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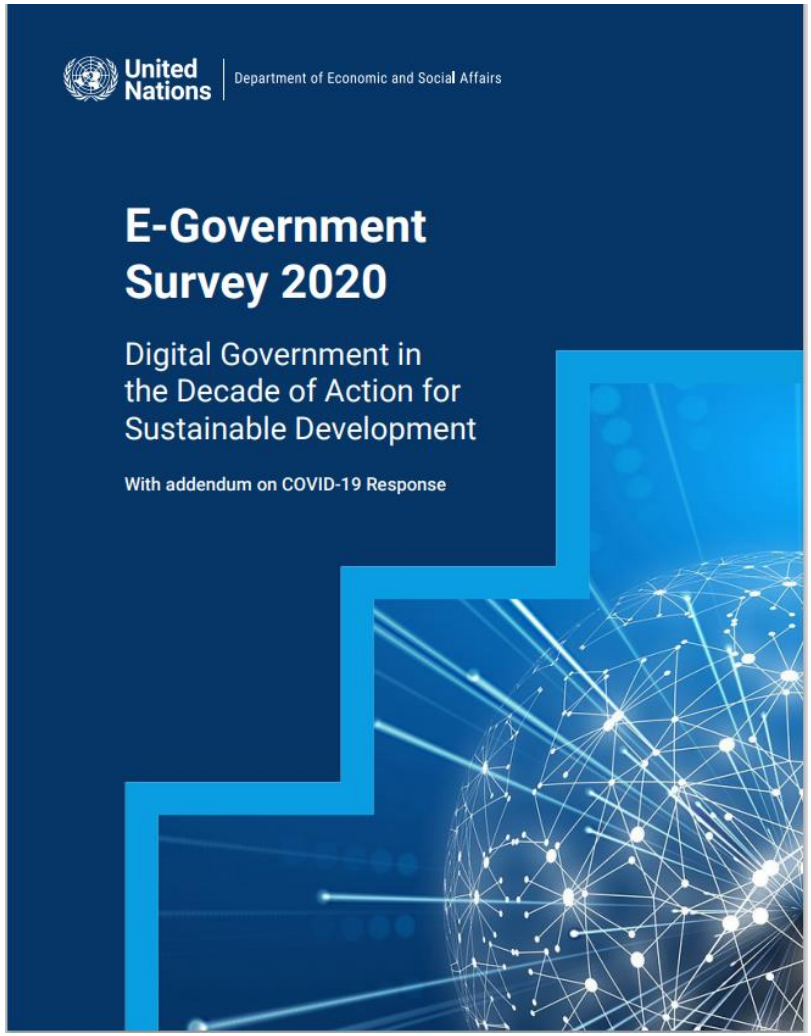

ESCWA Regional Webinar

2020 United Nations E-Government Survey

Digital Government in the Decade of Action for Sustainable Development"

Vincenzo Aquaro
Chief of Digital Government Branch
Division for Public Institutions and Digital Government
United Nations Department of Economic and Social Affairs

United Nations – Beirut, 23 September 2020

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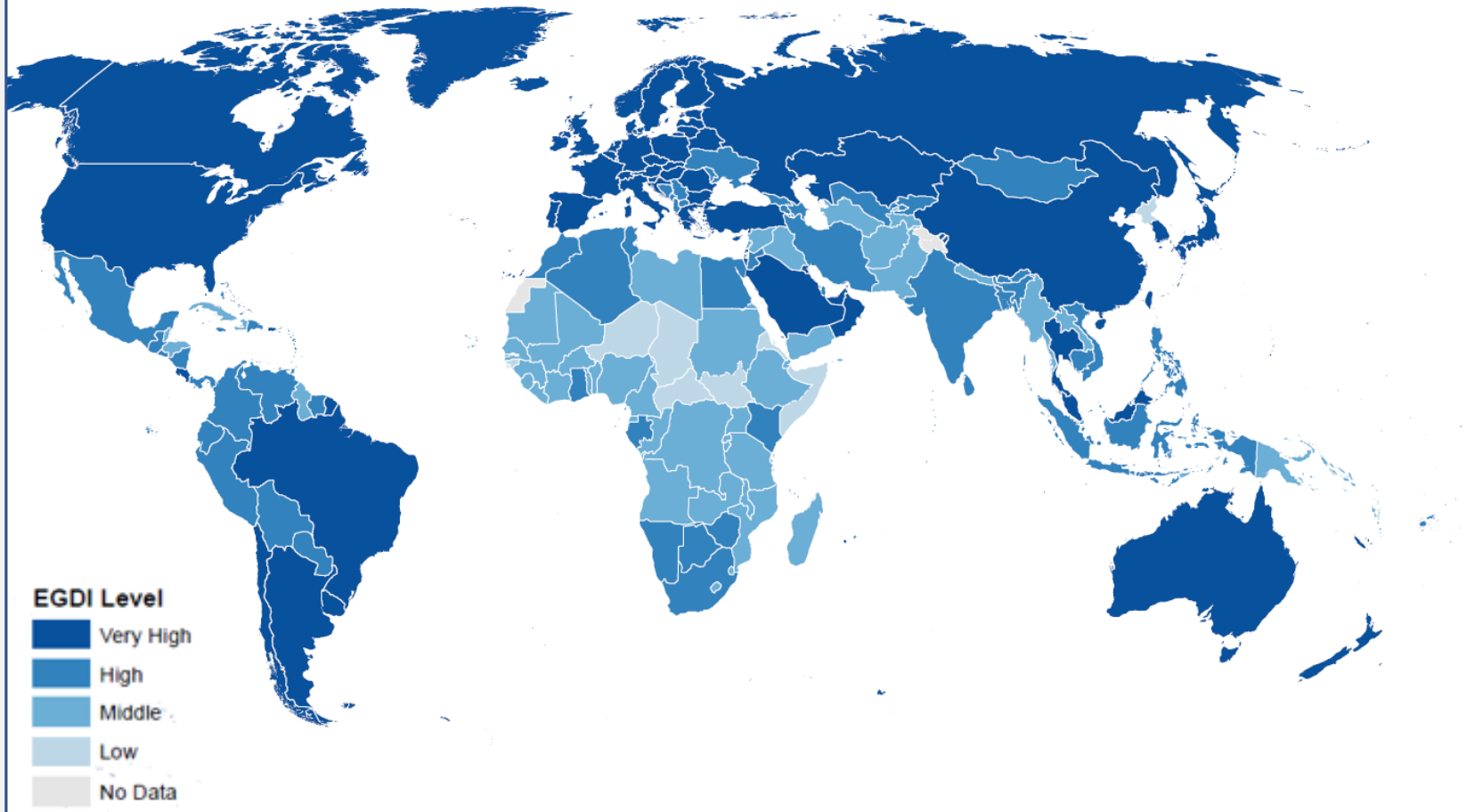
COVID-19 RESPONSE

