Action Plan
for Implementation of the Asia-Pacific Information Superhighway
(2022-2026)

DRAFT V4

(as of 17 November 2021)

Information and Communications Technology and Disaster Risk Reduction Division

United Nations Economic and Social Commission for Asia and the Pacific

Contents

Executive Summary

This document has been prepared by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) secretariat for member States to discuss and develop a draft Action Plan for implementation of the Asia-Pacific Information Superhighway (2022-2026), which will be presented for adoption by the Committee on Information and Communications Technology, Science, Technology, and Innovation (CICTSTI) at its fourth session in 2022.

The Asia-Pacific Information Superhighway (AP-IS) is a region-wide intergovernmental platform that aims to bridge the digital divide and accelerate digital transformation through regionally coordinated actions promoting digital technology and applications, digital connectivity, and the use of digital data. Building on the AP-IS Master Plan, the CICTSTI at its third session (CICTSTI-3) on 19-20 August 2020 recommended that the ESCAP secretariat set up a Drafting Group as part of the AP-IS Steering Committee to develop an action plan for the next phase of implementation of the AP-IS (2022-2026) to be considered and adopted by the CICTSTI at its fourth session in 2022.

The draft AP-IS Action Plan (2022-2026) will serve as a blueprint to facilitate cooperative actions among member States for transformation to digital economies and sustainable development in the region. Four key principles are considered in developing the draft Action Plan: (1) an action-focused plan for the future; (2) ownership by member States; (3) partnerships and regional cooperation; and (4) linkages with the Sustainable Development Goals (SDGs) and the World Summit on the Information Society (WSIS) Action Lines.

Based on these principles, the draft Action Plan proposes three pillars, a number of actions (see Appendix 1: Matrix of Actions), and three working groups that will guide implementation of the actions. In addition to its linkage with the SDGs and WSIS Action Lines, the draft Action Plan aligns with relevant global agendas such as the United Nations Secretary-General's Roadmap for Digital Cooperation, and with regional agendas such as the Association of Southeast Asian Nations Digital Master Plan 2025, the Trans-Eurasian Information Superhighway, and the Council of Regional Organizations of the Pacific's Information and Communications Technology Working Group.

Member States at the Fifth Session of the AP-IS Steering Committee on 25 November 2021 are invited to provide final comments to the draft AP-IS Action Plan and matrix of actions.

1. Introduction

This document is presented to members of the AP-IS Steering Committee by the Chair on behalf of the AP-IS Drafting Group for Developing the Action Plan 2022-2026. Member States are invited to discuss and endorse the draft Action Plan for the further consideration and adoption of the Committee on Information and Communications Technology, Science, Technology, and Innovation (CICTSTI) at its fourth session in 2022.

1.1 Background and Evolution of the AP-IS

The Asia-Pacific Information Superhighway (AP-IS) supports the implementation of United Nations General Assembly (GA) resolutions 69/204 adopted in 2014 and 70/125 [1] adopted in 2016, which expressed concerns regarding the digital divide in access to information and communications technologies (ICTs) and broadband connectivity among countries at different levels of development. The AP-IS is also aligned with the need to harness the potential of ICTs as accelerators in the achievement of the SDGs.

The AP-IS supports the implementation of ESCAP resolutions 71/10 [2] and 75/7 [3] adopted in 2015 and 2019, respectively. Aligned to the GA resolutions, the ESCAP resolution 71/10 expressed concern about the digital divide and requested the ESCAP secretariat to promote the sharing of experiences, good practices and lessons learned in ICT. The ESCAP resolution 75/7 requested the ESCAP secretariat to continue supporting the ongoing activities of the AP-IS; support member countries with policy advice, technical studies, and capacity building; and encourage the participation of various stakeholders.

Recognizing the need for continued regional cooperation to bridge the digital divide beyond 2020, the Committee on Information, and Communications, Technology, Science, Technology and Innovation and (CICTSTI) at its third session in August 2020 recommended that the ESCAP secretariat set up a Drafting Group as part of the AP-IS Steering Committee to develop an Action Plan for the next phase of implementation of the AP-IS Master Plan for the period 2022-2026, for consideration and adoption by the CICTSTI at its fourth session in 2022. [4]

1.2 Vision and Objective

1.2.1 Vision and Objective for 2019-2022

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[1] A/RES/70/125. Available at https://undocs.org/en/A/RES/70/125.
[2] E/ESCAP/RES/71/10. Available at http://undocs.org/en/E/ESCAP/RES/71/10.
[3] ESCAP/RES/75/7. Available at https://www.unescap.org/sites/default/d8files/event-documents/E75_Res7E.pdf.
[4] ESCAP/CICTSTI/2020/7. Available at https://www.unescap.org/sites/default/d8files/event-documents/Final%20report%20CICTSTI3%2C%20English.pdf

In the Master Plan for the AP-IS, the vision for the AP-IS is articulated as follows: "As a pillar of regional connectivity, the Asia-Pacific Information Superhighway initiative shall be a catalyst to develop seamless regional broadband networks which improve affordability, reliance, resilience and coverage and thereby address the causes of digital divides, develop the Internet ecosystem to support the implementation of the Sustainable Development Goals (SDGs), and stimulate the digital economy in Asia and the Pacific".[5]

The objective of the AP-IS is: "To improve regional broadband connectivity through a dense web of open access cross-border infrastructure that will be integrated into a cohesive land- and sea-based fiber network with the ultimate aims of increasing international bandwidth for developing countries in the region, lowering broadband Internet prices and bridging the digital divide in the region".[6]

Over its first phase of implementation, the AP-IS evolved into a region-wide intergovernmental platform for policy cooperation aimed at bringing seamless digital broadband connectivity[7] across the Asia-Pacific region. It also supported accelerated implementation of digital transformation for the achievement of the SDGs and the World Summit on the Information Society (WSIS) Action Lines.

1.2.2 Vision and Objective for 2022-2026

The rapid uptake of ICTs is transforming economic and social activities around the world. These transformations have enabled delivery of information and services at unprecedented speed and scale, boosted productivity, spurred innovations, and brought about many benefits. Yet, ICTs also pose many challenges and the digital divide risks perpetuating and even deepening existing inequalities. The COVID-19 pandemic has clearly demonstrated the link between digitalization and development by showing the potential of digital technologies and exposing the negative socioeconomic impacts and development gaps that the digital divide perpetuates.

In light of these challenges, needs and changing policy priorities for digital transformation, the AP-IS counts on a new vision and objective to build back better and leave no one behind.

The vision for the AP-IS (2022-2026) is: "Connecting everything for everyone to accelerate the achievements of the 2030 Agenda for Sustainable Development". The vision embodies the ever-evolving nature of digital technologies that provide both opportunities and challenges for improving the wellbeing of connected people.

In support of this vision, the objective of the AP-IS (2022-2026) is: "To bridge the digital divide and accelerate digital transformation by promoting digital connectivity, digital technology and applications, and the use and management of digital data".

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[5] E/ESCAP/CICTSTI(1)/2. Available at https://undocs.org/E/ESCAP/CICTSTI(1)/2.
[6] Ibid.
[7] There are no universally accepted definitions for broadband connectivity and digital connectivity. In this paper, broadband connectivity is defined as the high-speed Internet connection state with wide bandwidth data transmission rate. Digital connectivity means that the physical world such as robots and industrial equipment, and the cyberworld as an Internet virtual space, are connected in one network to analyse and utilize aggregated data and automatic control of things beyond the high-speed Internet connection.

A summary of the current and next phase vision and objective of the AP-IS is presented in Table 1.

