

# E-Resilience Monitoring Dashboard

# User Guide

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[e-Resilience Monitoring Dashboard | ESCAP \(unescap.org\)](https://unescap.org/e-resilience-monitoring-dashboard)

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# Introduction

E-resilience is defined (ESCAP, 2020) as the ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, adapt to, transform, and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.

ESCAP secretariat updated its E-Resilience Dashboard in Power BI format in 2022 (working paper is published in 2023) to assess crisis preparedness through seamless digital connectivity to promote a digital policy environment and respond to recommendations of the SPECA Working Group on Innovation and Technology for Sustainable Development (2020, 2021, 2022).

This E-Resilience Monitoring Dashboard User Guide in ppt format provides comprehensive instructions on how to access the open source data on PowerBi platform to support economic groups, individuals, organisations, and decision-makers who utilise the E-Resilience Monitoring Dashboard Tool with a planning tool.

# Economic Groups



## ENE: East and North-East Asia

China D.P.R. Korea Hong Kong Japan Korea (Rep)  
Macao Mongolia Russian Federation

## RECI: Regional Economic Cooperation and Integration - Pilot Countries

Kazakhstan Kyrgyzstan Mongolia

## LDC: Least Developed Countries

Afghanistan Bangladesh Bhutan  
Cambodia Kiribati Lao P.D.R. Myanmar, Nepal  
Solomon Islands Timor-Leste Tuvalu Vanuatu

## LLDC: Land-locked Developing Countries

Afghanistan Armenia Azerbaijan Bhutan Kazakhstan  
Kyrgyzstan Lao P.D.R. Mongolia Nepal Tajikistan  
Turkmenistan Uzbekistan

## NCA: North and Central Asia

Armenia Azerbaijan Georgia Kazakhstan Kyrgyzstan  
Russian Federation Tajikistan Turkmenistan Uzbekistan

## PACIFIC: Pacific

American Samoa Australia Cook Islands Fiji  
French Polynesia Guam Kiribati Marshall Islands  
Micronesia, Nauru New Caledonia, New Zealand Niue  
Northern Marianas Palau Papua New Guinea Samoa  
Solomon Islands Tonga Tuvalu Vanuatu

## PACIFIC DEVELOPING: Pacific Developing

American Samoa Cook Islands Fiji French Polynesia Guam  
Kiribati Marshall Islands Micronesia Nauru New Caledonia  
Niue Northern Marianas Palau Papua New Guinea Samoa  
Solomon Islands Tonga Tuvalu Vanuatu

## PICS: Pacific Island Countries

Fiji Kiribati Marshall Islands Micronesia (Federated States of)  
Nauru Palau Papua New Guinea Samoa Solomon Islands  
Tonga Tuvalu Vanuatu American Samoa Cook Islands  
French Polynesia Guam New Caledonia Niue  
Northern Mariana Islands

## SA: South Asia

Afghanistan Bangladesh Bhutan India  
Maldives Nepal Pakistan Sri Lanka

## SEA: South-East Asia

Brunei Darussalam Cambodia Indonesia  
Lao P.D.R. Malaysia Myanmar Philippines  
Singapore Thailand Timor-Leste Viet Nam

## SSWA: South and South-West Asia

Afghanistan Bangladesh Bhutan India Iran (I.R.)  
Maldives Nepal Pakistan Sri Lanka Turkey

## SPECA: Special Program for the Economies of Central Asia

Afghanistan Azerbaijan Kazakhstan Kyrgyzstan Tajikistan Turkmenistan Uzbekistan



**ESCAP**  
Economic and Social Commission  
for Asia and the Pacific

# Function Icon



## Focus Mode

Enlarges any data set or interactive maps to full screen



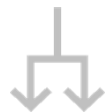
## Drill Up

Folds all the detailed indicators



## Drill Down

Unfold specific indicators that users select



## Next Level in the Hierarchy

Opens all the indicators



## Expand All

Opens all pillars and the indicators

# Filter (Slicer)

order

up filter must be selected initially to use the country filter

in the selected pillar

indicator

Country Group	Country	Pillar	Indicator	Year
<input type="radio"/> Kazakhstan Kyrgyzstan Mongo... <input checked="" type="radio"/> ENEA <input type="radio"/> Kazakhstan Kyrgyzstan Mong... <input type="radio"/> LDC <input type="radio"/> LLDC <input type="radio"/> NCA <input type="radio"/> Pacific <input type="radio"/> Pacific Developing <input type="radio"/> PICS <input type="radio"/> SA <input type="radio"/> SSA	<input type="checkbox"/> Afghanistan <input type="checkbox"/> Armenia <input type="checkbox"/> Azerbaijan <input type="checkbox"/> Bhutan <input type="checkbox"/> Kazakhstan <input type="checkbox"/> Kyrgyzstan <input type="checkbox"/> Mongolia <input type="checkbox"/> Nepal <input type="checkbox"/> Tajikistan <input type="checkbox"/> Turkmenistan	<input type="checkbox"/> DRR background <input type="checkbox"/> ICT infrastructure as a physical... <input type="checkbox"/> ICT policy in different sectors <input type="checkbox"/> ICT's role in setting up new sy... <input type="checkbox"/> ICT's role in setting up new sy...	<input type="checkbox"/> 4G mobile network coverage (... <input type="checkbox"/> Active mobile-broadband sub... <input type="checkbox"/> Adoption of emerging technol... <input type="checkbox"/> Adult Literacy (0-100% max) <input type="checkbox"/> Availability of local online cont... <input type="checkbox"/> Computer software spending (... <input type="checkbox"/> Cybersecurity (0-1max) <input type="checkbox"/> DRR Implementation 0 - 10 (... <input type="checkbox"/> Ease of doing business (0-100 ... <input type="checkbox"/> E-commerce legislation (0-4 ...	<input checked="" type="radio"/> 2020 <input type="radio"/> 2022 <input type="radio"/> 2024 <input type="radio"/> 2026