Global E-Government Development at a Glance

Key Messages

- ✓ Globally, e-government development has improved
- ✓ **126** UN Member States have **High and Very-High EGDI** levels
- ✓ **57** countries have "**Very-High EGDI"** compared to 40 countries in 2018
- ✓ Only **8** countries have "**Low-EGDI**" compared to 16 countries in 2018 (7 of them from Africa)
- ✓ **42 MS** transitioned **from lower to higher levels of EGDI (Asia**: **11** countries (23.%)



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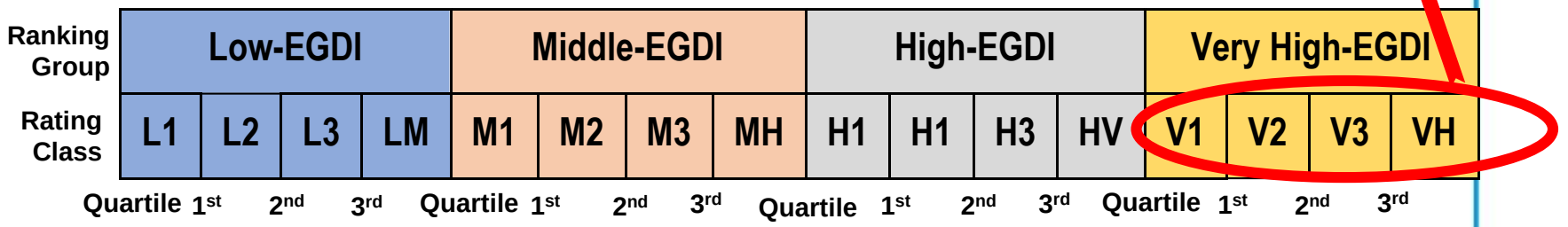
EGDI Groups – Breakdown

Key Messages

- ✓ To provide a more granular cluster analysis of countries with similar performances, each EGDI group has been further broken down into 4 equally defined intervals (rating classes), identified by:
- ❑ the 1st quartile
- ❑ the 2nd quartile
- ❑ the 3rd quartile

The leading countries have the 4 highest Rating Classes V1, V2, V3, VH



For instance:

Very High- EGDI group has been further sub-divided into four quartiles:

- ❑ VH - first top quartile, EGDI scores ranging from 0.8989 to 0.9758
- ❑ V3 - second quartile, EGDI scores ranging from 0.8375 to 0.8914
- ❑ V2 - third quartile, EGDI scores ranging from 0.7991 to 0.8361
- ❑ V1 - forth quartile EGDI scores ranging from 0.7565 to 0.7980

Global Leading Countries

Key Messages

- 14 Countries have the highest Rating Class VH
  - ✓ 8 MS from Europe
  - ✓ 3 MS from Asia
  - ✓ 2 MS from Oceania
  - ✓ 1 MS from Americas
- **Denmark** is leading the global EGDI Ranking
- **ROK** is leading in online service provision
- **Estonia** has the most significant ascend since 2018

Table 1.3 Leading countries in e-government development in 2020

Country	EGDI rating class (subgroup)	Region	OSI value	HCI value	TII value	EGDI value	EGDI value (2018)
Denmark	VH	Europe	0.9706	0.9588	0.9979	0.9758	0.9150
Republic of Korea	VH	Asia	1.0000	0.8997	0.9684	0.9560	0.9010
Estonia	VH	Europe	0.9941	0.9266	0.9212	0.9473	0.8486
Finland	VH	Europe	0.9706	0.9549	0.9101	0.9452	0.8815
Australia	VH	Oceania	0.9471	1.0000	0.8825	0.9432	0.9053
Sweden	VH	Europe	0.9000	0.9471	0.9625	0.9365	0.8882
United Kingdom of Great Britain and Northern Ireland	VH	Europe	0.9588	0.9292	0.9195	0.9358	0.8999
New Zealand	VH	Oceania	0.9294	0.9516	0.9207	0.9339	0.8806
United States of America	VH	Americas	0.9471	0.9239	0.9182	0.9297	0.8769
Netherlands	VH	Europe	0.9059	0.9349	0.9276	0.9228	0.8757
Singapore	VH	Asia	0.9647	0.8904	0.8899	0.9150	0.8812
Iceland	VH	Europe	0.7941	0.9525	0.9838	0.9101	0.8316
Norway	VH	Europe	0.8765	0.9392	0.9034	0.9064	0.8557
Japan	VH	Asia	0.9059	0.8684	0.9223	0.8989	0.8783

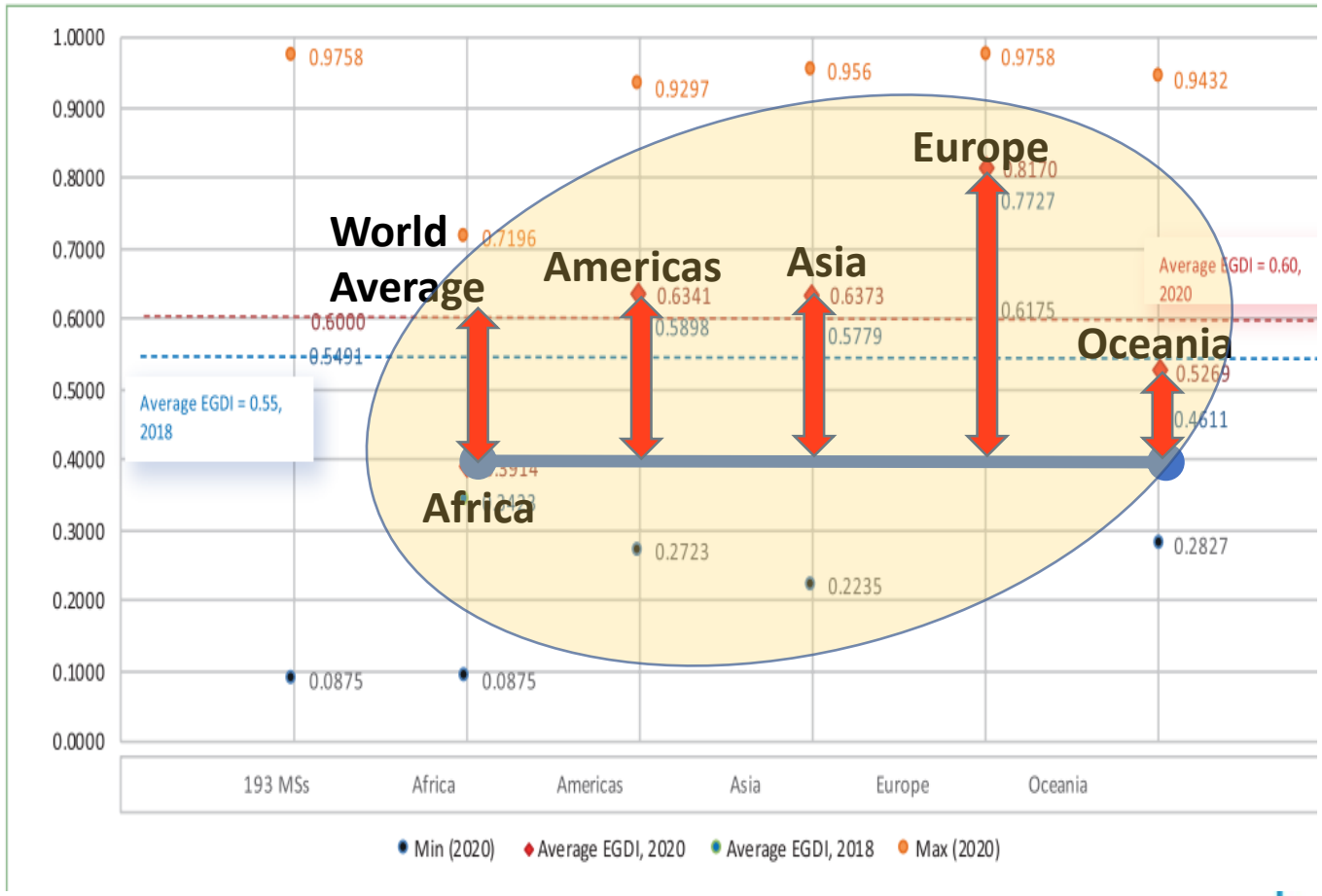
Source: 2020 United Nations E-Government Survey.

