Accelerating Digital Connectivity in North and Central Asia

Expert Group Meeting on the Implementation of the Vienna Programme of Action in North and Central Asia

15:35 to 15:50 BKK time, 7-8 June 2023

Hybrid (online), Almaty, Kazakhstan

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The new resolution


sets forth a series of actions and commitments aimed at advancing digital connectivity and transformation within our region and beyond.

The two key points of the resolution are that member States are encouraged to implement the APIS Action Plan 2022-2026, and that the Government of Kazakhstan has committed to host the next Asia Pacific Digital Ministerial Conference in 2024.
Invite partners to join this network on ICT
Asia-Pacific is the most digitally divided region

Source: Produced by ESCAP based on data from various sources from UN agencies and global/regional organizations sources.
Global Digital Transformation Landscape

Digital Transformation Index Score

- 100
- 80
- 60
- 40
- 20
- No data

**UNited Nations Geospatial**
The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.
Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.
A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

JUL 2022
Digital transformation aims at (1) strengthening national competitiveness, (2) boosting the productivity of business and manufacturing, and (3) providing people with new values and services.

AP-IS action plan 2022-2026 provides an overarching framework and regional platform for the implementation of actions along 3 digital transformation pathways.
The conversion of analog information converted, stored, processed, managed, and transmitted in a digital format.

The process of leveraging digital technology and data to improve business processes, model and values.

The new development paradigm change and its process of the whole society fabric of value creation, management, use and distribution by using disruptive technologies including AI, digital data, connectivity and network.

(Luo and Wee, 2021)
• 3 development stages x 5 pillars = 15 domains

• 105 DTI indicators
Data Availability and Credibility Matters

GLOBAL VS. ESCAP

GLOBAL
(107 out of 194)

ESCAP
(25 out of 50)

INCOME LEVEL

- High-income
  - Included: 46
  - Not included: 13

- Upper-middle-income
  - Included: 26
  - Not included: 25

- Lower-middle-income
  - Included: 28
  - Not included: 27

- Low-income
  - Included: 7
  - Not included: 22
Set the Accounting Framework Data Set

**Steps to follow the Group Work:**

1. Identify the DATA USERS & DATA PRODUCERS: participants should choose a card that designates, based on colour, either a data user or producer & write down the name of one relevant institution or stakeholder group per card.

2. Place the data users and producers on a respective space in a two-dimensional graph that answers two questions: (i) How interested in data accounts is the stakeholder? (ii) How much influence do they currently have on data accounts?

3. Define some engagement approaches to increase the demand for data and the contributions of data producers –
   (a) shift high-influence/low-interest stakeholders to high-influence, high-interest stakeholders;
   (b) to enable low influence/high-interest stakeholders, to become more influential.

Engagement approaches: awareness raising, training, dialogue, negotiation, lobbying, regulation, incentives, motivation, inspiration, development of state programmes, partnership offers, state budget allocations, media and outreach, research and analysis, investment programmes, identifying mutual benefits.

*Sustainability Outlook Tool: Ten Steps Towards Integration Using the Systems Thinking Approach | SDG Help Desk (unescap.org)*
E-resilience Readiness Framework of ESCAP

ICT indicators under four thematic cross-cutting areas to model the e-resilience framework in the background of Hazard and Exposure index

- ICT infrastructure as a physical foundation for the above
- ICT policy in different sectors
- ICT’s role in setting up new systems and applications
- ICTs’ role in data management

Source: https://www.unescap.org/projects/e-resilience
The data scores per pillar on e-resilience of 2020 and 2022 for Kyrgyzstan have shown very good performance against Hazard & Exposure, showcasing the strong political will and broad consensus for steps towards a more resilient society. There is also an indication of progress in terms of Policy pillar of e-resilience. Kyrgyzstan may benefit from expanding cooperation in adoption of new and emerging technologies, taking measures for lowering the costs for internet access, as well as in developing robust system national cybersecurity policies following the international and regional best practice.

Indicator Name: HAZARD & EXPOSURE (0-10 max /highest risk)  
Country: Kazakhstan

Year of data access: 2022  
Score: 2.40

Initial Source of data: Joint Research Centre (JRC), the European Commission's science and knowledge service.

Description:
The hazard & exposure dimension reflects the probability of physical exposure associated with specific hazards. There is no risk if there is no physical exposure, no matter how severe the hazard event is. Therefore, the hazard and exposure dimensions are merged into hazard & exposure dimension. As such it represents the load that the community has to deal with when exposed to a hazard event. The dimension comprises two categories: natural hazards and human-induced hazards, aggregated with the geometric mean, where both indexes carry equal weight within the dimension. The INFORM Risk model describes three dimensions of risk: hazards & exposure, vulnerability and lack of coping capacity dimensions.

Color Code Interpretation:
0% – 30.9% - Red: the least network-ready economy in the pillar or component concerned. Requires more investments or support from other member states to achieve e-resilience.
31% – 44.9% - Orange: the economy does not perform well enough in the pillar or component concerned. In transition and requires more resources and capacity building and investments to achieve better e-resilience.
45% - 59.9% - Yellow: the economy is a good performer when it comes to the pillar or component concerned, nevertheless there is room for improvement which requires some more resources and capacity building to become more e-resilient.
60% – 74.9% - Light green: the economy is a strong performer as a result of solid showings in the pillar or component concerned. Ready for sharing experiences, services and tools (ex. e-platforms and e-market spaces) at interstate level, and there is some room for improvement to become more e-resilient.
75% – 100% - Dark green: the economies, which are the global leaders and most network-ready societies performing at the highest level in the index pillar or component concerned. Which in turn demonstrates high e-resilience and readiness for interstate share of experience and services.
E-Resilience Monitoring Dashboard