Table 1: Summary of current and new vision and objective

	Master Plan (2019-2022)	Next phase (2022-2026)
Vision	As a pillar of regional connectivity, the Asia-Pacific Information Superhighway initiative shall be a catalyst to develop seamless regional broadband networks which improve affordability, reliance, resilience, and coverage and thereby address the causes of digital divides, develop the Internet ecosystem to support the implementation of the Sustainable Development Goals, and stimulate the digital economy in Asia and the Pacific.	Connecting everything for everyone to accelerate the achievements of the 2030 Agenda for Sustainable Development.
Objective	To improve regional broadband connectivity through a dense web of open access cross-border infrastructure that will be integrated into a cohesive land- and sea-based fibre network with the ultimate aims of increasing international bandwidth for developing countries in the region, lowering broadband Internet prices and bridging the digital divide in the region.	To bridge the digital divide and accelerate digital transformation by promoting digital connectivity, digital technology and applications, and the use and management of digital data.

2. Master Plan of the AP-IS for 2019-2022

2.1 Four Pillars

To achieve its objective, the Master Plan for the AP-IS (2019-2022) adopted four pillars with specific activities developed for each pillar. The four pillars are:

1. Connectivity
2. Internet Traffic and Network Management
3. E-resilience
4. Broadband for All

Pillar 1 (Connectivity) focuses on enhancing seamless regional broadband fibre-optic backbone connectivity. Pillar 2 (Internet Traffic and Network Management) promotes efficient Internet traffic and network. Pillar 3 (E-resilience) aims to enhance the resilience of existing and planned ICT infrastructure during and after natural disasters. Pillar 4 (Broadband for All) supports an environment for inclusive and affordable Internet access for all.

Figure 1: Four pillars of the Master Plan for the AP-IS (2019-2022)
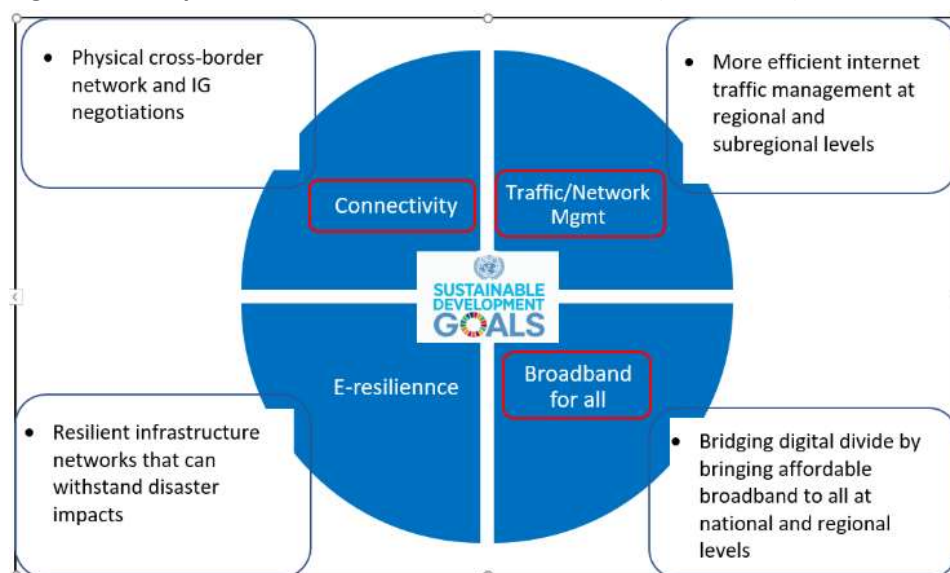
2.2 Key Deliverables

Based on the strategic initiatives outlined in the Master Plan for the AP-IS (2019-2022),[8] and subsequent status reports[9] by the ESCAP secretariat, the AP-IS has been promoting regional cooperation among Asia-Pacific countries to strengthen seamless regional broadband networks, and improve their affordability, reliance, resilience and coverage. Key activities and outcomes implemented by the ESCAP secretariat are detailed in Appendix 2.

3. Action Plan for Implementation of the AP-IS for 2022-2026

3.1 Rationale for Scale Up

Innovative digital technologies along with improvement in digital infrastructure and digital data have driven digital transformation in many Asia-Pacific countries. A new development paradigm is emerging which includes changes in the whole ecosystem of value creation and management, production and consumption patterns.

The COVID-19 pandemic has further accelerated the advancement and adoption of digital technologies and their exponentially evolving applications – posing both opportunities and challenges. Digital connectivity can advance sustainable development solutions but also simultaneously cast unprecedented

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[8] ESCAP/CICTSTI/2018/INF/1. Available at https://www.unescap.org/sites/default/files/ESCAP_CICTSTI_2018_INF1.pdf.
[9] ESCAP/CICTSTI/2020/2, ESCAP/CICTSTI/2018/2, and E/ESCAP/CICTSTI(1)/1.

challenges. From a sustainable development perspective, the consequences of the digital divide, both within and between countries, is a key challenge. In the context of promoting sustainable and resilient recovery from the COVID-19 pandemic and the achievement of the SDGs, universal access to affordable and reliable broadband Internet has become more urgent than ever before. Many member States have recognized the need to turn the digital divide into a digital dividend. Consequently, they have elevated digital development to the top of their policy-setting agendas.

Building on the achievements of the first phase of implementation, the AP-IS as a region-wide intergovernmental cooperation mechanism is well positioned to boost cooperative actions among member States that accelerate global and regional digital transformation to achieve the SDGs and WSIS Action Lines. The AP-IS is also well-positioned to contribute to global digital agendas such as the United Nations Secretary-General's Roadmap for Digital Cooperation, and to subregional digital cooperation initiatives such as the Association of Southeast Asian Nations (ASEAN) Digital Master Plan 2025, the Trans-Eurasian Information Superhighway (TASIM) and the ICT Working Group of the Council of Regional Organisations of the Pacific (CROP), among others.

Against this backdrop, the Action Plan for Implementation of the AP-IS (2022-2026) aims to promote essential cooperative actions for digital development among member States, which include digital connectivity through improvement in the broadband ICT infrastructure, digital technology, and applications, as well as the use and management of digital data.[10]

3.2 Principles

The following four principles to guide the development of the Action Plan for Implementation of the AP-IS (2022-2026) are as follows:

1. **Action-focused plan** – The new Action Plan will be the regional blueprint for coordinated and practical policy actions, that enable ESCAP member States to bridge the digital divide and accelerate digital transformation. Considering the rapidly changing digital environments, the action plan addresses emerging needs, and enables member States to plan for anticipated changes and shape a more inclusive and sustainable digital future.

2. **Ownership by member States** – A key guiding principle is a needs-driven approach based on member States' cooperation in the development of the Action Plan, and in the collaborative implementation of activities for a common achievement of targets and outcomes towards digital transformation and sustainable development.

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[10] Digital data refers to the information created and stored in a computer mediated environment that can potentially be transmitted as discrete information signals over the internet, and may be subsequently processed and/or stored for a range of known and unforeseen purposes.

3. **Partnerships and regional cooperation** – Due to the trans-boundary and interlinked nature of digitalization, successful digital transformation requires multi-stakeholder partnerships with United Nations agencies, regional organizations, business sectors, civil society, and other relevant stakeholders, as well as cross-border cooperation among member States. The new Action Plan will promote the continuous engagement of various stakeholders such as United Nations entities and specialized agencies, regional and subregional organizations, and international financial institutions and partners, as well as the private sector, civil society, research institutes and think tanks, as appropriate, including the ASEAN Secretariat, Asia-Pacific Telecommunity, International Telecommunication Union (ITU), United Nations Office of ICT, United Nations Special Programme for the Economies of Central Asia (SPECA) platform, Asia Pacific Economic Cooperation (APEC), the Organization for Economic Cooperation and Development (OECD), and other relevant stakeholders to support member States' effective implementation.

