

Key messages:

- The COVID-19 pandemic has highlighted the gap between e-resilient and vulnerable economies. It has brought into focus the need for an immediate digital transformation of the economy both publicly and privately, for which the high-speed internet access and digital integration of the entire nation are necessary.
- To overcome the consequences of the COVID-19 pandemic and reduce further exposure to its continued effects, there is a vast need to speed up the introduction and application of public and private e-services. Education, social aid, healthcare, banking and finance, trade, and freight including cross-border import-export-transit operations are the fields of the special focus of ICT interventions and respective cooperation within the SPECA region and beyond.
- Kyrgyzstan's landlocked status, leaving the country less connected and besides of the main international transport corridors is to be strategically addressed in the medium and long term. Regional collaboration and integration are the key to progressing in this direction. The legal changes to set up a more favourable investment environment, private sector involvement as well as infrastructure co-deployment including through the integrated international transport corridors laid on the territory and connecting the country with the outside world are the required measures.



KYRGYZSTAN: THE WAY AHEAD TO ADDRESS E-RESILIENCE READINESS AND CO-DEPLOY INFRASTRUCTURE

Introduction

The COVID-19 pandemic brought significant economic loss to Kyrgyzstan in 2020 (-8,6% of GDP) and continues to slow down the economy in 2021.¹ Disruptions to the air and road transport cross-border and transit operations, and the entire service sector were the main generators of the loss. The ICT sector being comparably stable itself was not able to contribute significantly to reducing economic dropdown due to limited development of ICT networks, e-services, and e-businesses inside of the country and for cross-border operations and interactions.

This Policy Brief communicates online tools capable to keep decision makers and the public aware of the status of the country with e-resilience readiness as well as to assess co-deployment opportunities and initiate infrastructure projects enabling the country to be more resilient and less exposed to the pandemics such as COVID-19

Where does Kyrgyzstan stand with e-resilience readiness

The e-resilience readiness monitoring panel as a planning tool has been introduced recently by ESCAP. ESCAP also held dedicated surveys and developed analytical reports on e-resilience readiness of Kazakhstan, Kyrgyzstan, and

Mongolia² as well as of the entire SPECA region.³ The four-pillar measuring e.g. the **ICT related country policy** for various sectors of the economy, the **ICT role in developing new systems and products** as for e-adapting and recovery from COVID-19, the **role of the ICT in data gathering and management**, those driving

¹ <http://mineconom.gov.kg/froala/uploads/file/137ff8773a6fcb9a3663f16e9166d7fa2c5f29f8.pdf>

² <https://www.unescap.org/sites/default/d8files/knowledge-products/ASSESSING%20E-RESILIENCE%20in%20Kazakhstan%2C%20Kyrgyzstan%20and%20Mongolia.pdf>

³ https://www.unescap.org/sites/default/files/Understanding%20of%20the%20E-Resilience%20Framework%20for%20Crises%20Preparedness%20in%20RECI%20and%20SPECA%20countries%2C%20Ms.%20Aid%20Karazhanova_0_0.pdf

and respectively digital services to people and the economy.

In order to overcome limited links to the main infrastructure connecting landlocked Central Asia with the rest of the world, the Government of Kyrgyzstan has put significant efforts to build land transport and power transmission infrastructure crossing the country. On one hand, these provide access to the main international transport corridors built through Central Asia while on the other hand, they interlink the interior of the country, better connecting provinces and districts geographically split by mountains.

Infrastructure co-deployment significantly reduces the cost of construction and increases the efficiency of the investments as the recent experience with co-deployed development of the Data-Kemin Power Transmission Line and FOLC as part of CASA-1000⁷ and DIGITAL CASA-Kyrgyz Republic⁸ projects have demonstrated. So

far, it was the only renowned case of the infrastructure co-deployment in Kyrgyzstan. There is a need to frame up the legal and policy bases, build regulations and co-deployment standards, generate cross-sector interests and programmes to truly enable ICT co-deployment with the other infrastructure.

Representatives of respective Government agencies and experts participated in the subregional and country workshops held in support of the above mentioned RECI project. The ESCAP Secretariat undertook background studies including on Kyrgyzstan⁹ and developed a methodology.¹⁰ These served as a foundation for two newly launched online tools to promote and technically enable ICT infrastructure co-deployment both among the group of neighbour countries and inside of one country to pledge and then justify infrastructure co-deployment.

Co-deployment Partnership Portal

The Partnership Portal on Co-deployment¹¹ is a generic online facility to assess co-deployment opportunities, set up bilateral and multilateral partnership communication, generate interests and commitments as well as initiate co-deployment projects. The essence of the tool is in its powerful technical and substantial backup with pre-assessed measurement, background database and programmed calculating algorithms, which have been developed by a highly professional team of ICT and infrastructure co-deployment experts.

