COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (CSTD)

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Submissions from entities in the United Nations system, international organizations and other stakeholders on their efforts in 2020 to implement the outcomes of the WSIS

Submission by

Economic and Social Commission for Western Asia

This submission was prepared as an input to the report of the UN Secretary-General on "Progress made in the implementation of and follow-up to the outcomes of the World Summit on the Information Society at the regional and international levels" (to the 24th session of the CSTD), in response to the request by the Economic and Social Council, in its resolution 2006/46, to the UN Secretary-General to inform the Commission on Science and Technology for Development on the implementation of the outcomes of the WSIS as part of his annual reporting to the Commission.

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ESCWA contribution to the CSTD report

Technology for Development Division

Part One: An executive summary (half a page) of activities undertaken by all stakeholders, progress made, and any obstacles encountered.

Due to the fast development pace of digital and new technologies and its wide cross-sectoral applications, policymakers in the Arab region need to adopt the most appropriate policies to reap its advantage in achieving sustainable development, and to mitigate its negative deployment. In this year, the Arab region was heavily impacted, as other regions in the world, by the COVID-19 pandemic its serious socio-economic effects. However, this pandemic demonstrated the important role of digital technologies in ensuring business continuity and the interaction between people.

The Arab region has progressed in delivering online services in 2020, compared to 2018 as revealed by the latest UNDESA e-Government Development Index (EGDI). However, many obstacles still hinder the deployment of technology and innovation. Poverty, gender inequality (20% less the world average in using internet and mobile phones), conflicts, inefficient use of natural resources, high percentage of youth (which also could be an opportunity), unemployment rates (higher than world average), low expenditure on R&D (60% less than world average), low average full-time researchers (60% less the world average), technological infrastructure (average of using mobile and fixed internet less than the world average), investment in R&D cannot reach levels necessary to strengthen the science-policy interface, Entrepreneurship culture and ecosystems are underdeveloped in many Arab countries.

The development of information society (IS) varies among the Arab countries, we can mainly distinguish three clusters: the first cluster includes GCC countries which are well developed in various aspects of information society; the second cluster includes selected middle-income countries which are also medium in the development of IS this cluster namely Tunisia, Morocco, Jordan, Egypt and Lebanon; and the third cluster includes the other countries which are either post-conflict countries or least developed countries: these countries are still facing many challenges at infrastructure, applications and human capital.

ESCWA, through its regular and technical cooperation programs and in line with the main technological trends in the region, continued its support to member states in various domains related to the advancement of information society, the development of national and regional digital development agenda, fostering digital and open government, nurturing digital economy, promoting the use of emerging technologies in

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specific sectors, supporting the use of ICT for disabled people, promoting innovation and entrepreneurship and encouraging STI and technology transfer. ESCWA also advises its member states with the recommended policies based on best regional and international practices, and in collaborating with UN agencies, academia and research centers. Furthermore, ESCWA conducted capacity-building workshops, as requested by its member states, on up to date themes in Technology and Innovation.

Part Two: A brief (1–2 pages) analytical overview of trends and experiences in implementation at the national, regional and international levels and by all stakeholders, highlighting achievements and obstacles since WSIS and taking into account the follow-up and review of the 2030 Agenda for Sustainable Development. This could include information on the facilitation process of implementation, monitoring and cooperation among stakeholders.

- Digital transformation and emerging technologies

Based on advisory service requests, received from public agencies in its member states, ESCWA assisted several Arab countries in developing their own national plans and strategies in digital transformation and new technologies. During 2019-2020, ESCWA assisted the Ministry of digital economy and entrepreneurship in Jordan to develop their national policy on Artificial Intelligence (AI), and Government Cloud computing. ESCWA also assisted several countries in developing their digital government policies and in developing incubators and accelerators to encourage innovators and entrepreneurs.

During the period 2019-2020, ESCWA conducted multiple capacity building activities that are related to digital transformation and new technologies. Examples of those activities are: workshop on digital transformation strategies in Iraq, Sudan, Morocco, Syria, Qatar, workshop on open data in Mauritania, workshop on blockchain in Qatar, workshop on Smart cities policies in Mauritania, and workshop on the impact of digital technologies on employment in Lebanon.