   Strong cooperation and partnerships across member States and various sectors will be central for setting common policy agendas, addressing mutual challenges, finding collective solutions, mobilizing necessary resources more efficiently, and ensuring shared accountability and commitment to the action plan. The fruitful partnerships and productive collaborations in developing online maps of backhaul networks among member States, ESCAP and ITU is an example of a good cooperative model.

4. **Linkage with global and regional agendas (SDGs and WSIS Action Lines)** – The action plan is aligned with current global and regional digital and development agendas such as the SDGs, WSIS Action Lines, United Nations Secretary General's Roadmap for Digital Cooperation, and various regional digital connectivity agendas.

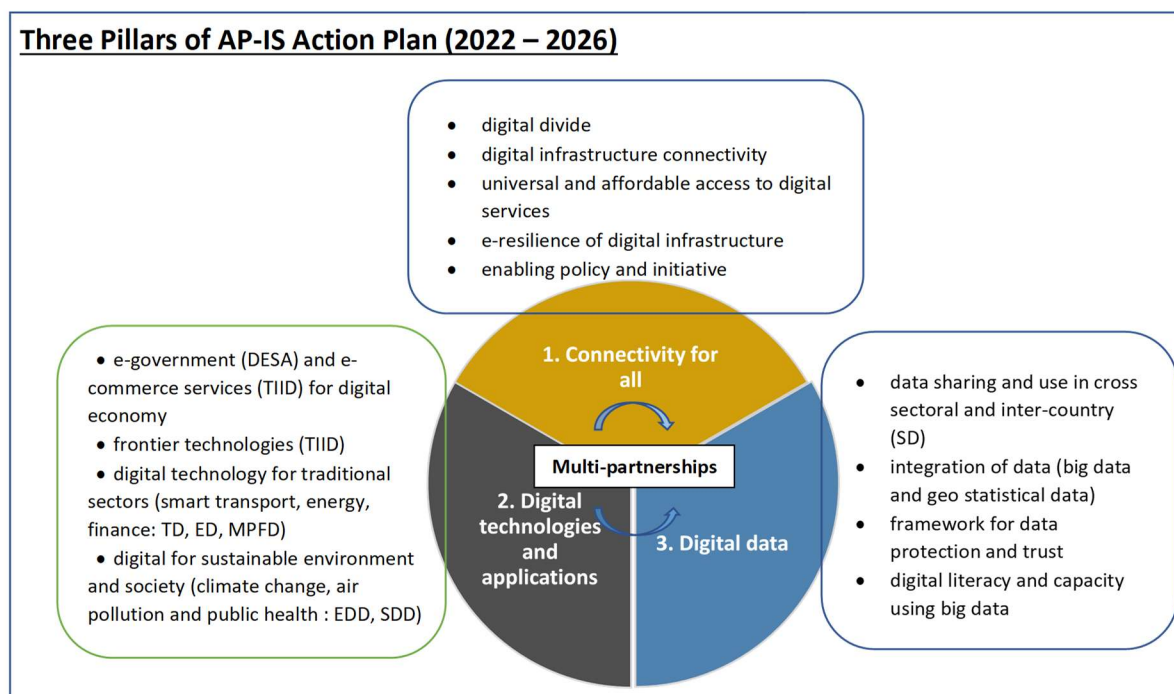## 3.3 Three Pillars

The action plan is built around three pillars that scale up the scope of the AP-IS, with the objective of bridging the digital divide and accelerating digital transformation in light of rapidly changing policy environments, including the recovery efforts from the COVID-19 pandemic as follows:

1. Connectivity for All
2. Digital Technologies and Applications
3. Digital Data

Under each pillar, the new thematic areas are illustrated in Figure 2. Multi-stakeholder partnerships and cooperation cut across all three pillars.

Figure 2: Three pillars of the Action Plan for Implementation of the AP-IS (2022-2026)

Three Pillars of AP-IS Action Plan (2022 – 2026)

- digital divide
- digital infrastructure connectivity
- universal and affordable access to digital services
- e-resilience of digital infrastructure
- enabling policy and initiative

- e-government (DESA) and e-commerce services (TIID) for digital economy
- frontier technologies (TIID)
- digital technology for traditional sectors (smart transport, energy, finance: TD, ED, MPFD)
- digital for sustainable environment and society (climate change, air pollution and public health : EDD, SDD)

1. Connectivity for all

Multi-partnerships

2. Digital technologies and applications

3. Digital data

- data sharing and use in cross sectoral and inter-country (SD)
- integration of data (big data and geo statistical data)
- framework for data protection and trust
- digital literacy and capacity using big data

3.3.1 Pillar 1: Connectivity for All

Pillar 1 on "Connectivity for All" in the AP-IS Action Plan (2022-2026) focuses mainly on enhancing the regional broadband backbone networks and infrastructure for the promotion of universal access to affordable and reliable Internet. This is an essential precondition for the use of emerging technologies such as artificial intelligence and the Internet of things that accelerate digital transformation and cooperation. The vision of the AP-IS can be realized by first connecting people, organizations, and things anywhere and all the time.

The key themes under this pillar include bridging the digital divide, broadband ICT infrastructure, universal, reliable, and affordable access to broadband Internet, e-resilience of ICT infrastructure, and enabling policy and regional cooperation.

3.3.2 Pillar 2: Digital Technologies and Applications

Pillar 2 on "Digital Technologies and Applications" focuses on the development of digital technologies, systems, applications, platforms, and processes, as well as capacities and skills of ESCAP member States.

Building on increased access and affordability of digital infrastructure in Pillar 1, this pillar promotes the creation of innovative products, services, and values by leveraging new digital technologies and digital data across all sectors. It is anticipated that digital transformation will be a paradigm shift in all sectors, including government, education, health care, transport, energy, agriculture, and urban development.

This pillar covers: digital government and e-commerce services for building the digital economy; the application of frontier technologies, including artificial intelligence, robotics, and biotechnology; digital technology and applications in traditional sectors such as smart transport, smart grid, and digital financial services; and digital technology applications for sustainable environment and society such as smart climate action and e-health. The trust that users need to have in these applications cannot be sustained unless serious attention is paid to digital security.

Coordinated actions to identify and remove barriers to digital transformation and create enabling environments for innovation using regulatory sandboxes can be covered in this pillar. Other actions include developing digital skills and competencies, enabling innovation and technology transfer, and ensuring integration and interoperation of existing systems and platforms. In summary, this pillar covers:

1. Digital government and digital economy (e-commerce, smart transport, energy and digital finance)
2. Digital for environment and society (climate change, air pollution and public health)
3. Digital transformation for small- and medium-sized enterprises and traditional sectors
4. Frontier technology development

3.3.3 Pillar 3: Digital Data

Underlying pillars 1 and 2, is pillar 3 on "Digital Data". Pillar 3 focuses on strengthening digital data[11] creation, transition to open format, storing, maintaining, use, and integration with other data sources such as satellite-geospatial data, real-time Internet of things and statistical data.

Digital data is a foundational resource and enabler of digital connectivity and digital transformation. Digital data enhances the effectiveness of evidence-based policy making with more targeted policy interventions for an affordable and universal Internet connectivity. In addition, the rapid development of digital technologies relies on the availability of integrated digital data. Data-platform-integrated activities, such as data analytics, need integrated digital data for value creation across all segments of society, resulting in innovative and sustainable data-based solutions.

