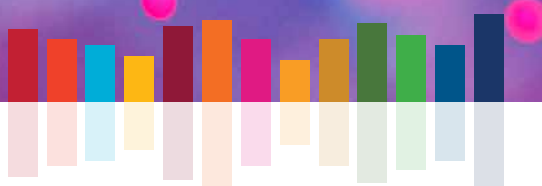
Responding to the COVID-19 Pandemic

Leaving No Country Behind



UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

ADB

UNDP

Asia-Pacific SDG Partnership

The Economic and Social Commission for Asia and the Pacific (ESCAP) is the most inclusive intergovernmental platform in the Asia-Pacific region. The Commission promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges. ESCAP is one of the five regional commissions of the United Nations.

The ESCAP secretariat supports inclusive, resilient and sustainable development in the region by generating action-oriented knowledge, and by providing technical assistance and capacity-building services in support of national development objectives, regional agreements and the implementation of the 2030 Agenda for Sustainable Development.

The Asian Development Bank (ADB) is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

The United Nations Development Programme (UNDP) is the leading United Nations organization fighting to end the injustice of poverty, inequality, and climate change. Working with our broad network of experts and partners in 170 countries, we help nations to build integrated, lasting solutions for people and planet.

Responding to the COVID-19 Pandemic: Leaving No Country Behind

Printed in Thailand

This is a co-publication of the United Nations (ESCAP), the Asian Development Bank (ADB) and the United Nations Development Programme (UNDP).

ISBN 978-92-9262-765-2 (print); 978-92-9262-766-9 (electronic); 978-92-9262-767-6 (ebook)
Publication Stock No. SPR210111-2
DOI: http://dx.doi.org/10.22617/SPR210111-2

Cataloguing-In-Publication Data

United Nations, Asian Development Bank, and United Nations Development Programme.
Responding to the COVID-19 Pandemic: Leaving No Country Behind
Bangkok, Thailand: United Nations, 2021

1. COVID-19 2. Digital Technology and Finance 3. Regional Cooperation 4. Asia-Pacific 5. Sustainable Development 6. SDGs 7. United Nations, Asian Development Bank, and United Nations Development Programme

Chief

Section on Countries in Special Situations
Office of the Executive Secretary
United Nations Economic and Social Commission for Asia and the Pacific

15th Floor, United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200 Thailand

escap-css@un.org

Director

Results Management and Aid Effectiveness Division
Strategy, Policy and Partnerships Department
Asian Development Bank

6 ADB Avenue, Mandaluyong City, Metro Manila 1550 Philippines

sdgs@adb.org

Practice Team Leader

Inclusive Growth and Sustainable Development
Bangkok Regional Hub
United Nations Development Programme

3rd Floor, United Nations Building, Rajadamnern Nok Avenue, Bangkok 10200 Thailand

AsiaPacific2030Agenda@undp.org

Also available online at:

www.sdgasiapacific.net
www.unescap.org/publications
www.adb.org
www.asia-pacific.undp.org

Foreword

The Asia-Pacific region continues to grapple with the calamitous consequences of the COVID-19 pandemic. While the development of vaccines against the virus gives us cause for optimism, the deeper socio-economic scars caused by the pandemic will remain long after the more immediate recovery.

The economic and social effects of the pandemic have differed widely across countries and population groups. The poorest, socially excluded communities and women have been hit the hardest. The pandemic has reversed decades of progress on poverty reduction, heightened vulnerabilities and led to greater inequality within and between countries. It has also exposed the strain on the planet of unsustainable patterns of production and consumption and inadequate investments in people.

Progress towards the Sustainable Development Goals was already sliding in Asia and the Pacific, and the crises caused by the pandemic further undermined the prospects of achieving them. Therefore, identifying pathways to recovery and taking action to build resilience is more important than ever. This Report focuses on two.

Accelerated digital transformation, driven by technological innovation and rapid policy adaptations that have embraced the change, has played a critical role in enabling countries to respond to the pandemic. Simultaneously, this has opened up new possibilities for also taking on longstanding development challenges. Digital technologies were used innovatively in pandemic management and emergency relief and helped provide essential health services, educate millions of children, and bring social protection to vulnerable communities. The inventive responses to the pandemic have demonstrated that digitalization may be one of the most powerful forces of societal and economic change. Digitalization is, however, not a panacea as it can widen gaps in economic and social development within and between countries. The challenge before us is to shape the digital revolution in ways that ensure green, inclusive and resilient growth across the region.

Regional cooperation processes have been disrupted by the pandemic, as many countries have prioritized national measures to contain COVID-19. As countries seek to rebuild to restart their progress towards the Sustainable Development Goals, now is an opportune time to consider how a differently-directed regional cooperation can prioritize the wellbeing of people and the planet, and enhance regionwide resilience to future health, economic, and environmental shocks.

To bring these two pathways together to achieve the Sustainable Development Goals and "leave no person and no country behind", regional cooperation that closes the digital gaps between countries is more urgent than ever. We are pleased to issue this joint report under the Sustainable Development Goals Partnership initiative of our three entities to urge further ideas and actions. Our organizations are committed to supporting regional efforts in Asia and the Pacific to recover and rebuild.

Armida Salsiah Alisjahbana
Executive Secretary, ESCAP and Under-Secretary-General of the United Nations

Bambang Susantono
Vice-President
Knowledge Management and Sustainable Development, ADB

Kanni Wignaraja
Assistant Secretary-General, Assistant Administrator and Regional Director, Regional Bureau for Asia and the Pacific, UNDP

Executive Summary

This report is published at a time when the Asia-Pacific region continues to battle with the severe, adverse social and economic consequences of coronavirus (COVID-19) pandemic. The pandemic has triggered the first decline in human development in thirty years. It has hit the poorest and socially excluded the hardest. While the Asia-Pacific region was already off-track to meeting the Sustainable Development Goals (SDGs), the pandemic is a massive setback for achieving the SDGs by 2030.

The pandemic has exposed the region's pre-existing social, economic and environmental vulnerabilities and reinforced the importance of the overarching principle of the 2030 Agenda of "leaving no one behind". Understanding how these vulnerabilities shape the impact of pandemic in the countries and subregions in Asia and the Pacific is critical to designing policies that ensure no one, and no country, is left behind.

The COVID-19 pandemic is an asymmetric shock: countries have been affected differently and the result may be greater economic divergence both within and between countries in the region. Without concerted and collaborative policy actions, there is a real risk of a so-called "K-shaped" recovery in which some groups or countries recover much faster than others. This report stresses that in addition to the risk of vulnerable groups within countries being left behind, there is now a heightened risk of vulnerable countries being left behind. It considers what can done to mitigate growing divergence and create the foundation for resilient, inclusive and sustainable development pathways. The report focuses on two areas that hold particular promise in this endeavor: digitalization and regional cooperation.

From rupture to recovery

The COVID-19 pandemic has caused economic and social devastation across the Asia-Pacific region. It has destroyed tens of millions of jobs and livelihoods and will reverse much of the region's progress in reducing poverty and ending hunger, as well as adversely affect health and education prospects. The poor and vulnerable, including women, migrant workers, daily wage laborers, and other informal sector workers, have been hit the hardest. Policymakers have focused on containing the virus and meeting peoples' immediate needs. While governments recognize the potential of pursuing more environmentally sustainable development as part of recovery in a region on the frontlines of the climate crisis, tangible action has been limited.

Pre-existing vulnerabilities have only compounded the impact of the pandemic. The economic performance of many countries in the Asia-Pacific region had already been deteriorating before the pandemic. Falling productivity and a reliance on exports had made a dent in economic growth. Similarly, income inequality had been rising and was widely acknowledged as a key challenge, along with weak health and social protection systems. The consequences of pursuing unsustainable consumption and production patterns for the environment were also visible.

The crisis has laid bare the inadequacy of the systems of education, healthcare and social protection in many developing countries of the region. This is particularly worrying given high degree of informality and vulnerable jobs in the region. COVID-19 has also shown that environmental vulnerabilities can multiply health and socio-economic impacts. For instance, underlying health conditions caused by air pollution made COVID-19 infections more complicated and fatal. Another lesson of the COVID-19 pandemic has been that complex disaster risks need to be tackled holistically, taking a whole-of-government approach.

Yet, just as the impact of COVID-19 varied across the region depending on infection levels and vulnerabilities, governments' responses also differed widely, reflecting differences in capacities and resources. The combination of these varying vulnerabilities and responses heighten the risk of greater divergence and inequality between countries of the region. The urgent challenge therefore is to ensure that the recovery encompasses all countries and peoples and is consistent with the SDGs. Going forward, carefully designed rights-based, pro-poor and inclusive policies are needed to limit poverty, polarization and exclusion.

Recovery and resilience for all: The role of digitalization

Digitalization is one focus area that can help mitigate divergence and enable attainment of the 2030 Agenda. Even before the onset of the pandemic, the digital revolution was transforming how people and businesses work and create economic value. The pandemic has accelerated the uptake of digital solutions and sped up the digital transformation. The use of digital technology has helped governments, businesses and people manage pandemic responses, and cope with the immediate effects of social distancing and other containment measures. In many countries, teaching and working moved online; millions of students and workers connected through online platforms. These solutions were not available to all people, however. Many poor and vulnerable groups have been unable to afford or access them.

The importance of digital financial services became ever more apparent as governments and people came to value secure, affordable and contactless financial tools. These services allowed governments to reach households and firms fast and at low cost, thus fostering inclusive growth, addressing vulnerabilities and boosting resilience. Countries with existing government-to-person payment ecosystems were able to make available swift lifesaving cash support, while online payments and trading helped businesses, especially micro, small and medium-sized enterprises, survive repeated lockdowns. Digital finance is set to play an even more significant role for governments, businesses and citizens during and beyond the recovery phase.

Yet, digitalization is not a panacea. Persistent and large digital divides within and between countries of the region risk amplifying gaps in economic and social development. Countries need to overcome various barriers to more equitable digitalization, including differences in national standards and poor interoperability between national systems. Regional cooperation can help countries develop more universal and accessible digital infrastructure, including through legal and regulatory reforms.

Strengthening regional cooperation for the 2030 Agenda after COVID-19

Now is an opportune time to reflect on the vital role of regional cooperation in managing the transition out of the crisis. As governments closed borders, and lockdowns brought to a standstill economic activity, cross-border trade, migration, and tourism, the COVID-19 pandemic revealed the interdependence of the countries in the region. In recent years, the social and environmental dimensions of sustainable development have not been given a high enough priority in regional cooperation. A renewed urgent focus on people and inclusive cooperation is necessary. Environmental sustainability must become central to economic and physical integration efforts. In addition, regional cooperation must support countries to build greater resilience. These measures will be vital to mitigate the threat of a K-shaped economic recovery and prepare countries to deal with future shocks.

The immediate challenge for policymakers across the region is to reopen their economies and initiate a robust recovery across the region. Regional cooperation will be instrumental to fully restore travel, trade, cross border investment, value chains and migration flows.

Importantly, regional cooperation must support people-centered development. This can be achieved through, for instance, better healthcare systems and more effective public health emergency preparedness. Countries in the region can draw on the lessons learned from the use of digital technology in reaching out to people during the pandemic. The severe economic repercussions of the pandemic have shown the value of quality social protection systems in providing emergency aid. In many countries of the region these systems are inadequate. Governments need to build more effective, universal social protection systems that address changing needs throughout the lifetimes of all members of society and can be relied upon in times of crisis.

To ensure that no country is left behind in the recovery, regional cooperation should aim to align finance with the SDGs. Regional action can help countries raise additional financing to meet their development needs through better cooperation on tax, domestic resource mobilization and greater financial stability and resilience. It is imperative that governments develop common standards and approaches that align private investment with the SDGs and scale up the use of sustainability focused instruments that tap regional and global capital markets such as green bonds. Finally, cooperation on fintech holds immense promise for deepening financial inclusion.

It is vital to make trade and value chains more resilient and sustainable and create new opportunities for less developed and more vulnerable countries to be part of these systems, including by harnessing the digital economy. Regional cooperation on connectivity is critical to enabling equitable digitalization and can overcome digital divides in the region. There is also a critical need to address environmental and social dimensions of connectivity infrastructure . Cooperation to ensure seamless and secure cross-border data flows will be key for ensuring interoperability of systems and enabling digital finance for all. Stepped up regional integration through digital systems can help ensure no country is left behind in an increasingly connected world in which digitalization translates into greater resilience.

Despite many challenges, there has been unprecedented collaboration among governments and bilateral and multilateral donors as well as development banks, philanthropic organizations and the private sector to fight the pandemic. Science, technology, and innovation enabled by these partnerships have played a critical role and will continue to drive countries' efforts to recover and build resilience. Scientific and technological innovations are a key means of achieving a sustainable, equitable, and resilient future for both human civilization and the biosphere. These developments point to the potential for better collaboration between the private and public sectors across the regions and the possibility of new models for provisioning regional and global public goods.

Together, we can reinvigorate the institutions set up to foster regional cooperation to focus on attaining the SDGs and ensure that no person or country is left behind.

Acknowledgements

Responding to the COVID-19 Pandemic: Leaving No Country Behind was prepared under the Asia-Pacific SDG Partnership of ESCAP, ADB and UNDP. A technical team from the three organizations (Kaveh Zahedi, Hamza Ali Malik, Oliver Paddison and Naylin Oo of ESCAP; Bernard Woods, Smita Nakhooda, Frank Thomas of ADB; Swarnim Waglé, Jaco Cilliers, and Bishwa Nath Tiwari of UNDP) guided the development of the text.

The core team of authors comprised Anisuzzaman Chowdhury, Naylin Oo, Oliver Paddison, Smita Nakhooda, Frank Thomas and Bishwa Nath Tiwari. Contributing authors included Yusuke Tateno. Background papers for the report were written by Anisuzzaman Chowdhury, Khalil Hamdani, Meng Kui Hu and Jill Lagos Shemin.

Staff members from ESCAP, ADB and UNDP reviewed parts of the report and/or provided technical inputs at various stages of preparation: Hamza Ali Malik of the Macroeconomic Policy and Financing for Development Division (ESCAP); Vanessa Steinmayer of the Social Development Division (ESCAP); Stefanos Fotiou and Katinka Weinberger of the Environment Development Division (ESCAP); Arman Bidarbakht Nia of the Statistics Division (ESCAP); Van Nguyen of the Office of the Executive Secretary (ESCAP); Wittada Anukoonwattaka, Yann Duval, Deanna Morris and Tsuen Yip Jonathan Wong of the Trade, Investment and Innovation Division (ESCAP); Siope Vakataki Ofa and Tae Hyung Kim of the ICT and Disaster Risk Reduction Division (ESCAP); Rolando Avendano, Kijin Kim, Jong Woo Kang, Peter Rosenkranz, James Villafuerte of the Economic Research and Cooperation Department (ADB), Arndt Husar of the Digital Technology for Development Unit (ADB), and Thomas Kessler of the Finance Sector Group (ADB); Balazs Horvath (UNDP, China), Aarathi Krishnan (UNDP RBAP, New York), Radhika Lal, Alexandru Oprunenco, Aafreen Siddiqui and Debashis Nag (UNDP, Bangkok Regional Hub); Janine Civitate and Calum Handforth (UNDP Global Centre, Singapore); Yolanda Jinxin and James Green (UNDP, Executive Office, New York)

Arman Bidarbakht Nia, Dayyan Shayani, Bishwa Nath Tiwari, Walaiporn Laosuksri, Quynh Huong Nguyen, Kieren Mcgovern and Zakaria Zoundi provided research and data support.

Tom Felix Joehnk edited the manuscript and project administration support was provided by Aqira Bhatchayutmaytri. Communications and publishing support was provided by Mitch M. Hsieh, Katie Elles and Kavita Sukanandan (ESCAP); Graham Dwyer, Pima O. Arizala-Bagamasbad, Rodel Bautista and Duncan McLeod (ADB); Cedric Monteiro, Mahtab Haider and Supaporn Tampirak (UNDP); the Publications Board of the United Nations, Office of the Executive Secretary, ESCAP; the ADB Office of Administrative Services; and the publishing team of ADB's Department of Communications. Publication design and layout was by Jeffrey Williams.

Photo credits:
Cover: Matjaz Slanic / iStock.com
Chapter 1: Monster Ztudio / Shutterstock.com
Chapter 2: Metamorworks / iStock.com
Chapter 3: Orbon Alija/ iStock.com

Contents

List of Boxes

List of Figures

Abbreviations

ADB	Asian Development Bank
AI	Artificial Intelligence
AP-IS	Asia-Pacific Information Superhighway Initiative
APSED III	Asia-Pacific Strategy for Emerging Diseases and Public Health Emergencies
ASEAN	Association of Southeast Asian Nations
a2i	Access to Information (a2i) Programme
B2C	Business to Consumer
BIMSTEC	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
CAREC	Central Asia Regional Economic Cooperation
CLMV	Cambodia, Lao People's Democratic Republic, Myanmar and Viet Nam
CO_2	Carbon Dioxide
COVID-19	Coronavirus Disease
ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
eVIN	Electronic Vaccine Intelligence Network
G2B	Government to Business
G2P	Government to Person
GHG	Greenhouse Gas
H1N1	Influenza A virus subtype H1N1
ICT	Information and Communications Technology
ITU	International Telecommunication Union
LDCs	Least Developed Countries
MERS-CoV	Middle East Respiratory Syndrome Coronavirus
MSMEs	Micro, Small and Medium Enterprises
OECD	Organisation for Economic Co-operation and Development
P2P	Peer-to-Peer
RCEP	Regional Comprehensive Economic Partnership
SAARC	South Asian Association for Regional Cooperation
SARS	Severe Acute Respiratory Syndrome
SDGs	Sustainable Development Goals
SMILE	Sistem Monitoring Imunisasi Logistik secara Elektronik
STI	Science, Technology and Innovation
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

Explanatory notes

The Asia-Pacific region, unless otherwise specified, refers to the group of members and associate members of the Economic and Social Commission for Asia and the Pacific (ESCAP) that are within the Asia and the Pacific geographic region (the Asian Development Bank and the United Nations Development Programme, partners in this publication, have differing regional compositions). Some countries are referred to by a shortened version of their official name in the figures, as indicated in brackets in the listing below.

Geographic subregions in this report are defined (unless otherwise specified), as follows: East and North-East Asia: China, Democratic People's Republic of Korea (DPR Korea), Japan, Mongolia, Republic of Korea; South-East Asia: Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste, Viet Nam; South and South-West Asia: Afghanistan, Bangladesh, Bhutan, India, Islamic Republic of Iran, Maldives, Nepal, Pakistan, Sri Lanka, Turkey; North and Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan, Uzbekistan; Pacific: American Samoa, Australia, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Federated States of Micronesia, Nauru, New Caledonia, New Zealand, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu.

Least developed countries: Afghanistan, Bangladesh, Bhutan, Cambodia, Kiribati, the Lao People's Democratic Republic, Myanmar, Nepal, Solomon Islands, Timor-Leste and Tuvalu. Samoa and Vanuatu were part of the group of least developed countries prior to their graduation in 2014 and 2020 respectively.

Landlocked developing countries: Afghanistan, Armenia, Azerbaijan, Bhutan, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Mongolia, Nepal, Tajikistan, Turkmenistan and Uzbekistan.

Small island developing States: Cook Islands, Fiji, Kiribati, Maldives, Marshall Islands, Federated States of Micronesia, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu.

Developing Asia-Pacific: ESCAP region, excluding Australia, Japan and New Zealand.

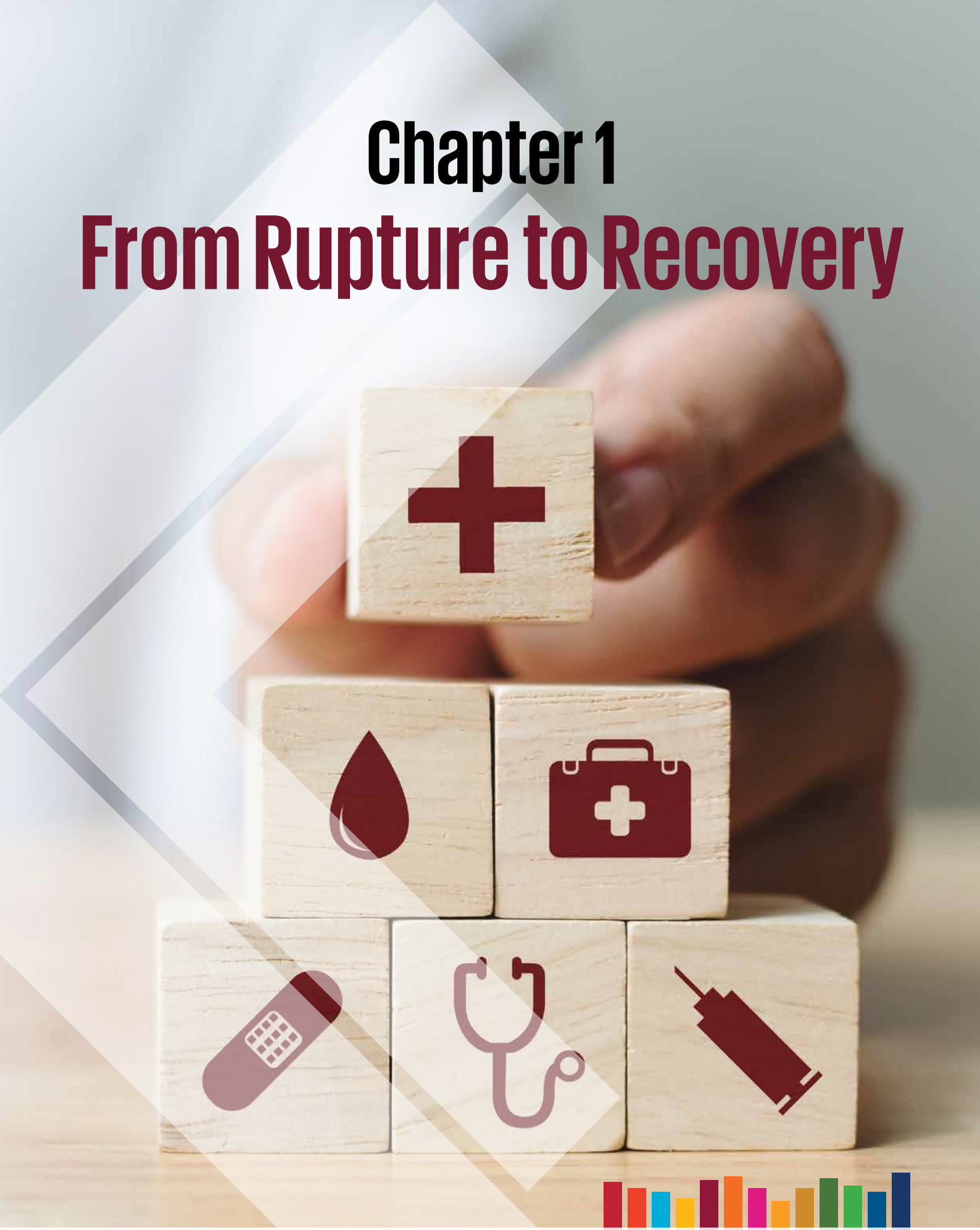
Developed or industrialized Asia-Pacific: Australia, Japan and New Zealand.

The classification of countries into income groups is from the World Bank.

Symbols and units

- References to dollars ($) are to United States dollars, unless otherwise stated.
- The dash (–) between dates signifies the full period involved, including the beginning and end years.

Chapter 1
From Rupture to Recovery



The outbreak of the coronavirus disease (COVID-19) has caused devastating health and socio-economic crises that further undermine the prospects of meeting the 2030 Agenda for Sustainable Development in the Asia-Pacific region. For governments in the region, the urgent near-term tasks have been to suppress the spread of the virus and speed up inoculation campaigns, while providing relief for vulnerable populations.