To communicate it among target countries and their interested institutions and then to train experts, the ESCAP Secretariat invited ITLLDC to collaborate. Experts representing the state-owned enterprises in the energy sector, private telecommunication operators took part in the online training session for Kyrgyzstan held on May 21, 2021. ITLLDC employed its expertise to test the portal and share professional views on possible improvements and the vision of the future for the country and relevant ministries, agencies, and state-owned as well as private companies with the co-deployment portal.

Simulator of the Integrated Infrastructure Corridors

The Simulator of the Integrated Infrastructure Corridors¹² is logically bound with the above co-deployment portal and serves for in-depth assessment and justification of the benefits of

the infrastructure co-deployment within agreed and planned integrated corridors. The Simulator includes among others the **Almaty – Cholpon-Ata** integrated transport corridor, which was

⁷ CASA-1000: <http://www.casa-1000.org>.

⁸ https://www.itu.int/en/ITU-D/Regional-Presence/CIS/Documents/Events/2018/06_Dushanbe/Presentations/ITU%20Workshop%2029%20May%202018%20-%20Aida%20Sharsheeva.pdf

⁹ https://unescap.org/sites/default/d8files/National_Report_Kyrgyzstan_Russian_ids.pdf

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https://www.unescap.org/sites/default/d8files/knowledge-products/Output%202%20Methodology_Part_II_EN_2.pdf

¹¹ <https://drrgateway.net/partnership-portal-co-deployment>

¹²

<https://broadband.shinyapps.io/SmartCorridorsSimulator/>

proposed by experts from Kazakhstan and Kyrgyzstan at the joint workshop of the RECI project in October, 2019. Following the proposal of country experts at the above workshop the ESCAP Secretariat conducted an in-depth study¹³ and made Almaty - Cholpon-Ata a model corridor for infrastructure co-deployment.

ITLLDC employed its expertise to test the Simulator and to communicate the benefits of using it among relevant government agencies as well as research and development institutions and private companies.

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<https://www.unescap.org/sites/default/d8files/knowledge>

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[products/Output%201%20Analysis%20of%203%20corridors_Part I EN 1.pdf](#)

Conclusions and Recommendations

The way ahead with the e-resilience readiness monitoring dashboard

- The Dashboard enables decision makers and experts in Kyrgyzstan to assess and compare where the country stands with ICT, e-services and e-businesses, and then foster their development to be better prepared and e-resilient to pandemics and the other extreme events. Further use of it would allow to trace and compare the progress made, build regular millstone reporting and enable the formulation of regulations, policies and decisions. The shared use of the dashboard would also leverage the cooperation among respective countries and set up the baseline for developing joint and country programmes and actions.
- Kyrgyzstan may put more efforts to improve online financial services, social networks, and online services (OSI), which may include the development of a national portal, e-services portal, and e-participation portal, as well as the websites of the related ministries of education, labour, social services, health, finance, and environment, as applicable.
- Kyrgyzstan is highly regarded in the digitalization level of businesses and mobile applications. Nevertheless, neither e-commerce nor emerging technologies have reached their full potential yet. Therefore, expanded investment and promotion for advanced technologies from both public and private sectors are required to adopt new systems and applications in accordance with the enhancement of e-resilience.

Infrastructure co-deployment

- Kyrgyzstan declares that international land transport corridors are among the key development priorities of the country in the coming 10 to 20 years.¹⁴ Road infrastructure development is underway and there is a plan to extend the railway network, connecting Kyrgyzstan with China and Uzbekistan as well as internally. Power transmission lines are also developing. All these give an excellent opportunity for co-deployed development of the infrastructure specifically with ICT.
- The studies¹⁵ and online tools developed by the ESCAP Secretariat give a foundation and capability to leverage infrastructure co-deployment both inside of Kyrgyzstan and with neighboring countries while planning co-deployed development of the cross-border integrated corridors.
- The enhanced interest and cross-sectoral networking that emerged through the use of the co-deployment portal is to foster political will and development of the co-deployment policies, regulations and then strategies, programmes and projects. The Simulator, meanwhile, would visibly and thoroughly demonstrate the benefits of the co-deployment upon reaching pre-feasibility and feasibility phases of the co-deployment.

¹⁴ National Development Strategy of Kyrgyzstan by 2040. Available at:

<https://mfa.gov.kg/uploads/content/1036/3ccf962c-a0fc-3e32-b2f0-5580bfc79401.pdf>

¹⁵ https://www.unescap.org/sites/default/d8files/knowledge-products/Output%203%20Calculus%20Part_III_EN_2.pdf

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ESCAP, in collaboration with the ITLLDC helped Kazakhstan, Kyrgyzstan, and Mongolia to assess the needs and then to develop online tools for measuring e-resilience readiness, enabling and simulating ICT integration and co-deployment with other infrastructure specifically within the integrated international transport corridors.