Digital data creation, collection, integration, management and use of different data sets, including big data, is an essential component for evidence-based policy making. As a result, a better integrated digital

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[11] Digital data is data that represents other forms of data using specific machine language systems that can be interpreted by various technologies.

data framework would support Governments in the region on delivering more effective policy interventions and public services. Data sharing must either be reciprocal; or the same for everyone in order to offer a level playing field. If pushing for greater data sharing, member States should not be able to use local/national laws to trump an initiative where data sharing is one of the main pillars, especially among member states sponsoring the initiative. In this regard, coordination within and between national and international frameworks for data sharing and use across sectors and countries are vital. In addition, strengthening digital literacy would not only increase digital connectivity adoption for bridging the digital divide, but also increases usage of publicly available digital data sources for improving socio-economic welfare of citizens. Digital data also needs to be accessible while also recognizing the need for privacy and data protection.

3.3.4 Multi-Stakeholder Cooperation: Integrating the Three Pillars

Actions under the three pillars are intertwined. The benefits of data (Pillar 3) cannot be realized without digital connectivity (connectivity for all) (Pillar 1) and digital technologies and applications (Pillar 2). Broadband ICT infrastructure (Pillar 1) cannot benefit without data (Pillar 3) and digital technologies and applications (Pillar 2). Therefore, seemingly articulated actions under different pillars should be achieved through integrated approaches via multi-stakeholder partnerships and cooperation.
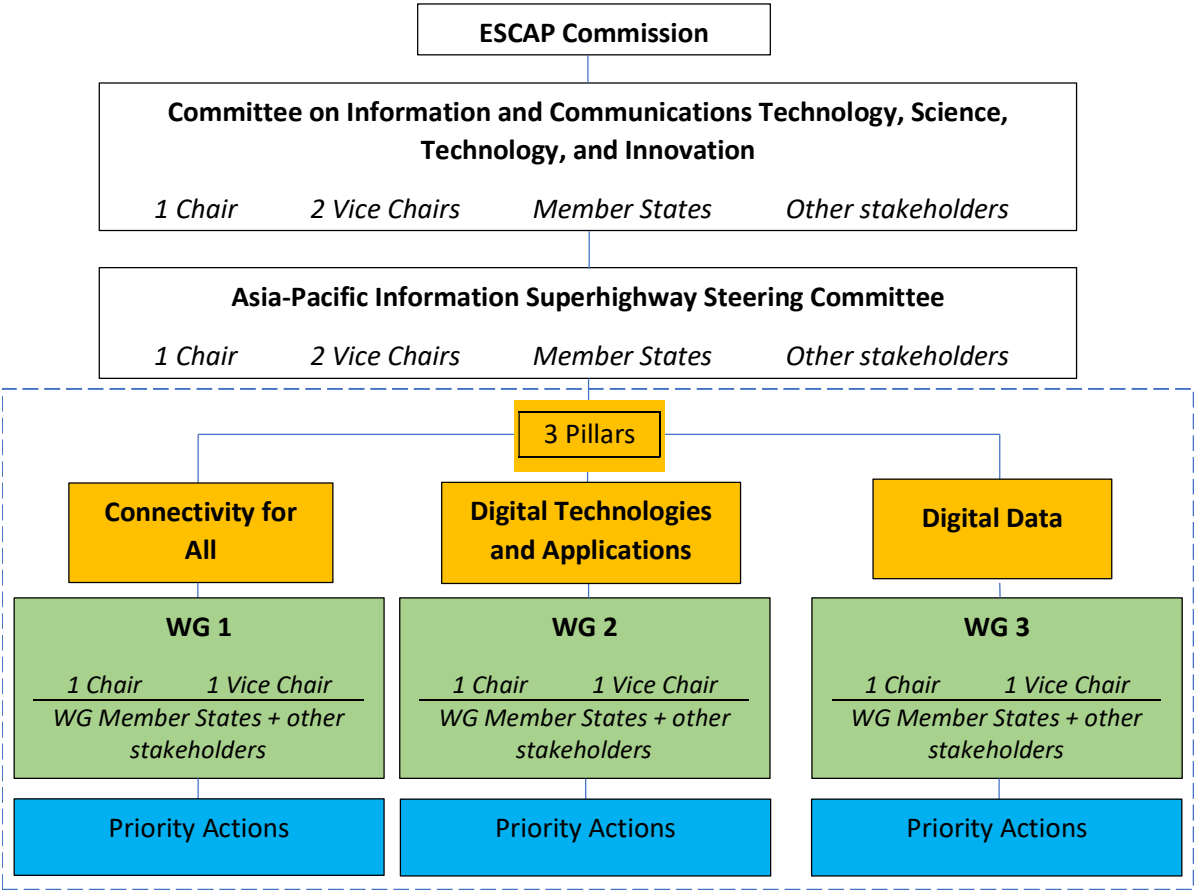
3.4 Operational Structure

In line with the three pillars, the AP-IS has an operational structure that supports member States' implementation of the action plan as follows:

A working group is established under each pillar, consisting of one chair, one vice chair led by member States who are interested in the pillar. The working group identifies potential thematic areas of interest for collaboration (as guided by the actions for each pillar). Through the leadership of the chair, each working group identifies priority actions for 2022-2026, which are based on national, subregional, and regional digital-related priorities to be updated as necessary by the respective working groups. The working groups will periodically report on the status, progress and achievements of national/pillar implementation and its future plan/programmes to the AP-IS Steering Committee. The AP-IS Steering Committee will report to the CICTSTI, and the CICTSTI will report to the ESCAP Commission.

In the spirit of openness, a multi-stakeholder approach, and aligned with ESCAP resolution 75/7, each Working Group is open to various stakeholders, such as United Nations bodies and specialized agencies, regional and subregional organizations, and international financial institutions and partners, as well as the private sector, civil society, research institutes and think tanks, as appropriate. Further details are provided in Annex 2.

The operational structure of the AP-IS under the Action Plan is illustrated in Figure 3. The terms of reference for the AP-IS Steering Committee and Working Groups is attached as Appendix 2.

Figure 3: Operational structure

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│          ESCAP Commission            │
└─────────────────────────────────────┘

┌─────────────────────────────────────────────────────────────┐
│  Committee on Information and Communications Technology,      │
│           Science, Technology, and Innovation                │
│                                                              │
│  1 Chair      2 Vice Chairs    Member States   Other stakeholders │
└─────────────────────────────────────────────────────────────┘

┌─────────────────────────────────────────────────────────────┐
│   Asia-Pacific Information Superhighway Steering Committee    │
│                                                              │
│  1 Chair      2 Vice Chairs    Member States   Other stakeholders │
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3 Pillars

Connectivity for All	Digital Technologies and Applications	Digital Data
WG 1	**WG 2**	**WG 3**
1 Chair 1 Vice Chair	*1 Chair 1 Vice Chair*	*1 Chair 1 Vice Chair*
WG Member States + other stakeholders	*WG Member States + other stakeholders*	*WG Member States + other stakeholders*
Priority Actions	Priority Actions	Priority Actions

4. Actions by Pillar

The actions under each of the three pillars are listed in Appendix 1 of this document. The draft matrix of actions is prepared based on three criteria: (1) desirability; (2) achievability; and (3) continuity (of previously implemented actions) for 2022-2026.

5. Means of Implementation

An integrated set of means of implementation are identified as follows:

5.1 Promoting Intergovernmental Dialogues and Regional Practices

As the region-wide intergovernmental cooperation platform, the AP-IS will support member States by organizing intergovernmental meetings and promoting the sharing of good policies, technologies, and

practices, as part of international cooperation. The promotion of intergovernmental dialogues and regional practices provides member States with opportunities to share experiences and transfer knowledge and skills for effective, efficient, and successful implementation of the action plan.