The pandemic and the measures imposed to contain the virus have had severe economic and social consequences. They have hit the poorest and socially excluded the hardest, including women and vulnerable groups. Tens of millions of jobs and livelihoods have been lost. Low skilled workers working mainly in the informal sector face lower pay and heightened risks to their health, while many highly skilled workers have been able to work from home. Lockdowns and income losses have made healthcare and education less accessible and affordable, especially for the poor and vulnerable, including women and girls. The pandemic has laid bare inequalities and vulnerabilities that have long impeded progress on the Sustainable Development Goals (SDGs) and now leave people exposed in the face of future economic and environmental shocks.[1] These weaknesses have deepened the adverse impacts of the pandemic and made the path to recovery all the more challenging.

The pandemic has also exposed the strain of pursuing unsustainable production and consumption patterns on the environment, and inadequate investments in human and ecological systems. COVID-19 is the most recent shock to development caused by violations of biophysical and ecological boundaries. Climate change, and other stresses on bio-diversity and ecosystems, are major challenges for the region.

The region's response to the pandemic has been marked by pragmatism and experimentation. Its main features have been to suppress the spread of the virus through lockdowns and travel restrictions, protect vulnerable groups through targeted support, and provide substantial fiscal and monetary support to mitigate the pandemic's economic fallout.

The impact of COVID-19 and governments' responses has differed widely across the region. Least developed countries (LDCs) were often less resilient and severely impacted by the decline in remittances and heavy reliance on a single export or industry (such as garments and tourism). Although many Small Island Developing States (SIDS) largely escaped COVID-19 infection, by March 2021, the economic fallout of the pandemic was dramatic. LDCs were also less able to enact large economic stimulus due to limited fiscal space. Going forward, the challenge is to ensure that recovery efforts encompass all countries and peoples, and to support them in achieving the SDGs.

As countries prioritised the health of their own citizens, the fate of migrant workers was often overlooked. Moreover, the closure of international borders, export restrictions on medical equipment and essential drugs (aimed at stemming the spread of the virus) disrupted supply chains and remittances, and reduced revenues from tourism. Fierce competition for a limited stock of vaccines has left poorer countries at risk of being left behind. In this regard, a fundamental change in the workings of regional cooperation is necessary, namely a move beyond harnessing benefits from trade to increased cooperation in other areas with the aim of reducing the impact of shocks like COVID-19.

Pandemic management measures have shown that it is possible to live and work differently, travel less and consume more consciously—behaviours that reduce pollution, congestion and carbon emissions. The pandemic has moved some economic activity away from cities. In many countries this may enable progress in making cities inclusive, safe, resilient and sustainable. It has ushered in innovations and digital solutions to address many critical needs. At the same time, it has laid bare that these choices and remedies are not available to all. The most vulnerable are often unable to change their work or life patterns, and the jobs of low-paid and lower-skilled workers have been especially insecure. Efforts to manage the pandemic have reinforced the need to find better development solutions for the women, children, and other vulnerable people including the sick, poor, older persons, and persons with disabilities. Crucially, it has put centre stage

the importance of the transformative principle of "leaving no one behind" of the 2030 Agenda.

This regional report by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Asian Development Bank (ADB) and the United Nations Development Programme (UNDP) highlights many of the evolving impacts of the pandemic. In building back better, the long recovery ahead must be measured in terms of its impact on people's lives—including better health, quality education, social protection, decent jobs, a healthy environment, and a greener and more sustainable economic system. Digital technology and finance hold immense potential to underpin a strong, balanced recovery. Consequently, this report focuses on the role of digitization in enabling progress towards the SDGs. The pandemic has highlighted the region's growing interdependence and the need for joint action to achieve the SDGs. While countries have prioritized their national responses, the global challenges of the COVID-19 pandemic and climate change require collective action, solidarity and cooperation. It is in countries' collective self-interest to address these intertwined challenges by cooperating more effectively. Against the backdrop of COVID-19 crisis, "nobody is safe until everybody is safe". The report concludes by considering priorities for regional cooperation that can help drive progress towards the SDGs and ensure that no country is left behind.

1.1 COVID-19: Undermining progress towards the 2030 Agenda

At the start of the Decade of Action to deliver the SDGs by 2030 and before the COVID-19 pandemic, the Asia-Pacific region was not on track to attain any of the seventeen Sustainable Development Goals (see Box 1.1). The pandemic has made progress even more difficult. The Asia and the Pacific SDG Progress Report 2021 noted that before the pandemic the average country in the region was "far from making adequate progress… and off track to attain the related SDG targets by 2030". The report highlighted the urgency of interlinked social, economic and environmental systems for resilience and stressed that efforts to strengthen social solidarity and ensure we "leave no one behind" must be redoubled.[2]

Box 1.1:

Inadequate SDGs progress

The Asia-Pacific region is falling short of the targets of the 2030 Agenda. The region made significant progress towards good health and well-being (Goal 3) and industry, innovation and infrastructure (Goal 9), but it must accelerate progress or urgently reverse trends on most goals and targets to achieve its 2030 ambitions (see figure below).

Alarmingly, the situation is now worse than in 2000 on climate action (Goal 13) and life below water (Goal 14). The region is progressing towards no poverty (Goal 1), zero hunger (Goal 2), quality education (Goal 4), reduced inequalities (Goal 10) and partnership for the goals (Goal 17), but progress is insufficient. On the rest of the goals (eight out of 17), progress has been too slow and needs to accelerate significantly.

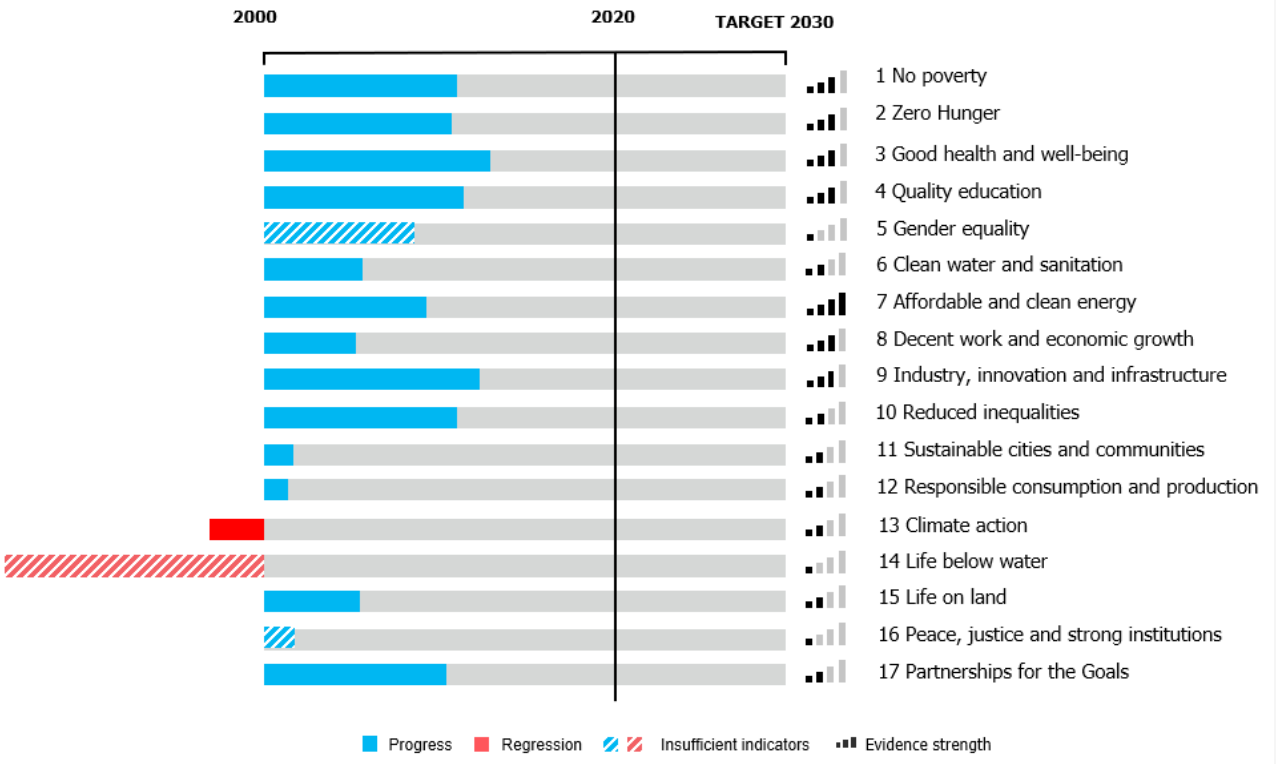
On current trends, the Asia-Pacific region may just achieve less than 10 per cent of the SDG targets (nine out of 104 measurable targets) by 2030. Even on goals where progress has been most remarkable (Goals 1, 2, 3, 4, 9, 10 and 17), anticipated progress is mixed. Countries were lagging behind more than 90 per cent of targets: the region must accelerate its current rate of progress or reverse negative trends.

Continued...

None of the five Asia-Pacific subregions are on track to achieve all 17 SDGs. However, some subregions were better positioned on some parts of the agenda. For example, East and North-East Asia was on track to eradicate poverty (Goal 1) and provide clean water and sanitation for all (Goal 6) while South-East Asia was on track to promote sustainable industry and innovation (Goal 9). However, all subregions lag behind on goals related to the environment, with four regressing on climate action (Goal 13) and life below water (Goal 14).

Strong economic growth in the Asia-Pacific subregions depends on intensive use of natural resources. The resultant heavy material footprint is hindering the achievement of Goal 12 on responsible consumption and production. All subregions, except for South and South-West Asia, are regressing on the material footprint target. Similarly, apart from the Pacific, all subregions are falling behind on the target of reducing greenhouse gas emissions, and most subregions are showing slow progress or are regressing on other environment-related goals.

There is therefore an added urgency to ensure that responses to the pandemic in the region and at the national level accelerate progress toward the 2030 Agenda.



Source: Asia and the Pacific SDGs Progress Report 2021 (https://data.unescap.org/publications).

The pandemic has further set back progress on the SDGs, especially in the areas of poverty, decent work, education, health and gender. The following subsection describes the pandemic's impact in the Asia-Pacific region on the three pillars of sustainable development

1.1.1 Economic impacts

At the start of 2020, the effects of the pandemic were thought to be severe but short-lived.[3] In retrospect these initial assessments were optimistic. More than one year into the pandemic, its end is not in sight. According to the latest estimates by ESCAP, the pandemic led to a fall in output of 1.8 per cent in 2020 in the Asia-Pacific region, with output contracting 1.0 per cent in the developing countries of the region. Economic growth in developing Asia in 2020 may turn out to be the lowest since 1961, raising questions about earlier hopes of a strong, V-shaped recovery.

The COVID-19 pandemic destroyed millions of jobs and livelihoods. Total working hours in the Asia-Pacific region are estimated to have shrunk by 6.5, 16.9, 5.4 and 2.8 per cent respectively in the four quarters of 2020. This is equivalent to a loss of 140 million full-time jobs over the year.[4] Shrinking economies, job losses and falling household income have pushed up poverty, reversing much of the region's progress of reducing poverty and ending hunger. Estimates suggest women are more likely to be pushed into poverty. The latest data show that some 233 million people lived below the threshold of $1.90 a day in the Asia-Pacific region in 2018. Using the international poverty line of $3.20 a day, the number of poor rises to 1.0 billion. ESCAP estimates that the pandemic has pushed 89 million people in Asia and the Pacific back into extreme poverty (according to the $1.90 per day threshold). Using the $3.20 threshold, the figure rises to 158 million. South Asia accounts for a bulk of this increase, as the subregion is among the worst hit.[5] The overall trends in poverty in the region are even more worrying when non-income based measures of poverty are considered, as discussed in the section below.

1.1.2 Social impacts

The COVID-19 pandemic is expected to have triggered the first decline in human development in thirty years. The pandemic will not only lead to an increase in income poverty but also multidimensional poverty. There are 640 million multidimensionally poor people in Asia and the Pacific. The pandemic may double this figure.[6]

A simulation of the impact of the pandemic on multidimensional poverty in 70 countries—including sixteen countries from Asia-Pacific region—found that it might have increased by 60 per cent in 2020, plunging an additional 490 million people back into multidimensional poverty globally. The increase in deprivations may set back progress on multidimensional poverty by more than nine years.[7] The analysis takes into account the effect of the pandemic on nutrition and school attendance. Even under a scenario which considers only the impact of the pandemic on nutrition, multidimensional poverty rose by 30 percent and made an additional 237 million people multi-dimensionally poor.[8]

After more than thirty years of uninterrupted decline, child poverty is estimated to have risen sharply in 2020. UNICEF has projected that the pandemic may have pushed the households of an additional 71 million children into poverty by the end of 2020. Children in the region face increased risk of malnutrition, forced begging and loss of education.[9] According to UNESCO, around 1.5 billion children globally were affected by school closures during the last week of April 2020.[10] In the Asia-Pacific region, at least 850 million pupils were affected by school closures and, by September 2020, had lost almost half of the academic year. UNESCO also estimates that some 6.7 million additional pupils in primary and secondary schools in the Asia-Pacific region are at risk of dropping out, with secondary school pupils accounting for the bulk of potential dropouts (4.2 million).[11]

Women, children, the elderly, persons with disabilities, and migrant households have been among the most affected by the pandemic. Most

older persons and persons with disabilities in employment work in the informal sector, which can make them especially vulnerable.[12] The deaf and blind often cannot access critical information on the pandemic via television, radio or the Internet, owing to a lack of sign language, real time captioning and special needs websites.[13]

UN Women has estimated that more than four out of five women in the region who lost their jobs during the pandemic did not receive unemployment benefits or other government support.[14] During the pandemic women and girls have suffered increased domestic violence and risk of trafficking. Healthcare workers are predominantly women and therefore more exposed to the COVID-19 infection. The crisis has also disproportionately affected women's mental and emotional health as COVID-19 has increased the burden of unpaid care and domestic work. In addition, women and girls are particularly vulnerable to the impact of school closures with tens of thousands of girls having been subjected to early and forced marriage since the start of the pandemic.

Migrant workers and stateless persons in the region have also been severely affected. Their exclusion from social protection, especially health services, combined with lockdowns and border closures, has left many vulnerable to exploitation and abuse. Migrant workers are more exposed to health risks due to the often hazardous nature of their work and living conditions.[15] With most borders closed, many migrants have taken more perilous routes, exposing them to the risk of human trafficking. Migrants have been at increased risk of depression, abuse and discrimination as a result of social marginalization, xenophobia and stigma as they can be seen as virus carriers.[16]

1.1.3 Environmental impacts

At the start of the pandemic, in some parts of the region lockdowns temporarily reduced pressure on the environment, mainly due to reduced transport, manufacturing and energy use. But these effects were short lived and are not to be mistaken for a departure from prevailing unsustainable consumption patterns. Pollution levels rebounded quickly. Despite the immense economic recession, global greenhouse gas emissions are estimated to have fallen by just 7 per cent.[17] At the same time, a short-term focus on stimulating the economy has been detrimental to the environment at times. In some countries environmental rules and regulations have been relaxed, and there has been a weakening of enforcement and reduced funding for environmental protection.[18]

The slowdown in economic activity and seaborne trade due to the COVID-19 pandemic may give the oceans in the Asia-Pacific region a chance to recover.[19] However, the pandemic has also triggered a surge in plastic pollution. Medical waste, single-use facemasks, gloves and other non-degradable items have ended up in rivers and oceans, threatening marine lives and human health.[20]

1.2 COVID-19: Exacerbating pre-existing vulnerabilities

The pandemic has heightened countries' vulnerabilities and widened development gaps between countries. This section highlights some of the weaknesses that preceded COVID-19 as well as the pandemic's impacts on the three pillars of sustainable development: economic, social and environmental sustainability. Understanding how pre-existing vulnerabilities shape the impacts of the pandemic in the countries and subregions in Asia-Pacific will be crucial for designing policies that ensure no one and no country is left behind.

1.2.1 Economic vulnerabilities

Economic growth in the Asia-Pacific region was already declining before the pandemic. The region's export-oriented growth strategy has been tested for some time amid weakening global trade. Domestic structural weaknesses, volatile exchange rates and capital flows, and falling commodity prices also weighed on countries' economic performance. In 2019, the output of developing countries in the

region rose 4.3 per cent—lower than the historical trend. The pandemic led to a fall in output of 1.8 per cent in 2020.[21]

In economic terms, the COVID-19 pandemic is an 'asymmetric' shock. It has affected countries differently and may lead to greater economic divergence between countries in the region. The pandemic's impact is determined by an array of factors, including countries' disaster preparedness, economic resilience, and capacity to provide relief and recovery measures. The structure of economies has also played a significant role. For instance, social distancing measures and cross-border travel restrictions have devastated economies that depend heavily on tourism (such as Bhutan, Georgia, Maldives, Nepal, Sri Lanka, Thailand, and the Pacific Island States). At the same time, least developed countries in South Asia and South-East Asia were more affected than their industrialised neighbours due to their reliance on low-tech, low-skill and informal services. Countries relying on natural resource exports were also hit hard as commodity prices and exports fell precipitously in early 2020 due to falling demand and disruptions in global supply chains. Several countries continue to remain highly dependent on agriculture, extractive industries or tourism. To reduce these vulnerabilities rooted in reliance on one economic sector, diversification, greater fiscal and financial buffers or strengthened external support are needed.

In many countries in the region, unemployment remains high with the vast majority of jobs in the informal sector. In some least developed, landlocked and small island countries, the informal sector accounts for nearly nine out of ten jobs.

1.2.2 Social vulnerabilities

Rising inequalities of income and wealth were key challenges in the Asia and Pacific region before the pandemic. The richest ten per cent account for almost half of the region's total income, while the bottom half income group accounts for 12-15 per cent.[22] Rising economic inequalities are a major issue in some of the region's largest and most populous countries. Inequality in the Asia-Pacific region is higher than the global average and it is increasing faster than in other regions.

Income inequality in the Asia-Pacific region as a whole, measured by the Gini coefficient, increased by more than 5 percentage points between 1995 and 2015. Importantly, while inequality between countries in the region fell between 1995 and 2015, this was due to a more even distribution in the top third of countries in terms of income, largely explained by China's growing middle class. Indeed, income inequality in the bottom two-thirds of the distribution worsened.[23] The gap between less developed and more developed countries in the region has been widening. Moreover, the region has experienced a rise in inequality of opportunities in areas ranging from access to education, healthcare, and social protection to financial and digital services. With more than 260 million people relying on unimproved water sources, and over 1.1 billion people lacking basic improved sanitation facilities, living standards in many parts of the region are precarious. Poorer rural households with low education are the most affected by the lack of clean water and basic sanitation.[24]

In many developing countries of the Asia-Pacific region, education, healthcare and social protection are inadequate and chronically underfunded. In the region's least developed countries, access to healthcare is still scant, with an average 790 physicians per 100,000 people in 2017, compared to 2,790 in the region's developing countries. The average completion rate in secondary education is around 70 per cent in least developed countries, compared with a regional average of 89 per cent. Low educational levels and a lack of skills often confine people to informal sector jobs and vulnerable employment.[25]

In addition to weaknesses of the health sector, in most countries in the region social protection systems are inadequate. More than half of the region's population do not have any social protection coverage. In most countries social protection is patchy and covers only formal sector workers.[26] As a result, a large number of people are vulnerable to contingencies that adversely affect their welfare such as illness, disability and unemployment. On

average, countries in the region spend just 4.9 per cent of GDP on social protection (excluding health). When weighted by countries' GDP levels, investment in social protection (excluding health) is 7 per cent. This is much lower than the global weighted average of 11 per cent, and compares unfavorably with other regions (Latin America: 9.7 per cent, Europe: 17.7 per cent).[27]

Women are particularly disadvantaged. A low female labour force participation rate is at the heart of the gender gap in social protection coverage. One half of women above the age of 25 in the region are part of the labour force, compared with 84 per cent for men.[28] Women are more likely to bear the burden of unpaid care work than men. They also often have lower access than men to critical services such as health care. While countries in the region are witnessing rapid digital transformation, Internet usage among women still lags that of men. Furthermore, the informal nature of businesses run or owned by women means that many find it difficult to access government support measures and other support. Women entrepreneurs also tend to have less collateral and less access to formal financial services.

Despite considerable progress, big disparities in access to financial services persist in the region. There is a big gap in the share of adults with bank accounts between the top 60 per cent and the bottom 40 per cent of the income distribution (such as in Lao PDR and the Philippines). As another illustration of disparities, while there are over 200 ATM machines per 100,000 adults in the Republic of Korea, in Afghanistan there are only two (the global average is 43).[29] The disparities are similarly large on other indicators of financial inclusion. The financing gap of formal micro, small and medium enterprises (MSMEs) in developing countries has been estimated at $5.2 trillion. Due to economic and sociocultural barriers, women-owned enterprises make up only 23 per cent of MSMEs, but account for nearly one third of the total MSME financing gap.[30]

Although the number of Internet users has risen steadily, the region is marked by a stark digital divide with a large part of the population offline. Yet the COVID-19 pandemic has forced a rapid acceleration of digitization, which holds the potential to unlock new solutions to longstanding challenges of sustainable development. Moreover, there is a stark technological divide between urban and rural areas. Chapter 2 explores many facets of the digital divide in the region.

1.2.3 Environmental vulnerabilities

The Asia-Pacific region is experiencing a steady loss of biodiversity, deforestation and environmental degradation, which are all drivers of zoonotic diseases such as COVID-19. More than 40 per cent of coral reefs and nearly two thirds of coastal mangroves have been lost, and in 2020, the region recorded the world's highest number of threatened species. Shrinking forests and forest degradation remain major environmental problems. During 2000-2015 the region accounted for 10.6 per cent of the world's natural forest loss.[31] Freshwater ecosystems are threatened by pollution and over extraction for drinking water, energy production and irrigation.

Environmental vulnerabilities compound the health and socio-economic impacts of the pandemic. To illustrate, underlying health conditions, especially respiratory diseases caused by air pollution, can make COVID-19 infections more complicated and fatal. At the same time, COVID-19 has laid bare that a narrow focus on a small set of hazards, often tackled by one or two government agencies, is not enough to prevent or effectively respond to complex disaster risks.

As the *Economic and Social Survey of Asia and the Pacific 2020* highlights, the resource-intensive growth model of many countries in the region has led to a concomitant rise in greenhouse gas (GHG) emissions and pollution.[32] The Asia-Pacific region is the largest carbon dioxide (CO_2) emitting region with 17.27 billion metric tons emitted in 2019.[33] During 2000-2017 resource use jumped 124 per cent in the region amid growing affluence and population growth, compared with a 29 per cent rise in the rest of the world.

Asia and the Pacific is one of the most disaster-prone regions in the world. Five of the ten most vulnerable countries to climate change are in the region. Since 1970 more than 2 million people, or 43,000 people

Box 1.2:

When COVID-19 and natural hazards collide

Many countries in the Asia-Pacific region are at risk of nearing a tipping point beyond which the burden of natural disasters and climate change will surpass their capacity to mount an effective response. The substantial impacts of the COVID-19 pandemic have added to a growing list of disaster risks. Disasters in the region are closely intertwined and feed into inequalities of income and opportunity. As the pandemic spread in the first half of 2020, the virus outbreak added new challenges on top of the hazards of the cyclone and monsoon season. The pandemic has complicated the operation and provision of critical infrastructure such as hospitals, safe shelter and housing, utilities, water and sanitation, and transport services.