Digital Divide

Key Messages

- On average, 66 % of the UN Member States provide online services, however countries offering the full spectrum of services are in the Very-High and High-OSI level groups (93 % and 81 per % respectively)
- 7 of the 8 countries with the lowest EGDI scores are least developed and/or landlocked countries in Africa
- While Africa has made significant progress in e-government development, with only 7 of the region's 54 countries remaining in the low EGDI group, there is still the persistence of digital divides within and between countries and regions.
- Differences in e-government development exist even in highly developed regions

Figure 2.1 Global and regional average EGDI values, 2020



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COVID-19 RESPONSE

E-Government Development in Asia

Key Messages

Asia increased its average **EGDI** value from 0.57 in 2018 to 0.64 in 2020, or **by 10 per cent** becoming the **second most advanced region** in e-government development.

- **ROK** , **Singapore** and **Japan** lead in the region (Highest Rating class VH)
- **15 MS** are in the **Very-High EGDI**
- **7 MS** moved **from High to Very-High EDGI** (Saudi Arabia, China, Kuwait, Malaysia, Oman, Turkey, and Thailand)
- **19 MS** are in the **High EGDI**
- **3 MS** moved **from Middle to High** (Bhutan, Bangladesh, and Cambodia)
- **12 MS** are in the **Middle EGDI**
- **1 MS** is in the **Low EGDI** (the Democratic People's Republic of Korea)) (**)

Country	"Rating class"	"EGDI Rank"	Sub-Region	"OSI value"	"HCI value"	"TII value"	"EGDI (2020)"	"EGDI (2018)"
Republic of Korea	VH	2	Eastern Asia	1.0000	0.8997	0.9684	0.9560	0.901
Singapore	VH	11	South-Eastern Asia	0.9647	0.8904	0.8899	0.9150	0.8812
Japan	VH	14	Eastern Asia	0.9059	0.8684	0.9223	0.8989	0.8783
Cyprus	V3	18	Western Asia	0.8706	0.8429	0.9057	0.8731	0.7736
United Arab Emirates	V3	21	Western Asia	0.9000	0.7320	0.9344	0.8555	0.8295
Kazakhstan	V3	29	Central Asia	0.9235	0.8866	0.7024	0.8375	0.7597
Israel	V2	30	Western Asia	0.7471	0.8924	0.8689	0.8361	0.7998
Bahrain	V2	38	Western Asia	0.7882	0.8439	0.8319	0.8213	0.8116
Saudi Arabia*	V2	43	Western Asia	0.6882	0.8648	0.8442	0.7991	0.7119
China*	V1	45	Eastern Asia	0.9059	0.7396	0.7388	0.7948	0.6811
Kuwait*	V1	46	Western Asia	0.8412	0.7470	0.7858	0.7913	0.7388
Malaysia*	V1	47	South-Eastern Asia	0.8529	0.7513	0.7634	0.7892	0.7174
Oman *	V1	50	Western Asia	0.8529	0.7751	0.6967	0.7749	0.6846
Turkey*	V1	53	Western Asia	0.8588	0.8287	0.6280	0.7718	0.7112
Thailand*	V1	57	South-Eastern Asia	0.7941	0.7751	0.7004	0.7565	0.6543

* Countries that moved from the high to the very high EGDI group in 2020.