ESCWA also prepared national guides on big data readiness assessments. The guides aim to assist organizations, especially public institutions, in assessing their national readiness to appropriately harness the advantages of big data and reduce the risks of data mismanagement to serve society more effectively. ESCWA also developed guide for the development of national AI strategy. These strategies should address the requirements of multiple sectors and should cover legislation, ethical dimension and human resources.



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National and regional Digital Development Agenda in the Arab region

ESCWA continued its efforts for supporting the Arab countries in the development of the National Digital Development Reports (NDDRs) which is based on the WSIS action lines and the SDGs. During 2020, ESCWA conducted ten bilateral research interviews with ten Arab countries (Iraq, Jordan, Kuwait, Mauritania, Oman, State of Palestine, the Sudan, Syria, Tunisia and the United Arab Emirates) that participated in the first round of the NDDRs for 2019. The research interviews, were designed to comprise two segments: Segment 1: macro level that is oriented towards the process methodology, and Segment 2: micro level, focusing on the detailed questions in the guiding template; aimed at in-depth understanding of the obstacles faced by countries mainly for creating the necessary machinery and collecting the needed data for developing their NDDRs.

Also, within the framework of the project on Advancing Digital Cooperation and Development - Arab States Action Programme (ADCD-ASAP), ESCWA organized on 18 November 2020, the online Regional Expert Meeting on "National Digital Development Reviews – Review of the Methodology and Guiding Template". The meeting revolved around the: NDDRs process and methodology, guiding template, and roadmap to launch the next NDDRs round for 2020-2021. The last track focused on new ideas and parallel NDDRs course of actions, including a composite Digital Development measurement model or maturity index, and the creation of a parallel (or alternative) near to real time compendium or smart observatory for updated data and periodic country digital development reviews.

To support the League of Arab States, ESCWA produced, in June 2020 the "Proposed Arab Digital Agenda: A preliminary framework for an Arab ICT Strategy", in Arabic language, which aims at proposing an integrated framework for actions along several clusters at the technological, developmental, economic, social, and governance levels. It is an a attempt to have a pan-Arab agenda, with the inspirations of European Digital Agenda, the African ICT Strategy, the e-LAC strategy. It was submitted to relevant meetings of LAS Ministerial Council mandated working group, and was endorsed by Arab countries, to be a reference document to member countries in their quest to develop an Arab ICT Strategy for the whole region. ESCWA continues its support to LAS to develop a unified Arab Digital Agenda and Arab ICT Strategy (ADAICTS) in cooperation with LAS, and several regional and international organizations.

- Digital and Open Government

As of the importance of digital government in the Arab region, ESCWA hosted the Eighth Arab e-Government Directors Meeting which discussed Arab countries' plans and initiatives in the field of digital government and represented an opportunity to exchange experiences and offer joint initiatives and projects



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among Arab countries. In the meeting, ESCWA's activities in the field of digital transformation, innovation and measurement indicators were also presented¹.

ESCWA collaborated with the UN DESA and the Telecommunications Regulatory Authority (TRA) of the United Arab Emirates for the organization of a webinar to launch the 2020 e-Government Survey in the Arab region. The Webinar focused on e-Government development trends in Arab region, the digital responses to the COVID-19 pandemic, and an in-depth discussion of policy implications to advance the future digital transformation in the region.

In 2020, ESCWA continued its efforts for fostering open government and open data in the Arab region². ESCWA provided advisory services and capacity building workshop on open government and open data for Jordan, Syria and Palestine. Additionally, ESCWA prepared capacity development materials on open data and on legal aspects of open government. Furthermore, ESCWA organized regional workshop on open government. To further advancing open government, ESCWA in collaboration with OECD is currently preparing a study on the "Economic and Social Impact of open Government: Recommendation for the Arab Region" which will be published in 2021.

Main Obstacles

Arab countries are still facing several challenges for advancing information society, and following are the main challenges:

- ICT infrastructures: there is important gaps in the spread of ICT infrastructure among Arab countries, between rural and urban areas and between men and women. Least developed countries and pos-conflict countries need to re-build their ICT infrastructure while some Arab countries especially GCC have good ICT infrastructure coverage. Affordability of ICT infrastructure is still important factor that hinder the access to the Internet in many Arab countries.
- Cybersecurity is another challenge in many Arab countries. In fact, there is a need to formulate and implement national cybersecurity policies or strategies, raise awareness about cyber threats to all people, provide training and advanced training on cybersecurity for practitioners.
- Privacy and personal data protection: Arab countries made progress in the formulation of cyber legislation, however there are still several countries that should formulate and adopt personal data protection laws, enforce such laws and ensure privacy.