Biological and natural hazards can intersect and complicate the management of disaster impacts on people and the economy. Yet, disaster preparedness has rarely addressed these compounded risks from biological hazards. The COVID-19 pandemic laid bare the systemic gaps in multi-hazard disaster preparedness and has forced countries to recognize that natural, biological, and other hazards need to be considered together. Even though the risks from biological hazards such as COVID-19 and natural hazards manifest themselves differently, when they occur simultaneously in the same location, they can pose devastating parallel threats to people and their livelihoods. With the rising number and intensity of weather extremes foreshadowed by climate change, another pandemic could decimate the already weakened social systems, including systems of health and disaster management. Governments in the region have to confront the threat of these converging disasters. To do so, the institutions and infrastructure in the areas of disaster risk, climate, health and technology need to be integrated so that they can be mobilised without delay and ensure progress towards the SDGs is not reversed.

Fiji, for instance, faced two devastating cyclones in 2020: “Harrod” in April and “Yasa” in December. In October, a 7.0 magnitude earthquake originating in the Aegean Sea caused widespread destruction in the Turkish province of Izmir. In the first nine months of 2020, China experienced twenty-one big floods—the highest number since 1998. The pandemic hit Australia as the country emerged from the aftermath of the worst bushfires in its history and record-breaking high temperatures. In South Asia, the consequences of converging natural and biological disasters became apparent when super-cyclone “Amphan” and cyclone “Nisarga” hit Bangladesh and several Indian states in May and June, respectively. The simultaneous impacts left the authorities unprepared for the challenge of maintaining social-distancing norms in cyclone shelters, which had previously been converted into quarantine facilities and were overcrowded as a result.

To address cascading disaster risks in South Asia amidst the COVID-19 pandemic, ESCAP has engaged several institutions and organizations to examine ways to overcome the challenges in implementing a systemic approach to disaster and public health risk management. The initiative seeks to explore how existing regional and sub-regional cooperation mechanisms can be used to scale up multi-hazard and multi-sectoral preparedness systems. One of the recommendations has been the development of a new regional framework and strategic action plan for managing cascading risks from natural and biological hazards through cooperation with subregional bodies such as the South Asian Association for Regional Cooperation (SAARC) or the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC). The idea is to shape a long-term, holistic, and coordinated framework to building disaster and climate resilience that aligns with the SDGs, the Paris Agreement and the Sendai Framework for Disaster Risk Reduction. Such a framework could deepen existing cooperation between subregional and regional institutions, scale up mitigation and adaptation efforts, and enhance knowledge and technology key to a green recovery as the region emerges from the pandemic.

Source: ESCAP (2021). Weaving a stronger fabric: managing cascading risks for the climate resilience. Policy Study (8/2021)

on average per year, have been killed due to disasters caused by natural hazards, such as earthquakes, cyclones, floods, drought, and volcanic eruptions. The *Asia-Pacific Disaster Report 2019* warned that disaster and climate economic losses could amount to as much as $675 billion annually, with estimated climate-related losses accounting for 85 per cent of the total. In several least developed countries an acute vulnerability to drought is a major risk. Many countries are vulnerable as a result of the combined risks of disasters caused by natural hazards, and economic and social weaknesses. The pandemic has deepened these vulnerabilities (see Box 1.2).

COVID-19 also highlighted underlying risks, fragilities, and inequities in food systems. The restrictions on the movement of people and goods around the world have put major strains on local, regional, and global supply chains, and tested the resilience of food systems. Nearly half a billion people in Asia and the Pacific were already hungry and malnourished, and therefore especially vulnerable to the effects of the pandemic. COVID-19 has also focused attention on the precarious situation of food- and farmworkers, who have continued working to keep food supplies flowing despite facing major health risks.

1.3 Recovering from COVID-19: leaving no one behind

Many governments in the Asia-Pacific region have enacted sizable fiscal stimulus packages, along with other financial measures, to mitigate the pandemic's economic and social impact. Between March 2020 and January 2021, developing countries in the region deployed COVID-19 health response and relief measures for households and firms worth an estimated $1.8 trillion (6.6 per cent of their combined GDP in 2019).[34] The measures included cash transfers to households, prolonged social protection benefits, financial support for micro, small and medium-sized enterprises, deferred tax payment deadlines, and credit guarantees and loans to businesses. Their impact will inevitably vary, depending on a range of factors including administrative and institutional capacities, the quality of underlying social protection systems, the degree of labour market informality, and digitalization. A World Bank study shows that the COVID-19 temporary cash transfers are helping, but their effectiveness hampered by pre-existing structural gaps in social protection. Ad-hoc measures are no substitute for a standing social safety net infrastructure.[35]

Many early stimulus packages assumed that the impact of the pandemic would be short-lived. They may also have underestimated structural weaknesses in economies and social systems. Most relief and recovery packages proved inadequate as new waves of infection erupted. In some cases, a lack of focus on the most vulnerable only deepened pre-COVID-19 inequalities.

Going forward, a much greater focus on inclusion to avoid the entrenchment of such forms of inequality will be necessary. Otherwise, there is a risk of a K-shaped economic recovery (see Box 1.3), in which some parts of the economy may recover extremely well, while others contract dramatically. A K-shaped recovery would threaten the aim of SDG 10 to reduce inequality within and among countries, as well as the overarching principle of the Agenda 2030 of "leaving no one behind".

1.4 Building back better together

Crises tend to spur innovation and foist technological and behavioural change on governments, businesses and people alike. Science, technology, and innovation have played a critical role in responding to the pandemic and will drive countries' efforts to recover and build resilience. Current patterns of production and consumption, along with high and rising inequality over the last few decades, have put pressure on people and the planet that are clearly unsustainable. While the pandemic and climate change crises may appear disconnected, in reality both are functions of over-consumption and over-production—the very choices that destroy natural habitats of wild-lives and bring humans in close contact with virus-carrying animals.

The focus and substantial onus remains on the evolving and purposeful role of national governments and state capacity to plan, finance and put in place recovery strategies. Much has already been written about elements of such a recovery. This report therefore focuses on two

Box 1.3:

Prospect of a K-shaped recovery

Global

A K-shaped global economic recovery—marked by increasing divergence in income prospects of countries, industries and households—appears plausible. Most countries will take years to attain pre-pandemic income levels. In the wake of the 1997-1998 financial crisis, for instance, it took eight years for Indonesia's GDP per capita to return to pre-crisis levels and even then, average incomes were one fifth lower. The effects of COVID-19 pandemic are likely to be worse. The *Economic and Social Survey of Asia and the Pacific 2021* analyses the impact of such losses and setbacks on investment, jobs, poverty, inequality, human development, and environmental performance. It would be ill-advised to withdraw fiscal and other support prematurely. More action is likely to be needed, including income support through well-targeted cash transfers, wage subsidies, unemployment insurance tax deferrals, moratoria on debt services and equity-like injections into viable firms.

Asia and the Pacific

While income inequality, measured by the Gini coefficient, fell in almost all regions of the world between 1995 and 2015, it rose by more than 5 percentage points in Asia and Pacific. In some 40 per cent of countries in the region income inequality increased. Worryingly, the market income Gini coefficient soared in China, Indonesia, Bangladesh and India, which are among the five most populous countries in the region and account for over 70 per cent of its population. Importantly, financial capacities to respond differed within and between countries. In the Republic of Korea, for instance, the fiscal stimulus equalled about 14 per cent of GDP. This is in sharp contrast with countries such as Bangladesh, Cambodia, Lao PDR, Papua New Guinea and the Solomon Islands, where the fiscal stimulus was about 1 per cent of GDP or less.

Going forward, differences in infections and immunity, financial positions, quality and coverage of healthcare systems and COVID-19 vaccine rollout are likely to lead to an uneven recovery across countries, with the region's more affluent countries likely to recover more quickly than poorer countries. There is a fear of multi-speed access to vaccines. Developed countries, together with Singapore, the Republic of Korea, China, India, Russian Federation and Turkey, may achieve herd immunity within 2021, while for other developing Asia-Pacific countries inoculations are likely to have a significant impact on immunity only in 2022.

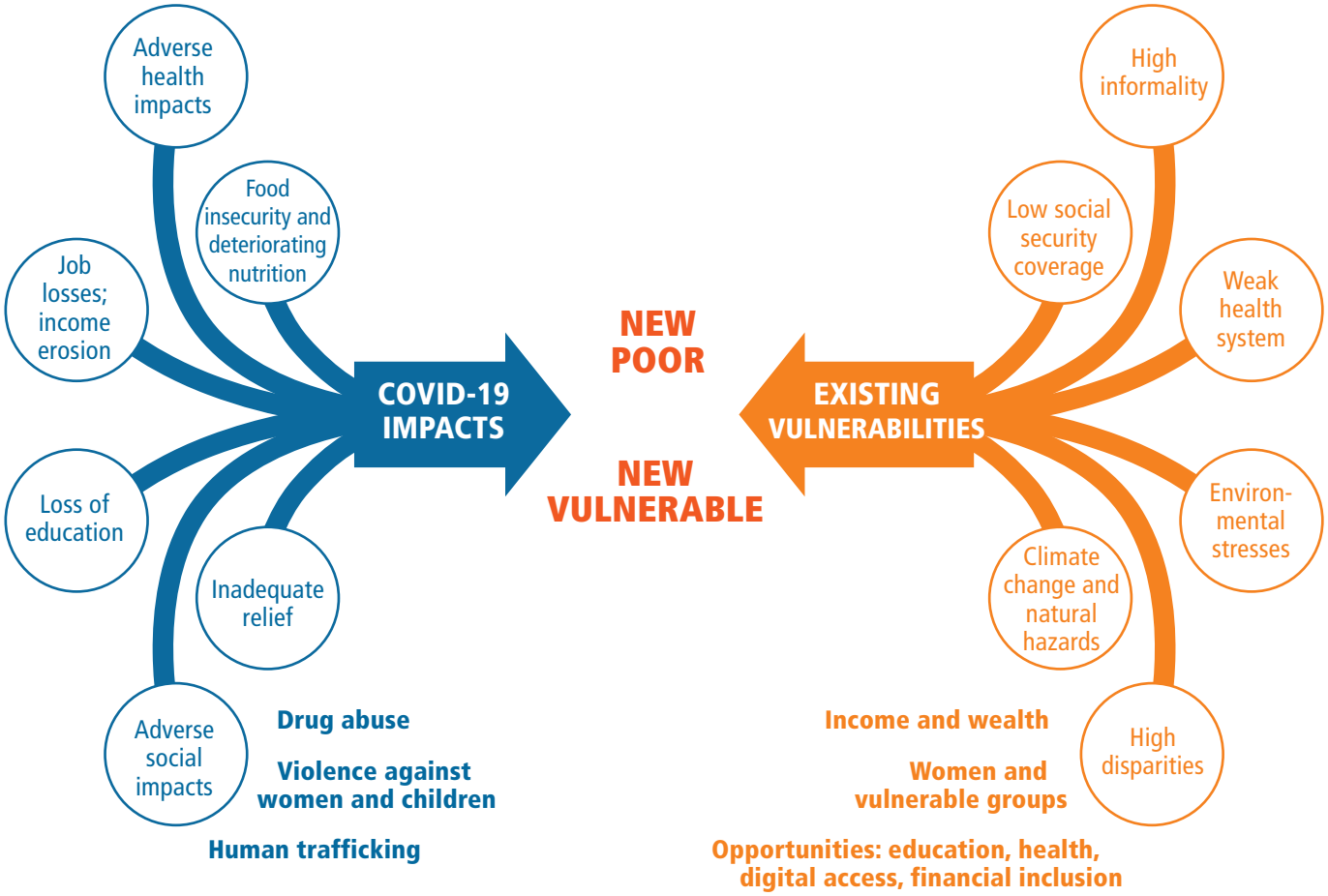
Another factor that may drive a K-shaped recovery is that COVID-19 impacted economic sectors and households unevenly. Similarly, the digital and technology divide and gaps in economic capability may lead to substantial cross-country divergence in adapting transformative change brought about by teleworking, digitalization and automation, in the post-pandemic economy. The pandemic may drive greater inequality and social instability, especially in some of the poorest and most fragile parts of the region. A K-shaped recovery—and a widening chasm between developing and developed countries—remains a major risk.

Source: ESCAP (2021), Economic and Social Survey of Asia and the Pacific 2021: Towards post-COVID-19 resilient economies. Sales No. E.21.II.F.5

elements of a path forward: digital transformation in the region and revitalized regional cooperation. Digitization holds immense promise for helping to unlock new paths to sustainable development, but needs to be complemented with necessary transformations of economies, public institutions, and behavioural norms. The next chapter explores the key role that digital technology, especially digitalization of finance, can play in recovery in the region and building resilience for all countries. The third and final chapter of this report explores opportunities for renewed regional cooperation to foster green, inclusive, sustainable and resilient recovery efforts that helps address the drivers of K-shaped recovery and ensure that no country or person is left behind.

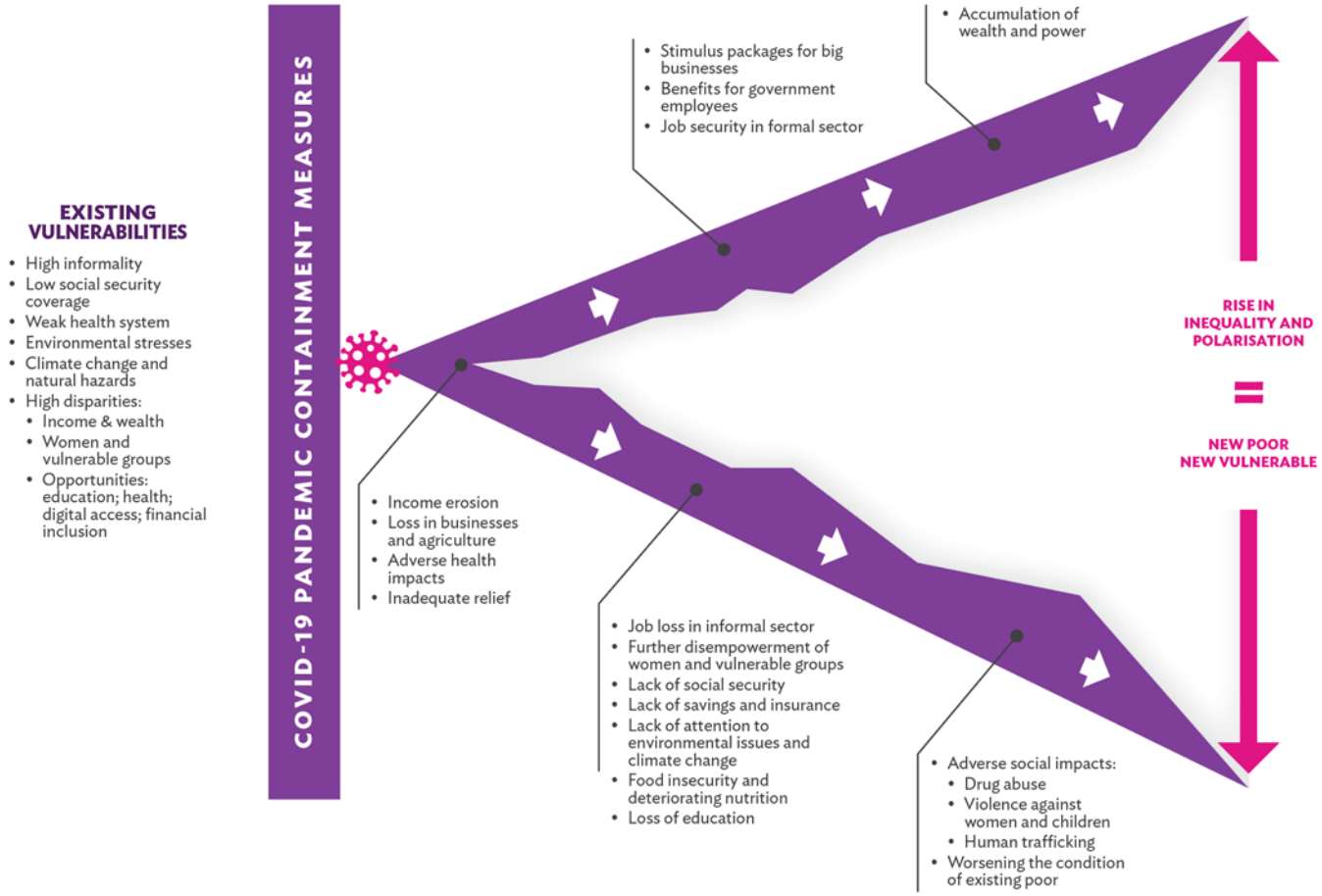
A failure to implement policies that address such concerns would worsen pre-existing vulnerabilities and make societies more unequal and polarized. In other words, there is a risk that a lack of pro-poor and inclusive policies will foster poverty, polarization and exclusion (see Figure 1.1 and 1.2). This risk will have inter-generational dimensions, as a lack of support for poorer and more vulnerable young people will jeopardize their prospects well into the future. Carefully designed rights-based, pro-poor, and inclusive policies can mitigate these risks. A rapid adoption of digital technologies—including through expansion of affordable and reliable Internet access, especially among children living in rural areas and in lower income households—are urgent priorities.

Figure 1.1: COVID-19 exacerbates pre-existing vulnerabilities

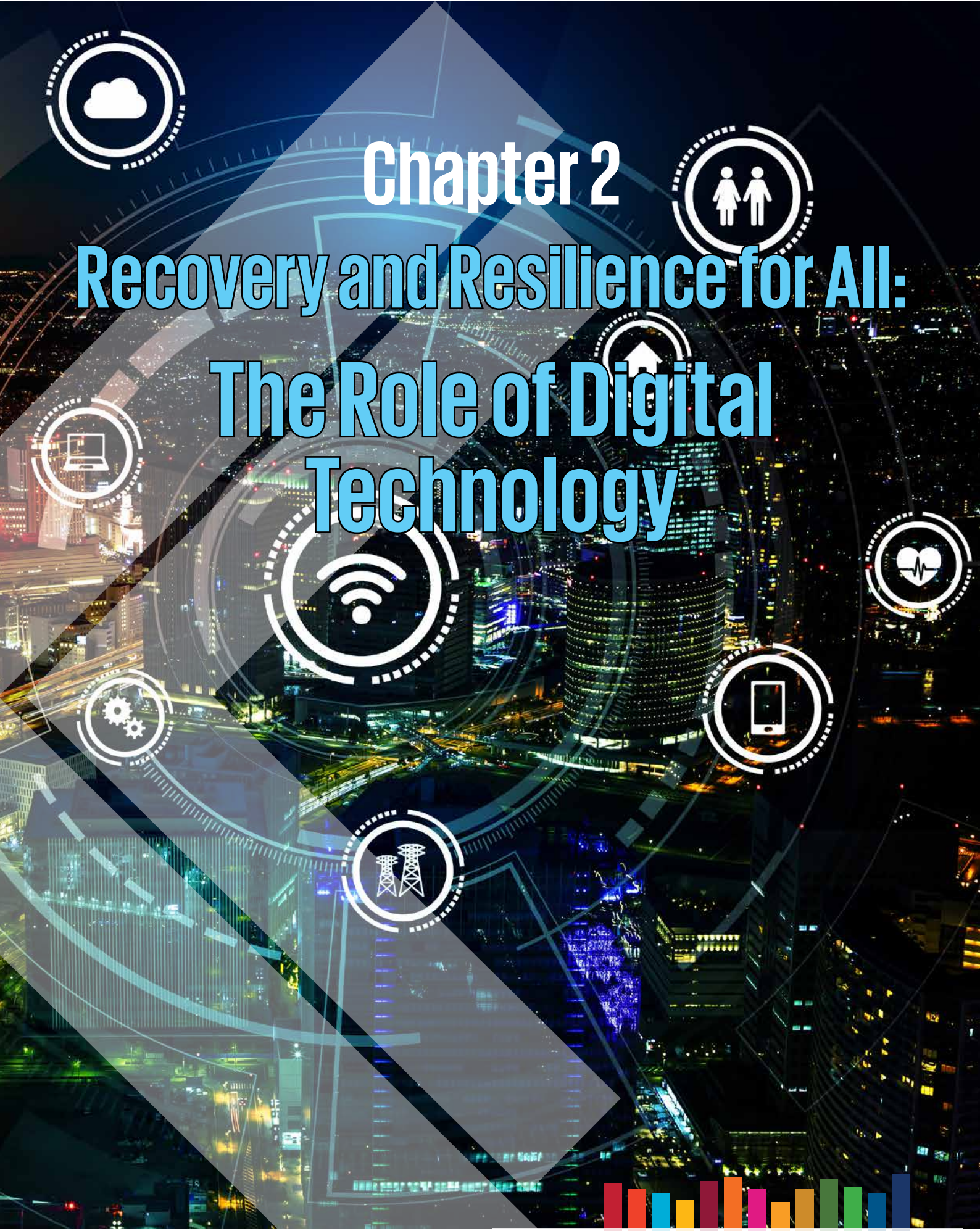


Source: Adapted from Titumir, Rashed Al Mahmud (2020). Which recovery path may we pursue? New Age, 15 October. Available from www.newagebd.net/article/118990/which-recovery-path-may-we-pursue.

Figure 1.2: Drivers of K-Shaped recovery



Source: Adapted from Titumir, Rashed Al Mahmud (2020). Which recovery path may we pursue? New Age, 15 October. Available from www.newagebd.net/article/118990/which-recovery-path-may-we-pursue.



Chapter 2

Recovery and Resilience for All: The Role of Digital Technology

The pandemic has sped up the use of digital technology and helped countries strengthen their socio-economic recovery and resilience. The trend has confirmed the key role that the 2030 Agenda places on Science, Technology and Innovation in addressing development challenges. Digital technology has become a cornerstone of economic systems and modern society. In the era of the COVID-19 pandemic, digital tools are employed to monitor, coordinate and manage the public health crisis. They are used in contact tracing, social mobilization, and delivery of pandemic relief. Health and education systems have depended on virtual delivery modes and much of the economic system relied on digitalized supply chains and platforms to keep businesses alive.

Digitalization is not a panacea. Used wisely, however, it remains critical to making countries more resilient in the face of the pandemic's economic, social and environmental consequences. Innovations in digital technologies can be leveraged to address pre-existing vulnerabilities, particularly in filling gaps in the health and social protection systems and promoting good governance, as emphasized in the UN Secretary-General's Roadmap for Digital Cooperation.[1] A smart use of digital tools can also counteract the impacts of a K-shaped recovery (as explained in Chapter 1), growing divergence between and within countries, and an increase in poverty and polarization.

Even before COVID-19, digital technology had been transforming how people work, socialize, and create economic value. Advances in applications of digital technology, such as e-commerce and online learning, have created new opportunities, brought consumers and businesses and learners and educators closer, and made economic transactions faster and cheaper. COVID-19 has triggered an unprecedented demand for digital governance and platforms to provide health technology solutions and share successful experiences such as screening, tracking, prioritizing the use and allocation of resources, and designing targeted responses. The explosion of e-commerce platforms and digital payments solutions during the pandemic has enabled many businesses not only to survive, but to pivot their operations to online platforms to thrive. Online learning also allowed students to continue their studies during lockdowns.

The use of digital technologies cushioned some of the impact of the pandemic lockdowns. At the ASEAN Summit in November 2020, the bloc updated its Accelerating Inclusive Digital Transformation strategy to combat the impact of COVID-19. This included digitalization of trade processes for 152 essential goods, and the launch of the *Go Digital* initiative (in collaboration with Google and The Asia Foundation) to provide digital tools and skills to small enterprises and youth in severely impacted areas.[2] The regional grouping has since adopted the ASEAN Digital Masterplan 2025,[3] which considers the impact of the pandemic and proposes a range of actions to both mitigate impact and contribute to recovery. Other initiatives have also attracted attention: for example, The Better Than Cash Alliance,[3] the Level One Project,[4] and the Mojaloop Foundation;[5] and pioneering country experiences such as India's Unified Payments Interface, Indonesia's standardization of digital quick response QR codes and Thailand's e-payment roadmap for 2020.