# Data Table (Front Page)

Pillar	Name	China	Dem.Korea	Hong Kong(China)	Japan	Macao(China)	Mongolia	Rep. Korea	Russian Federation
ICT infrastructure as a physical foundation	4G mobile network coverage (0-100 % max)	99.40		99.99	99.00		45.00	99.90	70.00
	Active mobile-broadband subscriptions per 100 inhabitants (0-100 % max)	93.46	8.82		100.00		88.72	118.62	87.98
	Computer software spending (0-100 % max)	33.77		31.90	24.50		11.06	30.70	19.91
	Fixed (wired) broadband subscriptions per 100 inhabitants	18.51			32.62		9.84	41.60	20.90
	Fixed-broadband subscriptions, > 10 Mbit/s, % of total fixed-broadband subscriptions (0-100 % max)	98.47		85.86	91.19		11.1	100.00	76.74
	Handset prices (%monthly GDP per capita) (0-100 max)	46.73		66.04	71.50		30.61	63.16	58.97
	International Internet bandwidth per internet user (kbit/s)	27,722.32		9,205,821.38	26,888.68		22,399.44	53,107.47	68,025.95
	Internet access in schools (0-100 % max)	98.23		99.12			70.66	100.00	98.25
	Mobile cellular subscriptions per 100 inhabitants (0-100 max)	115.53	84.82		100.00		100.00	100.00	100.00
	Mobile tariffs (%monthly GDP per capita) (0-100 % max)	79.82		81.88	53.59		50.51	80.65	86.09
	Percentage of households with a computer (0-100 % max)	55.00		77.60	76.38	73.59	29.99	71.74	69.39
	Percentage of households with Internet access at home (0-100 % max)	59.46		90.12	96.53		44.74	99.46	76.52
	Percentage of individuals using the internet (0-100 % max)	54.30			91.26		47.16	96.02	80.86
	Adult Literacy (0-100% max)	96.84	100.00		99.00		98.21	99.00	99.73
	Cybersecurity (0-1max)	0.10			0.00		0.47	0.00	0.44
ICT policy in different sectors	DRR Implementation 0 - 10 (max, the worst)	1.90			3.94		5.10	0.56	
	Ease of doing business (0-100 max)	84.51		97.44	94.40		69.40	95.11	84.78
	E-commerce legislation (0-4 max)	4.00			4.00		3.00	4.00	3.00
	Government Effectiveness -2.5 - 2.5(max)	0.52	1.00	1.74	1.00	1.17	-0.19	1.55	0.15
	ICT Regulatory Environment (0-100 max)	44.02			71.24		67.96	81.86	35.91
	Legal framework's adaptability to emerging technologies (1-7 max)			4.62	4.23		2.20	4.40	3.80
	mean year of schooling	7.90	5.47		12.80		10.20	12.00	12.00
	Public trust in politicians 1-7 (max)	4.00		4.80	4.50		2.50	2.50	
	R&D expenditure by governments and higher education (% of GDP) (0-100 max)	42.53		0.00	64.69		8.21	92.41	17.00
	Regulatory quality -2.5 - 2.5 (max)	-0.14		2.21	1.33		-0.03	1.09	-0.54
	Secure Internet servers (per million population)	734.98		80,546.13	18,701.35		1,690.46	4,543.84	9,339.02
	Adoption of emerging technologies (1-7 max)			4.75	5.10		2.67	8.70	8.00
	Firms with website, % of total (0-100 % max)	65.71			96.24		32.51	64.94	56.89
	Government promotion of investment in emerging technologies (1-7 max)			4.93	4.64		2.41	4.89	3.81
	High-tech exports, % of total exports (0-100% max)	59.57		100.00	32.18		8.41	61.33	10.70
ICT's role in setting up new systems and applications	ICT PCT patent applications	58.38		69.94	55.14		0.00	82.85	18.40
	Internet shopping, % (0-100 % max)	58.06		54.55	58.85		8.40	92.94	34.47
	Investment in emerging technologies (1-7 max)	3.59		3.58	3.20		3.32	4.84	3.55
	Medium- and high-tech industry (0-100% max)	52.90		47.67	71.85		10.19	81.42	38.54
	Mobile apps development	62.76		95.35	80.31		66.05	83.40	73.15
	Prevalence of gig economy (1-7 max)			4.45	3.85		3.14	4.47	4.51
	R&D expenditure by businesses, % of GDP	42.53		0.00	64.69		0.51	92.41	17.00
	Availability of local online content (1-7max)	4.67		5.90	6.09		3.80	5.40	5.22
	E-Participation (0 - 1 max)	0.00			0.99		0.61	1.00	0.81
	Gender gap in internet use (1= balanced)			0.97	0.95		1.00	0.99	0.96
	GitHub commits per 1,000 population	3.39		26.97	16.00		3.23	13.90	13.97
	ICT skills (1-7 max)	4.66		5.24	4.43		3.78	4.99	4.95
	Online access to financial account (0-1 max)	0.50		0.45	0.34		0.40	0.71	0.44

Data Table shows the ICT scores and corresponding colors of indicators belonging to the countries.

