Economic and Social Council

Economic and Social Commission for Asia and the Pacific
Committee on Information and Communications Technology,
  Science, Technology and Innovation

Fourth session
Bangkok and online, 30 August–1 September 2022

Report of the Committee on Information and Communications Technology, Science, Technology and Innovation on its fourth session

I. Matters calling for action by the Commission or brought to its attention

A. Matters calling for action by the Commission

1.   The following recommendations of the Committee on Information and Communications Technology, Science, Technology and Innovation are brought to the attention of the Economic and Social Commission for Asia and the Pacific (ESCAP) for its consideration and possible action:

Recommendation 1

The Committee recommends that the Commission welcome, at its seventy-ninth session, the endorsement by the Committee of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026.

Recommendation 2

The Committee recommends that the secretariat support the members and associate members of the Commission in their efforts to implement the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026, through evidence-based policy research and analysis, as well as capacity-building.

Recommendation 3

Recognizing the commitment to improve digital cooperation as contained in Commission resolution 78/1, the Committee invites member States to cooperate at all levels, including the ministerial level, on closing the digital connectivity divide, ensuring digital skills training, strengthening digital connectivity, addressing digital trust and security, and promoting an inclusive digital economy and society. In this regard, the Committee notes that the

Asia-Pacific Digital Ministerial Conference is being organized by the Government of the Republic of Korea in collaboration with the secretariat and will be held in November 2022.

Recommendation 4

Noting with appreciation the initiative of the Government of Kazakhstan establishing the Digital Solutions Centre for Sustainable Development to provide practical digital solutions in Central Asia and beyond, the Committee invites members and associate members to collaborate in the digital transformation process, including under the framework of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026.

Recommendation 5

The Committee strongly supports the promotion of fourth industrial revolution technologies for the sustainable development of the region, and recommends that the secretariat further strengthen its support to members and associate members through demand-driven programmes and activities, including policy and advisory support, research and analytical support, strategy development, training and capacity-building. The secretariat could provide support for facilitating strategic stakeholder collaborations and networking, managing intellectual property, establishing voluntary technology banks and facilitating regional cooperation, on mutually agreed terms. The secretariat could also provide support to coastal and small island developing States to accelerate the adoption of fourth industrial revolution technologies for sustainable development.

Recommendation 6

The Committee takes note of the findings of the assessment of capacity-building needs with regard to information and communications technology in Asia and the Pacific, and recommends that the secretariat, through the Asian and Pacific Training Centre for Information and Communication Technology for Development, strengthen its capacity-building support to Governments on using digital technologies for sustainable development, including in the areas of emerging technologies and digital infrastructure and other priority topics identified in the needs assessment.

Recommendation 7

The Committee recommends that the secretariat continue strengthening regional cooperation to increase access to and leverage innovative digital applications of geospatial information to further strengthen the contribution of space applications to the achievement of the Sustainable Development Goals, as appropriate, as envisioned in the Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018–2030).

Recommendation 8

The Committee invites members and associate members to participate actively in the Fourth Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific, to be held in Jakarta and online on 26 October 2022.

Recommendation 9

In line with the priorities of members and associate members, the Committee recommends that the secretariat develop programmes, for example through the Asian and Pacific Centre for Transfer of Technology, to support youth engagement in developing innovative technology solutions in support of sustainable development.

B.   Matters brought to the attention of the Commission

2.   The following decisions adopted by the Committee are brought to the attention of the Commission:

Decision 1

The Committee endorses the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026.

Decision 2

The Committee decides to contribute, through the sharing of national experiences and best practices, to the implementation of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026, taking into consideration the different situations of countries and the need for flexibility given rapidly evolving digital innovations.

Decision 3

Recognizing that the Asia-Pacific region is the most digitally divided region of the world, and that digital technology applications are important means for accelerated implementation of sustainable development, the Committee decides to work towards harnessing the potential of digital technology applications and making them widely available.

Decision 4

Consequently, recognizing the urgent need for digital connectivity, the Committee decides to work on strengthening resilient digital connectivity infrastructure as an essential condition for bridging the digital divide and accelerating digital transformation for achieving the Sustainable Development Goals.

Decision 5

Recognizing the increased availability of digital data, which have become an essential resource for understanding digital transformation, the Committee decides to strengthen cooperation efforts of members and associate members of the Commission with the involvement of other relevant stakeholders, as appropriate, for the sharing of experiences related to more effective data management and use.