5.2 Conducting Solution-focused Analytical Research, Knowledge Sharing and Capacity Building

The Action Plan produces solutions for addressing digital transformation and connectivity challenges, based on analytical research and capacity building of member States. This includes the continuation by the ESCAP secretariat and other relevant stakeholders on conducting analytical research for innovative digital solutions to address emerging challenges on digital transformation and digital economy. Also, to leverage existing analytical research and capacity building training workshops of various stakeholders, including the United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development, to provide targeted capacity training modules on specific issues of importance to member States, with special attention to Small Island Developing States (SIDS) and countries with special needs (CSNs).

For example, the Women ICT Frontier Initiative flagship programme aims to promote women's entrepreneurship in Asia and the Pacific through enhancing capabilities of women entrepreneurs in ICT and entrepreneurship so that they and their enterprises can become more productive, and hopefully grow and be sustainable so that they can actively contribute to community development, as well as to the local and national economy. This initiative could be further accelerated for training of trainers at the subregional level in order to accelerate in-depth knowledge of government officials in this area. In addition, better coordination through the use of a virtual research community network to share research findings and solutions among regional stakeholders will support member States in assessing the current status, identifying common challenges and causes, and implementing appropriate measures in a more effective and cooperative way.

5.3 Building Subregional Service Nodes

In order to support member States in implementing the adopted actions, the action plan establishes and activates three subregional service nodes that are affiliated to the AP-IS platform. The key objective of the service node is to provide practical digital support to policymakers of the AP-IS member States to address emerging challenges and find solutions on a==n international cooperation ==~~South South and North-South cooperative~~ basis.

5.4 Securing Financing and Resources

Financial resources are key to achieving the adopted actions. Translating the planned actions into outcomes requires adequate financial and other resources together with appropriate capacity building, political will, and multilateral cooperation. The means of securing financial and technical resources is expanding. For successful implementation of the action plan under each Working Group, members of each Working Group are to work together with the secretariat, United Nations agencies, international organizations, development banks, regional organization and business sectors to secure resources for implementing the planned actions ,the participation and partnership of the multistakeholder community including digital technology companies, in addition to traditional sources of funding for development, through public-private partnerships is expected to help augment financial and technical resources.

5.5 Regular Monitoring and Evaluation

Regular monitoring and evaluation, including peer reviews and external evaluations, are crucial means to ensure the quality of implementation. It includes the collection of baseline data, comparative analyses of progress and outcomes across the actions, and assessment and documentation of successful policies and approaches, development of clear key performance indicators for the action plan and matrix, as well as problems and challenges. Regularly conducted monitoring and assessment provides good information and guide to member States for revisiting planning, implementation, and modification of action courses.

In order to provide useful insights and lessons learnt from the implementation of the AP-IS Master Plan 2019-2022, an assessment by the secretariat of the progress on implementation of the AP-IS Master Plan 2019-2022 will be conducted and presented by the secretariat to the Sixth Session of the AP-IS Steering Committee in 2022. The provisional deliverables are attached in Appendix 3.

5.6 ~~Harmonization with National Policies and Legislation of Member States~~ Enhancing Interoperability Among Member States with Differing Laws

~~To realize the full potential of digital technology and digital transformation, the action plan should be aligned with the priorities and unique conditions of member States.~~ In order to take advantage of the full potential offered by digital transformation, the plan should seek to enhance interoperability whenever possible ~~by The action plan intends to enhance the quality and effectiveness of AP-IS implementation~~ by supporting member States in improving their national policy, legal and regulatory frameworks to foster enabling environments, create new digital technologies and innovative ventures, and promote digital connectivity and digital data use.

Appendix 1: Matrix of Actions

#	Action Title	SDG Goals and Targets	WSIS Action Lines	Outputs/Deliverables	Success Indicators	Working Group	ESCAP Subregion/Country	AP-IS Pillar	Activity Type	Relevant International/Regional / National Initiatives	Deadline
1	Promote digital connectivity by integrating frontier technologies	SDG 4, Target 4.4 SDG 9, Target 9.1, 9.5, 9.c	C2, C4, C6	Strengthened policy for digital connectivity through mapping of frontier technologies related to digital connectivity Enhanced knowledge on frontier technologies through capacity building workshops Promoted Regional Hub/Research Centre on Frontier Technologies in North and Central Asia	At least 10 member States indicate the importance of digital connectivity, digital divide and digital economy in statements and reports At least 1 initiative for the Regional Hub/Research Centre on Frontier Technologies in North and Central Asia implemented	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research and capacity building	Dilijan FabLab, Fab Academy, ITU, GIGA, UNICEF	2026
2	Promote innovative and efficient use of universal service fund (USF) for ICT infrastructure development	SDG 9, Target 9.1, 9.a, 9.c SDG 17, Target 17.8	C1, C2, C3, C4, C6, C11	Increased research on the gaps and effectiveness of existing USF policies and practices Organized capacity building workshops	At least 1 paper introducing USF system and best practices shared with member States	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research	Useful reference to ITU-D Study Groups 1 and 2 on Question 5/1 (Telecommunications/ICTs for rural and remote areas).	
3	Strengthen e-resilience to disaster risks through SMART (Scientific Monitoring And Reliable Telecommunications) fiber-optic cable systems	SDG 9, Target 9.1, 9.a, 9.c	C1, C2, C3, C4, C7, C11	Increased policy awareness on e-resilience	Working Paper and research on SMART fiber-optic cables for e-resilience	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Research		

| 4 | Promote policies for co-deployment of ICT infrastructure with other infrastructures such as transport and energy for connectivity | SDG 7, 9, 12 | C2, C3, C7, C13 | Developed guidelines and manuals for promoting policies for co-deployment of ICT with energy and transport infrastructures

Developed portals on co-deployment of ICT with energy and transport infrastructures

Increased "dig-once" policies to deploy fibre-optic cables along national highways for intelligent transport systems

Developed training programme on cross-sector infrastructure sharing for broadband connectivity | Guidelines for promoting co-deployment policies and actions shared with member States

Portal on co-deployment of ICT with energy and transport Infrastructures launched

Level of understanding on cross-sector infrastructure sharing and open access policy for enhanced connectivity improved | 1 - Connectivity for all | Asia-Pacific countries | Connectivity for all | | APCICT Useful reference to ITU-D Study Groups 1 and 2 on Question 4/1 (Economic policies and methods of determining the costs of services related to national telecommunication/ICT networks, including next-generation networks). | |
| 5 | Improve digital connectivity between rural products and urban markets through promotion of smart villages | SDG 1, 12, 13

SDG 11, Target 11.3 | C3, C7 | Increased policies for improving digital connectivity and platform between rural farms and urban markets[12]

Collected good practices on digital connectivity between rural farms and urban markets

Developed concept on e-agriculture[1] | Working papers and research papers to strengthen policies on digital connectivity and digital platform shared with member States

The concept on e-agriculture shared with member States | 1 - Connectivity for all | Asia-Pacific countries | Connectivity for all | | United Nations, EU4Digital, Eurasian Economic Commission, ITU, World Bank Useful reference to ITU-D Study Groups 1 and 2 on Question 5/1 (Telecommunications/ | |

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[12] Useful reference to ITU-D Study Groups 1 and 2 on Question 5/1 (Telecommunications/ICTs for rural and remote areas). Available at https://www.itu.int/net4/ITU-D/CDS/sg/questions.asp?lg=1&sp=2014