However, the full potential for cooperation on digitalization is yet to be realized. Moreover, big digital divides within and between countries have meant that often only people with access to digital technologies benefited from accelerated digitalization. This situation may reinforce risks of a K-shaped recovery. At the same time, it highlights that an integral part of rebuilding strategies must be equitable digitalization in order to ensure access for those left behind.

This chapter highlights key features of digital technology in supporting pandemic management and recovery and considers the consequences of uneven digitalization on inequalities. It considers the potential for digitalization to reduce the risk of a K-shaped recovery, enable the SDGs, and kick-start the transformative changes needed for more resilient economies to effectively pursue the 2030 Agenda.

2.1 Digital transformation for sustainable development

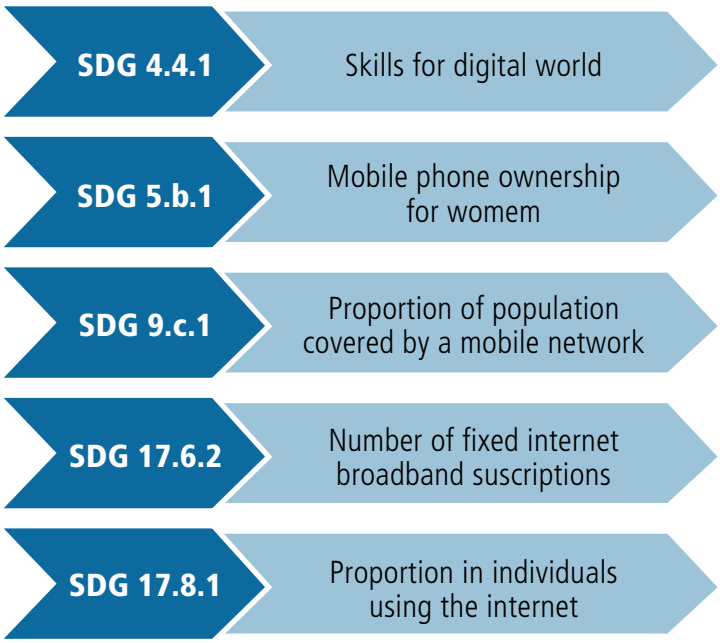
There is no single definition of digital transformation. The OECD defines it as "the economic and societal effects of digitization and digitalization." The European Commission describes it as "a fusion of advanced technologies and integrating physical and digital systems." There is more to digital transformation than the widely discussed emergence of dominant digital platforms and the use of big data. It encompasses the question of how advanced technologies are used to maximize opportunities for innovation, new business models and processes, and smart products and services.[6] In the context of the 2030 Agenda for Sustainable Development, digital transformation is a process that can be harnessed for equitable and sustainable development.

Digital technology is a critical "part of the plumbing" necessary to achieve the SDGs. The International Telecommunication Union (ITU) has detailed how digital tools can accelerate progress towards the 17 SDGs.[7] Digital transformation can be a powerful and cross-cutting tool (Appendix 1). The Broadband Commission for Sustainable Development, a UN body, has noted that "affordable universal connectivity is essential for achieving the 17 Sustainable Development Goals and making good on our pledge to Leave No One Behind." According to the commission, four SDGs include specific ICT-related targets and some 38 targets depend at least in part on universal and affordable access to ICT and broadband.[8] Figure 2.1 highlights selected targets of SDGs with digital scope.

The graphic illustrates that digital transformation impacts many areas of development and thus requires a system-wide approach. To make progress on all three pillars of sustainable development—social, environmental and economic—investments in broad and affordable digital infrastructure are necessary. Applications of this infrastructure cover social protection services and payments, finance and product development for MSMEs, revenue collection and management of natural resources and public utilities such as electric grids and smart energy systems, among others.

Siloed approaches that turn a blind eye to the system-wide relevance of digital transformation can be inefficient, impinge upon economic growth, and cause structural imbalances.[9] Digital transformation in development is at its best when it is integrated, inclusive and responsive to the needs

Figure 2.1: SDGs with specified digital scope



Source: ESCAP based on the Sustainable Development Goals targets

of marginalized populations and the vulnerable. International organizations and governments could take more actions to reduce the risks of further excluding marginalized populations in the face of accelerating digitalization in remote and lower-income countries with weak social protection systems. Proactive measures in areas such as education, skills development, tech start-up ecosystem development and better access and affordability of digital connectivity are also important.

2.1.1 The importance of digital transformation in responding to COVID-19

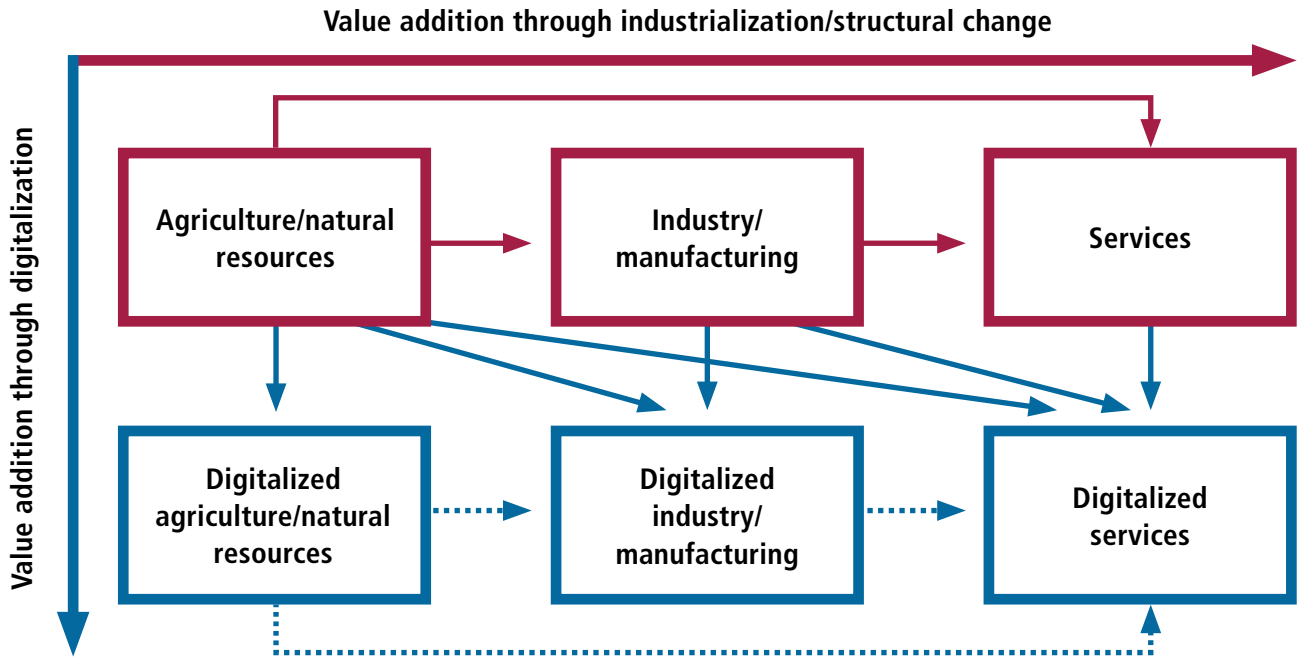
The COVID-19 pandemic has demonstrated the power of digital transformation. Digital solutions have a key role to play in the pandemic response and recovery, as well as in shaping future economic sustainability and resilience. The successful leveraging of the digital economy can generate higher incomes, employment and taxable revenues (Appendix 2).[10] Digitalization has the potential to transform industries and add economic value. Data collection, processing, and analysis are part of this process. Figure 2.2 illustrates how the digital economy can open additional paths for value addition.

2.1.2 Formalization, social protection and sustainability through digital payments

Social programmes often fail to adequately cover people at the bottom of the income distribution[11] and provide sufficient social protection benefits. These structural weaknesses are made worse in economies with a high degree of informality. Without data on informal workers, governments struggle to shape an effective response that includes the most affected. Even in the formal sector, keeping employers financially liquid throughout the pandemic (through loans or grants) so that they can pay their employees has proved to be a challenge.[12]

Greater formalization has considerable economic and social benefits. Digitalization makes people and households visible and formalises many informal businesses. At the *micro level*, it gives people and households easier access to a bank account and payment systems. This can make all the difference because it allows people to receive and safely store money. At the *macro level*, formalization and digitalization provides governments with greater visibility of the needs of citizens and businesses

Figure 2.2: Digitalization's new dimension for value addition



Sources: Bauer et al., 2014; United States Chamber of Commerce, 2016; Leviathan Security Group, 2015; as cited in *UNCTAD 2019 Digital Economy Report*, 2019.

thereby enabling better planning and public service improvements. Formalization also allows them to broaden the tax base, and makes tax collection cheaper and more transparent. This is crucial as domestic resource mobilization will gain even more importance in the aftermath of the pandemic. At the *regional level*, greater formalization can increase cross-border e-commerce (displacing illicit trade), lower informal remittances and reduce remittance fees.

There are significant gaps in social protection in the countries of the region, as highlighted in the previous chapter. One reason is chronic underinvestment. Policymakers have yet to fully act to enable universal social protection that underpins sustained socioeconomic advancement. Another reason for inadequate social protection is the nature of the region's labour market. Some 70 per cent of all jobs are informal. Most informal workers and their employers are outside the legal framework of contributory social protection schemes. While non-contributory schemes have increased overall coverage in recent years, many of them target only the poor, provide limited benefits or are hampered by bureaucratic hurdles. Far too many intended beneficiaries are not reached.[13] This is where digitalization can play an important role.

Whether digital technologies and systems integration into social protection systems can contribute to governments' ability to avoid a K-shaped recovery will in large part depend on the quality and inclusiveness of the underlying system. Most countries have moved from an emergency response to the pandemic to building systems for a "new normal". In the endeavour to strengthen social protection systems through technology, governments and regional institutions can leverage tried and tested solutions to make up for income losses as they deploy technology in the social protection domain.[14]

The "digital trinity" is a global best practice approach towards delivering more effective, inclusive, and accountable social protection programmes.[15] The trinity consists of three components that act as a digital mediator in interactions between the state and citizens: mobile services, a digital identification system, and digital payment systems (Figure 2.3). The components are firmly intertwined and the data generated during these digital interactions can create positive feedback loops in which greater inclusion and interaction between the state and its citizens open up scope for new digital policies and services. Often these opportunities are difficult to seize because too many separate regulatory agencies and service programs are involved. The way around this is a strategic approach based on an integrated platform for service delivery and governance that allows for data sharing, coordination and joined-up action. Such models work best in contexts where people have adequate digital literacy or when gaps in digital literacy can be compensated through citizen facilitation hubs, centres or field workers.

Figure 2.3: The Trinity

Mobile services
(devices and connectivity)

Digital Identification System

Digital Payment Systems
(inclusive and frictionless)

Source: Alan Gelb, Anit Mukherjee and Kyle Navis, *Citizens and States: How Can Digital ID and Payments Improve State Capacity and Effectiveness?*, Center for Global Development (2020).

Figure 2.4: Digital technology as a tool for pandemic preparedness and response

Source: Modified based on Sera Whitelaw and others, "Applications of digital technology in COVID-19 pandemic planning and response", *Lancet Digital Health*, vol. 2, issue 8 (August 2020), e435-e440.

2.2 Digital technology is vital for pandemic preparedness and response

The COVID-19 pandemic has fast-tracked digitalization and the use of digital technology in the region, providing opportunities for it now to be harnessed during the recovery phase. Countries that employed early surveillance, testing, contract tracing and strict quarantine measures managed to limit the death toll of the pandemic. To effectively implement these strategies, governments relied on rapid adoption and integration of digital technology into health-care responses and policy. Figure 2.4 shows how digital technology can serve as a tool in pandemic preparedness and response in ways that are difficult to achieve manually.

Governments have used digital platforms to provide timely information, medical advice and medical supplies. India's government, for example, developed a mobile application called "Aarogya Setu", which enables contact tracing and helps detect discernible COVID-19 cases before they are confirmed and allows for self-assessment. Viet Nam used digital platforms to raise awareness and raise funds for buying protective equipment for front-line health workers.

Digital data and artificial intelligence (AI) have helped diagnose and monitor infected people. Cooperation between public institutions and the private sector has been critical for the deployment of new frontier technologies. In many countries, governments have partnered with medical and technological research departments of universities to speed up the development of COVID-19 vaccines,

learn more about the virus and its spread, and develop technological tools to help the sick. These collaborations have been indispensable at a time of limited yet rapidly evolving scientific knowledge around the COVID-19 virus and its effects on people and society.

Contact tracing proved a powerful tool to suppress the spread of the virus (Table 2.1). The Republic of Korea used mobile technologies such as GPS location data and big data analytics to help public health officials understand and manage the spread of COVID-19. Malaysia, Singapore and Thailand are using contact tracing to identify and quarantine or self-isolate people who may have been exposed to the virus. In Japan, LINE Corporation developed COOPERA (COVID-19: Operation for Personalized Empowerment to Render smart prevention And care seeking), a real-time system that monitors trends in COVID-19. The system has proved useful in guiding public health and political decisions that have shaped the response to the outbreak. Similar to the Republic of Korea, Singapore has been using digital movement footprints for contact tracing. SafeEntry, a free-for-use cloud-based visitor registration system, logs visits of people to hotspots and venues providing essential services and TraceTogether, a mobile phone-enabled tracing application, exchanges anonymised identifiers between nearby phones via a Bluetooth connection, further augmenting contact tracing capabilities.[16]

Individuals, businesses, and governments have been rapidly moving online, mainly driven by restrictions on human contact during the COVID-19 pandemic. The pandemic has transformed the way people use digital technologies and digital platforms to teach, learn, conduct businesses, and make transactions online and has accelerated the digitalization of economies. Box 2.1 provides a snapshot of technology use in Asia and the Pacific.

Table 2.1: Digital technology used in the COVID-19 pandemic response: selected examples

Purpose	Digital tool or technology	Examples of use	Asia-Pacific Countries (selected)
Epidemiological Surveillance; Tracking	Machine learning	Web-based epidemic intelligence tools and online syndromic surveillance	China, Singapore, Australia, New Zealand, Turkey
Survey apps and websites	Symptom reporting	Smartphone app and web-based epidemic intelligence tools	Japan, Kazakhstan
Rapid case identification; Screening for infection	Connected diagnostic device	Point-of-care diagnosis	Australia, China, Thailand, Singapore, New Zealand, Turkey
Interruption of community Transmission	Smartphone app, low-power Bluetooth technology	Digital contact tracing; Quarantine and self-isolation	Republic of Korea, China, Australia, Viet Nam, India, Pakistan
Clinical care and management	Tele-conferencing	Telemedicine, referral	Australia, Thailand, China, Singapore, New Zealand, Pakistan
Public communication	Social-media platforms	Targeted communication	Viet Nam, Australia, New Zealand, China, Mongolia, Pakistan, Afghanistan

Sources: Nature Medicine, vol. 26 (August 2020), pp 1183-1192; Lancet Digital Health, vol. 2 (August 2020): e435–40, ESCAP, Promoting meaningful and affordable access to broadband Internet for inclusive development (February 2021).

Box 2.1:

Moving Online: Snapshot tech use in Asia and the Pacific

The pandemic moved teaching and learning online. Millions of students and workers have connected through online platforms during the closures of schools and offices. Across the Asia-Pacific region, educators embraced online learning and held live-streaming classes via digital platforms such as Alibaba's DingTalk, Google Hangouts, Kolibri, Microsoft Teams and Zoom. In Mongolia, telecom operators provide free service access to online portal-education content. Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan have moved to distance learning and adopted digital learning solutions. Not everyone has been able to access these options however: poorer people who lack access to the hardware and Internet connectivity have been left behind, potentially creating even greater inequalities in access to education.

Governments and businesses use video conferencing and screen sharing on electronic devices on digital platforms to bring employees face-to-face. Since the start of the pandemic, digital technologies and applications, such as social media, mobile payment, e-commerce, e-government, have transformed the way people interact, businesses conduct commercial transactions and governments deliver public services. On the other hand, institutions and businesses that had not yet transitioned to cloud technology-based services that can be accessed anywhere with an Internet connection were forced to hastily roll-out new systems, distribute portable devices and provide extensive IT helpdesk services to their staff who struggled to adjust to remote work.

After a year of disruption and adjustment, the level and quality of service both from public and private providers remains uneven given the underlying digital connectivity gaps and bottlenecks. Much progress has been made but some critical improvements will take time and are likely to progress unevenly across the region. Businesses that do not digitalize and catch up will struggle and risk being edged out by competitors–be it digitally-enabled or digital native (digital platform-based) businesses.

The pandemic has also heightened the need for digital skills and new forms of digital literacy among all groups, including public sector workers. Australia, China, India, Japan, New Zealand and Singapore, among other countries, have launched digital strategies to enhance digital skills of public service leaders, businesses and the general population. Apart from the digitalization of legacy sectors, digital services themselves are growing rapidly in Asia and exports of digital services are also expanding, requiring new skillsets, competencies and attitudes in the labour force. E-government services, such as online tax filings and online business registrations, have ensured the continued provision of public services. Electronic transfers of relief funds to households and business have been vital during lockdowns.

In South-East Asia, e-commerce platforms such as Lazada, Tokopedia and Shopee have seen sales spike amid the pandemic. New online merchants have entered the rapidly growing e-commerce market and new ways of promoting e-commerce have emerged. In China, livestream e-commerce, where instead of face-to-face product presentations salespeople and potential customers connect via livestream, have enabled small-scale businesses to emerge, rapidly expand and generate brand value and followership. The agri-food business is one such case. On Taobao.com, China's largest B2C e-commerce platform, the number of livestream e-commerce customers rose seven-fold in February 2020.[a] Retailers such as IKEA or Wayfair have stepped up the use of augmented reality or virtual tools as a way showing customers their products virtually.

Alipay, the payments arm of Alibaba, a Chinese e-commerce giant, launched an integrated on-line prescription and off-line delivery service to ensure that crucial prescription drugs reach about 300 million patients suffering from chronic illnesses across China. The firm signed on almost 50,000 offline micro, small and medium-sized enterprises and issued digital coupons in more than 100 cities as an incentive to

Continued...

encourage consumers to spend. Gig work, in which short-term jobs are assigned by online platforms, has boomed and companies such as Grab and GoJek have flourished. With people confined to their homes, the demand for delivery services surged. Meituan Waimai, a Chinese on-demand food-delivery platform connecting restaurants and customers in Wuhan, Hubei province, delivered over 4 million orders during the 76-day lockdown. More than 7,000 supermarkets, pharmacies and grocery stores on the platform delivered groceries and medicines to residents.[b]

Source: ESCAP, from various sources.

a: E-Business Institute. 2019. Livestreaming: the latest trend in eCommerce
b: Meituan Dianping (2020). Meituan CSR Report 2019

2.3 Digital finance is an essential component of rebuilding and resilience

A report of the UN Secretary General's Task Force on Digital Financing of the Sustainable Development Goals, published in August 2020, highlights the urgency of seizing the transformative power of digital financing to meet development challenges. The delivery of financial services through digital channels involves traditional (e.g., debit and credit cards) and new instruments. The new technological solutions, commonly known as 'Fintech', are built on cloud computing, digital platforms, distributed ledger technologies, and mobile payments, crypto-assets and peer-to-peer (P2P) applications.

COVID-19 has demonstrated the importance of financial inclusion. Without a bank account, households and small enterprises are cut off from state aid. The pandemic also showed that governments and regulators can do much more to bring about financial inclusion. The Fintech revolution and its disruptions have forced traditional banks to innovate and improve their financial products and services.

For the millions of people living in extreme poverty, immediate cash support can be lifesaving. When the pandemic hit, countries with advanced 'government to person' (G2P) payment ecosystems were able to make transfers swiftly. The digitalization of G2P payments can help expand social protection programs to remote communities at low cost. In Kazakhstan, which legalised electronic money in 2011, the government allows social benefit payments to be made via digital payments networks such as Yandex Money, WebMoney, and Eksimbank Kazakhstan.[17] A bank account is not necessary; the beneficiary's mobile phone number is enough to receive money. Having said this, in remote communities, power shortages and a lack of digital connectivity continues to pose considerable barriers to financial inclusion. In some countries, interoperability is also a major challenge with network coverage provided by one mobile company and digital finance service by another. To tackle the digital exclusion of individuals and businesses in out-of-network coverage areas, it is critical that governments give special consideration to people and businesses exposed to the last-mile connectivity gap in partnership with service providers. One option is to designate mobile money agents as essential workers and train them to enrol people to receive G2P payments, though client protection measures would need to be adhered to in the design of this measure.

In the era of the pandemic, the importance of digital financial services has become ever more apparent. Governments and citizens alike value the emergence of secure, affordable and contactless financial tools. The pandemic has led to a dramatic spike in digital domestic payments and digital remittances. For example, digital money transfers from Australia and New Zealand to Fiji and Samoa

have grown by some 400 per cent. However, COVID-19 has also led to a sharp decline in the total value of remittances; a drop of around 20 per cent globally and 22.1 per cent in South Asia in 2020.[18]

For many businesses, especially MSMEs, online payments and trading was key to their survival during lockdowns. At the same time, people confined to their homes during lockdown opted for "socially-distant" banking modalities. In an effort to save cost, governments increasingly use digital means to make public transfers, including public wages and payments from the government to business (G2B). India, for instance, uses electronic means of payment for government salaries, pensions, tax refunds, and other G2P payments. In Bangladesh and the Philippines, the digitization of wage payments is progressing. There is, however, ample scope for greater inclusion. According to the most recent Global Findex Survey, just 16 per cent of people worldwide received digital government payments or transfers in 2017. The pandemic will have raised this share considerably.

Governments are digitalizing public finance. Digital payments support domestic resource mobilization—a critical process through which countries raise and spend their own funds to provide for their people. Digital finance solutions make the tax system more efficient by enabling quicker and simpler payments and collections, and give small savers access to key financial services, including savings accounts and insurance products. Researchers at the World Bank have shown how access to basic financial services—such as transaction accounts, credit, savings products and insurance—help reduce poverty, narrow income equalities and increase resilience.[19] The ability to send and receive money, save, and get credit online to invest in a business can be transformational, especially for women (see Box 2.2).

Box 2.2:

Building resilience and empowering women with e-commerce and digital payments

The COVID-19 pandemic has highlighted why women in poor countries use informal e-commerce and digital payments: they are adaptable and resilient in the face of shocks and hold the promise of reducing inequalities. Research in Bangladesh, Myanmar and Pakistan show that women's increasing use of informal e-commerce enhances their livelihoods and increases their use of digital and financial services, such as mobile wallets and online banking.

The exploratory research shows that informal e-commerce can be a path to financial inclusion and greater economic independence. Many women in Pakistan, for example, lack access to formal financial services, assets and investments required to launch traditional brick-and-mortar style businesses. The informal e-commerce model minimises operational costs and enables women to keep flexible working hours. The fixed costs of engaging in informal e-commerce are low (no rent or wages are payable). There are other advantages, too: more flexible worktime, assisting in combining work with childcare; opening up the ability to reach markets previously out of reach; ability to work despite social norms in some countries on women working that can stifle in-person employment. This helps women cope with disruptions to their business. During the COVID-19 pandemic, informal but digitally enabled businesses were able to resume operations much earlier than formal businesses.

