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Economic and Social Commission for Western Asia (ESCWA)

Report

Focus group meeting on Technology and Innovation for Developing Land Transport in the Arab Region
Virtual Event, 1 December 2020

Summary

A virtual focus group meeting on technology and innovation for developing land transport in the Arab region was convened at the United Nations House in Beirut on 1 December 2020. The meeting aimed to discuss the status of integrating technology in the transport sector in the Arab region and the challenges facing the sector, based on the preliminary findings of the ESCWA report on "Technology and Innovation for Development of Land Transport in the Arab Region".

Over two sessions, participants discussed the role of technology and innovation in land transport, as well as the findings of two ESCWA surveys on technology and innovation in land transport in the Arab region. The meeting concluded with a set of recommendations on how to advance the role of technology and innovation in transport in the Arab region. The present report provides an overview of the main themes and discussions addressed at the meeting.

Contents

Introduction

1. The Economic and Social Commission for Western Asia (ESCWA) organised a virtual focus group meeting on Technology and Innovation for Developing Land Transport in the Arab Region, which was held on 1 December 2020.

2. The main objective of the meeting was to discuss the preliminary findings of the ESCWA report on "Technology and Innovation for the Development of Land Transport in the Arab Region", which is based on an analysis of the responses of member States to two surveys on technology and innovation in land transport.

3. The present report highlights the main outcomes of the meeting and provides a summary of the presentations and discussions.

I. Outcomes

4. The meeting reached the following findings and recommendations that were proposed by participants.

(a) Acknowledge ESCWA's efforts to address the role of technology and innovation in the land transport sector;

(b) Engage the GCC especially in providing success stories and relevant experience in formulating and implementing strategies and regulatory frameworks in this field;

(c) Recognise importance of connectivity among countries in the region and the role that technology could play in facilitating transport of goods and people across countries;

(d) Recognise the need for improving human capability in the transport sector especially for integration of technology and innovation;

(e) Recognise the need for raising, through the ministerial committee in ESCWA, a recommendation to the transport-sector ministers to increase cooperation and stimulate information and data sharing among ministries and agencies concerned with developing the transport sector in the Arab countries;

(f) Recognise the need for developing a framework for ICT in the transport sector, as well as for protecting innovation, ensuring personal data protection, and formulating competitive standards;

(g) Recommend establishing a team to discuss and exchange knowledge on development of technology in a sustainable transport sector;

(h) Include a disclaimer in the report to point out that some countries did not respond to the questionnaires.

II. Topics for discussion

5. The meeting lasted two and half hours over two sessions. Topics discussed included the role of technology and innovation in land transport, with a focus on digital and emerging technologies, and an assessment of digital technology and its applications in land transport in the Arab countries.

A. Opening session

6. The opening session was moderated by Ms. Nibal Idlebi, Chief of the Innovation Section at Statistics, Information Society and Technology Cluster of ESCWA. She welcomed participants and provided a brief on the objectives and scope of the meeting. Mr. Juraj Riecan, Director of the Cluster, delivered ESCWA's opening speech. In his statement, Mr. Riecan stressed the role of digital technology and innovation in land transport

and their importance as a driving force in the economy. He explained that a proposed framework and recommendations for bringing best practices in digital technology in transport to the Arab region will be addressed in the context of 2030 Agenda, based on the findings of two surveys conducted by ESCWA. He also informed participants that within the same context, ESCWA is participating in a broader project on "Sustainable Transport Connectivity and the Implementation of Transport Related SDGs in Landlock and Transit/Bridging Countries".

7. Ms. Idlebi presented the project on "Technology and Innovation for Developing Transport Sector in the Arab Region", expounding its objective, scope and rationale, outputs, and related events. She noted that the study on "Technology and Innovation for Development of Land Transport in the Arab Region" is one of the outputs of the project.

8. Mr. Yarob Badr, ESCWA Regional Advisor on Transport and Logistics, gave a presentation on the historical relationship between technology and transport, using a systems approach. He focused on the twelve main inventions that transformed the transport sector through history, as well as on current applications of technology in the transport sector (GIS, GPS. MIS, ITS applications, mobile applications such as UBER, e-gov services, etc…). Additionally, he presented the ten expected drivers of future change, including the Internet of Things (IoT), Big Data, Cloud Computing, Artificial Intelligence, Blockchains, Solar Energy, and 3D Printing.