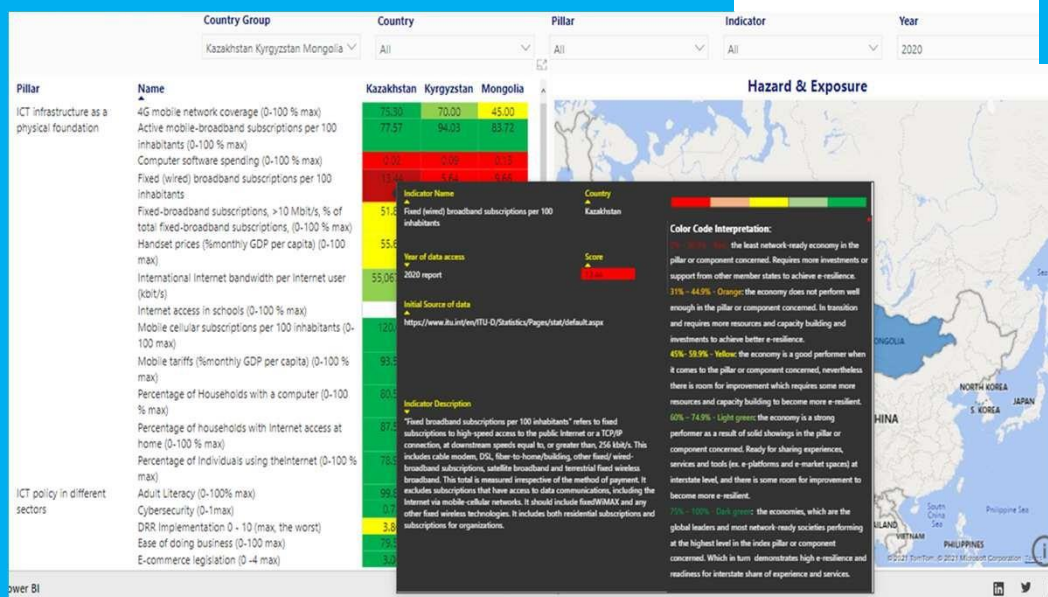
Clicking Pillar and Name to sort the indicators again.

Clicking each country to highlight the selected country.

It should be noted that the dashboard has data for 2022.



# Data Table linked to Map (Front Page)



Data Table and Tooltip shows the ICT scores and corresponding colors of indicators belonging to the countries and the colour code legend

The data tables are also linked to the interactive geographic maps, highlighting economic groups with tooltip of data on scores of hazard and exposure



<b>Indicator Name</b> ▲	<b>Country</b> ▲	
Active mobile-broadband subscriptions per 100 inhabitants (0-100 % max)	Kazakhstan	
<b>Year of data access</b> ▼	<b>Score</b> ▲	
2020 report	77.57	
<b>Initial Source of data</b> ▲		
<a href="https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx">https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx</a>		
<b>Indicator Description</b> ▼		
The term "active mobile-broadband subscriptions" refers to the sum of data and voice mobile-broadband subscriptions and data-only mobile-broadband subscriptions to the public Internet. It covers subscriptions actually used to access the Internet at broadband speeds, not subscriptions with potential access, even though the latter may have broadband-enabled handsets. Subscriptions must include a recurring subscription fee to access the Internet or pass a usage requirement – users must have accessed the Internet in the previous three months. It includes subscriptions to mobile-broadband networks that provide download speeds of at least 256 kbit/s (e.g. WCDMA, HSPA, CDMA2000 1x EV-DO, WiMAX IEEE 802.16e and LTE), and excludes subscriptions that only have access to GPRS, EDGE and CDMA 1xRTT.		

#### 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.

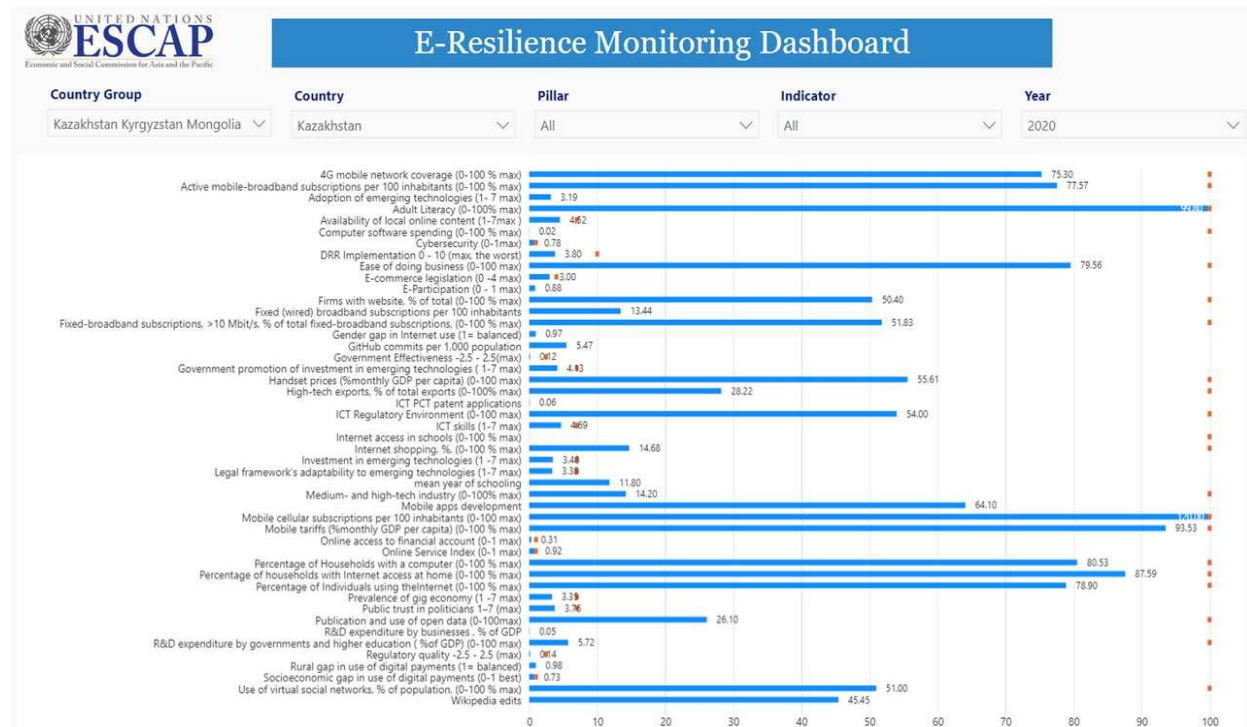
75% – 100% - Dark green: the economies, which are the global leaders and most network-ready societies performing at the highest level in the index pillar or component concerned. Which in turn demonstrates high e-resilience and readiness for interstate share of experience and services.