² <u>https://www.unescwa.org/sub-site/open-government-arab-region</u>



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¹ <u>https://www.unescwa.org/events/2020-e-government-survey-regional-launch</u>

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- Building capacity in technology: although Arab countries made important progress in education³ in general, capacity building in technology is still required at various fronts. In fact, the absorption capability of technology which support the technological production is still weak in the Arab region.
- Eco-system of innovation and entrepreneurship: Most Arab countries need to enhance their ecosystem for innovation and entrepreneurship especially legal and regulatory framework and supporting mechanism for entrepreneurship.
- Emerging technologies for SDGs: Policy and strategy for the introduction of emerging technologies in specific sectors is needed in many Arab countries. Arab countries also need to build capacity especially among youth on the use of emerging technologies to develop local solutions that accelerate the achievement of SDGs.



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Part Three: A brief description (1–2 pages) of:

(a) Innovative policies, programmes and projects which have been undertaken by all stakeholders to implement the outcomes. Where specific targets or strategies have been set, progress in achieving those targets and strategies should be reported.

- Arab Digital Development Reports: Towards Empowering People and Ensuring Inclusiveness

Linking the role of information and communications technologies (ICTs) with sustainable development, ESCWA launched series of publication to addresses the theme of empowering people and ensuring inclusiveness of societies thus leaving no one behind. The first report was published in June 2020⁴; it examines the existing digital transformations and emerging technologies and their central role in the future of digital development, with a special focus on the multidimensional synergy between digital technologies and various strategic and socioeconomic policy areas. Through a regional assessment, the publication towards sustainable development. Growing digital technologies in the Arab region and potential developmental challenges are also addressed, together with the proposed policy measures that could allow governments and relevant stakeholders to overcome these challenges and benefit from ICTs and digital transformations.

As indicated above, ESCWA is continuing this process and review with its member states the process for the preparation of the national digital development reports which will enable ESCWA to prepare the regional report next year.

- Government Electronic and Mobile Service (GEMS) maturity index⁵

In 2014, ESCWA launched, in cooperation with the Office of the Prime Minister of the United Arab Emirates, an initiative to develop an index that measures the maturity of electronic and mobile government services, called GEMS maturity index. This indicator is an assessment tool that policymakers can use to measure the level of digital transformation in government services. The indicator includes 3 main pillars, which are the availability and development of services, service usage and user satisfaction, and the public's outreach to those services. ESCWA rolled out this indicator officially in 2019 in 12 Arab countries, namely

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⁴ <u>https://www.unescwa.org/publications/arab-digital-development-report-2019</u>

⁵ <u>https://www.unescwa.org/publications/government-electronic-mobile-services-GEMS-maturity-index-2019</u>

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Bahrain, Egypt, Jordan, Mauritania, Oman, the State of Palestine, the Kingdom of Saudi Arabia, Sudan, the Syrian Arab Republic, Tunisia and the United Arab Emirates⁶. In 2020, a full evaluation of the index was conducted for the second time, and the results are expected to be announced in the first quarter of 2021.

- E-Accessibility and the Arab Digital Inclusion Portal (ADIP):

ESCWA is continuously receiving requests from member states for technical assistance on e-accessibility. The disability prevalence rate in the region ranges from 0.2 per cent in Qatar to 5.1 per cent in Morocco (Disability in the Arab Region 2018⁷). Although Arab countries are increasingly committed to realizing the rights of persons with disabilities, progress towards that end is slow. In this context, it is worth mentioning the vital role that digital technologies can play for people's empowerment and in promoting better accessibility to all towards building more inclusive societies. In the Arab region the ICT has fortunately made some positive strides in development in the past few years and, as a result, can have a great impact in digital inclusion throughout the region.

Through the ADIP project and by focusing on developing national e-Accessibility plans and initiatives in Arab countries and the adoption of connected digital technologies and applications. The main objective of the ADIP project is to support policy makers in the Arab counties to develop/improve their national policies and guidelines for enhanced e-Accessibility. Under the framework of the ADIP project, ESCWA has developed in 2020 two templates that were discussed during an online consultative meeting, namely the template on national policy of e-Accessibility for the Arab region (2020), and the template on technical guidelines of e-Accessibility for the Arab region 2020.

