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Technology for sustainable development in the Arab region Round tables

"Without a stepped-up, smart and responsible use of technology, we will fail to reach the Sustainable Development Goals and we will miss opportunities to prevent conflict and sustain peace."

United Nations Secretary-General draft strategy on new technologies, 25 April 2018

Background

The Economic and Social Commission for Western Asia (ESCWA) holds its thirtieth session under the theme of technology for sustainable development in the Arab region. Over three round-table discussions, participants will examine how the knowledge and tools provided by technology can be leveraged to achieve social, economic and environmental objectives, and meet the needs of the present without compromising the ability of future generations to meet their own needs.

Since the First Industrial Revolution, technology has acquired an increasingly important role in everyday life. Today, new and emerging technologies are shaping the world as we know it, with leapfrog progress in smart phones, 3D printing, social media, cloud computing, artificial intelligence, robotics, nanotechnology, online education, digital economy, renewable and efficient energy sources, water management and irrigation, food production, smart cities, the Internet of Things, climate change mitigation, biotechnology and other frontier technologies.

Countries of the Arab region face critical challenges related to increasing unemployment rates, especially among women and young people; high poverty rates; depleting natural resources; and conflicts. The industrial sector of the region is suffering from declining levels of productivity (as measured by output per worker), poor competitiveness, and low added value and innovation, hence the flagrant difficulties in meeting local needs or penetrating world markets. The agricultural sector is also affected by low physical and economic productivity of natural resources.

Technological developments offer opportunities to address such challenges. Technology is a productivity enabler and a tool to unleash efficiency and optimize processes in service, industry and agriculture, among other sectors. Technology is also a communication facilitator. Policymakers have recognized technology as essential for eradicating poverty, growing the economy and protecting the environment. They have formulated this in the 2030 Agenda for Sustainable Development, pledging to leave "no one will be left behind" (Preamble, A/RES/70/1).

It is understood that technology and its fast adoption pace can pose a challenge, particularly when adequate accompanying reactions and regulations of institutional frameworks cannot keep up with that pace. Nevertheless, technology should be addressed as an accelerator of development rather than an intruder to cope with. If productivity gains are balanced with fair distribution of growth, including in the form of wages, and inclusive participation at all levels, the development, localization and use of innovative technologies will have multiplier effects for Governments and societies.

The aim of the three moderated round tables is to open discussions and derive key messages with policymakers, and industry and civil society actors on the following sub-themes.

ROUND TABLE 1

INTEGRATING TECHNOLOGY AND INNOVATION INTO NATIONAL DEVELOPMENT PLANNING

A. OBJECTIVES

The first round-table discussion will focus on how technology and innovation are mainstreamed into the national development plans of Arab countries. Panelists will exchange experiences and lessons learned from existing initiatives to maximize benefits and minimize risks associated with harnessing technology for sustainable development in the Arab region.

B. KEY QUESTIONS

- 1. Are technology and innovation properly mainstreamed into national development strategies and plans in Arab countries? What is their role in addressing the question of employment, particularly that of young people?
- 2. Are current policies, legislations and regulations keeping pace with rapid technological advancement to facilitate effective adoption and minimize risks to ensure the safe use of technology?
- 3. Do financial allocations target national technology and innovation systems? How much do Governments spend on education and research and development (R&D) in the Arab region? How can the financing gap be bridged?
- 4. In what areas do Arab countries have strong innovation capacity? What obstacles do they face in transferring and localizing technology? How are these obstacles being addressed from a developmental perspective?
- 5. How can Arab Governments create an effective enabling environment for innovation? What are the available schemes, programmes and initiatives?
- 6. Are key stakeholders sufficiently involved in setting national priorities and creating a comprehensive vision for the use of new technologies in improving social, economic and environmental conditions?

ROUND TABLE 2

THE ROLE OF TECHNOLOGY IN TACKLING THE CHALLENGES OF THE ARAB REGION

A. OBJECTIVES

The second round-table discussion will address the role of technology in tackling the challenges of the Arab region. It will examine prerequisites for technological change to achieve inclusiveness and sustainability, and preserve natural resources. It will also reflect on the impact of technology on population groups, including women, youth, and rural and urban dwellers. It will highlight the interplay between technology, youth,

employment and inclusion, and prospects for enhancing gender equality and increasing environmental sustainability.

B. KEY QUESTIONS

- 1. What technologies are best suited to the development of inclusive solutions to sustainable development challenges in our region, particularly for issues concerning young people and women?
- 2. How can technology enhance or undermine water, energy and food security in the light of the region's vulnerability to climate change?
- 3. How can emerging technologies help to mitigate and adapt to climate change in the face of rising temperatures, extreme weather events, desertification and land degradation?
- 4. How is technology being made affordable, accessible and inclusive for young people and small and medium enterprises?
- 5. What is the value added of ensuring the participation of women in the technology and development discussions? What would the adoption of a gender lens add to the analysis and formulation of technology policies?
- 6. How can policymakers look at long-term objectives of inclusive development versus short-term economic growth impact of technologies? What is the role of educational institutions and the civil society?

ROUND TABLE 3

FRONTIER TECHNOLOGIES: OPPORTUNITIES, CHALLENGES AND THE WAY FORWARD

A. OBJECTIVES

This round-table discussion will highlight the opportunities and challenges related to frontier technologies. It will tackle the policies and regulations governing frontier technologies in Arab countries, in the context of national priorities, especially youth employment, reconstruction and economic diversification. It will also identify the main interventions required on the national, regional and global levels to deal with technology-related issues.

B. KEY QUESTIONS

- 1. How can legislation and regulation keep up with exponential changes in technology?
- 2. Where are the most effective starting points and frameworks for adequately deploying frontier technologies to face local challenges? Who are the champions of change?
- 3. How can frontier technologies be useful for reforming education, retraining graduates and connecting scientific research to local societal needs?
- 4. Can frontier technologies turn the table and transform challenges into lucrative investments for achieving the Sustainable Development Goals and measuring progress in their implementation?
- 5. Which areas of governmental planning, operations and policymaking require frontier technologies? What is required, particularly from Governments, to ensure data reliability and accessibility?
- 6. What are the regional and global proposals for harnessing technology to achieve sustainable development?