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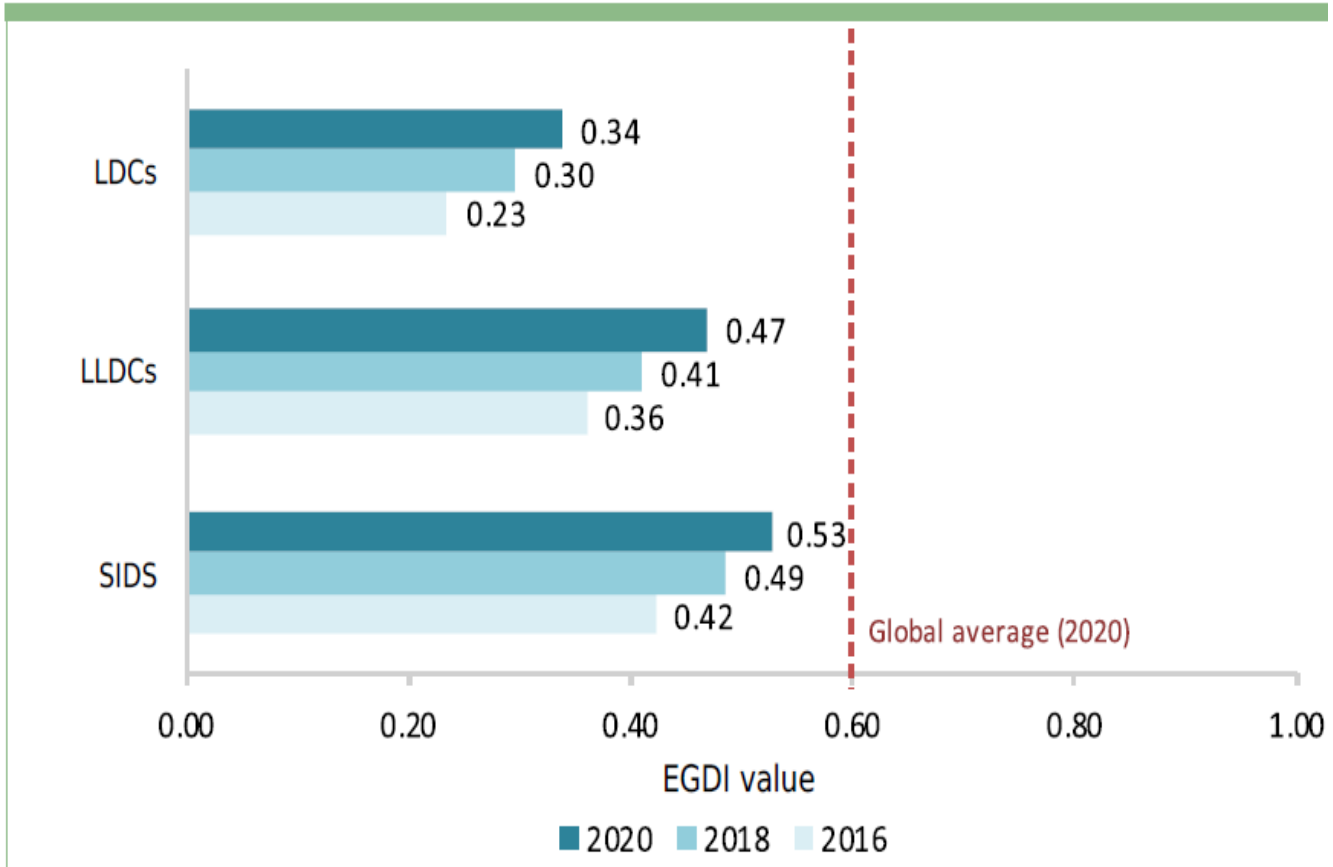
COVID-19 RESPONSE

LDCs, LLDCs and SIDSs

Key Messages:

- **Average EGDI values** for LDC, LLDC and SIDS remain well **below the world average**
- **LDCs have made the most progress** since 2016, (EGDI value increased by 44%)
- **LDCs have the lowest aver**age score (0.34), followed by SIDS (0.47) and LLDCs (0.53)
- **LDC leading countries:** Bhutan, Bangladesh and Cambodia (HEGDI). Cambodia and Lesotho improved EGDI by more than 20 positions
- **LLDCs leading countries:** Kazakhstan (VHEGDI - V3), followed by Armenia, Azerbaijan and North Macedonia (HEGDI - HV)
- **SIDS leading countries:** Singapore (VHEGDI-VH) and Bahrain (VHEGDI- V2), followed by Barbados, Mauritius and the Bahamas (HEGDI – HV) *

Figure 2.8 Average EGDI values for countries in special situations, 2020



Source: 2016, 2018 and 2020 United Nations E-Government Surveys.

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COVID-19 RESPONSE

E-Government Development in ESCWA Region

Country Name 2020	Region	Sub-region	Special Group Country	Income level WBG 202	EGDI Levels 2020	OSI Levels 2020	OSI 2020	HCI 2020	TII 2020	EGDI Rating (1-2-3 Quartile)	EGDI 2020	EGDI RANK 2020
Tunisia	Africa	Northern Africa		Lower middle i	High EGDI	High OSI	0.6235	0.6974	0.6369	H3	0.6526	91
Morocco	Africa	Northern Africa		Lower middle i	High EGDI	Middle OSI	0.5235	0.6152	0.5800	H2	0.5729	106
Egypt	Africa	Northern Africa		Lower middle i	High EGDI	High OSI	0.5706	0.6192	0.4683	H1	0.5527	111
Libya	Africa	Northern Africa		Upper middle i	Middle EGDI	Low OSI	0.0412	0.7357	0.3459	M2	0.3743	162
Sudan	Africa	Northern Africa	LDC	Low income	Middle EGDI	Middle OSI	0.3059	0.3559	0.2844	M2	0.3154	170
Mauritania	Africa	Western Africa	LDC	Lower middle i	Middle EGDI	Low OSI	0.1000	0.3575	0.3886	M1	0.2820	176

Country Name 2020	Region	Sub-region	Special Group Country	Income level WBG 2020	EGDI Levels 2020	OSI Levels 2020	OSI 2020	HCI 2020	TII 2020	EGDI Rating (1-2-3 Quartile)	EGDI 2020	EGDI RANK 2020
Bahrain	Asia	Western Asia	SIDS	High income	Very High EGDI	Very High OSI	0.7882	0.8439	0.8319	V2	0.8213	38
Kuwait	Asia	Western Asia		High income	Very High EGDI	Very High OSI	0.8412	0.7470	0.7858	V1	0.7913	46
Oman	Asia	Western Asia		High income	Very High EGDI	Very High OSI	0.8529	0.7751	0.6967	V1	0.7749	50
Saudi Arabia	Asia	Western Asia		High income	Very High EGDI	High OSI	0.6882	0.8648	0.8442	V2	0.7991	43
United Arab Emirates	Asia	Western Asia		High income	Very High EGDI	Very High OSI	0.9000	0.7320	0.9344	V3	0.8555	21
Iraq	Asia	Western Asia		Upper middle i	Middle EGDI	Middle OSI	0.3353	0.4358	0.5370	M3	0.4360	143
Lebanon	Asia	Western Asia		Upper middle i	Middle EGDI	Middle OSI	0.4176	0.6567	0.4123	MH	0.4955	127
Syrian Arab Republic	Asia	Western Asia		Low income	Middle EGDI	Middle OSI	0.5412	0.5073	0.3804	MH	0.4763	131
Yemen	Asia	Western Asia	LDC	Low income	Middle EGDI	Middle OSI	0.3235	0.4142	0.1757	M1	0.3045	173
Jordan	Asia	Western Asia		Upper middle i	High EGDI	Middle OSI	0.3588	0.6800	0.5540	H1	0.5309	117
Qatar	Asia	Western Asia		High income	High EGDI	High OSI	0.6588	0.6698	0.8233	HV	0.7173	66