## Data Table Tooltip (Front Page)

Tooltip appears when user hovers the mouse over certain data on the table

Tooltip displays Indicator Name, Country, Year of data access, Score, Source of data, Description of the the indicator

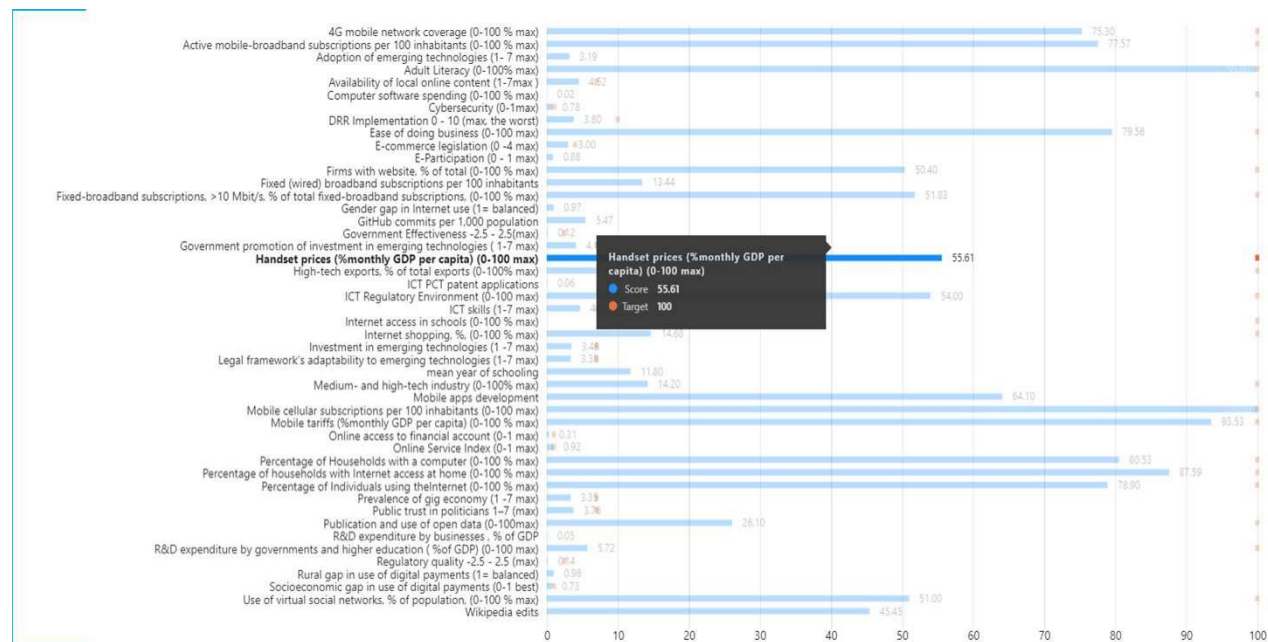
# Bullet Chart (2<sup>nd</sup> Page)