										ICTs for rural and remote areas).	
6	Promote Internet quality and digital connectivity in the subregions through subregional Internet exchange points (IXPs)	SDG 9, Target 9.c	C2, C11	Endorsed memorandum of understanding on establishing IXPs Developed guidelines for operating subregional IXPs	At least, a guideline for building and operating subregional IXP	1 - Connectivity for all	Pacific (Pacific island developing countries), South-East Asia (Cambodia, Lao PDR, Myanmar, Viet Nam and Thailand), and North and Central Asia	Connectivity for all	Intergovernmental	Pacific - ISOC, PITA, APNIC, USP South-East Asia - NIA, ISOC, DEPA RIPE NCC, ITU	
7	Strengthen e-resilience of the digital economy and society, with a focus on the infrastructure	SDG 9, Target 9.1, 9.a SDG 11, Target 11.5 SDG 17, Target 17.8	C1, C15	Developed guidelines with indicators to measure status of e-resilience in countries Improved policies and practices on societal e-resilience among member States through digitalization Established e-resilience monitoring group in Asia-Pacific countries[2]	Guidelines with indicators to measure status of e-resilience in countries developed and shared with member States An e-resilience monitoring group in Asia-Pacific countries established	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all			
8	Promote national and regional intelligent data resource management centres as key infrastructure to maximize data use, provide smart services and expedite innovation	SDG 7, Target 7.1, 7.2, 7.3, 7.b SDG 9, Target 9.1 SDG 17	C2, C6, C10, C13	Collected good practices and developed guidelines for intelligent data resource management centres Piloted regional intelligent data resource management centre in North and Central Asia	Good practices working paper and guidelines shared with member States A pilot regional intelligent data resource management centre in North and Central Asia recognized	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Intergovernmental and capacity building	Estonia and the Republic of Korea's intelligent data resource management centres	
9	Promote the development and implementation of fibre-optic corridors	SDG 8, 9, 11, 17	C2, C4, C6, C11	Developed concept and action plans for fibre-optic corridors	At least 2 concepts and action plans on fibre-optic corridors developed	1 - Connectivity for all	Asia-Pacific countries	Connectivity for all	Capacity building and	BSEC, ITU, EU4Digital	2026

#		SDG						Digital technologies and applications	Capacity building and technical assistance		
	connecting subregions of the Asia-Pacific								technical assistance		
10	Enhance awareness and policymaking capacity for ICT infrastructure resilience	SDG 9, Target 9.1, 9.a SDG 11, Target 11.5	C1, C15	Developed assessment guidelines to measure ICT infrastructure resilience Strengthened capacity to identify and assess risks affecting critical ICT infrastructure resilience and develop enabling policies	At least 5 member States use the assessment guidelines	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications		ITU, Republic of Korea's Fibre-Optic Cables Renovation Project (second master plan)	
11	Promote awareness and capacity on digital transformation including the development of assessing framework	SDG 8, 9, Target 9.c 11, 17	C2, C4, C6, C7, C11	Developed digital transformation framework through organization of activities such as trainings, workshops, information sessions and hackathons Shared good policies and practices on digital transformation	At least 3 workshops on measurement tools for digital transformation organized Development of framework for understanding digital transformation Tools to assess the status of digital transformation developed	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications	Capacity building and technical assistance	APNIC, RIPE NCC, ISOC, ICANN, NRENs	2026
12	Promote strategy for digital transformation and diverse digital solution packages for policymakers to address challenges in digital transformation	SDG4, Target 4.4, 4.a SDG5, Target 5.b SDG 9, Target 9.c	C1, C3, C4, C6	Studies developed on subregional/regional strategy for digital transformation Studies developed on subregional/subregional digital solution packages for effective digital transformation	Subregional/Regional studies on strategies for digital transformation drafted Research paper on digital solution packages shared with member States	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications		Useful reference to ITU-D Study Groups 1 and 2 on Question 1/2 (Creating the smart society: Social and economic development through ICT applications).	

13	Promote digital policies, strategies and roadmaps for inclusive and sustainable development	SDG 9, 17	C1, C6	Developed national and subregional studies on digital policies, strategies and roadmaps for inclusive and sustainable development (subject to country demand and availability of budget)	National and subregional studies on digital policies, strategies and roadmaps that integrate inclusive and sustainable development objectives developed	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications	Policy advice	TIS	
14	Strengthen regulatory policies for digital innovative businesses in the framework of public-private partnerships (PPPs)	SDG 8 SDG 9, Target 9.c	C4, C6	Developed guidelines to strengthen regulatory policies for digital innovative businesses (e.g., policy experimentation/ regulatory sandbox) Enhanced knowledge and capacity of professional groups, including private sector employees, in digital technologies and platforms of digitally-advanced countries, using the PPP framework	At least 5 member States recognize the guidelines to strengthen regulatory policies for digital innovative businesses At least 2 capacity training activities (workshops, meetings, studies, etc.) organized in support of PPPs for digital innovative businesses in Asia-Pacific countries	2 - Digital technologies and applications	Bangladesh, Maldives and Kazakhstan	Digital technologies and applications	Research	UNDESA, UNCT	
15	Promote digital and frontier technologies for sustainable development	SDG 4, Target 4.4 SDG 8 SDG 9, Target 9.1, 9.5, 9.c	C2, C3, C4, C6, C13	Developed national and regional strategy/action plan/roadmap for development of innovative digital and frontier technologies for sustainable development Completed mapping of frontier technologies that contribute to digital connectivity and transformation Developed training module on frontier technologies for sustainable development	National and regional strategy/action plan/roadmap for development of innovative digital and frontier technologies for sustainable development drafted Awareness and knowledge on frontier technologies for sustainable development increased	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications	Research and capacity building	APCICT	

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16	Promote capacity for digital skills and digital financial services, particularly for women entrepreneurship and empowerment, and for vulnerable groups in countries with special needs[3]	SDG4, Target 4.4, 4.a SDG5, Target 5.b SDG9, Target 9.c	C2, C3, C7	Collected good practices on digital financial services and related platforms Developed training module on ICT for vulnerable groups with capacity building activities Engaged women entrepreneurs in digital financial services and digital skills building	Good practices on digital financial services and related platforms shared with member States Level of understanding on ICT-enabled policies and programmes for social inclusion of vulnerable groups improved At least 2 regional/subregional cooperation activities (workshop, meeting, studies, etc.) implemented that promote women entrepreneurship, digital financial inclusion and/or digital skills building	2 - Digital technologies and applications	Asia-Pacific countries with special needs	Digital technologies and applications	Research and capacity building	APCICT	
17	Strengthen ICT applications for disaster risk management and disaster recovery	SDG 11, Target 11.5, 11b	C3, C6, C7, C10	Strengthened capacity in the use of ICT applications for disaster risk management	At least 10 member States (or # of participants) that attend capacity building activities confirm through post-training surveys that his/her level of understanding of ICT applications for disaster risk management improved	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications	Capacity building and knowledge sharing	APCICT	
18	Strengthen the role of digitalization in other sectors such as economy, trade, transport, environment, fishery and agriculture	SDG 4, Target 4.4 SDG 9, Target 9.1, 9.5, 9.c	C2, C4, C6	Completed survey and mapping of digital technologies for cross-sectoral integration and industries	Awareness and understanding on digital policies and technologies in other sectors and businesses enhanced	2 - Digital technologies and applications	Asia-Pacific countries	Digital technologies and applications	Intergovernmental		
19	Promote policies and digital platforms for digitalization of small- and medium-sized enterprises (SMEs), particularly in countries with special needs	SDG 9, Target 9.c	C1, C6	Increased research on digital policies and platforms for SMEs in Asia-Pacific countries Strengthened capacity of policymakers to promote digital policies and platforms in cooperation with business sectors	Number of digital policies and platforms for SMEs in countries with special needs increased	2 - Digital technologies and applications		Digital technologies and applications		UNCTAD, ISOC, A4AI	