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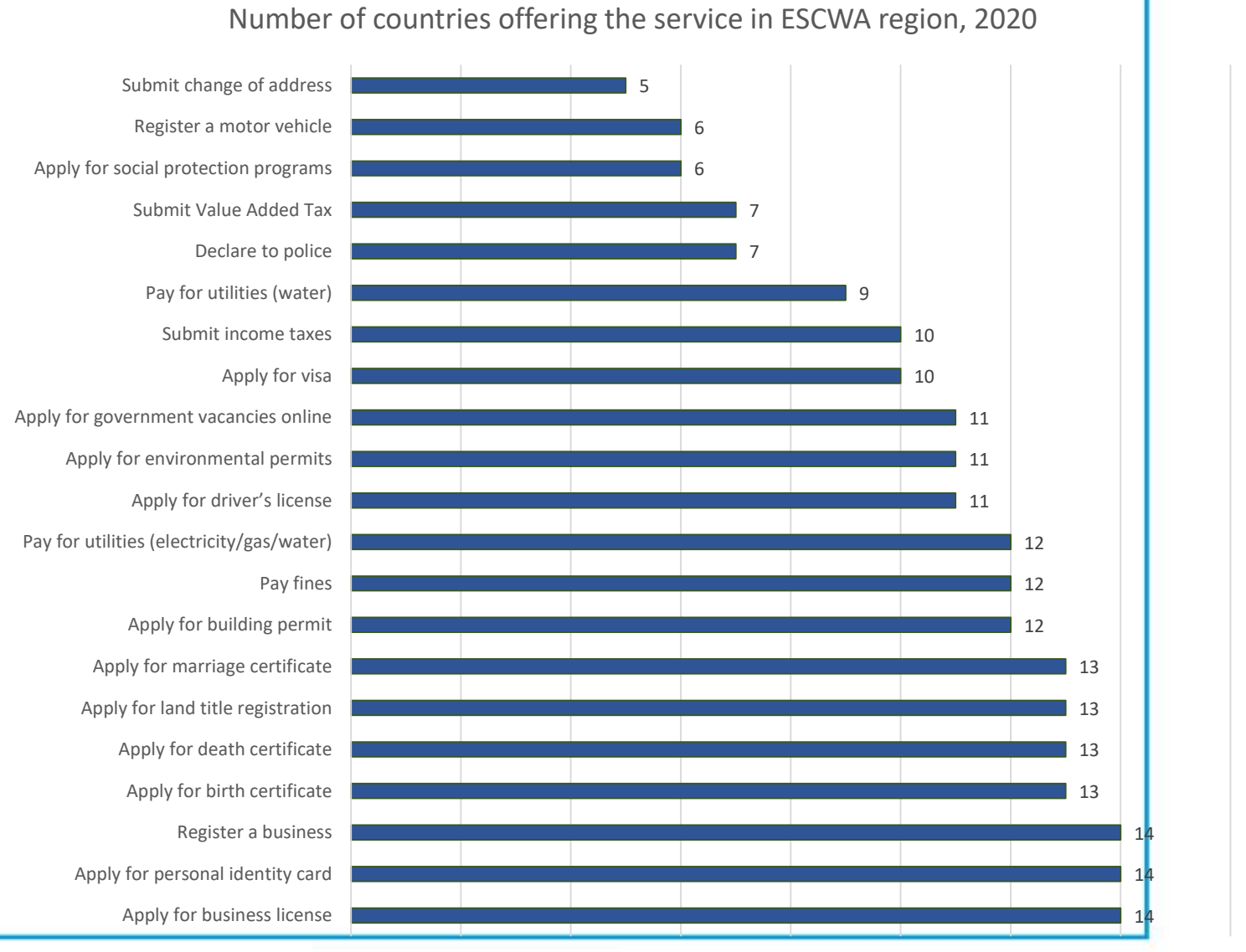
COVID-19 RESPONSE

Transactional Online Services in ESCWA

Key Messages:

- In **ESCWA region** on average 59% of countries provide online services:
  - ✓ Most common services are **applying for and registering a business,** and **applying for personal ID** cards (14 out of 18 countries)
  - ✓ Least common service is **change of address** online (5 out of 18 countries)
  - ✓ On average 10 of our 20 types of services are offered in ESCWA region



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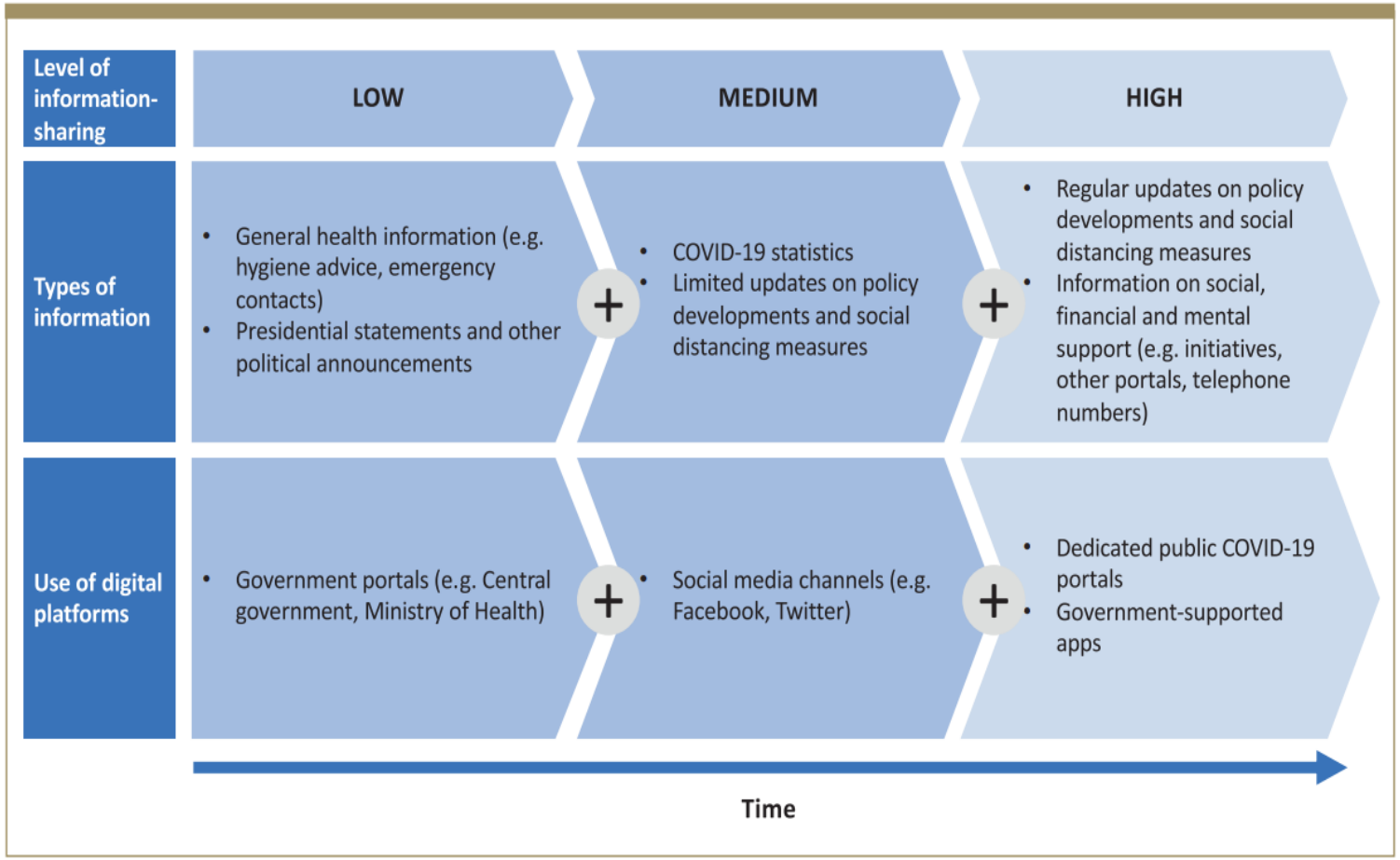
E-Government Response to the COVID-19 Pandemic