This adaptability has also been on display in Bangladesh. E-commerce is especially popular among women in a market which has grown eightfold to US$200 million between 2013-2017 and is expanding especially fast in rural areas.[a]

a: www.cgap.org/blog/covid-19-testing-resilience-informal-e-commerce-pakistan (accessed 19/12/2020)

The nexus of digitalization and digital finance solutions hold the promise of reshaping finance (see Box 2.3). In Asia, some two billion people spend trillions of dollars online annually, and tens of millions of businesses directly depend on e-commerce. In 2018, the region's e-commerce transactions accounted for a quarter of the global business to consumer (B2C) market, mainly led by China and global e-commerce giants such as Alibaba and Tencent.[20]

Digital financial services and fintech can foster inclusive growth and resilience. They are tools that allow governments to reach households and firms quickly and at low cost. This is especially important during crises, when money must be distributed quickly and effectively. Moreover, the digitalization of financial services is an important tool to address vulnerabilities and impacts of the COVID-19 crisis so that—as countries emerge from the pandemic—the most vulnerable people and least connected countries are not left behind.

In their quest to develop digital financial services, countries need to put measures in place to ensure a smooth transition toward their use. Adequate digital infrastructure is key. So are proper legal and regulatory requirements to tackle cybersecurity risks, money laundering, anti-competitive behaviour and monopolistic tendencies of large digital platforms, and ensuring consumer privacy. National ID systems are often a catalyst for the development of digital financial services.

Digitalization carries a raft of risks relating to technology and its use. Technology-centric risks include cyber-security issues ranging from spam and malware to hacking and other violations of digital property rights. Non-technology-centric risks include online theft, cyber-bullying, data

Box 2.3:

Indonesia: An e-commerce platform scales digital wallets in offering digital finance

Indonesia is home to GoJek, a rapidly growing digital service company. The company, established in 2010 as a ride-hailing service, has some 30 million monthly users and is a ubiquitous presence in the country's towns and cities. GoJek is one of the largest digital wallet and digital financial services providers for micro-entrepreneurs.

In 2016, GoJek launched Go-Pay, a digital wallet platform, which allows customers to make transactions via its app. Go-Pay has since become Indonesia's fastest growing and most used digital wallet platform.

Small businesses have been able to broaden their customer base through the use of the Go-Jek platform and Go-Pay. Micro-entrepreneurs use digital sales data to prove their creditworthiness as a means to access credit and insurance with Go-Jek's banking partners. At the end of June 2020, GoJek made PeduliLindungi, the government's contract tracing app, accessible through its platform. The collaboration came at a time when the government was under pressure to step up effective contact tracing.[a]

Source: IFAD. Send Money Home Report. 2017 (updates: https://techwireasia.com/2020/11/gojek-sees-profitability-ahead-after-a-decade-of-rapid-growth/#:~:text=Now%2C%20Gojek%20has%20about%2038,margins%20on%20a%20product%20basis and https://marketinginasia.com/2020/08/19/top-e-wallet-in-indonesia-q2-2019-2020/)

a: https://tekno.kompas.com/read/2020/06/30/18010047/seminggu-aplikasi-peduli-lindungi-diunduh-82.000-kali-dari-gojek

leakages and privacy violations. Digitalization of financial services can create risks for stability and integrity of the financial system, involving cyber-attacks, fraud and money laundering. Potential measures that governments can take to reduce these risks include the strengthening of regulatory frameworks, awareness raising efforts, institutional strengthening for monitoring and enforcement, as well as international information sharing.

2.4 Digital divide: Risks and challenges

Digital transformation can be a force for good but it also carries the risk of widening economic, educational and social inequalities within countries, as well as the digital divide between them. The increased use of digital technologies will not automatically lead to the inclusion of the poor and marginalized.

The Internet penetration rate in Asia-Pacific stood at 48 per cent in 2019, compared with 46 per cent globally.[21] Within the region, 96.2 per cent of people used the Internet in the Republic of Korea in 2019, compared to 12.9 per cent in Bangladesh.[22] While around 70 per cent of youth (15 to 24 years old) in the region use the Internet, much of the older generation remains offline.[23] Download and upload data speeds—a significant driver of growth in digital services and factor in sustaining the use of data-intensive remote work modalities—are often limited by inadequate terrestrial fibre or cable infrastructure.

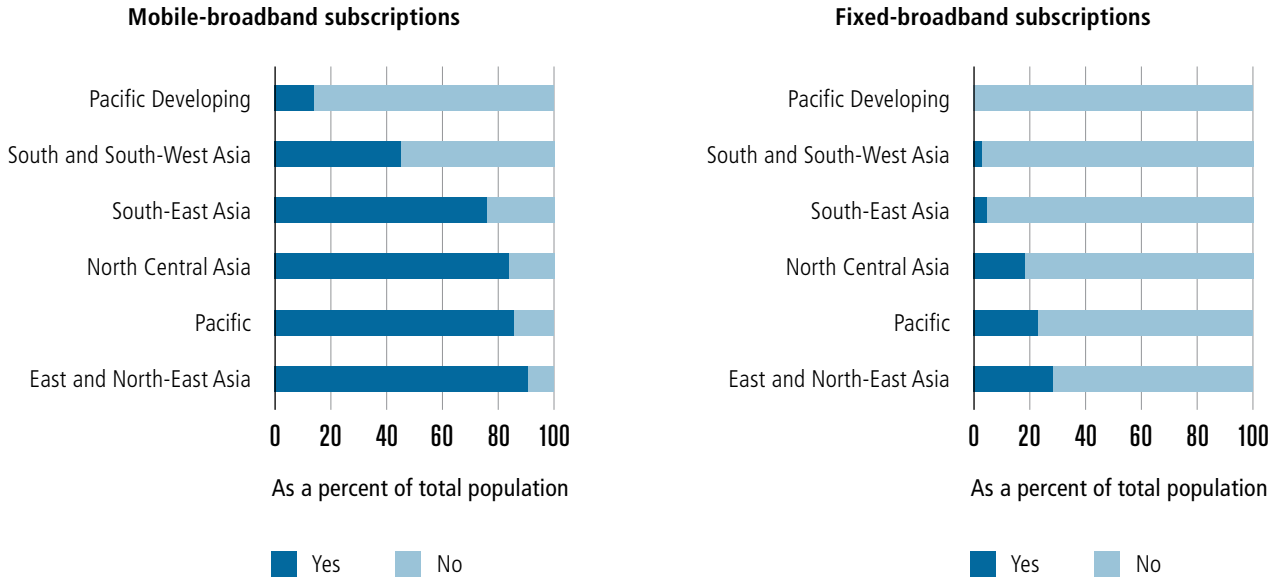
There are large disparities in the region in terms of affordability of, and access to, the Internet. Out of 72 countries around the world surveyed in 2020 by the Alliance for Affordable Internet (A4AI), Malaysia ranks first in the alliance's overall 'Affordability Drivers Index' (85.7/100 compared to Lao PDR at 36.1/100) and the 'Access Sub-index' (95.7/100 compared to Afghanistan at 34.7/100). Malaysia also tops the ranking in Asia-Pacific on the 'Infrastructure sub index' (67.2/100 compared to 32.8/100 in Lao PDR).[24] In terms of mobile broadband, Japan had 203 active mobile-broadband subscriptions per 100 people in 2019 as opposed to 19 in Afghanistan.[25] East Asia and the Pacific—mainly driven by connectivity in China and South-East Asia—accounted for 40 per cent of new mobile Internet subscribers in 2019.[26]

Only 13 per cent of Asia's population have a fixed-broadband connection. Differences between sub-regions are vast. In East and North East Asia, one in four people have broadband access but in South and South-West and South-East Asia, this share is 3 per cent and 6 per cent of the population, respectively.[27] In the developing countries of the Pacific less than 1 per cent of the population have fixed-broadband subscriptions (see Figure 2.5). Moreover, much of the accessed data are entertainment content; context-aware content and high-quality learning content is often unavailable in the local language or dialect.

At the same time, Internet use is lower among those in the bottom 40 per cent of the income distribution, evidence that affordability remains a major barrier to universal connectivity. In Indonesia, Lao PDR and Viet Nam, among other countries, lower education levels are associated with low Internet use. And in the Philippines, poor people over 35 years are the least connected, while in Lao PDR and Mongolia gender is a big factor.[28] Containing the digital divide is critical to achieving the SDGs.

Uneven digitalization brings the risk of undermining progress on SDGs: marginalized populations and remote countries, particularly those with weaker social protection systems, may be left behind as the speed of global digitalization accelerates. At the national level, the digital divide runs along the lines of income and gender, but it is the differences in rural-urban digital access that stand out the most. Poor infrastructure, coverage and unaffordable Internet access makes it difficult for communities to access real-time information.[29] For instance, in Bhutan only 29 per cent of the rural households had access to the Internet in 2016, compared with more than 70 per cent among urban households.[30] By contrast, the same year coverage was high and the gap between urban and rural coverage small in Japan (88 per cent and 83 per cent respectively).

Figure 2.5: Access to broadband connectivity in Asia and the Pacific subregions



Source: International Telecommunications Union (ITU), World Telecommunication/ICT Indicators 2020 Database, 24 ed (2020).
Available at: https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx (accessed on 8 January 2021).
Note: Pacific Developing excludes Australia and New Zealand.

In the Asia-Pacific region, a large share of the population lacks the ICT skills needed to participate in and benefit from an increasingly digital society. In more than 70 per cent of countries in the region for which data are available, one out of three youths and adults do not have basic skills such as creating an electronic presentation and spreadsheet. About 180 million people in South Asia, East Asia, and the Pacific live outside the reach of a mobile network.[31]

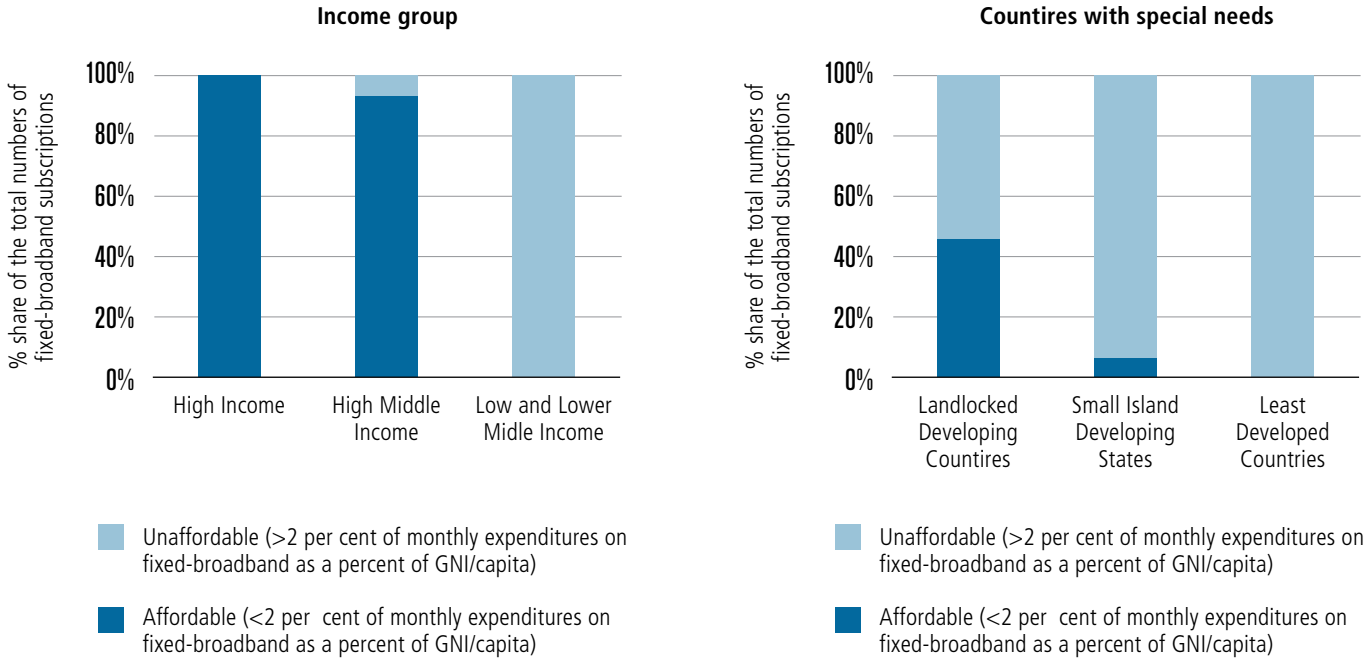
There is also a significant gender divide in Internet use in the Asia-Pacific region. The share of women using the Internet was 41 per cent in 2019, compared with 48 per cent for men. This compares unfavourably with the global average (48 per cent for women, 55 per cent for men). Worryingly, the gap has been widening. There is also a gender gap in mobile device ownership in the Asia Pacific region, and globally.[32]

The cost of realizing digital connectivity remains a significant barrier to wider Internet usage, even though prices have been declining and low-cost smart phone models have sprung up. The Broadband Commission, for example, estimates that for some 2.5 billion people in 70 developing countries, the cost of the cheapest smartphone is still one quarter of the average monthly income.[33] Broadband connectivity is also scant and highly costly in many countries (see Figure 2.6).

There is a pressing need to make connectivity and hardware more affordable, especially in least developed countries. Some governments have shown that this is feasible: in Myanmar, for example, the opening of the telecommunication market to competition in 2013 saw the price of a SIM card plummet from $150 to $1.50 within two years, leading to a massive expansion of mobile connections and smart phone penetration.[34]

The digital divide also affects businesses. SMEs have been particularly exposed during the pandemic.[35] A persistent digital divide excludes big chunks of the economy and results in lower employment and income losses. In a post-COVID-19 world marked by rapid digitalization, many businesses will struggle to survive unless they adapt. From education and healthcare to retail and finance, digital is the preferred form of distribution and payment. This trend increasingly keeps the digitally excluded from easy access to essential goods and services.[36]

Figure 2.6: Affordability of fixed-broadband subscriptions in Asia and the Pacific



Source: ITU, *World Telecommunication/ICT Indicators 2020 Database* (24th Edition, July 2020).

A significant regional dynamic is private equity investment as well as mergers and acquisitions that result in larger firms in leading markets—such as Australia, Japan, Singapore, China, or the Republic of Korea—taking over innovative start-ups. The expansion of the Chinese Alibaba and Tencent groups or Japanese SoftBank Group through investments across Asia brings cutting edge digital solutions, efficiency gains, professionalization, market expansion, business model innovation and scale. However, it also means that large platforms increase their dominance in subsectors like e-commerce or online gaming and profits may flow out of domestic markets.

Digital literacy, which comprises digital skills and digital understanding, is the foundation for meaningful access to digital technologies and connectivity. Digital literacy initiatives typically do not require large investments in equipment or infrastructure but need a concerted effort by a broad coalition of stakeholders, including community-based organizations that can reach people at grassroots level.

2.5 Enablers for digital transformation and digital finance

Digitalization is a powerful force, which, when managed successfully can be a catalyst for a more inclusive and fairer economic system. But various obstacles stand in the way of achieving more widespread digitalization. Some have to do with policies and regulations that unnecessarily restrict data flows and e-commerce, trade in digital products and services, and complicate government procurement of IT services. In some cases, differing national standards, such as differences in radio frequency allocation by national telecommunications regulators, can result in frictions in border regions and a loss in connection quality. A perennial problem remains inadequate investment in digitization and digital infrastructure. Overall, there is ample scope for policy reform and enhanced regional cooperation. The post-COVID-19 "new normal" requires that digital connectivity become a top priority for government and the international community.

2.5.1 Infrastructure for enhanced connectivity needs

Better connectivity is one of the key drivers of digital transformation. The World Bank-IMF annual meeting in 2020 identified the lack of infrastructure as the main impediment to connectivity.[37] Telecommunications infrastructure is a key component of digital infrastructure. Relative to other infrastructure sectors, however, investment needs in telecommunications infrastructure is relatively modest; the Asian Development Bank has estimated the total (public and private) investment needs in telecommunications in Asia and the Pacific at 9 per cent of total needs.[38] This compares with 56 per cent and 32 per cent, respectively, for the energy and transport sectors.[39] The private sector has been a major investor in telecommunications. In small markets, such as small island countries, however, it may be challenging to create the conditions needed to attract private investments in these services. Various initiatives have sought to tackle this challenge through regional cooperation mechanisms.

The infrastructure needs of countries in the Asia-Pacific region go beyond the expansion of mobile telecommunication. To meet the increasing demand for high-speed and high-quality data transmissions, even mobile networks rely on high quality fixed networks as a backbone infrastructure. This specific technology may not be viable in all contexts. Alternative approaches such as fiberglass or cable copper deployments, however, have proven more financially viable in some remote or inaccessible regions. Each time the quality, capacity and availability of Internet service improves, new ways of making use of this greater connectivity have emerged.[40]

Box 2.4:

Transforming energy systems through grid digitalization

Digital technologies can enable smarter energy use in buildings, manufacturing, transportation, cities, and a host of other areas. The digitalization of grids has transformed energy systems. In South Asia, it is estimated to have cut installation time by 40 per cent and cut in half maintenance costs and outage times.[a] Utility companies have embraced the use of the Internet of Things—sensors, software and other technologies that provide them with information about their equipment, systems and performance.

Digital transformation holds enormous potential to reduce GHG emissions and improve other environmental outcomes.[b] Developing countries have an opportunity to leapfrog developed economies in their technology choices and invest in more distributed and renewable energy generation sources. Regional power grids are becoming more common, especially in South Asia. This trend is driven by increasing economic interdependence and the need to manage power from distributed renewable energy sources. Yet, power systems across the Asia-Pacific region are heterogenous. This presents an obstacle to creating a smarter, more automated and sustainable grid that meets regulatory requirements, as well as lifestyle and environmental needs.

Digitalization offers many applications in the energy sector, including in supply, transmission and distribution, and demand management. Energy solutions are cross-cutting themes and are directly linked to the SDGs.

Source: ESCAP, from various sources.

a: Power Info Today (2017) Digitalisation of the power grid in South Asia, Middle East and Africa
b: Information technology & Innovation Foundation. Beyond the Energy Techlash: The Real Climate Impacts of Information Technology. July 2020

Reliable energy supply is the backbone of greater connectivity. Billions of new digital devices are coming to market each year and data volumes are growing exponentially. All these new devices, technologies, data centres and network services require energy. Digital transformation can transform the global energy system by making economic sectors more energy efficient as envisaged in SDG 7 (see Box 2.4). It can drive smarter energy use, help protect the environment and shape a more effective response to climate change.

2.5.2 Data as a key enabler of digital transformation

The ability to move, store and process data across borders is foundational to the modern international data economy, and new global growth relies increasingly on digital growth.[41] Shaping and adopting the rules for digitalization and digital data will play an important role in strengthening regionalism and foster inclusive growth as the Fourth Industrial Revolution—characterised by innovations such as artificial intelligence, automation, and bio-technology—transforms systems of production, management, and governance in the region.

While data at the household and personal level need to be secure and protected, laws should allow open access between government agencies and the private sector so that services such as a national ID system or commercial digital payment systems can function effectively. This aspect of digitalization is especially transformative in enabling people who live in remote areas and countries with large informal sectors to access services (the Asia-Pacific region is home to nearly two thirds of the world's informally employed).[42] In India, over 90 per cent of jobs are informal.

Effective cross-border data sharing policies are key to functioning regional and globally integrated data economies. National governments shape many of these digital policies and regulations and should remove onerous hurdles wherever possible. For example, data localization and residency restrictions—often put in place with the intention to protect sensitive data—can compromise the ability to detect and monitor fraud, money laundering and terrorism financing activities.[43] The World Economic Forum has published a roadmap, which contains the building blocks of government policy that can harness the benefits and minimize the risks of cross-border data sharing.[44]

The COVID-19 pandemic has highlighted the importance of data as a new source of innovation and growth. For countries that develop, facilitate or deploy such new data-reliant technologies and solutions can create added economic and social value. A prominent example of this process in the Asia-Pacific region is the rise of e-commerce, which relies heavily on access to cloud computing infrastructure, such as data centres and internet exchange points, as well as enabling regulatory frameworks.

There are critical challenges to cooperation in the areas of data storage and security, digital laws, technical know-how and public investment. Data are used across borders and often stored remotely in more than one country. Significant differences in national data protection laws complicate the flow of data across borders. Some regulatory differences between countries reflect different values and strategic objectives and will remain. However, there is a need for regional policy frameworks that make cross-border business easier. For the full potential of e-commerce to be realized, the evolution of data-focused national regulation will be crucial; as would be the evolution of regional standards that facilitate regional integration.

2.5.3 Interoperability: Enabling digitalization of finance

Interoperability in digitalization describes the ability of computerized systems to connect and communicate with one another easily. It is a key precondition for more inclusive digital products and services across various industries such as finance, health and education. Interoperability in health information systems, including shared standards and frameworks, is a particularly high priority to enable the region to recover and rebuild from the pandemic.

For many businesses, delivering low-cost and inclusive financial services to the poor is challenging because of the need for large investments in complex technologies. This means that many existing consumer payment options are unaffordable for the poor or limit customers' ability to transact across products, banks and borders. These and similar challenges have dissuaded many companies from entering markets in developing economies.[45] The standardization of payment and settlement messages is a major step towards facilitating interoperability. A new standard ISO 20022 is being established and adapted widely, including in Asia, and the AEC Blueprint 2025 advocates for its adoption to standardise and develop financial market infrastructures in ASEAN. The increasing development and deployment of software that is interoperable, affordable, adaptable, and scalable indicates that digital payment systems are evolving in ways that foster financial inclusion and facilitate progress towards the SDGs (see box 2.5).

There is a growing realization that interoperability unlocks potential high-volume use cases, such as merchant payments. This is particularly relevant in the Asia-Pacific region where e-commerce has exploded and is expected to continue grow rapidly.

Centralized national directories play an important role in ensuring interoperability and reducing fraud and increasing transparency. India's "Aadhaar", the country's pioneering biometric ID system, is an example of successful government-led digital transformation. Digital financial services will only achieve the goals of inclusion and sustainable growth and contribute to the SDGs when it is a part of robust government digitization strategy and identification system.

2.5.4 Regional cooperation: Cross-cutting enabler

Regional cooperation is a key enabler for digital transformation and digital finance. Cooperation can enhance the quality of cross-border infrastructure and ensure more seamless and secure cross-border data flows across multiple sectors (see Box 2.6). It is also key for ensuring interoperability of payment systems, especially for SMEs, lowering the cost of remittances, and to jointly address the risks associated with technological advances.

The promotion through regional cooperation of digital transformation, including digital finance, must be an urgent priority. It can underpin the activities and new systems that help ensure no country is left behind in an increasingly connected world and that digitalisation translates into greater resilience. COVID-19 has highlighted the interconnectivity and interdependence of countries in the region. It has also laid bare the urgent need for greater regional collaboration on data exchange and analysis, development of platforms and systems, and policy design.

While the surge in digitalization has been largely driven by practical necessity and markets dynamics, regional cooperation remains critical to unlocking its full potential. The next chapter explores opportunities for digitization to support and be supported by regional cooperation to help realize the SDGs as part of recovery from COVID-19, and ensure no country is left behind.

Box 2.5:

Best practices in digitizing payment systems

Digital payments can empower people and act as a catalyst for more inclusive economic growth and many governments and development agencies have been promoting the roll-out of government-to-person (G2P) payments and payment infrastructure. The Better Than Cash Alliance, a partnership of governments, companies, and international organizations that accelerates the transition from cash to responsible digital payments to help achieve the Sustainable Development Goals,[a] define the benefits of moving to digital cash as follows:

- ***Cost savings*** through increased efficiency and speed;
- ***Transparency and security*** by increasing accountability and tracking, thus reducing corruption and theft;
- ***Financial inclusion*** by advancing access to a range of financial services, including savings accounts and insurance products;
- ***Women's economic participation*** by giving them more control over their financial lives and improving economic opportunities; and
- ***Inclusive growth*** through building the institutions that form the bedrock of an economy and the cumulative effect of cost savings, increased transparency, financial inclusion, and greater economic participation of women.