9. Discussions dwelt on the ultimate goal of the project, which is to investigate the status of the transport sector in the Arab region, based on the outcomes of the two ESCWA surveys, and propose policy recommendations on integration and deployment of technology in transport.

B. Session I: Main findings of ESCWA report on Technology and Innovation for Development of Land Transport in the Arab Region

10. The first session on technology and innovation in land transport in the Arab countries was moderated by Ms. Nibal Idlebi. Ms. Salam Yamout, Senior Expert in Technology and ESCWA Consultant, delivered the first presentation. She addressed the economic importance of the transport sector and its links to the SDGs, highlighting environmental and socioeconomic impacts of investing in it, including reduction of greenhouse gas emissions, job creation and economic development. Ms. Yamout then proceeded to list several advancements, such as IoT, hyperloop, light-weight materials, as well as the technology trends affecting the sector, such as big data and AI. She provided examples on the use of AI in vehicle control, traffic control and road safety, in addition to presenting a number case studies on harnessing technologies in transport sector in Dubai (autonomous pods, Mahboob, Suhail). Furthermore, she explained the requirements for deploying technological applications in the transport sector, including infrastructure, software and level of connectivity, classifying technology applications in land transport into three categories: management of freight, management of traffic and infrastructure, and management of passengers.

11. A second presentation was delivered by Mr. Rami Semaan, Senior Expert in Transport and ESCWA consultant, focused on the main findings of the ESCWA survey. He explained that the objective of the survey is to provide a general overview of the status of the transport sector in the Arab region and identify the impact technology incorporation in it, and proceeded to summarise the contents of the various sections of the survey. Mr. Semaan then briefly presented the feedback from countries on the five categories of the questionnaire: rural roads; railways; urban streets; public transportation; and land transport management, operation and border crossing. He concluded by addressing the main issues gathered by the analysis: limited financial capacity and absence of incentives for public-private partnership, weak governance structures, lack of proactive policies and frameworks, less focus from lower income economies on using technology in transport.

12. Discussions focused on mobility as a service and its availability and applicability in the Arab region. Participants also discussed the results of the survey and the scope and accuracy of the information provided by the various countries. They also discussed the capacity of experts in the field of technology in member States, as well as the possibility of involving the Gulf Cooperation Council and the establishment of a team to discuss the findings of the report.

C. Session II: Panel discussion on recommendations of the ESCWA report

13. The panel discussion was moderated by Mr. Yarob Badr. A presentation delivered by Mr. Rami Semaan on the main findings of ESCWA study on "Technology and Innovation in Developing Land Transport in the Arab Region" focused on policies for mainstreaming technological solutions in transport planning. He discussed the main recommendations for mitigating challenges faced by the transport sector, including flexible regulatory frameworks, budgetary constraints and financial incentives, open data, vibrant innovation and entrepreneurship ecosystems, global warming and fuel consumption, privacy and security, ubiquitous connectivity, standardisation and inter-operability.

14. Discussions focused on sharing information and knowledge about the experience of GCC countries in relation to the issues under consideration to enable other countries to benefit from success stories, leading potentially to further integration in the Arab region. Participants also discussed availability of information and data to the public and making use of the results of the ESCWA survey as the first step towards sharing best practices. Intellectual property rights for competitive and innovative approaches, taking into consideration specificities of the various countries were discussed, in addition to other technical issues such as privacy of databases and cybersecurity in transport applications.

III. Organisation of work

A. Venue and date

15. The virtual focus group meeting was organised by the ESCWA Innovation Section of the Statistics, Information Society and Technology Cluster. It was held on 1 December 2020 via WebEx at the United Nations House in Beirut.

B. Participants

16. The meeting was attended by 14 participants, of whom 5 were women, from 9 ESCWA member States (Bahrain, Egypt, Morocco, Oman, State of Palestine, Qatar, Syrian Arab Republic and United Arab Emirates) in addition to ESCWA staff members. The list of participants is provided in an annex to this report.

C. Documents

17. Documents and presentations related to the meeting are available at
https://www.unescwa.org/events/meeting-technology-innovation-transport-arab.

Annex[*]

List of participants

A. Country organisations and experts

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[*] Issued as submitted.

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