20	Promote integrated management system of public data for e-government services, particularly in countries with special needs	SDG 9, Target 9.2 SDG 11, Target 11.6	C1, C3, C7	Developed guidelines for integrated management system of public data for e-government services	At least 1 guideline for integrated management system of public data for e-government services drafted, and at least 5 member States use the guideline	3 - Digital data	Asia-Pacific countries	Digital data		Republic of Korea's Digital Government Innovation Plan	
21	Promote the sharing of digital and statistical data among public sector organizations	SDG 9, Target 9.b	C3, C7	Developed guidelines for integrated use and management of national digital data, statistical data and geospatial data for analysis and decision-making Strengthened capacity on data integration and use	Regular publication on integrated digital data, statistical data and geospatial data for evidence-based decision-making increased	3 - Digital data	Asia-Pacific countries	Digital data		World Bank's Statistical Innovation and Capacity Building in Pacific Islands, Singapore NSO	
22	Enhance digital knowledge and skills on access to and use of digital content and services, particularly for women and other vulnerable groups	SGD 5 SDG 9, Target 9.c	C1, C6	Completed analysis with policy recommendations on gaps and limitations on Internet access and use, particularly by women and other vulnerable groups in selected subregion Strengthened capacity of women and other vulnerable groups in access to and use of digital content and services	Internet access and use rate by women and other vulnerable groups increased	3 - Digital data	Asia-Pacific countries	Digital data		ITU, ISOC, USP, APNIC, RIPE NCC, PITA, A4AI	
23	Strengthen digital literacy and skills of government officials on improved use of digital data among ministries	SDG 4 SDG 17, Target 17.6, 17.8, 17.9	C4	Developed annual event book of capacity building programmes on digital transformation of all member States Enhanced digital literacy, skills and knowledge on better use of digital data within government Organized digital skills training programmes at the regional level, targeting government officials and staff, along with the set-up of minimum standards for professional development	Information sharing between member States on national capacity building programmes increased At least 10 member States that attend capacity building programmes indicate enhanced skills on better use of digital data within government At least 5 digital skills training programmes implemented	3 - Digital data	Asia-Pacific countries	Digital data			

#	Activity	SDG	WSIS	Output	Indicator	Category	Region	Type			
24	Enhance capacity on data privacy and protection	SDG 9 SDG 16, Target 16.10	C1, C5, C6, C10	Strengthened capacity of member States with training modules on data privacy and protection, information security and privacy, and other relevant modules Increased regional/subregional cooperation programmes on cybersecurity[5]	Level of understanding among policymakers on data trust, privacy and protection improved At least 2 regional/subregional cooperation activities (workshops, meetings, studies, etc.) on cybersecurity implemented	3 - Digital data	Asia-Pacific countries	Digital data	Capacity building and technical assistance	APCICT	
25	Strengthen digital cooperation between the United Nations, government and business sectors	SDG 17, Target 17.17	C1, C5, C11, C15	Increased regional high-level forums for digital cooperation, digital transformation and digital inclusion Increased multi-stakeholder regional meeting on digital cooperation Established business advisory group on ICT under the AP-IS Steering Committee Strengthened regional cooperation and partnerships within the framework of the specialized structures of the United Nations, regional organizations and national agencies engaged in telecommunications, information and digitalization Piloted a business advisory group for North and Central Asia[6]	ESCAP resolution created At least, 10 member States attend a multi-stakeholder meeting on digital connectivity cooperation Member States support the establishment of business advisory group on ICT Set-up of a business advisory group for North and Central Asia endorsed	3 - Digital data	Asia-Pacific countries	Digital data			

Notes:
1. An online platform and mobile application for accessing agricultural programmes have been developed. Other initiatives include the harmonization of strategies in the Caucasus countries and the exchange of best practices between the Transcaucasian countries.
2. An already-developed guide can help determine the level of use of digital tools in the following critical infrastructure in countries: transport, chemicals, communications, defence and defence production, finance, emergency facilities, government facilities, information technology, trade, manufacturing, energy, food and agriculture, health, nuclear reactors, and waste; and programmes will be developed to promote digitalization in certain areas. This output can be delegated to a United Nations or regional organization, such as ITU.
3. Countries with special needs include least developed countries, landlocked developing countries and small island developing states.

4. Successful initiatives from Asia-Pacific countries, including from China and India, on innovative technologies in various industries that have reduced greenhouse gas emissions will be taken into account.

5. Cybersecurity initiatives can include the support for CERT teams, development of cyber skills among different segments of society, and raising awareness of possible cyberthreats and how to deal with them.

6. The business advisory group will consider the involvement of industry experts from the United Nations and will organize trainings for public sector employees with business and management experience in selected countries.

Appendix 2: Terms of reference of the Asia-Pacific Information Superhighway Steering Committee[13]

I. Membership criteria

1.   The membership of the Asia-Pacific Information Superhighway Steering Committee shall consist of governments of all interested member States of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Up to a third of the Steering Committee's members can be representatives from academia, policy think tanks and non-profit organizations nominated by their respective governments.

II. Organization

2.   The Bureau shall be elected by Steering Committee members for a term of three years. The Bureau shall consist of one Chair and two Vice Chairs of the Steering Committee, one Chair and one Vice Chair of each Working Group, and the Secretariat. The term of the Bureau may be extended by two years to coincide with completion of implementation of the Plan of Action in 2026.

3.   The Steering Committee shall meet at least once a year and the Bureau shall meet as often as necessary.

4.   The Chair and Vice Chairs of the Steering Committee shall be elected by the members of the Steering Committee.

5.   The Bureau will represent the Steering Committee at various international and regional venues as necessary and inform the members accordingly.

6.   The Steering Committee and the Bureau shall be supported in its functions by the Secretariat.

III. Objectives

7.   The Steering Committee shall monitor the implementation of the Asia-Pacific Information Superhighway, coordinate subregional and regional work, provide policy guidance and, if necessary, set up a technical advisory group.

IV. Working Groups

8.   Any ESCAP member State may participate in any of the three Working Groups. However, it is recommended that member States join at least one Working Group,[14] supporting a specific pillar, while keeping themselves engaged with and informed of progress of other pillars.

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[13] Source of TOR in 2020: https://www.unescap.org/sites/default/files/ESCAP_CICTSTI_2020_INF1.pdf
[14] Any member State may be represented in all three Working Groups, if deemed necessary.

9.   Working Groups shall be established, with the approval of the Steering Committee, to support achievement of the objectives of the Steering Committee.

10.   One Chair and one Vice Chair of each Working Group shall be elected by the Steering Committee for a term of three years to lead Working Groups. Member States and representatives from academia, policy think tanks and non-profit organizations nominated by their respective governments up to 30% of the composition of each delegation shall be a member of Working Groups for a term of three years.

11.   Each Working Group shall identify key actions of common interests to be implemented by the Working Group, guide and monitor the implementation of the AP-IS action plan 2022-2026, and report on its progress and achievements to the members of the Steering Committee.

12.   The Chair of each Working Group shall lead cooperation between members on key actions of common interest and report back on the progress of cooperation to the Steering Committee. The Vice-Chair shall support the operation of the Working Group and act as Chair in case the Chair is unable to perform its duty.

V. Reporting process

12.   Chairs of Working Groups shall submit key activities, progress, and plans, to the Secretariat two months before the annual AP-IS Steering Committee meeting.

13.   The Secretariat will prepare a consolidated draft report while reflecting the draft inputs from Working Group Chairs, circulate it to member States before the annual AP-IS Steering Committee, and submit the final draft to the AP-IS Steering Committee for its endorsement.

14.   The Steering Committee will also review issues, recommendations, and necessary actions of the draft report.

15.   At the end of the 5-years implementation period of the AP-IS Action Plan, the governance structure and terms of reference will be reviewed and assessed at the Steering Committee and based on its findings guide the development of the next phase of the AP-IS Action Plan.