Decision 6

Recognizing the vital importance of the fourth industrial revolution technologies to achieving the Sustainable Development Goals, the Committee decides to support the efforts of the secretariat as implemented by its regional institution, the Asian and Pacific Centre for Transfer of Technology, to

strengthen the capacity of members and associate members to accelerate the voluntary transfer, on mutually agreed terms, and adoption and diffusion of these technologies in the region.

II. Organization

A. Opening, duration and organization of the session

3.   The Committee held its fourth session in Bangkok and online from 30 August to 1 September 2022. The session was opened by the Executive Secretary; the Minister of Digital Economy and Society of Thailand, Mr. Chaiwut Thanakamanusorn; the Secretary of Information and Communications Technology of the Philippines, Mr. Ivan John E. Uy; the Minister of State for the Environment, Climate Change and Technology of Maldives, Mr. Mohamed Shareef; and the First Deputy Minister for High-Tech Industry of Armenia, Mr. Gevorg Mantashyan.

B. Attendance

4.   Representatives of the following members and associate members attended: Armenia; Azerbaijan; Bangladesh; Bhutan; Cambodia; China; Democratic People's Republic of Korea; Georgia; India; Indonesia; Iran (Islamic Republic of); Japan; Kazakhstan; Lao People's Democratic Republic; Macao, China; Maldives; Mongolia; Pakistan; Papua New Guinea; Philippines; Republic of Korea; Russian Federation; Samoa; Sri Lanka; Thailand; Tonga; United States of America; and Uzbekistan.

5.   Representatives of the following Permanent Observers to the Commission attended: Egypt; and Nigeria.

6.   Representatives of the following United Nations bodies, specialized agencies and funds attended: International Telecommunication Union; United Nations Environment Programme; United Nations Children's Fund; World Meteorological Organization; World Tourism Organization; and World Trade Organization.

7.   Representatives of the following intergovernmental organizations attended: Asia-Pacific Telecommunity; Asian Development Bank; South Asian Association for Regional Cooperation secretariat; and Transport Corridor Europe Caucasus Asia.

8.   Representatives of the following non-governmental organizations, civil society organizations and other entities attended: Climate Technology Centre and Network; International Federation of Red Cross and Red Crescent Societies; and Zonta International.

9.   In accordance with rule 12 of the Commission's rules of procedure, the Chair and Vice-Chairs examined the credentials of all the representatives and found them to be in order.

C. Election of officers

10.   The Committee elected the following officers:

Chair:	Mr. Ivan John E. Uy (Philippines)
Vice-Chairs:	Mr. Mohamed Shareef (Maldives)
	Mr. Chaiwut Thanakamanusorn (Thailand)

D. Agenda

11. The Committee adopted the following agenda:

    1. Opening of the session:

        (a) Opening statements;

        (b) Election of officers;

        (c) Adoption of the agenda.

    2. Asia-Pacific digital transformation landscape.

    3. Action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026.

    4. Fourth industrial revolution technologies for sustainable development.

    5. Assessment of information and communications technology capacity-building needs in Asia and the Pacific.

    6. Use of digital technology and geospatial information systems to enhance resilience and promote sustainable development.

    7. Other matters.

    8. Adoption of the report of the Committee on its fourth session.

E. Other events

12. The following seminars, side events and special sessions were held in conjunction with the Committee session:

(a) 29 August 2022, sixth session of the Asia-Pacific Information Superhighway Steering Committee and regional review of the World Summit on the Information Society;

(b) 29–30 August 2022 and 1–2 September 2022, training and technical assistance event: "In-depth capacity-building training programme on Geostationary Environment Monitoring Spectrometer data applications", co-hosted with the National Institute of Environmental Research of the Republic of Korea, the Korea International Cooperation Agency and the Geo-Informatics and Space Technology Development Agency of Thailand;

(c) 30 August 2022, launch of the United Nations Industrial Development Organization (UNIDO) report *Industrial Development Report 2022: The Future of Industrialization in a Post-Pandemic World*, co-hosted with UNIDO;

(d) 31 August–1 September 2022: Young scientists' forum on data applications of the Geostationary Environment Monitoring Spectrometer for air pollution monitoring, co-hosted with the National Institute of Environmental Research of the Republic of Korea, the Korea International Cooperation Agency and the Geo-Informatics and Space Technology Development Agency of Thailand.