Digital public goods and open-source software for affordable, interoperable digital payments: MojaLoop

Open-source software is a key building block of Digital Public Goods Alliance, endorsed by the UN Secretary General's *Roadmap for Digital Cooperation (2018)*. The alliance defines digital public goods as "open source software, open data, open AI models, open standards and open content that adhere to privacy and other applicable laws and best practices, do no harm, and help attain the SDGs." Widely available digital public goods will be instrumental in driving the digital transformation globally and in poor countries and accelerate progress towards the Sustainable Development Goals. Digital public goods or open-source solutions alone are not sufficient, so often additional investments are needed to broaden their reach.

In the Asia Pacific region, Myanmar's Mojaloop, a publicly available open-source code for digital payment platforms, is an example of how to deliver financial support to people living in areas underserved by banks. Mojaloop is being piloted with microfinance institutions. It offers (i) a push payment model with a same-day settlement and notification from payer to the payee; (ii) interoperability between mobile money providers; (iii) adherence to international standards; (iv) system-wide fraud and security protection; and (v) proportional identity and Know-Your-Customer implementation.

Source: UN Secretary General's Roadmap for Digital Cooperation; The Digital Public Goods Alliance.

a: Better Than Cash Alliance. Why Digital Payments. Accessed March 2021.

Box 2.6:

The Asia-Pacific Information Superhighway Initiative

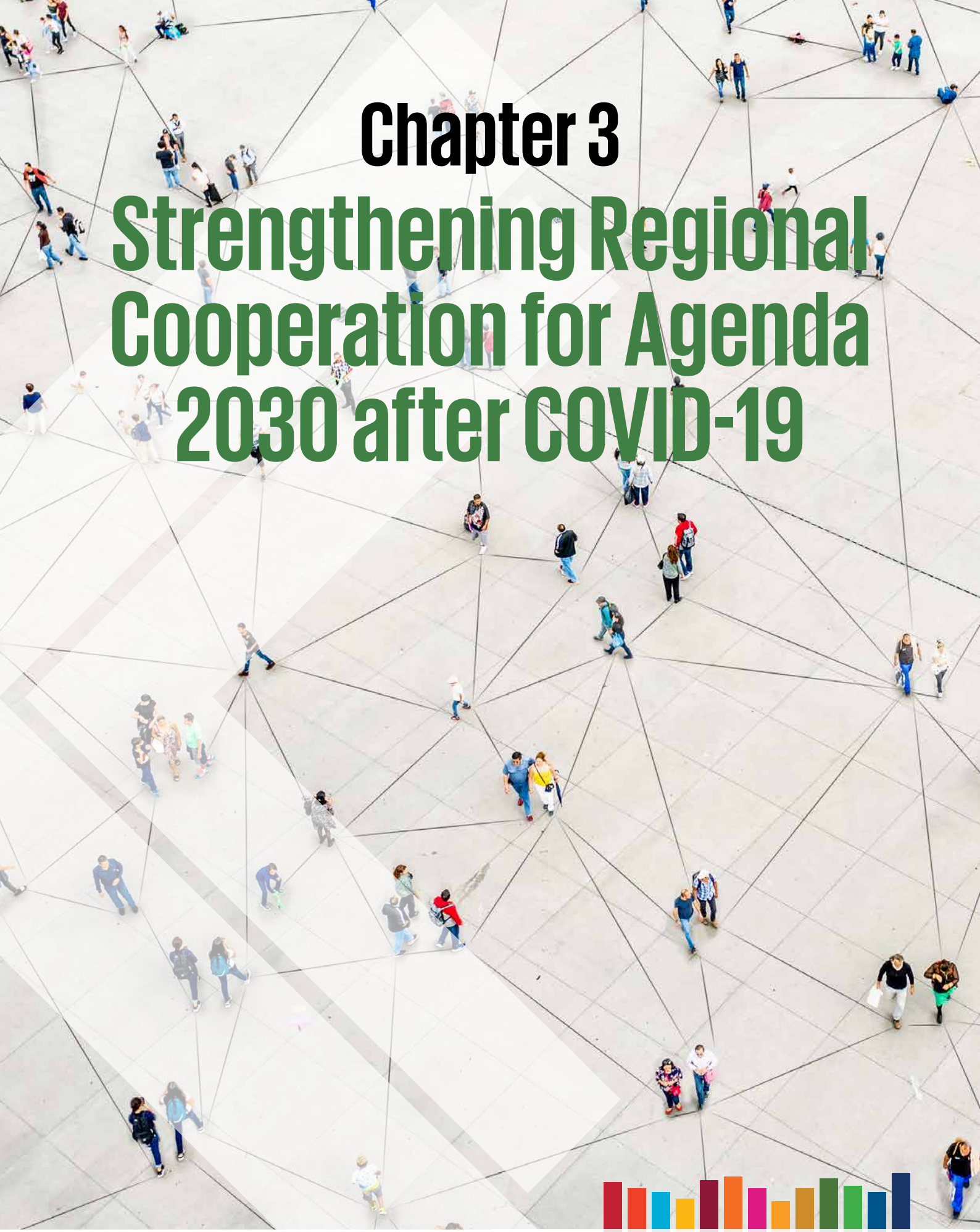
ESCAP's Asia-Pacific Information Superhighway Initiative, launched in 2017, is a unique region-wide mechanism designed to deepen cooperation internationally and across multiple economic sectors. Specifically, it aims to strengthen regional digital connectivity, reduce the digital divide and support digital transformation in the Asia-Pacific region through enhanced availability and affordability of broadband Internet networks and bigdata across the region. The initiative's master plan (2019–2022) provides the foundation and guide for future growth and development of digitalization and seamless digital connectivity. Its key priority is to make broadband Internet more affordable and more broadly available across the region.

The second phase action plan (2022-2026) is under development. It is expected to provide policy guidance and identify priority actions that countries can take individually and collectively, including the promotion of meaningful and affordable access to Internet for all by providing a regional blueprint for cooperative actions and a guide for promoting digital connectivity and transformation towards digital economy. The ESCAP secretariat is tasked with strengthening cooperation and partnerships to promote the implementation of the superhighway initiative as catalyst for greater digital connectivity and more rapid digital transformation in the region.

Source: ESCAP, "In-depth study of the Asia-Pacific Information Superhighway in CLMV countries", *Asia-Pacific Information Superhighway (AP-IS) Working Paper Series*, (Bangkok, 2020).

Chapter 3

Strengthening Regional Cooperation for Agenda 2030 after COVID-19



The COVID-19 pandemic has highlighted the interdependence of countries in the Asia-Pacific region and the importance of cooperation for sustainable development. Governments have made significant efforts to mitigate the impact of the unprecedented social, economic and public health crisis, and innovation has played a key role in weathering the crisis. The region's economies will recover in time. But the recovery is likely to be uneven and marked by rising divergence between and within countries as discussed in Chapter 1.

3.1 Cooperation to leave no country or person behind

When the pandemic hit, most countries in the region looked inward. The coronavirus disease and the lockdowns that followed severely disrupted cross-border flows and economic activity. Governments closed borders, put quarantine rules in place and trade ground to a halt, with supply chains being hit hard.[1] The movement of people and cross-border migration, both an expression of progress on regional cooperation and integration, were upended. Many migrants from the region lost their jobs with dire effects for their families. There was massive repatriation of unemployed migrants working in other countries and regions such as the US and the Middle East.[2] Countries competed for scarce medical supplies and protective equipment. Richer countries were typically more successful than poorer ones in the scramble to secure vaccines and collective efforts to develop vaccines as public goods faltered.[3,4]

Over the past 50 years, regional cooperation on trade, finance and migration has deepened. This cooperation has promoted development, provided opportunities in regional and global markets, and spurred innovation through sharing knowledge and technology. Growing integration carries the opportunity of setting policy frameworks for public goods at the regional level.[5] Key regional public goods include ecosystems, oceans and clean air, economic cooperation and integration, human and social development, governance and institutions, peace and security, and connectivity. Many of these public goods have not been a focus of regional cooperation. The COVID-19 pandemic has brought to the fore the urgent need to focus on regional public goods (especially environmental and social goods) and cooperate more closely on a wide range of increasingly interlinked sustainable development challenges. The challenge is to align various regional mechanisms and initiatives to advance sustainable development for all countries.

As countries seek to recover from the pandemic, it is vital to focus on how regional cooperation can help support progress towards the SDGs, help build resilience to deal with future shocks, and ensure that no person or country is left behind. Digitalization and financial innovation, as discussed in Chapter 2, hold immense potential in this endeavour. This chapter makes the case for renewed regionalism as a cornerstone of a sustainable recovery from the pandemic. It provides a brief overview of cooperation and integration in the region and proposes new priorities for cooperation that complement national and multilateral efforts and can speed up regional progress towards the SDGs.

3.2 Status of regional cooperation in the region and future directions

The Asia-Pacific region has a long and diverse experience with cooperation. It is more integrated than most other regions including Latin America and Africa, though substantially less integrated than the European Union.[6] Governments have established an array of mechanisms of cooperation, such as regional and subregional bodies, trade agreements and bilateral investment treaties.[7]

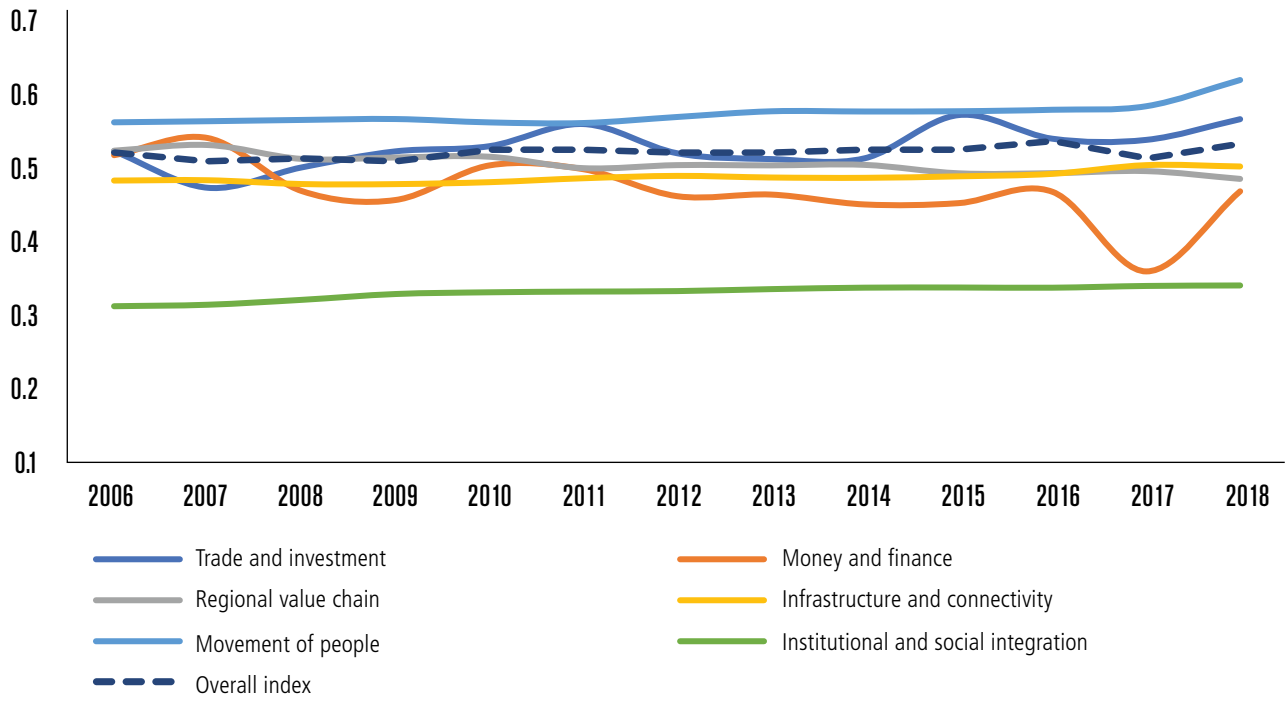
The main focus of regional cooperation in Asia and the Pacific to date has been on trade and investment. ADB's Regional Cooperation and Integration Index (ARCII) uses 26 indicators to track progress on cooperation and integration in six areas: trade and investment, money and finance, regional value chains, infrastructure and connectivity, movement of people, and institutional and social integration.[8] The data show that trade and investment, as well as infrastructure connectivity, have been drivers of regional cooperation and integration (see Figure 3.1). Even before the pandemic, global tensions were slowing down trade and disrupting regional value chains. Movement of people has also been

a significant area of integration. Regional financial and monetary cooperation has been relatively volatile, though it has improved in recent years. Advances in institutional cooperation have been especially slow.

At a sub-regional level, cooperation also varies greatly: South East Asia is the most integrated sub-region, driven by cooperation under the Association of South East Asian Nations (ASEAN), and a range of supportive measures, partnerships and programmes (such as the ASEAN-UN Comprehensive Partnership, the ADB-supported Greater Mekong Subregion initiative). South and Central Asia trail East and South East Asia on overall integration, but the regional initiatives, including those in the Central Asian region, are likely to strengthen future connectivity and cooperation. There is scope to strengthen resilience to shocks and harness the potential of digitalization.

Over the years, processes and dialogues related to regional cooperation in the Asia-Pacific region have addressed the areas of sustainable development, social inclusion and environmental sustainability. The water resources management effort in the Mekong basin, aimed at preserving the "rice bowl of Asia", dates back to 1954. After the 1997-1998 Asian financial crisis, governments established currency swap arrangements and in the wake of the 2004 tsunami they set up early warning systems. The region tried to better manage fisheries in the Pacific. Immunization plans were developed to eradicate polio in Asia, the only region where the disease has not yet been eliminated. The increased cooperation reflects the understanding that some strategic issues are best tackled at a regional level. The usual troubles with public goods—dividing up the costs and benefits in a just manner and avoiding free-riding and dominance of a country (or group of countries)—are easier tackled in smaller, like-minded groups. The approach in the region has been to let many flowers bloom—at bilateral and sub-regional levels. Overall, regional cooperation has had less traction on social and environmental dimensions of sustainable development. To support recovery for the SDGs, inclusive, green, and resilient approaches to cooperation will be vital.

Figure 3.1: Overall ARCII and Dimensional Indexes — Asia



ARCII = Asia-Pacific Regional Cooperation and Integration Index.
Source: ADB Asian Economic Integration Report 2021.

People Centered: Regional cooperation can be more effective if it focuses on people-centered development. In the aftermath of COVID-19, in a region marked by inequalities, regional cooperation can support greater inclusion. Countries in the region recognize the need for greater collaboration and coordination on health issues. The pandemic has made it abundantly clear that to fully re-open economies, suppressing the virus within national borders is not enough. Policymakers have also learned that it is essential to strengthen investment in education and skills development and enhance financial inclusion to provide people with greater economic opportunities, particularly for unskilled and informal workers. Regional collaboration and cooperation, including the development of common standards and opportunities, can support these efforts. Strengthening social protection systems is also important. While national systems differ widely and are imperfect, countries can learn from each other's experiences in developing, administering and financing such systems. Labor standards and policies that foster mobility, while ensuring protection for the vulnerable, can support more equitable and inclusive cooperation. Finally, cooperation can foster common and strengthened governance standards, making systems more transparent, comprehensive and accountable, which is critical to enabling progress towards the SDGs.

Environmental Sustainability: The COVID-19 pandemic has highlighted the critical relationship between the health of nature and the health of humans; land degradation, climate change and biodiversity loss are critical drivers of zoonoses, as discussed in Chapter 1. Tackling these intertwined crises calls for an integrated approach and new forms of cooperation to achieve a just, carbon-neutral, nature-friendly socio-economic recovery. Countries will need to work together and protect the region's increasingly stressed natural capital and biodiversity. Regional cooperation should prioritize more ambitious climate action as greenhouse gas emissions continue to rise rapidly in the region and the use of renewable energy falls well short of the targets set out in the SDGs. Governments' recovery plans should incentivize public investments that decarbonize the economy in line with long term GHG emission reduction goals, decrease material footprints, and prioritize environmentally sustainable activities and projects. Governments should not support projects and activities with detrimental environmental impacts and thus avoid locking in harmful industries and activities. Promoting sustainable consumption and production, and dealing with air, water, and soil pollution across the region are enormous challenges. Similarly, regional cooperation is urgently needed to protect the region's biodiversity and ecosystems (including shared forests and oceans) and tackle marine pollution, overfishing, coral reef degradation, and species loss. Frameworks for assessing cooperation are evolving to better capture environmental dimensions of these efforts.[9]

Resilience: Regional cooperation must support countries to collectively anticipate, absorb and adapt to future shocks. The restrictions to contain the COVID-19 pandemic have highlighted the importance of strengthening resilience against transboundary health risks and future pandemics. The region has some experience with monitoring specific threats. For example, the Long-Range Transboundary Air Pollution program in North-East Asia and the Acid Deposition Monitoring Network in East Asia monitor dispersion of cross-border pollutants in industrial sub-regions. Similarly, the Greater Mekong Subregion Health Security Project monitors communicable diseases. When COVID-19 hit, the project quickly redirected resources to look at the implications of the pandemic. Building greater resilience related to transboundary health challenges, however, requires greater cooperation and collaboration among border agencies, such as customs, inspection, immigration, and health agencies under a "One Health" approach.[10] New technologies, transparency, and data-sharing can all support these efforts. The collective response to the pandemic and future threats should be open to new forms of cooperation.

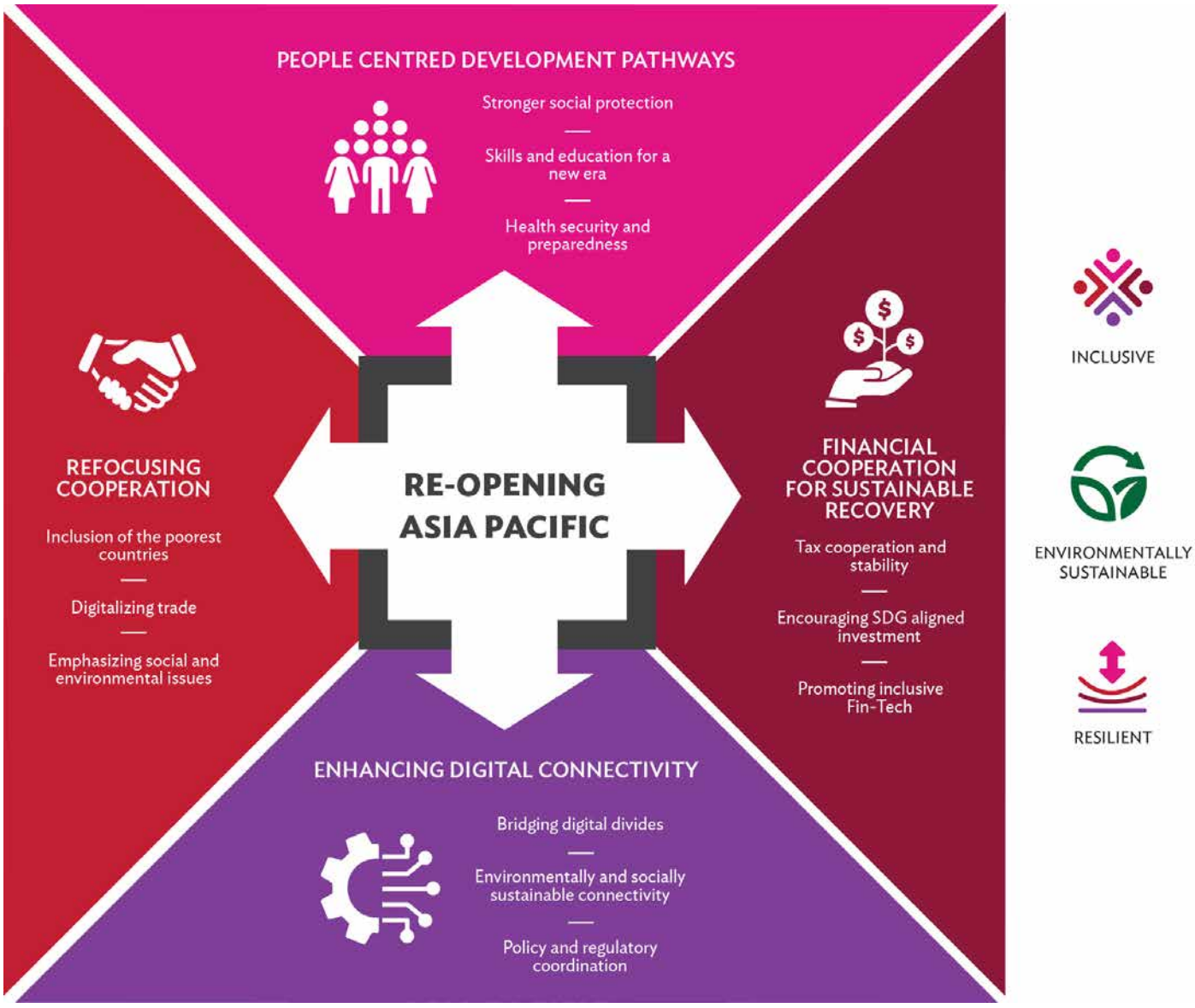
Digitalization: Digitalization and digital financial systems can help tackle many challenges related to accelerating progress on the SDGs, as discussed in the preceding chapter. The process of digitalization involves risks and challenges, which regional collaboration can mitigate. A key issue is access to digital infrastructure and Internet connectivity. Affordability, quality and accessibility vary greatly across the region and governments recognize the

need to change this to bridge the digital divide. While digitalization is driven largely by necessity rather than policy, regional cooperation is critical. This is because the full potential of digitalization is contingent on physical infrastructure, protocols for cross-border connectivity, and affordable digital devices and services for all. Estimates suggest that greater digital use will boost the Pacific island economies the most, followed by Central Asian and South East Asian economies. In all cases, digital connectivity can help overcome geographic remoteness, enable productivity and economic gains, and support inclusive growth.[11]

3.3 New areas for regional cooperation to build back better

Informed by the discussion in the previous section regarding the potential future direction for regional cooperation, this report sets out key areas of regional cooperation that can reduce the risk of a K-shaped recovery as described in Chapter 1 (see Figure 3.2). First, regional cooperation must assist countries to reopen their economies safely, and restore travel, trade and value chains while adequately addressing sustainability and climate change

Figure 3.2: Key areas of regional cooperation to reduce the risk of a K-shaped recovery



concerns. Second, regional cooperation must support people-centred development pathways, through strengthening healthcare systems and public health emergency preparedness, and tackling long-standing weaknesses of social protection systems. Third, regional cooperation should strive to give shape to new forms of cooperation in finance, especially digital finance, to improve access to financial resources in less developed countries. Fourth, the pandemic has demonstrated the need to refocus economic cooperation on inclusion, sustainability and resilience. Finally, regional cooperation on digital connectivity for the 2030 Agenda is critical to enabling equitable digitalization in the region to strengthen resilience to external shocks. Physical and digital connectivity can both enable and be enabled by regional cooperation.

3.3.1 Systems for re-opening the Asia-Pacific region

The immediate task for governments across the region is to create conditions for a robust economic recovery as lockdowns and restrictions are phased out. Critical preventive measures will need to be harmonized and reinforced, while others can be unwound to fully restore cross-border trade, tourism and financial flows.