Bullet Chart shows the bullet data of all the indicators for each country

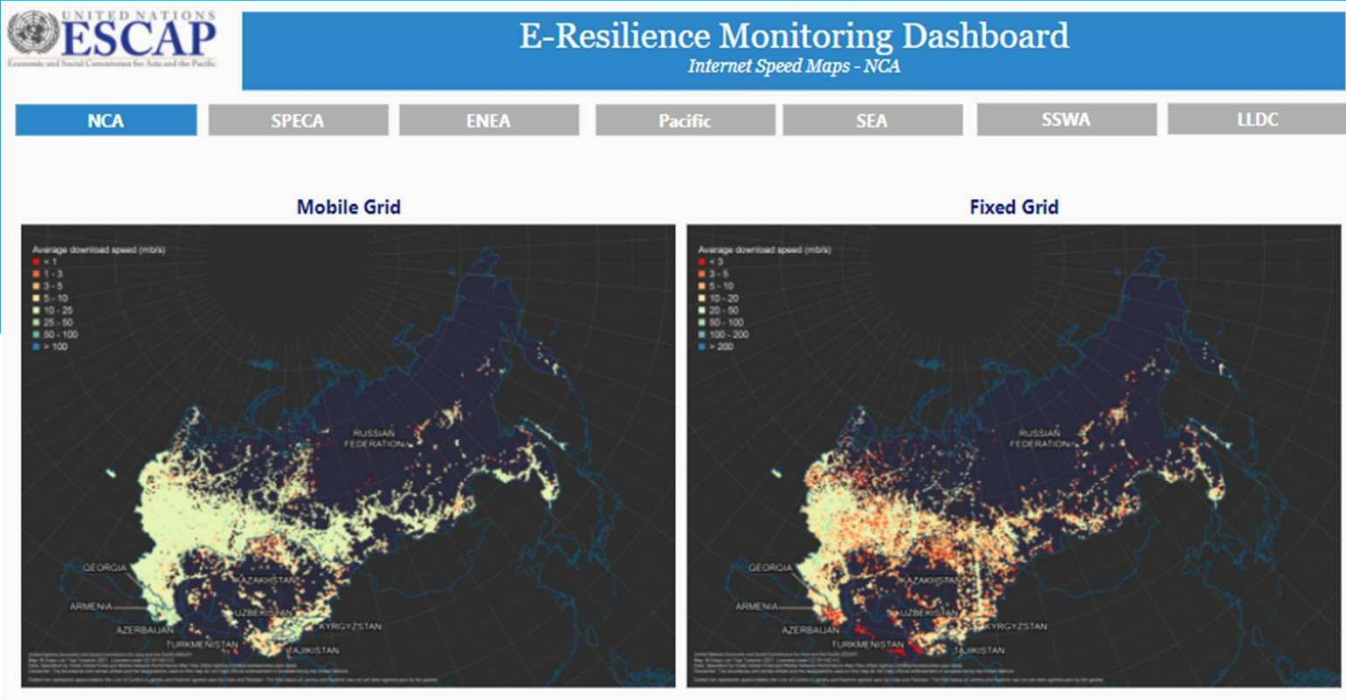
The Chart displays the score of indicators against the target score

# Bullet Chart Tooltip (2<sup>nd</sup> page)



Tooltip appears when hovering the mouse over the bar of certain indicator on the table

Tooltip highlights specific value of the Current Score and the Target Score

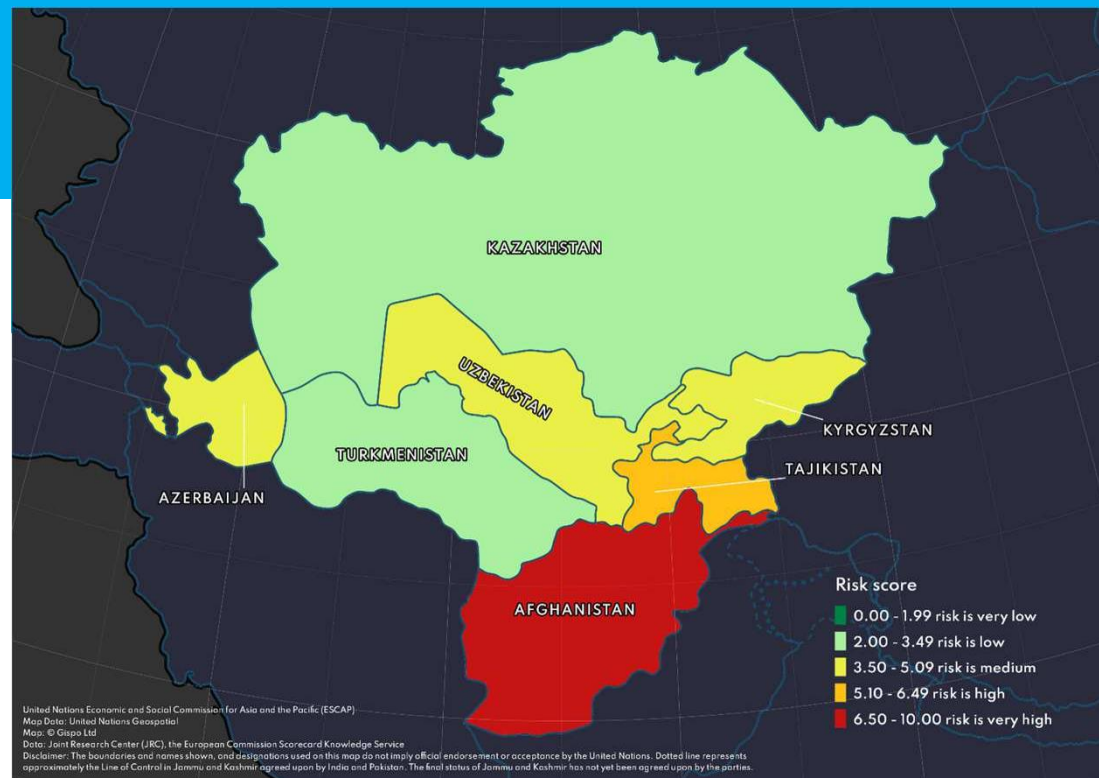


## Internet Speed Maps (3<sup>rd</sup> Page)

Internet Speed Maps displays the mobile and fixed grid format of the seven country groups. Both types of the map displays the Average Download Speed. Navigate each country group through the sections above the map.