Key Messages

- During the pandemic, countries focused on providing basic information related to general health precautions and emergency numbers accompanied by public announcements on national portals (low level).
- As the crisis intensified, countries began extending their reach and started using more social media channels to report on COVID-19 statistics and provided some limited national policy updates (medium level).
- At a later stage in the crisis, more countries started providing regular updates on policy developments and information; some Governments started using dedicated COVID-19 portals and apps to centralize both information and services (high level).

Figure 2: Different levels of e-government information-sharing during COVID-19



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COVID-19 RESPONSE

E-Government Response to the COVID-19 Pandemic

Key Messages

- The pandemic has forced Governments and societies to turn toward digital technologies to respond to the crisis in the short-term, recover from and resolve socio-economic repercussions in the mid-term, and reinvent existing policies and tools in the long-term.
- With only ten years left to achieve the 2030 Agenda, Governments need to work on strengthening the relationship between technology and sustainable development.
- Using multi-stakeholder partnerships to share technologies, expertise and tools can support Governments in the recovery process that involves restarting the economy and rebuilding societies.
- Developing countries cannot mitigate the crisis alone. Therefore, national, regional and local collaborations with private sector, academia, civil society, international organizations and other stakeholders are necessary.

Table 1: Digital government policy response to COVID-19

Time horizon	Policy action	Digital government response
Short-term	React	• Use digital platforms (i.e., online portals, social media) for accurate and timely information-sharing • Lead two-way communication with people and foster e-participation (i.e. hackathons, brainstorming events) • Ensure protection of people's human rights including data privacy and take into consideration unintended consequences of technology
Mid-term	Recover & Resolve	• Form effective multi-stakeholder partnerships (i.e. private sector, academia, NGOs and international organizations) on regional, national and local levels • Provide technology education for digital literacy, specifically targeted at public officials, children, women/girls and MSMEs • Offer financial and technical support to local governments in the implementation of digital tools and technologies • Leverage lessons learned and policy ideas from the ongoing crisis
Long-term	Reinvent	• Invest in new technologies (i.e., AI, blockchain, robots, drones) and ICT infrastructure to increase the resilience of the health economy and public services delivery • Develop digital infrastructure and engagement tools for the most vulnerable groups in society, particularly for migrants, refugees and ethnic minorities • Revisit data protection and privacy legislation along with lessons learned

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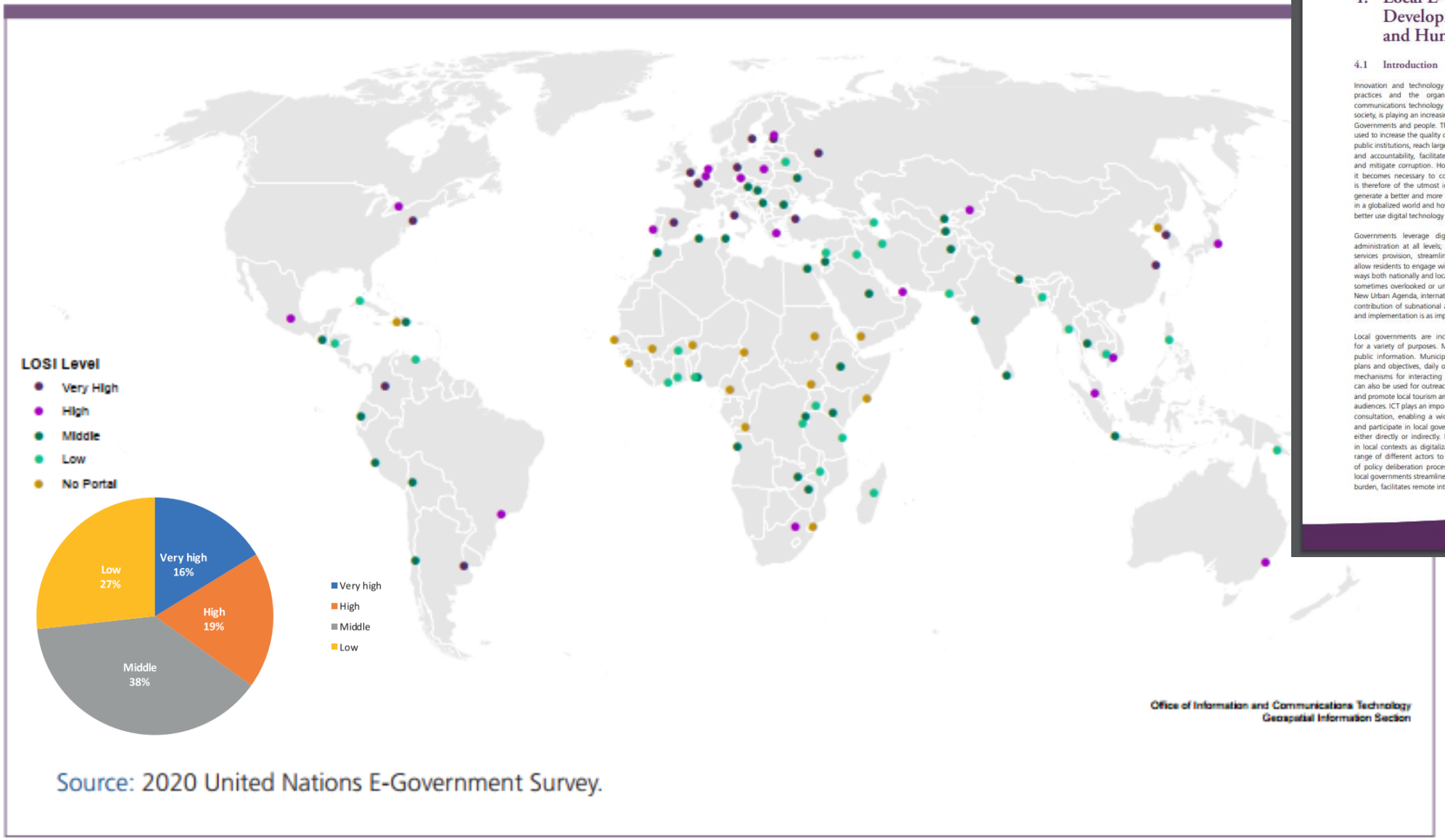
COVID-19 RESPONSE

Local E-Government Development

Figure 4.1 Number and percentage of cities at each LOSI level



Source: 2020 United Nations E-Government Survey.