III. Account of proceedings

13. The discussions held during the session have been summarized in an account of proceedings (see annex II).

Annex I

List of documents

Symbol	Title	Agenda item
General series		
ESCAP/CICTSTI/2022/1	Summary of the Asia-Pacific digital transformation report 2022	2
ESCAP/CICTSTI/2022/2	Summary of the process for the development and main elements of the action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026	3
ESCAP/CICTSTI/2022/3	Fourth industrial revolution technologies for sustainable development	4
ESCAP/CICTSTI/2022/4	Assessment of information and communications technology capacity-building needs in Asia and the Pacific	5
ESCAP/CICTSTI/2022/5	Use of digital technology and geospatial information systems to enhance resilience and promote sustainable development	6
ESCAP/CICTSTI/2022/6	Report of the Committee on Information and Communications Technology, Science, Technology and Innovation on its fourth session	
Limited series		
ESCAP/CICTSTI/2022/L.1	Annotated provisional agenda	1 (c)
ESCAP/CICTSTI/2022/L.2	Draft report	8
Information series		
ESCAP/CICTSTI/2022/INF/1	Action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026	3
Information available online		
www.unescap.org/events/2022/committee-information-and-communications-technology-science-technology-and-innovation	Information for participants	
www.unescap.org/events/2022/committee-information-and-communications-technology-science-technology-and-innovation	List of participants	
www.unescap.org/events/2022/committee-information-and-communications-technology-science-technology-and-innovation	Tentative programme	

Annex II

Account of proceedings

I. Introduction

1.   The fourth session of the Committee on Information and Communications Technology, Science, Technology and Innovation was held in Bangkok and online from 30 August to 1 September 2022.

II. Summary of discussions

A. Asia-Pacific digital transformation landscape (agenda item 2)

2.   The Committee had before it the note by the secretariat on the summary of the Asia-Pacific digital transformation report 2022 (ESCAP/CICTSTI/2022/1).

3.   Representatives of the following members and associate members of the Economic and Social Commission for Asia and the Pacific (ESCAP) made oral statements or submitted written statements: Azerbaijan; Bangladesh; Cambodia; China; Georgia, Kazakhstan; Philippines; Russian Federation; Samoa; and United States of America.

4.   The Committee highlighted the importance of digital technology applications and digital transformation for accelerating digital connectivity and bridging the digital divide in order to achieve digital transformation and an inclusive digital economy and society. Global and regional cooperation between Asia-Pacific Governments and other stakeholders was encouraged to address the digital divide and advance digital transformation through regional cooperation mechanisms such as the Asia-Pacific Information Superhighway initiative.

5.   One representative noted the importance of partnerships on cybersecurity to support the development of information and communications technology (ICT) in developing countries and to mobilize private capital for digital infrastructure and services.

6.   Noting the initiative of the Government of Kazakhstan to establish the Digital Solutions Centre for Sustainable Development, which would further strengthen subregional cooperation in Central Asia and beyond, the provision of practical solutions for digital transformation and the deployment of e-services, the Committee was encouraged to support the initiative through the implementation of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026.

B. Action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026 (agenda item 3)

7.   The Committee had before it the note by the secretariat on the summary of the process for the development and main elements of the action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026 (ESCAP/CICTSTI/2022/2), and the information document on the action plan for implementing the Asia-Pacific Information Superhighway initiative, 2022–2026 (ESCAP/CICTSTI/2022/INF/1).

8.   Representatives of the following members and associate members made statements: Armenia; Azerbaijan; Cambodia; China; Georgia; Japan; Maldives; Philippines; Republic of Korea; Samoa; Thailand; Tonga; and United States of America.

9.   The Committee encouraged active engagement and cooperation of Governments, businesses, academia, think tanks, international organizations and other relevant stakeholders in the implementation of the Action Plan for Implementing the Asia-Pacific Information Superhighway Initiative, 2022–2026.

10.   The Committee requested that the secretariat share more information about the Asia-Pacific Digital Ministerial Conference with members and associate members.

11.   Satellite communications and geospatial data could help to narrow the digital divide and monitor and reduce disaster risks.

12.   The Committee requested the secretariat to support members and associate members by facilitating the sharing of best practices and capacity-building activities on implementing the Action Plan to build resilient digital connectivity infrastructure and advance digital transformation, in particular for the Pacific island developing States.