The ESCWA template on national policy of e-Accessibility for the Arab region, is developed to support policy makers in the region to develop or improve their e-accessibility national policies and programs by following best practices. The template focuses on developing a general framework for a national policy in order to support enabling access of persons with disabilities to ICT and public services. This model also presents the main components that a national policy should include and provides the readers with examples of the components' content drawn from similar experiences.

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⁶ <u>https://www.unescwa.org/sites/www.unescwa.org/files/publications/files/government-electronic-mobile-services-gems-maturity-index-2019-arabic.pdf</u>

⁷ https://www.unescwa.org/publications/disability-arab-region-2018

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The Arab Internet Governance Forum

ESCWA is continuing its initiative on the Arab Internet Governance Forum and organized in collaboration with the League of Arab States and the National Telecom Regulatory Authority of Egypt - the Arab IGF Secretariat, the Fifth Arab Internet Governance Forum (ArabIGF-V) from 22 to 23 January 2020⁸. The event was hosted by the Arab Administrative Development Organization (ARADO) at its premises in Cairo, with the support to ARADO from ISOC and RAKMANA.

With the aim to strengthen dialogue and cooperation on Internet governance amongst all stakeholders in the Arab region, the ArabIGF-V discussions covered regional topics of priority and issues related to ICT, Internet policies and digital cooperation for sustainable development. The meeting was attended by 120 participants from 22 countries from inside and outside the Arab region, in addition to a number of online participants representing all categories of stakeholders from government policy-makers, experts and technologists from ministries of communications, regulatory agencies, information technology bodies, private sector companies, university academics, research centers and bodies. Civil society, international and regional organizations and independent experts interested in the fields of Internet governance.

The ArabIGF-V main plenaries covered the themes identified and prepared by the ArabIGF Multistakeholder Programme Advisory Committee (AMPAC) members, and resulted in selected key messages namely in the field of: (1) Contribution to Internet Global Public Policymaking: From Internet Governance to Digital Cooperation, (2) Meaningful access for inclusion and diversity, (3) Digital transformation and Digital economy, and (4) Cyber security, privacy, trust and peace. In addition, the event included two parallel sessions on (1) Digital economy in the Arab World - Possibilities and Challenges and (2) Towards an effective response to emerging threats to cybersecurity.

Furthermore, as part of the 2020 World Summit on Information Society Sessions, ESCWA organized the first multi-stakeholders consultative meeting "Towards a Digital Decade of Action - through Digital Cooperation and Development - in the Arab Region; Implementation of WSIS in the Arab Region: Ad hoc Multi-Stakeholders Partners Consultation on Potential Consolidation of Arab WSIS with Arab IGF, Arab Digital Cooperation and/or other related Tracks, beyond 2020" (online, August 11, 2020).

The event illustrated the interlinkages between the WSIS action lines and SDGs and resulted in an initial consensus among Arab main partners and stakeholders towards a unified approach in 2021 and beyond for consolidating existing information society tracks and well established platforms and processes in the region, such as the Arab IGF (since 2010), the Arab WSIS (since 2016), under the new concept of "Digital Cooperation and Development" to advancing Digital Cooperation and Digital Development in the Arab

⁸ <u>https://www.unescwa.org/events/fifth-arab-internet-governance-forum</u>



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region. It considered ways for creating synergies among existing knowledge and expertise to inform the envisaged "Arab ICT Strategy/Arab Digital Agenda".

In continuation of the Arab consultations on the envisaged roadmap for an improved Arab digital cooperation and digital development process, ESCWA, in cooperation with LAS, ARADO, and other regional partners, organized the Second Multi-Stakeholders Consultative Meeting on the Arab IGF and Digital Cooperation in the Arab Region – Towards Consolidated Platforms for a Decade of Action (Hybrid online Meeting, 3 December 2020)⁹ that gathered Arab internet community and UN concerned regional entities to pursue the consultations and look on the way forward, in particular, for better internet governance that addresses issues of high concerns to the Arab citizens.



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⁹ <u>https://www.itu.int/net4/wsis/forum/2020/en/Agenda/Session/283</u>