CHAPTER 4 • LOCAL E-GOVERNMENT DEVELOPMENT IN CITIES AND HUMAN SETTLEMENTS

Chapter 4

4. Local E-Government Development in Cities and Human Settlements

4.1 Introduction

Innovation and technology development have disrupted traditional practices and the organization of societies. Information and communications technology (ICT), now widely utilized in all sectors of society, is playing an increasingly important role in interactions between Governments and people. There is a broad consensus that ICT can be used to increase the quality of service delivery, improve the efficiency of public institutions, reach large numbers of people, promote transparency and accountability, facilitate electronic interaction and participation, and mitigate corruption. However, technology evolves so rapidly that it becomes necessary to continuously "chase the digital wave";[1] it is therefore of the utmost importance that research be conducted to generate a better and more thorough understanding of the role of ICT in a globalized world and how Governments and public institutions can better use digital technology to achieve their development objectives.

Governments leverage digital technologies to strengthen public administration at all levels; ICT integration can expand and improve services provision, streamline and optimize internal processes, and allow residents to engage with institutions and public issues in multiple ways both nationally and locally. The importance of local government is sometimes overlooked or undervalued; however, as highlighted in the New Urban Agenda, international organizations are well aware that the contribution of subnational and local governments to policy definition and implementation is as important as that of national Governments.[2]

Local governments are increasingly embracing digital technologies for a variety of purposes. Many use ICT to disclose and disseminate public information. Municipalities can share details relating to their plans and objectives, daily operations, and service offerings (including mechanisms for interacting with local government). Digital platforms can also be used for outreach. Cities can engage in creative marketing and promote local tourism among wider (and often specifically targeted) audiences. ICT plays an important role in facilitating communication and consultation, enabling a wide range of stakeholders to interact with and participate in local governance and contribute to decision-making either directly or indirectly. Multistakeholderism is gaining a foothold in local contexts as digitalization offers expanded opportunities for a range of different actors to become involved in virtually every aspect of policy deliberation processes. Using ICT for services delivery helps local governments streamline operations and reduce their administrative burden, facilitates remote interaction with the public and more efficient

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Chapter 4

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COVID-19 RESPONSE

E-participation

Key Messages

- While e-participation platforms have continued to spread in more countries, there is a trend towards multi-function participation platforms, such as ideation forums, consultations and/or e-petitions on new policies, opinion surveys, complaint system, reports of corruption and generation of ideas and innovations.
- It is not always clear that the multiplication of electronic platforms has translated into broader or deeper participation.
- In many cases, the take-up of e-participation remains low. Beyond reasons related to technology access and digital skills, a lack of understanding of motivations to participate online and the reluctance of public institutions to share agenda setting and decision-making power seem to play an important role in the observed limited progress, among many other factors.

CHAPTER 5 • E-PARTICIPATION

Chapter 5

5. E-participation

5.1 Introduction

Participation is a key dimension of governance and is one of the pillars of sustainable development, as underscored in Agenda 21, the outcome of the United Nations Conference on Environment and Development (the Earth Summit), in 1992. The 2030 Agenda for Sustainable Development also highlights the importance of national participatory processes, particularly in Sustainable Development Goal (SDG) target 16.7, which calls for ensuring responsive, inclusive, participatory and representative decision-making at all levels.[1]

The concept of e-participation revolves around the use of information and communications technology (ICT) to engage people in public decision-making, administration and service delivery; hence, e-participation is usually considered part of e-government. The definition used by the United Nations in the E-Government Survey is "the process of engaging citizens through ICT in policy, decision-making, and service design and delivery in order to make it participatory, inclusive, and deliberative".[2] An influential early paper characterized e-participation "as a social activity, mediated by ICT, involving interaction between citizens, public administration and politicians".[3] This definition highlights the vital importance of the triangle of citizens, public administration and politicians as key stakeholders in e-participation initiatives.

As a subfield of participation, e-participation is seen to have both intrinsic and instrumental value. Its intrinsic value is based on the idea that participation (online or offline) is a desirable goal because it contributes to inclusive societies both directly and through increased civic engagement. The instrumental value of e-participation derives from the role it can play in increasing government accountability, making public services more responsive to people's needs, and improving the quality of policies and legislation. Broader goals include strengthening the legitimacy of Governments and people's trust in public institutions. In addition, e-participation is analysed from a technology perspective as a way to enhance digital governance and move towards digital societies.

By definition, e-participation is a subset of both participation and e-government. It is also connected to several other dimensions of governance and public administration, and those relationships are explored in the sections below. A simplified conceptual map illustrating some of the intersections is shown in figure 5.1.

Over the years, the scope of e-government has broadened beyond the delivery of public services; this is reflected in the semantic shift from e-government to "digital government" and "digital governance" and the growing emphasis on the role ICT plays in public administration.

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Chapter 5

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COVID-19 RESPONSE

Towards Effective Data Governance

Key Messages

- Optimizing the use of government data will increase the productivity, accountability and inclusivity of public institutions, in line with the principles embodied in Goal 16 of the 2030 Agenda.
- A data-centric government will also help build trustworthiness and public trust.
- Many benefits around government data have yet to be realized, especially in countries in special situations. The greatest obstacles to progress include a general lack of understanding of data and data science, low political priority and the absence of data leadership, resource constraints, and concerns about data quality, security and privacy.
-
  -

CHAPTER 6 • TOWARDS DATA-CENTRIC E-GOVERNMENT

Chapter 6

6. Towards Data-Centric E-Government

6.1 Introduction

The need for government data is nothing new. For decades, the ways in which government data are gathered, secured, used and shared have been of great interest to Governments and to academics in the fields of development and public administration.[1] Government data have always been critically important, but the ways in which data are created and used have changed dramatically, bolstered by the revolution in data technologies and the proliferation of applications of different types and forms of data, including small and big data, real-time data, and geospatial data.