16.   The Chair of the AP-IS Steering Committee on behalf of the Committee shall submit the adopted report to the Committee on Information and Communication Technology and Science, Technology, and Innovation (ICT STI) of ESCAP for its endorsement.

VI. Secretariat

17.   The Secretariat of the Steering Committee shall be the ESCAP secretariat. The Secretariat shall manage the continuing administrative affairs of the Committee, facilitate, and coordinate the Committee's activities, prepare, and submit reports on activities and plans to the Steering Committee of the AP-IS.

Appendix 3: Key Deliverables of the Master Plan for the AP-IS (2019-2022)

Internet Exchange Points

Pacific island developing countries requested the support of the ESCAP secretariat and partners through the AP-IS initiative to assess the technical feasibility of establishing a Pacific Internet exchange point (IXP) for improving Internet quality (latency and speed) in 2018. In response, the secretariat in collaboration with regional partners conducted a feasibility study in 2019 and an operational modality study in 2020 to identify the options and requirements for establishing a Pacific IXP. Subsequently, the secretariat facilitated country consultations on the Pacific IXP in Fiji, New Zealand, and Samoa in 2020-2021 to establish the subregional IXP via an intercountry agreement.

In the effort to improve the efficiency of Internet traffic flow in Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam, the secretariat and the National Information Society Agency of the Republic of Korea carried out feasibility studies and expert Working Group meetings to guide the establishment of a common IXP.[15]

Co-deployment of ICT, Transport and Energy Infrastructures

The ESCAP secretariat strengthened the capacity of policymakers of ESCAP member States in three pilot countries – Kazakhstan, Kyrgyzstan, and Mongolia – to develop sustainable and inclusive co-deployment policies and mechanisms for transboundary information and communications technology (ICT) infrastructure connections with energy and transport infrastructures. It included capacity building, analytical research and sharing of knowledge products under the project on "Addressing the Transboundary Dimensions of the 2030 Agenda through Regional Economic Cooperation and Integration in Asia and the Pacific" (RECI). The RECI project team of the ESCAP secretariat produced 10 main analytical reports [16] in 2020 on the co-deployment of ICT infrastructure with energy and road transport infrastructures in North and Central Asia. The ESCAP secretariat continues to update the thematic information website, https://drrgateway.net/, to support policymakers and other stakeholders with latest relevant information and events.

E-resilience Dashboard

The ESCAP secretariat offers several online visualization approaches to enhance the e-resilience of infrastructure. For example, it developed an e-resilience monitoring framework and an interactive online e-resilience dashboard with maps to illustrate the levels of e-resilience readiness. The ability to understand and measure e-resilience is a key component of successful disaster risk management and adaptation in the recovery period. The e-resilience dashboard combines quantitative, indicator-based assessments of e-resilience with relevant ICT- and disaster-related indicators of performance into a single composite. The secretariat grouped ICT indicators under four thematic cross-cutting areas to model the e-resilience framework, namely: (1) ICT policy in different sectors; (2) ICTs' role in setting up new systems

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[15] ESCAP, "In-Depth Study on the Design and Implementation Plan of Internet Exchange Points in CLMV Countries", March 2021. Available at https://www.unescap.org/kp/2021/depth-study-design-and-implementation-plan-internet-exchange.
[16] Knowledge products developed by the RECI project team in 2020 are available at:
https://www.unescap.org/kp?f%5B0%5D=kp_programme_of_work_facet%3A284.

and applications; (3) ICTs' role in data management; and (4) ICT infrastructure as a physical foundation for the three areas above.

Research and Policy Advisory Service

The ESCAP secretariat, in collaboration with regional partners, conducted analytical research on various ICT-related issues under the framework of the Master Plan for the AP-IS 2019-2022. The research papers produced by the secretariat in 2020 include: three country reports in English and Russian for Kazakhstan and Kyrgyzstan; two reports in English for Mongolia; subregional reports on the co-deployment of ICT infrastructure with energy and transport infrastructures, and on disaster resilient infrastructure; and regional reports on financing infrastructure, and on linking rural transport systems to regional and international transport networks. The secretariat also produced a number of policy briefs on the socioeconomic aspects of ICT and financial inclusion with analysis on who is being left behind. These studies are available at the ESCAP website.[17]

The ESCAP secretariat, in collaboration with its partners, especially the Asian Development Bank, carried out evidence-based research and published several reports on e-commerce policymaking and reform. Furthermore, workshops and meetings were organized since 2018 to train policymakers on e-commerce policy and discuss how governments could collaborate with the private sector in promoting e-commerce development.

Capacity Building Programmes and Projects

The ESCAP secretariat and partners collaborated in conducting capacity training and workshops with the focus on strengthening the ICT infrastructure, enhancing connectivity, and improving the efficiency of Internet network traffic management in the Asia-Pacific region in 2018,[18] 2019[19] and 2020.[20] In addition, the secretariat and partners conducted a subregional workshop on ICT co-deployment along passive infrastructure in South Asia in June 2019.

Other capacity building activities from the secretariat include the support of member States in building national expertise and capacity in the areas of e-government, information security and privacy, disaster risk management, and women entrepreneurship. The contextualization and integration of these programmes in countries' capacity-building programmes resulted in an average of over 10,000 people

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[17] ESCAP, "Knowledge Products". Available at
https://www.unescap.org/kp?f%5B0%5D=kp_programme_of_work_facet%3A284.
[18] ESCAP, "Event: Subregional workshop on implementation of the Asia-Pacific Information Superhighway for achieving the Sustainable Development Goals in Pacific island countries", 19-23 November 2018. Available at
https://www.unescap.org/events/subregional-workshop-implementation-asia-pacific-information-superhighway-achieving.
[19] ESCAP, "Event: Strengthening efficient Internet traffic management through a subregional Internet Exchange Point (IXP) in Pacific Island Countries", 3-5 December 2019. Available at https://www.unescap.org/events/strengthening-efficient-internet-traffic-management-through-subregional-internet-exchange.
[20] ESCAP, "Event: Second Working Group on Pacific Internet Exchange Point (IXP) and capacity training workshop on IXP's operational modalities (Virtual Meeting)", 5 August 2020. Available at https://www.unescap.org/events/second-working-group-pacific-internet-exchange-point-ixp-and-capacity-training-workshop-ixp-s.

trained by partner institutions annually, strengthening the capacity of government officials, students, and youth, as well as women entrepreneurs.[21]

The secretariat also conducted capacity building programmes for policymakers of member States. Their programmes were based on research analyses22 of leveraging digital technologies and e-commerce for inclusive and sustainable development. While e-commerce development in the region has largely been market driven, policy plays a critical role in gearing e-commerce towards inclusive and sustainable development objectives.

The secretariat also implemented extra-budgetary projects to enhance the capacity of government officials in various areas of digital connectivity in support of the implementation of the AP-IS. These projects include the RECI project (2018-2021); the project on "Enhancing Regional Broadband Connectivity through the Implementation of the AP-IS Initiative in Countries with Special Needs" (2019-2021); the project on "Frontier Technology Policy Experimentation and Regulatory Sandboxes in Asia and the Pacific" (2021 -2023); the project on "Enhancing Digital Connectivity and Transformation for Building Back Better Post-COVID-19" (2021-2023); and the project on "Promoting Inclusive Digital Development in Support of the Implementation of the AP-IS" (2021-2023).

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[21] The list of APCICT activities since 2018 is available at: https://e-learning.unapcict.org/. The list of APCICT publications is available at: https://www.unapcict.org/resources/publications.
[22] The list of TIID publications is available at: https://www.unescap.org/kp?f%5B0%5D=kp_programme_of_work_facet%3A178.