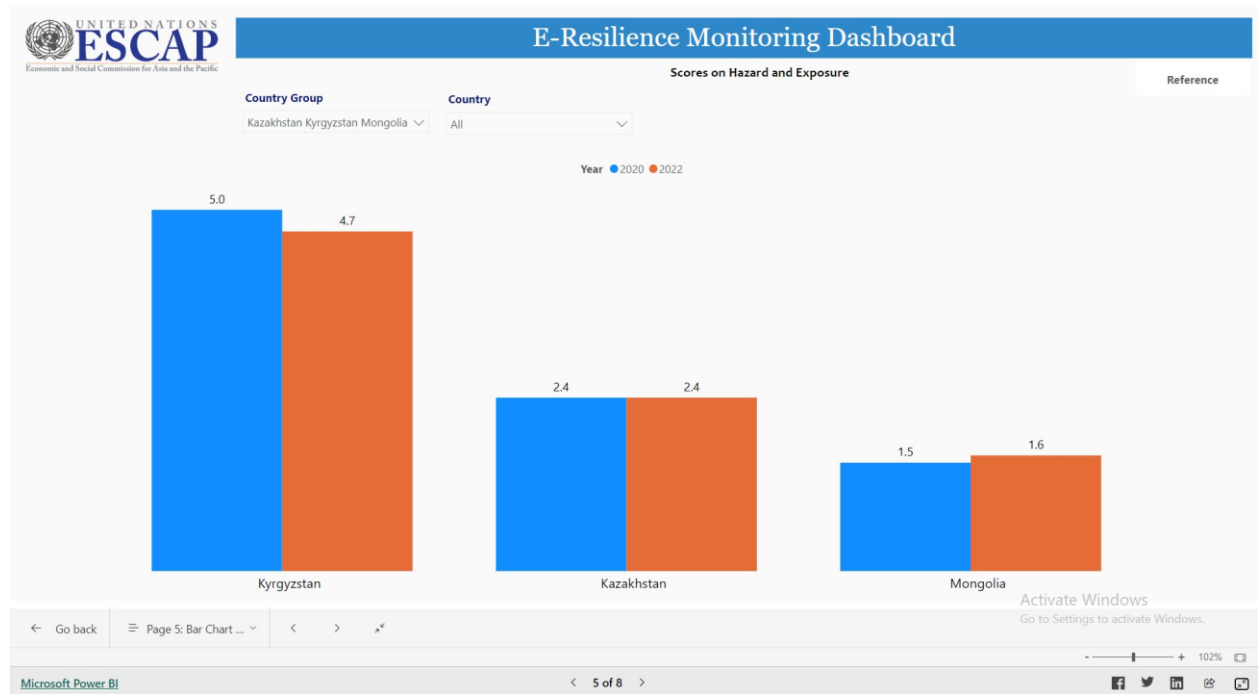


## Hazard Maps (4<sup>th</sup> Page)



Hazard Maps display the risk score of each countries. The country groups can be selected on the left side of the map.

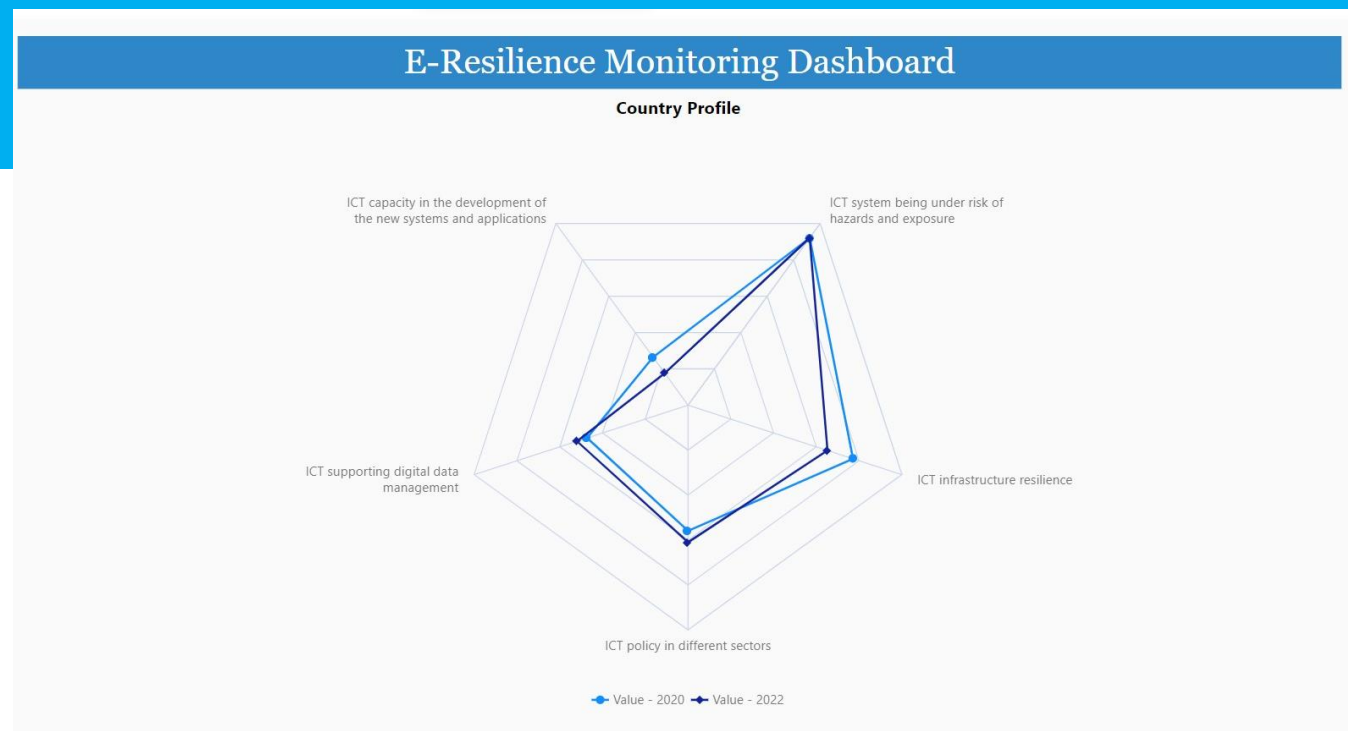
# Bar Chart of Hazard and Exposure (5<sup>th</sup> page)



A bar chart of hazard and exposure represents a graphical representation of data that illustrates the relationship between two variables: hazard and exposure.