13.   The representative from the United States of America highlighted his Government's Digital Connectivity and Cybersecurity Partnership programmes and the importance of bridging digital divides, promoting sustainable, equitable and transformational development through the growth of open, interoperable, reliable, inclusive and secure digital ecosystems around the world.

14.   The representative of the International Telecommunication Union (ITU) expressed congratulations with regard to the progress made on the Asia-Pacific Information Superhighway initiative despite the challenges and pointed out that since most United Nations organizations were now making use of digital technologies to achieve their goals, it was important to avoid duplication and to pool limited resources through close collaboration. The Joint Task Force on Science Monitoring and Reliable Telecommunications (SMART) cable systems, established by ITU, the World Meteorological Organization and the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization was making good progress towards its objective of integrating environmental sensors into submarine cable networks to provide measurements on ocean climate, sea-level rise and tsunami warnings and it was pleasing that the Asia-Pacific Information Superhighway Steering Committee agreed to collaborate with the Task Force.

C.   **Fourth industrial revolution technologies for sustainable development (agenda item 4)**

15.   The Committee had before it the note by the secretariat on fourth industrial revolution technologies for sustainable development (ESCAP/CICTSTI/2022/3).

16.   Representatives of the following members and associate members made statements: Armenia; Bangladesh; India; Maldives; Pakistan; Philippines; Thailand; and United States of America.

17.   The Committee expressed its appreciation for the findings contained in the note and the efforts of the Asian and Pacific Centre for Transfer of Technology to strengthen the capacity of member States to adopt fourth industrial revolution technologies.

18.   The Committee recognized the role of fourth industrial revolution technologies in addressing the key challenges of sustainable development, particularly climate change and the need to prioritize policymaking, infrastructure development, training and capacity-building efforts, the effective management of intellectual property, the establishment of regional technology banks on a voluntary basis and mutually agreed terms, and regional cooperation to accelerate adoption of such technologies.

19.   It was suggested that the region should invest in three key areas to promote utilization of fourth industrial revolution technologies: quality and affordable digital infrastructure, interoperable policy and regulatory frameworks, and a skilled workforce.

20.   Fourth industrial revolution technologies needed to be used to address the challenges of small island developing States such as climate change, extreme weather, protecting coral reefs and marine biodiversity. There was a need to engage youth in finding innovative solutions and applications of fourth industrial revolution technologies.

21.   The Committee was informed of various national initiatives and programmes to promote fourth industrial revolution technologies, such as the Smart Bangladesh approach, the Digital India Programme, centres of excellence/common engineering facility centres and demonstration centres for fourth industrial revolution technologies in India, and the use of such technologies in industrial production and distribution facilities in Pakistan.

22.   The Committee was informed that the members could seek to implement effective and appropriate measures to curb the potential threat from cybercrime and strengthen cybersecurity capacity as countries have become increasingly reliant on digital technologies.

D.   Assessment of information and communications technology capacity-building needs in Asia and the Pacific (agenda item 5)

23.   The Committee had before it the note by the secretariat on the assessment of information and communications technology capacity-building needs in Asia and the Pacific (ESCAP/CICTSTI/2022/4).

24.   Representatives of the following members and associate members made statements: Bangladesh; Cambodia; China; Maldives; Philippines; Republic of Korea; and United States of America.

25.   Three panellists, representing the Governments of Bhutan, the Lao People's Democratic Republic and Tonga, shared their countries' perspectives on their emerging ICT capacity-building needs. They gave an overview of their national strategies for digital government and transformation and shared training priorities to support digital government and transformation. Examples of ongoing or planned ICT capacity-building programmes for policymakers and civil servants were also explained.

26.   The Committee welcomed the findings of the assessment of the ICT capacity-building needs in Asia and the Pacific. It highlighted the need to focus on assisting countries with special needs and least developed countries in order

to bridge the digital divide. It also emphasized that ICT capacity-building should adhere to the principles of non-exclusivity and to strengthening South-South cooperation.

27.   The Committee noted the importance of fifth-generation (5G) wireless system network technology in promoting digital connectivity and the need for close collaboration with relevant stakeholders to promote open, interoperable, reliable and secure ICT infrastructure. The Committee called for the development of programmes aimed at raising the awareness of the general public and policymakers on issues of cybersecurity.

28.   The Committee expressed its appreciation for the work of the Asian and Pacific Training Centre for Information and Communication Technology for Development organizing training programmes for policymakers and providing technical assistance to member States. It requested that the Centre develop new training modules on digital transformation; continue providing capacity-building on big data, data protection, cybersecurity, the fourth industrial revolution, artificial intelligence and the Internet of things; share good practices; and provide technical support to address cybercrime and cybersecurity issues.

