI and ICT in the 2030 Agenda for Sustainable Development and the role of ESCWA in supporting the Arab region in building national knowledge-based economies and striving to achieve the SDGs.

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#### I. ESCWA IN THE GLOBAL TECHNOLOGY CONTEXT

- 1. Cutting-edge technologies such as nanotechnology, biotechnology, renewable energy, bioinformatics, genomics, information and communications technology (ICT) and space science can all contribute to development of the economy, society and the environment. Additionally, local knowledge and culture can lead to development based on "appropriate" (ie small-scale, energy–efficient and environmentally sound) technologies. Cutting-edge technologies are common in developed countries, and the developing world is mainly dependent on appropriate technology. Harnessing both can contribute to achievement of the Sustainable Development Goals (SDGs) in all sectors, including: water, energy, health, environment, governance and agriculture.
- 2. ESCWA supports the efforts of the Arab countries to achieve the SDGs by identifying STI priority areas and encouraging networking between stakeholders, awareness and capacity-building and regional cooperation and integration. ESCWA has been part of the United Nations Group on the Information Society (UNGIS) since its inception in April 2006. UNGIS promotes policy consistency and programme coordination across the United Nations system and provides guidance on inclusive information and knowledge societies and the strategic use of ICTs in support of internationally agreed development goals. UNGIS is the main inter-agency mechanism for coordinating policy on implementation of the results of the World Summit on the Information Society (WSIS). UNGIS plays an important role in the WSIS process, including by forging partnerships among members of the United Nations Chief Executives Board for Coordination to achieve WSIS objectives.
- 3. To help Arab countries achieve the SDGs in the next 15 years by leveraging STI in their national development agendas, ESCWA has joined the United Nations inter-agency task team (IATT) on STI for SDGs. This team will promote coordination and cooperation within the United Nations on STI-related matters, prepare meetings of the annual multi-stakeholder forum on STI for SDGs and support the development of an online platform. ESCWA will coordinate regional efforts in this regard and ensure that regional priorities are represented on the global agenda.

### II. TECHNOLOGY AND THE 2030 DEVELOPMENT AGENDA

A. TECHNOLOGY AND THE SUSTAINABLE DEVELOPMENT GOALS (SDGS)

- 4. Adopted in 2015, the 2030 Agenda for Sustainable Development contains 17 goals and 169 targets. It acknowledges that "the spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy".
- 5. Goal 17 of the SDGs calls for greater use to be made of enabling technology and underlines the need for more international cooperation on and access to technology. For example, the effective use of technology can help the global community to end extreme poverty and hunger by creating new economic opportunities, expanding financial inclusion and strengthening food security. ICT can be a facilitator of participatory governance and transparency for peace and justice. Technology is transforming the delivery of health care with low-cost telehealth applications that broaden access to care for the poor, and devices that improve health outcomes through the monitoring and analysis of healthcare data.
- 6. Goals number 2, 7 and 14 also recognize the importance of technology for development, especially in the areas of agriculture, energy, natural resources, health and education.
- 7. Goal number 9 on "building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation" is of special interest to Arab countries. Innovation is the vehicle of efficient development and deployment of technologies and will facilitate affordable access to and

implementation of solutions integrating knowledge and technology systems. Goal number 9 has clear implications for the role of innovation in research, development and industry.

#### B. TECHNOLOGY AND THE ADDIS ABABA ACTION AGENDA

- 8. The Addis Ababa Action Agenda emerged from the Third International Conference on Financing for Development, held in Addis Ababa from 13 to 16 July 2015. It highlights the regional dimension of development and stresses that the spread of innovations and new technologies, including through the technology transfer on mutually agreed terms, are powerful drivers of economic growth, sustainable development and improved living standards. ESCWA will work with partners and countries to deploy these means in order to achieve long-term sustainable development objectives.
- 9. The Agenda sets forth the following actions relating to technology and innovation:
- (a) Crafting policies that incentivize the creation of new technologies, encourage research and support innovation in developing countries;
- (b) Protecting intellectual property rights in developed and developing countries in line with nationally defined priorities and World Trade Organization (WTO) rules;
  - (c) Promoting social innovation to support well-being and sustainable livelihoods;
- (d) Encouraging knowledge-sharing, cooperation and partnerships between Governments, firms, academic institutions and civil society in order to achieve the SDGs;
- (e) Using public funding for critical projects and allowing open access to them for research purposes. Competitive innovation funds could be set to support creative businesses;
- (f) Incorporating STI strategies into national sustainable development plans, with a view to scaling up investment in science, technology, engineering and mathematics education, and improving technical, vocational and tertiary education and training, with equal access for women and girls;
- (g) Encouraging the development and transfer of environmentally sound technologies to developing countries on favourable and mutually agreed terms, and stepping up international cooperation in science, research, technology and innovation, including through public-private and multi-stakeholder partnerships and official development assistance (ODA);
- (h) Helping developing countries to build up their scientific, technological and innovative capacity in order to move towards more sustainable patterns of consumption and production, including through implementation of the 10-year framework of programmes on sustainable consumption and production patterns.