The 2030 Agenda for Sustainable Development has made data a focal point, acknowledging that data are key to effective decision-making and that timely, reliable, quality and disaggregated data are needed to facilitate the measurement of progress towards sustainable development and to ensure that no one is left behind.[2] The latter imperative is reflected in multiple global indicators and entails not only reaching the poorest and most vulnerable groups but also combating rising inequalities within and among countries.[3] Data and related issues and developments in the public sector have become increasingly important in terms of government analysis and operations, academic research, and real-world applicability and acceptance. Data are now integral to every sector and function of government—as essential as physical assets and human resources. Much of the operational activity in government is now data-driven, and many Governments would find it difficult, if not impossible, to function effectively without data.

At the global level, the quantity of data is expected to increase more than fivefold from 33 zettabytes[4] in 2018 to 175 zettabytes in 2025, with 49 per cent stored in the public cloud.[5] Researchers have estimated that the number of devices driven by the Internet of Things (IoT) will reach 10 times the world population (about 75 billion) in 2025.[6] These trends, coupled with the propagation of 5G networks and other next-generation devices, will also equip society with data-centric applications in areas such artificial intelligence (AI), blockchain, and augmented and virtual reality (AR and VR) and will further boost data supply and demand, moving the world closer to becoming a truly digital society.

The exponential growth and rapid evolution of new digital and data technologies and related applications will unquestionably affect the public sector. Conventional government data sources include censuses, surveys and administrative data, and while those have served administrators well, the future of data holds virtually unlimited promise. Big data, social media, analytics and a wide range of digital technologies can be leveraged to develop cost-effective, time-saving policy solutions

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Chapter 6

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Capacities for Digital Transformation

Key Messages

- Digital government transformation is fundamentally about governance transformation and cultural change in support of a country's overall national development vision and strategy and the achievement of the Sustainable Development Goals.
- Digital government transformation requires a holistic approach that is value-driven and institutionalized across all levels of government and society.
- Digital government transformation should aim at promoting digital inclusion and ensuring that all people, including vulnerable groups, can access new technologies to improve their wellbeing. It should put people first and revolve around their needs.

CHAPTER 7 • CAPACITIES FOR DIGITAL GOVERNMENT TRANSFORMATION

Chapter 7

7. Capacities for Digital Government Transformation

7.1 Introduction

Now, more than ever, government leaders are dealing with the critical question of how best to transform the public sector to effectively deliver services and achieve the Sustainable Development Goals (SDGs). For many countries, the answer is to leverage innovation and digital and frontier technologies. Digital technology applications can provide users with quick and easy access to public services and programmes and can also be used to create participatory mechanisms that allow people to become involved in decision-making and the design and delivery of services. Such technologies can support greater government openness and accountability and can be leveraged to increase public trust. At the same time, the use of digital technologies in government can pose risks and threats, including widening digital divides within and across countries and potentially undermining human rights, individual privacy and security of all kinds.

Not all countries are sufficiently prepared to promote innovation and leverage digital technologies to provide accessible, reliable, fast, personalized, secure, and inclusive services and empower people through open and participatory mechanisms. Many are not prepared to identify and address the risks associated with digital technologies.

Digital government transformation is not just about technologies. It is, above all, about public governance transformation and innovation as part of a country's overall national development vision and strategy. Developing capacities for digital government transformation is essential. This requires a holistic approach that is value-driven and institutionalized across all levels of government and society. It entails fundamental changes in the mindsets of public servants and in the way public institutions collaborate.

This chapter presents a holistic approach to digital government transformation in support of sustainable development. It does so by providing a clear framework for change, including key pillars for digital government transformation. It focuses on the critical role of systems thinking and integrated approaches. The chapter outlines how to conduct a situation analysis, undertake a visioning exercise, and devise a strategy and road map. It examines how to develop capacities at the societal, institutional, organizational, and individual levels. It emphasizes the importance of capacity developers. The chapter features strategies and innovative cases from across the world, providing concrete methodologies aimed at supporting countries' capacity development efforts in this area. The approaches illustrated are based on research

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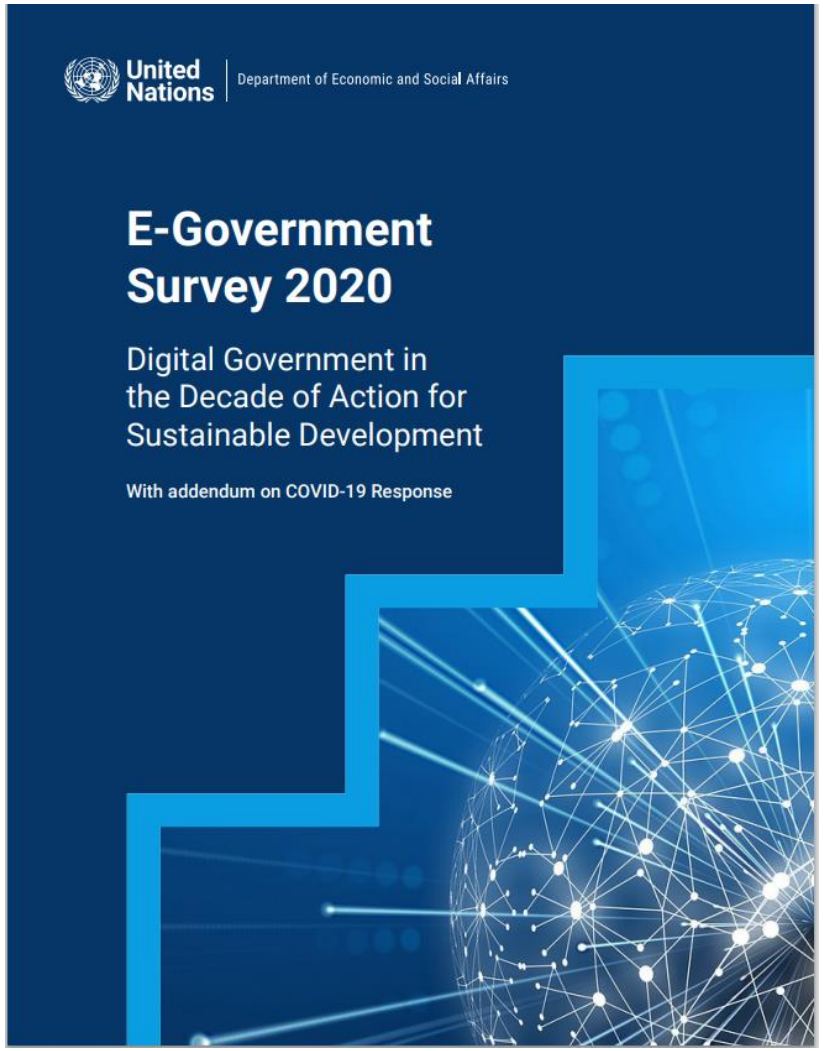

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Thank You

Merci

Спасибо

Gracias

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