Country Group: NCA
Country: All
Pillar: ICT infrastructure as a physical ...
Indicator: 4G mobile network coverage (0-100 % max)

Year: 2020, 2022

Georgia: 100, 100
Armenia: 90, 100
Tajikistan: 80, 80
Russian Federation: 70, 89
Kazakhstan: 75, 81
Kyrgyzstan: 70, 85
Azerbaijan: 49, 93
Turkmenistan: 67, 66
Uzbekistan: 66, 66

Note: The source of data and units are in the tooltip on Page 1
E-Resilience Monitoring Dashboard

Country Group: LLDC
Country: All
Pillar: ICT policy in different sectors
Indicator: Government Effectiveness (-2.5 - 2.5(max))

Year: 2020 - 2022

Note: The source of data and units are in the tooltip on Page 1.
E-resilience Profile of NCA Per Pillar

1. Overall, the **ICT infrastructure** aspect of e-resilience in the NCA region is acceptable and improving, demonstrating both governments and people’s commitment to advancing digital transformation; furthermore, the data shows a clear and growing preference for mobile devices instead of traditional laptops and computers in all NCA countries:
   - economic crisis following the pandemic has reduced Internet access affordability.

2. Regional scores for **the ICT policy pillar** are similar between countries and moderately high, signaling an even development.
   - However, although NCA governments have launched several policies to improve their legal framework’s adaptability to emerging technologies, indicators show that regulatory quality has decreased in at least four out of six countries between 2020 and 2022, which is also weakening the e-resilience profile of these countries.
E-resilience Profile of NCA Per Pillar (ctd)

3. Despite the economic crisis, most NCA economies have improved their performance regarding the development of **new systems and applications** and appear to be set up for further progress.
   - On a regional level, the New System and Apps pillar appears to be the weakest one, leaving most ICT ecosystems in a state of rigidity: boosting the value of its related indicators must be given absolute priority (especially by Central Asian countries).

4. Nearly all NCA countries should pay better attention to the digital **data management**:
   - low levels of e-participation, paired with the widening gender and socioeconomic gap, hinder the success of modern businesses and organizations.

5. **Hazard exposure**-related performances across the region are uneven.
   - Central Asian countries display adequate levels of protection, while Azerbaijan and Armenia suffer from extremely low levels of preparedness that severely damage their overall e-resilience score.
Key Take Aways for NCA economies

- support the affordability of mobile tariffs and transition to mobile broadband, focus on post-pandemic economic recovery to boost levels of purchasing power across-the-board.
- consider increasing the number of ISPs (Internet service providers) on their territory
- protect data centres through comprehensive safety policies, possibly referring to globally recognized standards (ref Uptime Institute)
- increase regulatory quality and improve transparency through e-governance and new anti-corruption mechanisms, empowering third parties to monitor behavior in cyberspace.
- enable fast-paced and productive digital industry, through Business Continuity Plans (BCPs) by SMEs; create offsite backups, adoption of autonomous power supply technologies, usage of online applications for early warning, and cloud computing
- promote government R&D expenditure and invest in emerging technologies to guarantee advancements; dialogues and joint development initiatives at the sub-regional level will be useful.
- ensure that web services are up-to-date and secure and provide better financial services and education to rural populations include locating public Internet access in safe spaces, improving the affordability of devices and data plans, and organizing tailored digital skills programs in local languages.
- Ensure regional collaboration, with a strong focus on the co-deployment of Fibre Optic Cables alongside passive infrastructure (highways, railways, and electricity grids) as well as next-generation physical networks.
- Asia-Pacific Information Superhighway (APIS) provide partnership opportunities as the sole region-wide intergovernmental cooperation platform promoting inclusive digital transformation among Member States.
- establish natural disaster early warning platforms and simulate disaster relief scenarios for smoother defense and decision-making.
Eight Leverage Points of Digital Technologies and Digital Data for Climate Action and Trade Facilitation

1. Create innovation via digital connectivity including access to information and resources.
2. Increase productivity through increasing the scale of economy, for example in the energy sector and manufacturing.
3. Promote sustainable consumption, by decreasing waste of materials, and reducing carbon emissions.
4. Directly support environmental protection and conservation through remote sensing, GIS and digital twin technologies.
5. Enhance effectiveness through transparency and accountability.
6. Strengthen resilience (monitoring and predicting weather patterns and disasters).
7. Support the transition to a low carbon economy (such as electric vehicles and renewable energy systems).
8. Provide high tech integration through ICT platforms, AI and cloud-based technologies.
The 2022 Gartner Hype Cycle Informs on Limitations and Opportunities for Climate Action

Source: www.gartner.com
Policymaking for the Way Forward

I. ESCAP Regional Workshop on Digital Inclusion (6-7 September 2023, Bangkok)

II. SPECA WG on Innovation and Technology with ECE and ESCAP (18-19 October 2023, Tashkent)

III. ESCAP Asia Pacific High-level Forum for Global Digital Compact (24 October 2023, Seoul, Korea, TBD)

IV. ESCAP 7th Steering Committee of the Asia Pacific Information Superhighway (8-9 November 2023, Yerevan, TBD)

V. ESCAP Asia Pacific Digital Ministerial Conference on Digital Inclusion and Transformation (TBD, October 2024, Astana)
References

- Asia-Pacific ICT & DRR Gateway
- ICT and Disaster Risk Reduction | ESCAP (unescap.org)
- e-Resilience Monitoring Dashboard | ESCAP (unescap.org)
- Asia-Pacific digital transformation report 2022: shaping our digital future | ESCAP (unescap.org)

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