National lockdowns and other preventive measures differ, but there are areas in which a common regional approach would be the most effective. For instance, while the regional shortage of medical supplies, facemasks and protective equipment has been largely overcome, the delivery of health services remains uneven. Successful testing and contact tracing of COVID-19 can be applied more widely in the region. The ASEAN Comprehensive Recovery Framework seeks to create common policies for public health officials. The Pacific Islands have formed a Pacific Humanitarian Pathway on COVID-19 to speed up delivery and customs clearance of medical supplies.

Fast and equitable inoculation drives against COVID-19 across the region are essential to ending the pandemic. As vaccines become available more widely, countries will need to resist "vaccine nationalism". The pandemic requires that national efforts are accompanied by collective responses and without them there is a risk that the health crisis turns into a prolonged economic crisis. In December 2020, the ADB launched a $9 billion Asia Pacific Vaccine Access Facility to support countries to equitably roll out vaccines. Companies in several countries (including China, India, Indonesia, Pakistan and Viet Nam) have begun or are about to begin producing vaccines.

Nearly all countries in the region have implemented transport, health and safety measures and reopened border crossings for freight. In North and Central Asia, the Eurasian Economic Union introduced "green corridors" with uniform sanitary requirements at border crossings. The ASEAN Smart Logistics Network, launched in November 2020, encourages smart and seamless logistics and is especially relevant given the logistical and supply chain challenges in the era of COVID-19. Some countries were quick to put up trade barriers only to roll them back. For example, some countries banned the export of surgical masks and disinfectants but reversed course soon after.[12] Manufacturing and inoculation drives across the region would benefit from further easing of restrictions on the export of medical supplies and equipment.

Manufacturing activity is recovering, but in most countries the service sector, including travel and restaurants, continues to struggle.[13] The pandemic has brought international tourism to a virtual standstill. For many countries in the region (particularly Cambodia, Fiji, Georgia, China, Maldives, Palau, Thailand, Tonga, Samoa and Vanuatu) tourism is a crucial source of revenue.[14] Governments' attempts to stimulate domestic tourism have been unable to stem the losses. Restoring international travel will be instrumental for the recovery, particularly in tourism-dependent countries of the Pacific. Without a full reopening, they will be left behind in the post-pandemic recovery. Regional cooperation can play an important role in restoring tourism and protecting public health.[15] For instance, governments could agree regional rules for passenger travel (such as COVID-19 tests on embarkation, certification of negative test results or vaccination) and enable safe movements with shorter quarantine periods. At some travel hubs,

such protocols are already in place (between China-Republic of Korea, China-Singapore and Japan-Viet Nam). Other examples of regional arrangements to counter the slump in tourism are the ASEAN Travel Corridor Arrangement Framework (set to become operational for essential travel in 2021), and a potential "Bula Bubble" covering Australia, Fiji, and New Zealand.[16]

3.3.2 Investing in people-centered development pathways

As highlighted in Chapter 1, the pandemic has exposed countries' underlying systemic vulnerabilities. Investments in people should be a key priority when tackling these vulnerabilities during and beyond the economic recovery and can enhance the resilience of countries to future shocks. Regional cooperation can foster learning, information exchange, and the development of new standards and systems in education and learning, social protection and health. Regional cooperation mechanisms and multilateral institutions can play a supporting role. As the Asia-Pacific emerges from the pandemic, greater investments in people will pay dividends for inclusive economic growth and sustainable development.

Cooperation to strengthen social protection: Social safety nets are weak in the Asia Pacific region. Some 54 per cent of people are outside social protection schemes. In many countries, only people working in the formal sector have social insurance. In addition, there are some social assistance programmes covering the extreme poor. In between these two groups, there is a large portion of the population—mostly informal sector workers and micro and small entrepreneurs—which lacks any form of social protection.[17] Access to protection can be particularly challenging for migrant workers. This issue is likely to only gain in importance, particularly given efforts to increase mobility of people that were underway in the region prior to the pandemic. There is an urgent need to include these so-called 'missing middle' groups. The expansion of protection can be accompanied by measures such as cash transfers to the vulnerable, self-help schemes, and public works programmes. In 2020, ESCAP proposed a regional action plan to promote social protection for all. The plan stresses the importance of collaboration, peer learning and sharing of good practices, and proposes common targets for national social protection systems derived from the Global SDG framework.[18]

Skills and education in a new era: The global online education market was already growing rapidly, but it was the COVID-19 pandemic that made digital education mainstream as the coronavirus forced students out of their classrooms. There is significant potential for digitalization to both increase access to learning and improve the quality of education at different levels across the region. At the same time, it is extremely challenging to ensure that all people can access learning throughout their life and that all countries benefit. Governments will need to transform education systems to make them fairer and more resilient. From a regional perspective, the tasks in the area of skills and education go beyond simply ensuring access to digital learning technologies and require regional agreements on educational standards, testing, and accreditation systems across countries. Online education may offer an opportunity to address some of the gaps in the quality of outcomes in Asia-Pacific's education systems, which will be essential to "leave no country behind" in recovery from the pandemic. But this potential hinges on extending equal access to the technology and supporting infrastructure needed to support digital education, as discussed in Chapter 2.

Health security and preparedness: The Asia-Pacific region is likely to remain a hotspot for emerging diseases. The conditions that put it at risk include a changing climate, poverty, high population density, poor disease surveillance and diagnostic capacity, and close proximity of humans and animal husbandry. The region is particularly prone to zoonoses, vector-borne diseases, and drug-resistant pathogens.[19] The management of communicable diseases is a critical yet largely overlooked regional public good. Growing antimicrobial resistance, the health impacts of climate change and frequent natural hazards make regional cooperation to protect health security even more urgent. The ASEAN health security framework played some role in helping manage during disease outbreaks such as SARS, H1N1 and MERS-CoV.

Investments in public health emergency preparedness will be key to leaving the pandemic behind and making countries more resilient to future shocks. The costs have been estimated at $880 million a year through 2030.[20] Regional mechanisms for health response, such as the WHO-led Asia-Pacific Regional Forum on Health and the Environment and Asia-Pacific Strategy for Emerging Diseases and Public Health Emergencies (APSED III), can support national efforts to broaden access to basic health services and attain universal primary health coverage. ASEAN has already set out an action agenda for strengthening pandemic preparedness. Proposed actions include strengthening early warning systems, collective stockpiles of medical supplies, and scientific cooperation. Resilient health systems are foundational to sustainable development and digitalization can help transform them. The use of information technology, digital diagnostic equipment and laboratory information systems, mobile applications for disease surveillance and reporting, electronic health records, and cross-border standardization of data management will all play a role in health security. Countries can build on digital health platforms developed to tackle the COVID-19 pandemic to facilitate real time monitoring of measures to manage health threats, anticipate new threats, and increase transparency. Examples of such platforms include India's Electronic Vaccine Intelligence Network (eVIN),[21] Indonesia's Sistem Monitoring Imunisasi Logistik secara Elektronik (SMILE)[22] and Access to Information (a2i) in Bangladesh.[23] Regional cooperation can help countries share and learn from each other's experiences with digital health solutions.

3.3.3 Financial cooperation for sustainable recovery

The devastating economic impact of COVID-19 and governments' fiscal response has strained public budgets and debt servicing capacity in many countries in the region. The emergency measures have been instrumental in helping households and businesses cope with income losses, unemployment and economic inactivity, and ensured that banks kept lending throughout the crisis. A combination of rising public debt and surging household debt, which was a trend prior to the pandemic, could threaten regional banking stability and weaken the recovery. There are, however, financial resources and instruments in the Asia-Pacific region that could be tapped to alleviate liquidity and fiscal constraints, and support progress on the SDGs

Tax cooperation and financial stability to support sustainable development: The longstanding issue of how to raise the money necessary to achieve the SDGs has taken on new dimensions in the light of the financial stresses of the COVID-19 pandemic and the accelerated technological transformation that holds the promise of harnessing the full potential of digitalization and financial technology. A range of regional mechanisms already seek to strengthen financial stability, including the Chiang Mai currency swap arrangements, the Asian Bond Market Initiative and the ASEAN+3 Bond Market Forum, and the Asian Clearing Union. The objective of the currency swap arrangements is to provide emergency infusions of foreign currency to member countries suffering from liquidity crises. Continued efforts to strengthen domestic resource mobilization in the region remain vital to expand fiscal revenues, which can further finance SDG agendas. Regional cooperation on tax issues has an important role to play in this context. With cross-border digital transactions rising rapidly, it will be important for countries to strengthen tax cooperation and harmonization to plug loopholes and capture the benefits of the digital economy. Digitalization holds enormous potential to strengthen tax administration and bring more people into the tax system.[24]

Encouraging SDG-aligned investment: Governments can do more to enact policies to steer capital towards sustainable development and incentivize green investments, and regional cooperation can help foster common standards and approaches. The markets of ASEAN+3 (China, Japan and the Republic of Korea) are the world's most dynamic, with issuance of local currency bonds rising to $18.7 trillion at the end of the third quarter of 2020.[25] The Asia-Pacific region also has vibrant offshore and domestic capital markets that have been flourishing amidst the pandemic on

electronic platforms offering digital banking and financial services. Harnessing these capital markets to finance sustainable development is a critical area for continued focus. Green, social, sustainability, and COVID-19 bond issuances grew considerably in 2020.[26] Yet bonds linked to progress on the SDGs remain a fairly new, small and niche part of the wider sustainability bond issuance market, despite clear demand and need. Impact investment, where investors seek environmental, social, and governance impact alongside economic returns, has been growing rapidly, and targeting areas such as clean energy, healthcare, education, affordable housing and agriculture. Sustainable finance and investments are set to grow and play a large role in post-COVID-19 recovery. Private investors and fund managers are increasingly adopting the SDGs as a framework for environmental, social and governance investments. Efforts to further develop and standardize sustainability-focused financing instruments and build on the private sector's willingness to using the SDGs as a framework for linking investments to sustainable development impact are needed. At the same time, the structuring of sustainable development investments and issuances could benefit from greater regional cooperation and engagement with regional investors.

Promoting Inclusive Fintech in Asia Pacific: Financial inclusion plays a key role in reducing inequalities and making households and communities in the Asia-Pacific region more resilient. Regional cooperation can accelerate progress in digital finance and financial technology. Fintech is already providing millions of previously unbanked or underbanked people with access to financial solutions in the Asia-Pacific region.[27] National governments design and implement digital and financial inclusion policies but regional interoperability and harmonization of standards and laws in digital finance will make cross-border money transfers easier and cheaper, with direct benefits for sub-regional development, as discussed in Chapter 2. Although the Asia-Pacific region is a global leader in growth, trade and finance, fewer than five of the leading 50 countries in digital technology are in the region.[28] A regional Fintech initiative on digital technology and finance could build on and enhance the benefits of the various efforts to improve connectivity, leveraging successful experiences (see Box 3.1). Private sector firms may be able to shoulder much of this within a regional Fintech initiative and there are significant opportunities for the private sector in providing software. Economies such as China, Japan, and the Republic of Korea, can share their experience with other developing countries in Asia and facilitate the diffusion of technological capabilities.

Box 3.1:

Grab's regional expansion in ASEAN

Grab, one of Asia's largest mobile technology and ride-hailing companies, is a beneficiary of regional cooperation. The company operates in eight ASEAN countries. Cooperation with local governments and the private sector has been key to its success. In 2015, Grab partnered with Singtel Group, a Singaporean telecoms group, in a move that enabled it to use Singtel's mobile wallet for rides on the Grab application. This digital capability was replicated with other major regional telecoms associated with Singtel, such as AIS (Thailand), Globe Telecom (Philippines) and Telkomsel (Indonesia). The mobile wallet services were made available through an integrated open platform, enabling Grab to expand payment options beyond cash and credit card into digital currency. Grab's regional expansion has created tens of thousands of jobs and the company has diversified into food delivery. The case of the ride-hailing giant demonstrates how digitalization has helped to connect people for transportation and food delivery services in the region.[a] The company, together with Singtel, has recently been offered a fully digital banking license in Singapore, which will allow the firms to add digital finance offerings to people and small businesses.

Source: Compiled from various sources.

a: LIN, Mei, and Christopher DULA. "Grab: Discovering new frontiers for growth in the Southeast Asian sharing economy." (2016): 1-27.

3.3.4 Refocusing economic cooperation through digitalization

Regional cooperation can spur more inclusive growth by shaping regional and global trade and value chains. Trade and investment have been at the heart of the region's increasing regional cooperation and integration. Trade in Asia and the Pacific has grown 20 per cent per year in the last five decades. As a share of GDP, the region's trade rose from 17 per cent to 52 per cent between 1960 and 2016.[29] As the region emerges from the pandemic, trade will once again be a key driver of economic activity.

Including less developed countries: The COVID-19 crisis provides an opportunity to revisit the role less developed economies play in international trade and production. The main market participants thus far have often been high- and middle-income countries.[30] As a result, the gaps in manufacturing capacity have widened in the Asia-Pacific region in recent decades with countries such as China, India and other East Asian countries expanding their productive capacities.[31] Protectionism among some Asian economies is an additional issue. Moreover, the pandemic has hit the less developed countries especially hard,[32] posing a serious obstacle to the principle of leaving no country behind. Engaging less developed countries in regional value chains may entail greater risks and costs. Regional bodies and institutions can continue to encourage supply chains through the provision of trade finance, which, for example, supports export credit insurers to allow banking institutions to provide finance to SMEs.

Digitalizing Trade: Digitalization of trade creates many opportunities to reduce costs, and open up new areas of focus that can help the region thrive.[33] Paperless cross-border trade facilitates regional e-commerce and improves regulatory compliance, while making international trade transactions more efficient and transparent.[34] The Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific, a UN treaty, focuses on digital trade facilitation measures for trade and development where all participants in global value chains exchange data and documents electronically. By enabling data exchange and legal recognition of trade data and documents, the treaty could help reduce trade costs in Asia Pacific region by 25 per cent.[35] E-commerce is emerging as a major opportunity for the region: the challenge is to seize it while limiting drawbacks through public policy and initiatives by e-commerce stakeholders.[36] Revenues from digital platforms reached an estimated $3.8 trillion globally in 2019 (equivalent to 4.4 per cent of global GDP).[37] Better digital connectivity enables SMEs to access global markets and compete internationally. This in turn has made them more efficient and created new jobs in developing countries and the least developed countries, increasing inclusiveness and narrowing development gaps.[38] The rise of homegrown companies such as Grab and Lazada in the Asia-Pacific region demonstrates the potential of the model.[39] Harmonization of both regulatory and technical standards for data systems is critical in supporting the establishment of integrated markets within the region. E-commerce and related cross-border trade would benefit from regional legislation, which would help make businesses nimbler and speed up their expansion.

Emphasizing environmental and social dimensions of trade: Measures to promote trade in environmental goods and natural resources need to be strengthened. Efforts to measure and manage the environmental footprint of regional trade are an important part of shifting a hitherto one-dimensional focus on economic outcomes to the environment. More inclusive trade is another challenge. A key priority is greater support for SMEs, which employ tens of millions of people and form the backbone of economies, but often have limited access to finance. As a result, they remain outside global value chains, struggle to hire and retain workers and remain less productive. Governments and institutions promoting regional cooperation should lend greater support to SMEs, through innovative financing models, credit guarantees for local banking institutions, and empower firms led by vulnerable groups and women. Women-owned enterprises remain particularly credit-constrained. The pandemic has provided an opportunity to renew with urgency gender-sensitive and gender-targeted support in the areas of trade and value so that the economic recovery can be more inclusive and progress towards the SDGs is made.

3.3.5 Enhancing digital connectivity to strengthen resilience for the 2030 Agenda

Connectivity is at the heart of regional cooperation and integration. Transport corridors and power grids have been the focus of much cooperation, often linked to the development of economic clusters. Direct benefits of regional connectivity accrue from improved productivity and competitiveness in source countries.[40] There is also an indirect spillover effect to other countries via cheaper imports, which in turn stimulates growth. In this way, the economic benefits of regional connectivity depend on countries' productive capacity and the trade and investment linkages between countries.[41]

Bridging the digital divide: As highlighted in the previous chapter, the pandemic has accelerated the speed of digital transformation, and demonstrated the vast potential of digital connectivity to support sustainable development. Yet, in practice, access in the Asia-Pacific region varies widely. To reduce the risk of a K-shaped recovery and tackle inequalities in the region, greater progress towards universal and affordable Internet access must be made. Regional cooperation efforts can help incentivize investments in digital connectivity, and in particular help reach last and invisible mile users. This will require specialized expertise, greater risk taking, and can be supported through cooperation. The Asia-Pacific Information Superhighway Initiative, described in Chapter 2, has helped highlight the special needs of particular countries (see Box 3.2). However, despite the possibilities unlocked by digital connectivity, digital and physical connectivity must be considered in parallel. Regional cooperation can help frame strategies and regulations, especially on cross-border data.

Environmental and social dimensions of connectivity: In the Asia-Pacific region, cooperation has traditionally focused on cross-border connectivity with the aim of reducing trade costs. However, physical connectivity hinges on functioning soft infrastructure—the institutions and systems that make it work. There is a need to focus on the environmental and social dimensions of connectivity, in particular in the area of infrastructure. Regional cooperation could facilitate public investment in low carbon and sustainable quality

Box 3.2:

Boosting the cross-border data economy

Cross-border data sharing and data-intensive technologies are vital in driving the digital economy of the Asia-Pacific region. It is only by allowing data to move across borders that firms can build regional digital platforms. The preconditions for a healthy data economy include trust between countries and a common understanding of how to support the data economy and reduce risks. Technology transfer and technical interoperability—the ability to share data between different systems and enable those systems to make use of the data—are key incentives for cross-border cooperation. Maximizing the commercial value derived from combining datasets, whether using basic algorithms or AI, usually requires the information to be harmonized, standardized and stored in databases. Countries can attract inbound cross-border transfers of data and information technologies only if people, businesses and governments trust them. Governments can strengthen this trust by providing a secure telecommunications infrastructure and laws (on data privacy, security, contract, and trade secret protection). Moreover, governments must be transparent, share their own data and encourage citizens and businesses to share data across borders. Open information societies thrive best in the global economy.

Source: A Roadmap for Cross Border Flow: Future-Proofing Readiness and Cooperation in the New Data Economy (WEF, 2020)

infrastructure. Connectivity initiatives could place much stronger emphasis on decarbonization of the economy, and prioritize environmentally sustainable activities and projects. Common standards for infrastructure development (building on efforts such as those advanced through the G20 Quality Infrastructure Principles) would bring benefits for all countries in the region. Digital data platforms to support infrastructure project development are being developed. As major financiers of such initiatives, the Multilateral Development Banks have promoted common infrastructure data platforms.[42]

Policy and regulatory coordination for digitalization: To realize the growth potential of digitalization, governments must take proactive policy actions and collaborate effectively with the private sector and multilateral organizations.[43] Creating awareness of, and trust in, technologies are critical for reaping the benefits from emerging technologies and innovations. Trading agreements can support these efforts; for example, the Regional Comprehensive Economic Partnership (RCEP) has been structured to help countries deal with challenges related to e-commerce. A separate chapter of the RCEP agreement promotes e-commerce among member countries and aims to strengthen consumer protection, safeguard personal information, and promote acceptance of electronic signatures. Fintech is another area that could particularly benefit from regional cooperation to address national regulations and institutions governing financial systems. Digitalization in turn can help governments leapfrog the challenges of gradually modernizing outdated financial systems.[44] Regional exchange is vital to help countries build a digital finance ecosystem or to implement regulatory reforms.

3.4 Conclusion

The COVID-19 pandemic hit the Asia Pacific region when it was already falling behind on all SDGs. Given inequality, disparity and exclusion in the region, there is a risk that the pandemic will result in a K-shaped recovery and worsen pre-COVID vulnerabilities. Vulnerable groups within countries and vulnerable countries may be left behind. Regional cooperation can mitigate these risks. It has an urgent role to play in ensuring that the recovery does not take countries back to the same predicament of waste, pollution, inequality and joblessness. It can enable greater economic, environmental and social sustainability.

While countries first looked inward to cope with the pandemic, regional institutions have risen to the challenges posed by pandemic. The United Nations swiftly issued a call for urgent political leadership and multilateral response to combat COVID-19 and proposed a comprehensive plan.[45] The regional development banks frontloaded resources and mobilized billions of dollars to fund the COVID-19 response. The ADB announced a $6 billion response package in March 2020 (scaled up to $20 billion by April 2020). In late 2020, it launched the $9 billion Asia Pacific Vaccine Access Facility, which aims to ensure more equitable access to vaccines in the region. The Asian Infrastructure Investment Bank established a Crisis Recovery Facility, which has committed $13 billion between April 2020-October 2021 to finance public and private entities in member countries to mitigate the pandemic's health, economic and financial impacts. ESCAP has developed a framework to support the socio-economic response of Asia and the Pacific to the COVID-19 pandemic and help build back better through integrated policies aligned with the SDGs. Under the leadership of UN Resident Coordinators, UNDP in coordination with other regional UN agencies has been engaged in assessing and addressing the socio-economic impacts of COVID-19. In November 2020, ASEAN adopted a COVID-19 Comprehensive Recovery Framework, which sets out priorities for collective action.

In tandem, despite many challenges, there has been unprecedented collaboration among governments and donors (bilateral and multilateral) as well as development banks, philanthropic organizations and the private sector to address the pandemic. Pooling of financial resources, equipment, and expertise has contributed to the development and production of several COVID-19 vaccines in record time. In 2020, grant makers, wealthy donors and philanthropists provided $20 billion in COVID-19 funding globally (of which 44 per cent was given by

corporate entities). In Australia, China, Japan and India, such funding exceeded $2.1 billion.[45] Several countries in the region, including some of its least developed countries, also established COVID-19 response funds that pooled private donations, public money, and external finance. For instance, the ASEAN Response Fund received $15 million from member countries and partners. The fund also received pledges from non-members such as Germany, European Union, India and Japan. In the commercial sphere, the China Development Bank signed loan agreements (involving more than $700 million) as part of the G20 Debt Service Suspension Initiative.[47] The state-owned bank has also issued 'fighting the COVID-19 epidemic' bonds. Private companies from China, Indonesia, the Republic of Korea, the Philippines, and Thailand, have also issued COVID-19 bonds. The proceeds have typically supported the manufacture of medical supplies. Science, technology, and innovation enabled by these partnerships have played a critical role in responding to the pandemic and will drive countries' efforts to recover and build resilience. Scientific and technological innovations are a key means of achieving a sustainable, equitable, and resilient future for both human civilization and the biosphere. These developments point to the potential of collaboration between the private and public sector as well as across countries and may hint at a new model of regional and global provisioning of public goods.

Despite the success in developing vaccines in record time, the consequences of the pandemic will outlast the eventual suppression of the coronavirus and economic recovery and resilience will remain priorities for regionalism in the years ahead. The first step is to help countries emerge from lockdown safely and create the preconditions for inclusive, green and resilient development. Cooperation should prioritize investments in people, healthcare systems and public health emergency preparedness, and social protection systems. Financial cooperation can also help ensure that no country is left behind. The opportunity to make trade and value chains more resilient and environmentally sustainable must be seized. An important part of this will be greater digital and physical connectivity, with a focus on environmental sustainability and inclusion, and closing digital divides that threaten to leave people behind.

Together, we can reinvigorate the institutions set up to foster regional cooperation and collaboration to focus on attaining the SDGs and ensure that no person or country is left behind.