This visual representation allows stakeholders to quickly identify which hazards have the highest potential risk due to their level of exposure and make informed decisions regarding risk mitigation and management.

## Country profiles (6<sup>th</sup> Page)

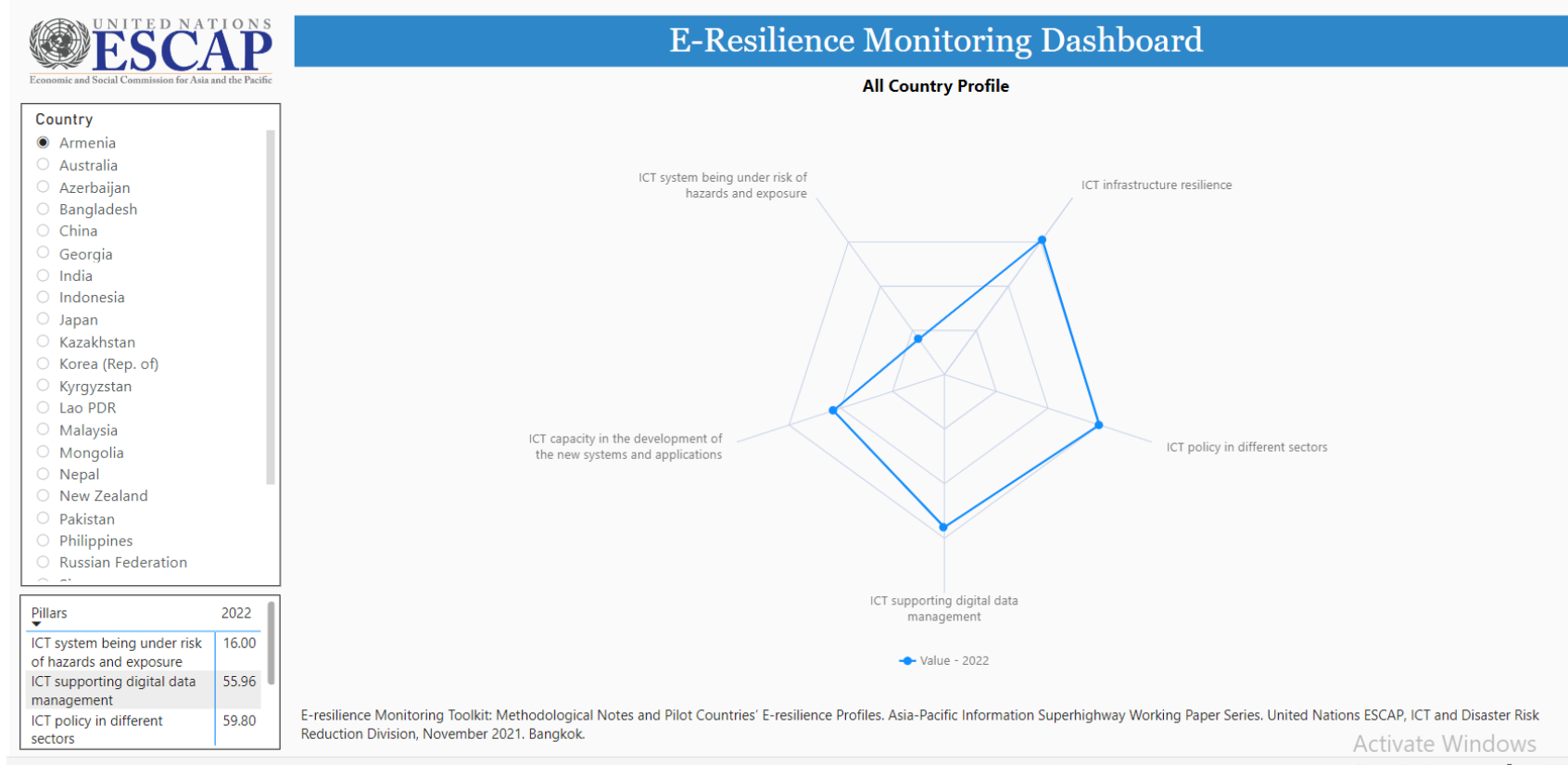


Country profiles are presented in the form of pentagonal diagrams, which represent all 5 pillar.