29.   The Committee expressed its appreciation to the Government of the Republic of Korea for its continued funding support for the Centre and several representatives encouraged other members and associate members to provide voluntary contributions in order to respond to the increasing demand for ICT capacity-building in the Asia-Pacific region.

E.   Use of digital technology and geospatial information systems to enhance resilience and promote sustainable development (agenda item 6)

30.   The Committee had before it the note by the secretariat on the use of digital technology and geospatial information systems to enhance resilience and promote sustainable development (ESCAP/CICTSTI/2022/5).

31.   Representatives of the following members and associate members made statements: Armenia; Cambodia; China; Indonesia; Philippines; Republic of Korea; Sri Lanka; Thailand; and United States of America.

32.   The Committee recognized the importance of using geospatial information applications combined with digital innovation to support the implementation of the 2030 Agenda for Sustainable Development. In the context of the coronavirus disease (COVID-19) pandemic, the Committee further recognized the role of geospatial information applications in informing various aspects of pandemic response, management and control as well as in monitoring impacts. The Committee noted the significant expansion of geospatial information applications to various fields beyond disaster risk reduction and natural resource management and into social development, connectivity, renewable energy and smart transportation.

33.   The progress made in implementing the Asia-Pacific Plan of Action on Space Applications for Sustainable Development (2018–2030) during phase I was recognized. The Committee encouraged members and associate members to accelerate implementation during phase II.

34.   The importance of regional and international cooperation to achieve sustainable development was affirmed. The representative of Indonesia offered to contribute to regional cooperation initiatives to apply the guiding theme "Space+ for our Earth and future" through the establishment of a virtual

constellation for disaster risk management; geospatial information applications for mapping disaster risk hotspots of flood and wildfire with artificial intelligence analysis and digital innovation tools; and engagement of youth in Space+ for our Earth and future.

35. Highlighting the theme of the Fourth Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific, the Committee encouraged the further development of innovative applications for sustainable development through regional cooperation.

36. The Committee noted that the Intergovernmental Consultative Committee on the Regional Space Applications Programme for Sustainable Development, at its twenty-sixth session which was organized by the Government of Indonesia and ESCAP and held in Jakarta and online on 18 and 19 August 2022, agreed to convene an ad hoc scientific advisory group with experts from China, India, Japan, the Philippines, Sri Lanka, Thailand, and other members and associate members who may wish to join the proposed regional initiatives, to assist Indonesia in further developing the technical details of the virtual constellation of satellites for disaster risk management, which would include, among others, mechanisms for sharing satellite images and regional knowledge, capacity-building and a geospatial database.

37. The Committee expressed its appreciation to the Governments of China and the Republic of Korea for spearheading the Lancang-Mekong Cooperation special fund for resilient agriculture and the pan-Asia network on air pollution monitoring, respectively.

38. The Committee also expressed its appreciation for the work of the secretariat, including the work done in conjunction with other partners, such as the United States of America, in its collaboration with SERVIR-Mekong project to improve air quality monitoring.

39. The Committee was informed of various national initiatives on geospatial information applications to advance sustainable development. The Government of China shared 239 GB of remote satellite data to disaster-affected countries in the region under the Regional Space Applications Programme for Sustainable Development and was providing technical support to the Regional Cooperative Mechanism for Drought Monitoring and Early Warning and geospatial applications to mitigate the spread of COVID-19 during the pandemic. The Government of the United States of America was supporting countries in harnessing public geospatial data for development, with a focus on supporting young mappers and the SERVIR-Mekong project to co-develop innovative solutions to improve resilience and sustainable development. The Government of the Republic of Korea was strengthening regional cooperation to address air pollution by sharing air quality data from the Geostationary Environment Monitoring Spectrometer and providing capacity-building on satellite-derived data use.

40. The Committee highlighted the need to continue sharing with countries in the region data, knowledge and experiences with regard to geospatial information and digital innovation applications in areas such as hazard mapping in order to advance space applications and their integration with digital innovations.

F.   Other matters (agenda item 7)

41.   No other matters were raised.

G.   Adoption of the report of the Committee on its fourth session (agenda item 8)

42.   On 2 September 2022, the Committee adopted the report on its fourth session.

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