Appendix 1:
Digital technologies accelerate progress towards all 17 SDGs

SDG 1: **No poverty**	More than 2 billion people in the world do not have bank accounts, while access to digital financial services has been proven to help lift people out of poverty. In November 2017, ITU teamed up with several partners to launch a global programme to accelerate digital financial inclusion in developing countries.
SDG 2: **Zero hunger**	By making agricultural practices more data-driven and efficient, ICT-enabled solutions can help farmers increase crop yields while reducing their use of energy. In 2017, ITU and the Food and Agriculture Organization of the United Nations (FAO) joined forces to bolster ICT innovation in agriculture.
SDG 3: **Good health and well-being**	Direct patient interaction, health informatics and telemedicine can be improved through better connectivity. In 2017, ITU and the World Health Organization (WHO) launched the "Digital Health for Africa" partnership to scale up the use of digital technologies to strengthen the delivery of public health care services in Africa. Furthermore, "Be He@lthy, Be Mobile", a collaboration between ITU and WHO founded in 2013, helps governments introduce health services for non-communicable diseases (NCDs) and their risk factors by using mobile phones to deliver information to millions of users in their countries. ITU is also developing standards for multimedia systems to support the widespread deployment of e-health applications, in particular in the area of telemedicine, in collaboration with other organizations that set standards related to e-health.
SDG 4: **Quality education**	ITU and the International Labour Organization (ILO) are leading the Digital Skills for Decent Jobs Campaign, whose goal is to equip five million young men and women with job-ready digital skills by 2030. This initiative is in line with the support of the SDGs as part of the first-ever, comprehensive United Nations system-wide effort for the promotion of youth employment worldwide.
SDG 5: **Gender equality**	Two hundred fifty million fewer women are online than men. ITU organizes the annual International Girls in ICT Day to close the digital gender gap. ITU is also involved in several gender equality initiatives including EQUALS, a ground-breaking global network to build an evidence base and improve women's access to technology, build relevant digital and other skills, and promote female leadership in the tech sector.
SDG 6: **Clean water and sanitation**	ICTs facilitate smart water and sanitation management. The ITU Focus Group on Smart Sustainable Cities has identified key trends in urban smart water management, including ICTs for managing wastewater.
SDG 7: **Affordable and clean energy**	ITU has helped develop greener ICTs and has outlined how smart grids can help to build more controllable and efficient energy systems and reduce carbon emissions.

SDG 8: Decent work and economic growth	ITU has launched a Digital Innovation Framework to assist countries, cities, and other ecosystems to accelerate their digital transformation and stimulate ICT-centric innovative entrepreneurship and vibrant small and medium enterprises.
SDG 9: Industry, Innovation and Infrastructure	ITU helps to build resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation.
SDG 10: Reduced inequalities	ITU works to reduce inequality within and between countries, communities and populations by enabling access to technologies and knowledge to disadvantaged segments of society.
SDG 11: Sustainable cities and communities	To facilitate the transition to smart, sustainable cities, ITU and the United Nations Economic Commission for Europe (UNECE) launched "United for Smart Sustainable Cities" (U4SSC) in 2016. Fifty cities have now joined this project.
SDG 12: Responsible consumption and production	eWaste, waste created by ICTs, is increasing. ITU proposes to create an e-waste Coalition to strengthen collaboration on addressing the global e-waste challenge. ITU has also developed global strategies, standards and policies that offer guidelines for the sustainable management of e-waste.
SDG 13: Climate change action	ITU develops policies and international standards that help reduce the amount of energy required to provide ICT products and services. For example, ITU has set standards on green data centres and green power feeding systems.
SDG 14: Life below water **SDG 15:** Life on land	ITU supports work on SDG 13, 14, and 15 - Climate action, Life below water, and Life on land - by allocating and coordinating the use of the radio-frequency spectrum and satellite orbits allowing satellite observations that play a significant role in monitoring oceans, marine life and terrestrial ecosystems.
SDG 16: Peace, justice and strong institutions	ITU helps to drive citizen empowerment through its work on smart, sustainable cities and key performance indicators (KPIs) that measure social inclusion such as voter participation, or the number of government services delivered through electronic means. ITU also helps countries deploy broadband connectivity and develop ICT applications to facilitate the provision of free or low-cost digital access for schools, hospitals and underserved populations.
SDG 17: The power of partnerships	Public-private partnerships, one of the comparative advantages and foundations of ITU's work, are vital to bringing ICTs to all nations, peoples and communities. Partnerships are particularly needed to build the physical infrastructure required to deliver Internet services in hard-to-reach areas and to currently disadvantaged populations, as well as to facilitate the investment, inclusion and innovation needed for the SDGs.

Appendix 2:
Potential impacts on value creation and capture from an expanding digital economy, by its components and actors

DIGITAL ECONOMY COMPONENT	ACTORS				EONOMY-WIDE IMPLICATIONS
	Individuals (as users/ consumers and workers)	MSMEs	Multinational enterprises / digital platforms	Governments	
Core, digital sector	New jobs for building and installing ICT infrastructure New jobs in telecom and ICT sector, especially ICT services	Greater inclusion under suitable circumstances or spillovers/ domestic linkages. Increased competition from cloud-service providers.	Investment opportunities for companies that meet high capital, technological and skills requirements.	Attracting investments. Tax revenues from the economic activity created.	Increased growth, productivity and value added. Employment creation. Investment and diffusion of technologies; R&D likely located in high-income countries. Mixed trade impacts.
Digital economy	New jobs in digital services, especially for highly skilled people. New forms of digital work, including for the less skilled.	New opportunities in digital ecosystems. Increased competition from foreign digital firms.	Enhanced productivity from data-driven business models. Greater control of value chains using platform-based business models. New opportunities in the sharing economy.	More tax revenue from increased economic activity and formalization of enterprises. Lost customs revenue from digitalization of products.	Higher growth, productivity and value added. Employment creation/losses. Higher investment. Aggregation of digital firms In some locations. Mixed trade impacts. Market concentration.

Digitalized economy	New jobs in digital services, especially for highly skilled people. New forms of digital work, including for the less skilled. New jobs in ICT occupations across industries. Need for new skills as higher-value roles are re-designed using digital tools. Greater efficiency of services received. Job losses or transformation due to digitalization. Risk of worsened working conditions. Improved connectivity. More choice, convenience, customization of products for users and consumers. Lower consumer prices.	Platform enabled market access. Reduced transaction costs. Risk of "race to the bottom" in markets vs. ability to find a niche. Lost opportunities due to automation (e.g. logistics, business processes). New roles in service provision. New business for digitalized enterprises.	Emergence of platform firms with data-driven models. Gains from efficiency, productivity and quality. Opportunities for the monetization of data. Increased competitive advantage to digital platforms. Increased market power and control of data value chain. Leading digitalization in different sectors.	Increased efficiency of services through e-government. Increased revenue from customs automation. Unclear impact on tax revenue increases from higher economic activity; losses from tax optimization practices by digital platforms and MNEs. Data-driven opportunities to meet various SDGs.	Growth through improved efficiency in sectors and value chains. Productivity improvements. Innovation impacts. Potential crowding out of local firms in digitally disrupted sectors. Potential automation in low- and medium-skill jobs. Wider inequality. Mixed trade impacts. Impacts on structural change.

Endnotes

Chapter 1

1. ESCAP, *Inequality in Asia and the Pacific in the era of the 2030 Agenda for Sustainable Development*, Sales No. E.18.II.F.13 (Bangkok, 2018).
2. ESCAP, ADB and UNDP, *Fast-Tracking the SDGs Driving Asia-Pacific Transformations* (Bangkok, 2020).
3. ADB, *Asian Development Outlook 2020 (April Edition)*, (Manila: ADB, 2020).
4. ILO, "ILO Monitor: COVID-19 and the world of work", Seventh edition, (2021).
5. ESCAP, *Economic and Social Survey of Asia and the Pacific 2021: Towards post-COVID-19 resilient economies*, Sales No. E.21.II.F.5 (Bangkok, 2021).
6. ESCAP calculations based on data from Human Development Report 2020: http://hdr.undp.org/en/2020-report.
7. UNDP and Oxford Poverty and Human Development Initiative (OPHI), *Global Multidimensional Poverty Index 2020: Charting Pathways out of Multidimensional Poverty – Achieving the SDGs*, (2020).
8. World Vision, "Unmasking the Impact of Covid-19 on Asia's Most Vulnerable Children" (June, 2020).
9. UNESCO, *Education: From disruption to recovery*, (2020).
10. UNESCO's definition of the Asia-Pacific region does not include Armenia, Azerbaijan, the Russian Federation and Turkey.
11. ESCAP, *Building Disability-Inclusive Societies in Asia and the Pacific. Assessing the Progress of the Incheon Strategy (Bangkok, 2018); ESCAP, Addressing the Challenges of Population Ageing in Asia and the Pacific: Implementing the Madrid International Plan of Action on Ageing* (Bangkok, 2017).
12. ESCAP, "Ensuring disability rights and inclusion in the response to COVID-19", *ESCAP Policy Brief*, (Bangkok, 2020).
13. UNWOMEN, *Unlocking the lockdown: The gendered effects of COVID-19 on achieving the SDGS in Asia and the Pacific*, (2020).
14. ESCAP, *Asia Pacific Migration Report 2020: Assessing Implementation of the Global Compact for Migration*, ST/ESCAP/2801, (2020).
15. ibid endnote 14.
16. Jeff Tollefson, "COVID curbed carbon emissions in 2020 — but not by much", *Nature*, 589, 343 (2021). Based on estimates from P. Friedlingstein and others, "Global Carbon Budget 2021", *Earth Syst*. Sci. Data, 12, pp. 3269–3340 (2020).
17. Dieter Helm, "The Environmental Impacts of the Coronavirus", *Environ Resource Econ*, 76, 21–38 (2020).
18. ESCAP, *Changing Sails: Accelerating Regional Actions for Sustainable Oceans in Asia and the Pacific*, Sales No. E.20.II.F.15 (Bangkok, 2020).
19. Sarva M. Praveena and Ahmad Z. Aris, "The Impacts of COVID-19 on the Environmental Sustainability: A Perspective from the Southeast Asian Region", *Environmental Science and Pollution Research* (2021).
20. ibid Endnote 5.
21. ESCAP, *Economic and Social Survey of Asia and the Pacific 2020: Towards Sustainable Economies*, Sales No. E.20.II.F.16 (Bangkok, 2020).
22. ESCAP, *Economic and Social Survey of Asia and the Pacific 2020: Towards Sustainable Economies*, Sales No. E.20.II.F.16 (Bangkok, 2020).
23. ibid Endnote 1.
24. ESCAP, *Inequality of Opportunity in Asia and the Pacific: Water and Sanitation*, Policy Brief, ST/ESCAP/2840 (2018).
25. ESCAP, based on data from World Development Indicators database, World Bank (accessed 1 February 2021).
26. ESCAP and ILO, *The Protection We Want: Social Outlook for Asia and the Pacific*, Sales No.: E.20.II.F.19 (Bangkok, 2020).
27. ibid Endnote 26.
28. ESCAP calculations based on data from ILO, World Employment and Social Outlook: Trends 2019. Available at www.ilo.org/wesodata.
29. World Development Indicators, accessed 11 March 2021.
30. IFC, *MSME Finance Gap: Assessment of the Shortfalls and Opportunities in Financing Micro, Small and Medium Enterprises in Emerging Markets*, (Washington, D.C., 2017).
31. ibid.

32. ibid Endnote 22.
33. See https://www.statista.com/.
34. ESCAP, "An assessment of fiscal space for COVID-19 response and recovery in Asia-Pacific developing countries", *MPFD Policy Briefs*, No. 116. (Bangkok, 2020).
35. World Bank Study shows that at least $800 billion was invested in 1,400 social protection measures in 215 countries during nine months of 2020, but cash transfer programs lasted just 3.3 months on average, and the average spending per capita in low-income countries was only $6. See: U. Gentilini, "A game changer for social protection? Six reflections on COVID-19 and the future of cash transfers", World Bank Blogs (11 January 2021).

Chapter 2

1. United Nations, *Secretary General's Roadmap for Digital Cooperation*, (June 2020). Available from www.un.org/en/content/digital-cooperation-roadmap/.
2. See https://asiafoundation.org/wp-content/uploads/2020/04/Go-Digital-ASEAN_June-2020.pdf.
3. See https://www.betterthancash.org.
4. See https://www.leveloneproject.org.
5. See https://mojaloop.io.
6. ADB, "Understanding the digital economy: What is it and how can it transform Asia?", Event held in New Delhi, India from 21 - 22 February 2018. Available from www.adb.org/news/events/understanding-digital-economy-what-it-and-how-can-it-transform-asia.
7. ITU, "ICTs to achieve the United Nations Sustainable Development Goals", (2019). Available from www.itu.int/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx.
8. ITU and UNESCO, "Broadband Commission for Sustainable Development Goals: Focus Areas", (2015). Available from www.broadbandcommission.org/about/Pages/default.aspx.
9. Emrys Schoemaker, "Transformation in a digital age. Caribou Digital", (19 December 2020). Available from https://medium.com/caribou-digital/transformation-in-a-digital-age-9068338fd778.
10. Johannes M. Bauer, "The Internet and income inequality: Socio-economic challenges in a hyperconnected society", *Telecommunications Policy*, Vol. 42, No. 4 (2018), pp. 333–343; United States Department of Commerce, "Measuring the value of cross-border data flows", (Washington, D.C., 2016); Leviathan Security Group, "Quantifying the cost of forced localization", (Seattle, 2015).as cited in UNCTAD, *Digital Economy Report 2019: Value Creation and Capture – Implications for Developing Countries*, Sales No. E.19.II.D.17 (New York, 2019).
11. i.e., percentage of bottom income quintile population receiving social protection benefits/support.
12. Delphine Prady and others, "Beyond the COVID-19 crisis: A framework for Sustainable Government-to-person mobile money transfers", *IMF Working Papers*, No. 20/198, (International Monetary Fund, 2020).
13. ESCAP and ILO, *The Protection We Want: Social Outlook for Asia and the Pacific*, Sales No. E.20.II.F.19 (Bangkok, 2020).
14. Sonja Davidovic, Delphine Prady and Herve Tourpe, "You've got money: mobile payments help people during the pandemic", IMF Blog, (22 June 2020).
15. Alan Gelb, Anit Mukherjee and Kyle Navis, *Citizens and States: How Can Digital ID and Payments Improve State Capacity and Effectiveness?*, Center for Global Development (2020).
16. Sean Han Sheng Lai and others, "The experience of contact tracing in Singapore in the control of COVID-19: highlighting the use of digital technology", *International Orthopaedics*, volume 45, pp. 65–69(2021).
17. Mobile Money Services Study, *Country Report with In-findings for: Romania, Georgia, Ukraine, Turkey, Russian Federation, Kazakhstan, Kyrgyz Republic*, Bearing Points (2013).
18. World Bank, "World Bank Predicts Sharpest Decline of Remittances in Recent History", Press release (22 April 2020).
19. Ceyla Pazarbasioglu and others, Digital Financial Services, (World Bank, 2020).
20. ibid Endnote 6.
21. ITU, "Measuring digital development: Facts and figures", (2020).
22. ITU, Country ITU Data - Percentage of Individuals using the Internet, (2019). See: www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
23. ibid Endnote 21.
24. Alliance for Affordable Internet (A4AI), 2020 *Affordability Report*, (2020). The Affordability Drivers Index (ADI) creates a single score for affordability using two drivers: telecommunications infrastructure and access to the internet. See: https://a4ai.org/affordability-report/data/?_year=2020&indicator=INDEX.

25. ITU, Country ITU Data - Mobile-broadband subscriptions, (2019). See: www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
26. GSM Association, *The State of Mobile Internet Connectivity 2020*, (GSMA, 2020).
27. ITU, *World Telecommunication/ICT Indicators 2020 Database* (24th Edition, July 2020). Available at: https://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx (accessed on 8 January 2021).
28. ESCAP, "Inequality in access to information and communication technologies (ICTs) in East and North-East Asia and South-East Asia", Social Development Division Policy Paper, (Bangkok, 2021).
29. For households with Internet access.
30. ibid Endnote 27.
31. ibid Endnote 26.
32. ITU, *Measuring Digital Development: ICT Price Trends 2019*.
33. ITU and UNESCO, *The State of Broadband: Tackling digital inequalities A decade for action*, (Geneva, 2020).
34. ibid Endnote 1.
35. World Economic Forum, *Accelerating Digital Inclusion in the New Normal*, Play Book, (2020).
36. Mondato, "Pandemic-fueled digitization: who remains excluded?" (17 November 2020).
37. World Bank and IMF, "Closing the digital divide: a time to stay connected", discussion held on 26 October 2020. Available from www.worldbank.org/en/news/feature/2020/10/26/closing-the-digital-divide-a-time-to-stay-connected.
38. ADB, *Meeting Asia's Infrastructure Needs*, (Manila, 2017).
39. ibid Endnote 39. These figures refer to the investment estimates that include the costs of climate change adaptation and mitigation.
40. ITU, *Digital Infrastructure Policy and Regulation in the Asia-Pacific Region*, (2019).
41. World Economic Forum, *A Roadmap for Cross Border Data Flows: Future-Proofing Readiness and Cooperation in the New Data Economy*, White paper, (2020).
42. ILO, "More than 68 per cent of the employed population in Asia-Pacific are in the informal economy", Press Release, (2 May 2018).
43. ibid Endnote 42.
44. ibid Endnote 42.
45. Bill and Melinda Gates Foundation, "New code reduces complexity and cost of building payment platforms that connect poor customers to merchants, banks, mobile money providers, governments", Press Release, (16 October 2017).

Chapter 3

1. ADB, Asian Economic Integration Report 2021: Making Digital Platforms Work for Asia and the Pacific, (Manila, 2021).
2. ibid Endnote 1.
3. Sanjay G. Reddy and Arnab Acharya, "The world needs a people's vaccine", WIDER Angel. United Nations University World Institute for Development, (November 2020).
4. Arnab Acharya and Sanjay G. Reddy, "Hoarding is undermining a key effort to vaccinate the global poor", Barron's, (29 January 2021).
5. ADB, Future of Regional Cooperation in Asia and the Pacific, (Manila, 2020).
6. ibid Endnote 1.
7. UNDP, The Great Maze: Regional and Bilateral Free Trade Agreements in Asia, (Colombo, 2015).
8. Hyeon-Seung Huh and Cyn-Young Park, "Asia-Pacific Regional Integration Index: Construction, Interpretation, and Comparison", Journal of Asian Economics, vol. 54 (2018): 22–38.
9. See for example, the ESCAP, Regional Integration for sustainable development in Asia and the Pacific: ESCAP Digial and Sustainable Regional Integration Index and Indicator Framework DigiSRII 1.0, (Bangkok, 2020) and proposals for an updated Asia Regional Cooperation and Integration Index as presented in ADB, Asian Economic Integration Report 2021: Making Digital Platforms Work for Asia and the Pacific, (Manila, 2021).
10. ibid Endnote 1.
11. ibid Endnote 1.
12. WTO, Notification pursuant to the decision on notification procedures for quantitative restrictions (G/L/59/REV.1) – Bangladesh, G/MA/QR/N/BGD/1, (16 April 2020).

13. Kazuya Manabe and Yoichiro Hiroi, "K-shaped recovery complicates world economy amid pandemic", Nikkei Asia, (24 January 2021).
14. Matthias Helble and Anna Fink, "Reviving Tourism amid the COVID-19 Pandemic", ADB Briefs No. 150, (Manila: Asian Development Bank, 2020).
15. United Nations, "The Impact of COVID-19 on South-East Asia". *Policy Brief* (New York, 2020).
16. ibid Endnote 14.
17. UNDP, Addressing the COVID-19 Crisis in Asia through Social Protection, (U.S.A., 2020).
18. ESCAP, "Action plan to strengthen regional cooperation on social protection in Asia and the Pacific", ESCAP's Committee on Social Development, ESCAP/CSD/2020/1, (2020).
19. Megan Counahan and others, "Investing in Health Security for Sustainable Development in Asia and the Pacific: Managing Health Threats Through Regional and Intersectoral Cooperation", ADB Sustainable Development Working Paper Series. No. 56, (Manila: Asian Development Bank, 2018).
20. ESCAP, Economic and Social Survey of Asia and the Pacific 2020: Towards Sustainable Economies, Sales No. E.20.II.F.16 (Bangkok, 2020).
21. UNDP, "Improving the efficiency of vaccinations systems in multiple states", (New Delhi, 2021). Available from https://www.in.undp.org/content/india/en/home/projects/gavi1.html.
22. UNDP, "Sistem Monitoring Imunisasi Logistik secara Elektronik (SMILE)", (Jakarta, 2021). Available from https://www.id.undp.org/content/indonesia/en/home/projects/sistem-monitoring-imunisasi-logistik-secara-elektronik--smile-.html.
23. Government of Bangladesh, Access to Information, Digital Bangladesh. Available from https://a2i. https://a2i.gov.bd/
24. ESCAP, ADB and UNDP, Accelerating progress: An empowered, inclusive and equal Asia and the Pacific, (Bangkok, 2019).
25. ADB, "Emerging East Asian local currency bond markets: A regional update", Asia Bond Monitor, (November 2020). Available from https://asianbondsonline.adb.org/abm.php.
26. Tom King, "Social bonds strengthen foothold in Asia credit market", The Asset, (16 November 2020).
27. ibid Endnote 1.
28. United Nations, Shaping the Trends of Our Time, Report of the UN Economist Network for the UN 75th Anniversary, (2020).
29. ibid Endnote 5.
30. ESCAP, The Role of Asia and the Pacific in Global Governance and Multilateralism, (Bangkok, 2018).
31. Clovis Freire, "Productive Capacities in Asia and the Pacific", MPDD Working Papers, WP/11/17 (Bangkok, ESCAP, 2011).
32. UNCTAD, Productive Capacities Index: Focus on Landlocked Developing Countries, UNCTAD/ALDC/2020/2, (Geneva, 2020).
33. ESCAP, "Framework Agreement Readiness Guide", Press Release, (December 2020).
34. ESCAP, "Readiness Assessment Guide for Cross-border Paperless Trade", Manuals and training materials, (Bangkok, 2020). Available from www.unescap.org/resources/readiness-assessment-guide-cross-border-paperless-trade.
35. ESCAP, "UN and EIF launch interactive guide on cross-border paperless trade", Press Release, (9 December 2020).
36. ESCAP and ADB, Embracing the E-Commerce Revolution in Asia and the Pacific, (June 2018).
37. ibid Endnote 1.
38. ibid Endnote 35.
39. ibid Endnote 35.
40. ibid Endnote 5, pp. 95-144.
41. ibid Endnote 5, p.153.
42. Sustainable Infrastructure Foundation, "SOURCE", (2021). Available from https://public.sif-source.org/source/.
43. ESCAP, "ADB-ESCAP Workshop on Promoting E-commerce in Asia and the Pacific: A Holistic Approach", event from 27-28 August 2018.
44. Stijn Claessens, Thomas Glaesner and Daniela Klingebiel, "E-Finance in Emerging Markets: Is Leapfrogging Possible?", Financial Sector Discussion Paper No. 7, (World Bank, 2001).
45. United Nations, Shared Responsibility, Global Solidarity: Responding to the Socio-Economic Impacts of COVID-19, (2020).
46. Regine A. Webster, "Philanthropy and COVID-19: Measuring one year of giving", Candid, (3 March 2021).
47. Smruti S. Pattanaik, "SAARC COVID-19 Fund: Calibrating a Regional Response to the Pandemic", Strategic Analysis, 44:3 (2020), pp. 241-252.

Responding to the COVID-19 Pandemic: Leaving No Country Behind is the thematic report of the Asia-Pacific SDG partnership for 2021. Reflecting on the theme of the 8th Asia-Pacific Forum on Sustainable Development, it informs regional and global dialogue on sustainable development as well as national and regional implementation of the 2030 Agenda for Sustainable Development. It invites governments and stakeholders to align COVID-19 response and recovery strategies with the achievement of the SDGs and provides insights for the way forward.

www.unescap.org www.adb.org www.undp.org