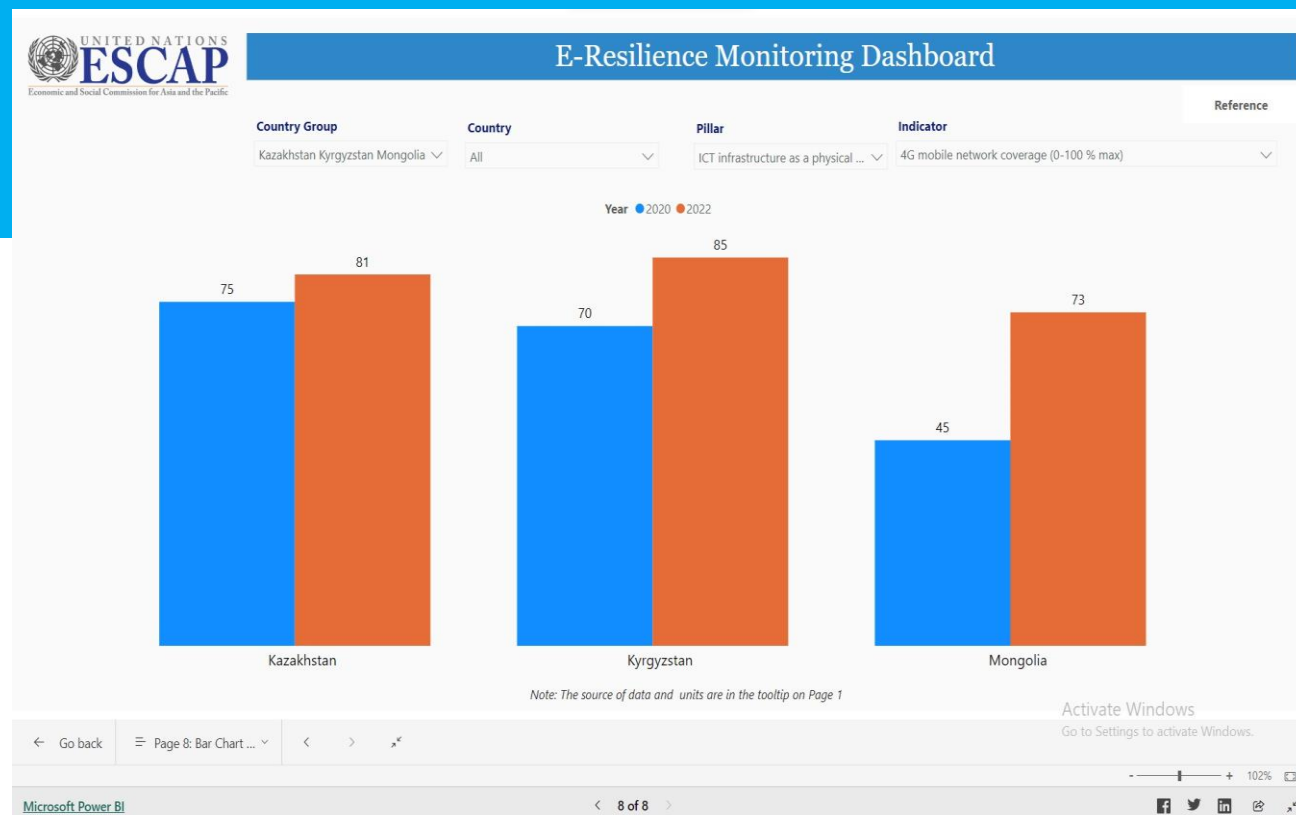


# All Country Profiles for 2022

## (7<sup>th</sup> Page)



## Bar Chart of e-Resilience (8<sup>th</sup> Page)



The bar chart of e-resilience represents a visual representation of the e-resilience levels of different countries. The bar chart of e-resilience can help depict and compare the e-resilience levels.

## ICT Policy in Different Sectors (pillar)

Ease of Doing Business

Legal Framework's Adoptability to Emerging Technologies

E-Commerce Legislation

ICT Regulatory Environment

Secure Internet Servers

Cybersecurity

Regulatory Quality

Audit Literacy

Mean Year of Schooling

R&D Expenditure by Governments and Higher Education

Public Trust in Politicians

Government Effectiveness

DRR Implementation

# ICT Infrastructure as a Physical Foundation (pillar)

Mobile Cellular Subscriptions per 100 Inhabitants

Percentage of Individuals Using the Internet

Fixed Broadband Subscriptions per 100 Inhabitants

Active Mobile-Broadband Subscriptions per 100 Inhabitants

Mobile Tariffs

Handset Prices

Computer Software Spending

Percentage of Households with Internet Access at Home

Percentage of Households with a Computer

4G Mobile Network Coverage

Fixed-Broadband Subscriptions

International Internet Bandwidth per Internet User (kbit/s)

Internet Access in Schools

# ICT's Role in Data Management (pillar)

Online Service Indicator (OSI)

GitHub Commits per 1,000 Population

Wikipedia Edits

Availability of Local Online Content

Use of Virtual Social Networks

ICT Skills

Publication and Use of Open Data

Online Access to Financial Account

E-Participation

Gender Gap in Internet Use

Rural Gap in Use of Digital Payments

Socioeconomic Gap in Use of Digital Payments

# ICT's Role in Setting up New Systems and Applications (Pillar)

ICT PCT Patent Applications

Firms with Website (% of total)

R&D Expenditure by Businesses

Government Promotion of Investment in Emerging Technologies

Investment in Emerging Technologies

Adoption of Emerging Technologies

Internet Shopping

Medium- and High-tech Industry

High-Tech Exports

Prevalence of Gig Economy

Mobile Apps Development

# Glossary of Terms; Abbreviations; Acronyms

DRR	Disaster Risk Reduction
E-Resilience	An ability of ICT systems to withstand, recover from and change in the face of external disturbance such as a natural disaster
GDP	Gross Domestic Product
Gig Economy	A labor market specific to digital platforms and to working arrangements that are focused on short-term contracts and task-based work
ICT	Information and Communications Technology
PCT	Patent Cooperation Treaty
R&D	Research and Development



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