## C. WSIS AND SDGS: ENABLING ICTS FOR SUSTAINABLE DEVELOPMENT

- 10. The WSIS Forum 2015, which was held from 25 to 29 May 2015, has been an efficient mechanism for coordinating activities, information exchange and sharing of best practices, and continues to assist in developing multi-stakeholder and public-private development partnerships.
- 11. The WSIS Action line and SDG matrix, a mapping exercise underlining the role of ICTs in promoting sustainable development, was launched at the forum.

#### III. HARNESSING TECHNOLOGY FOR THE SDGS: THE ROLE OF ESCWA

- 12. ESCWA has a mandate to assist its member States in integrating the social, economic and environmental dimensions of sustainable development into their policies and to provide them with technical support to implement the SDGs.
- 13. The Technology for Development Division (TDD) of ESCWA is promoting STI and ICT regional platforms and initiatives, analyzing the needs of member States and mainstreaming technology into the work programmes of ESCWA's various divisions.
- 14. The Technology Facilitation Mechanism, launched by the United Nations in 2015, will be based on cooperation between member States, civil society, the private sector, the scientific community, United Nations entities and other stakeholders. In addition to the United Nations interagency task team on STI, the mechanism will be made up of a multi-stakeholder forum and online platform.
- 15. ESCWA will encourage the leveraging of innovation and technology to transform the region's economies, develop solutions for sustainable development, create jobs, carry through public sector reform and improve the delivery of government services to a growing population.
- 16. ESCWA will convene regional conferences and workshops, with the assistance of the ESCWA Technology Centre in Amman, to engage member States in STI initiatives and promote ICTs as a standalone economic sector in the region.
- 17. The Division will participate in a high-level meeting at the General Assembly in New York on 15 and 16 December 2015 to review progress in the implementation of WSIS outcomes over the past 10 years. It will also organize a conference in the same month at the fourth annual meeting of the Arab Internet Governance Forum (Arab IGF) in Beirut.
- 18. ESCWA will work through the Arab IGF and Academy of ICT Essentials for Government Leaders in the ESCWA Region (AIGLE) to build the ICT capacities of policymakers and government officials and reduce barriers to the use of ICT and internet-based services, in order to accelerate socioeconomic development and achieve the SDGs.
- 19. ESCWA will encourage regional STI and digital economy hubs to share best policy and legislative practices in order to nurture knowledge-sharing on sustainable technologies, and to promote ICT connectivity and cutting-edge digital technologies. In that context, the National Technology Development and Transfer System project has been launched in five Arab countries, and ESCWA is encouraging more countries to join.
- 20. ESCWA will foster partnerships in STI research and capacity-building with member States and other institutions, such as the League of Arab States, United Nations Department of Economic and Social Affairs, World Intellectual Property Organization (WIPO), United Nations Industrial Development Organization (UNIDO), United Nations Conference on Trade and Development (UNCTAD), the World Bank, United Nations Educational, Scientific and Cultural Organization (UNESCO) and International Telecommunication Union (ITU). These partnerships will enable ESCWA to better implement its mandates on technology for development and feed into the Technology Facilitation Mechanism.
- 21. ESCWA, in conjunction with United Nations entities that are members of the interagency task team and in partnership with regional stakeholders, will:
- (a) Encourage the march towards knowledge-based economies, using technology and innovation to enhance competitiveness and productivity, increase job creation in knowledge industries, improve youth entrepreneurship and encourage research and development. It will deploy tools for measuring and monitoring

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transformation to smart and sustainable cities, the effectiveness of national technology transfer systems, and the performance of national STI observatories;

- (b) Help post-conflict countries in the Arab region to employ technology and ICT for early recovery, the reconstruction of infrastructure, the development of a legal framework, capacity-building, institutional reforms, and the modernization of service delivery;
  - (c) Promote the establishment of national technology development and transfer systems;
- (d) Facilitate the measurement of national STI and ICT ecosystem indicators for consistent, evidence-based policymaking;
- (e) Support member countries in enhancing/building innovation ecosystems to support transformation and in drafting the relevant policies, with a particular focus on optimizing the intellectual property and patent systems at the national and regional levels;
  - (f) Take the lead in striving to achieve SDG 9 in the region;
- (g) Encourage Arab countries to focus on the role of technology and innovation in SDG implementation.

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