

# INDONESIA

## Systematic Country Diagnostic Update

June 2020



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THE WORLD BANK GROUP

# INDONESIA

**SYSTEMATIC COUNTRY DIAGNOSTIC UPDATE:**  
Indonesia: Eliminating Poverty,  
Bringing Economic Security to All

June 2020

East Asia and Pacific Region

## ABBREVIATIONS AND ACRONYMS

AMDAL	<i>Analisis Mengenai Dampak Lingkungan</i> (Environmental Impact Assessment)	DGT	Directorate General of Taxes
APBN	<i>Anggaran Pendapatan dan Belanja Negara</i> (National Budget)	DMO	Domestic Market Obligation
ASEAN	Association of Southeast Asian Nations	DNI	<i>Daftar Negatif Investasi</i> (Negative Investment List)
BAPPENAS	<i>Badan Perencanaan Pembangunan Nasional</i> (Ministry of National Development Planning)	DPR	Development Policy Review
BNPB	<i>Badan Nasional Penanggulangan Bencana</i> (National Disaster Risk Management Authority)	EAP	East Asia and the Pacific
BPDLH	<i>Badan Pengelolaan Dana Lingkungan Hidup</i> (Agency for Environment Fund Management)	ECD	Early Childhood Development
BPK	<i>Badan Pemeriksa Keuangan</i> (Audit Board of Indonesia)	ECED	Early Childhood and Education Development
BPKP	<i>Badan Pengawasan Keuangan dan Pembangunan</i> (National Government Internal Auditor)	EPIC	Energy Policy Institute at the University of Chicago
BPNT	<i>Bantuan Pangan Non Tunai</i> (Food Security Assistance)	ER	Electrification Ratio
BPS	<i>Badan Pusat Statistik</i> (Central Statistics Office)	EU	European Union
CAD	Current Account Deficit	FAOSTAT	Food and Agriculture Organization Statistics
CIT	Corporate Income Tax	FC	Financial Conglomerates
CoG	Center of Government	FDI	Foreign Direct Investment
COTS	Commercial Off-The-Shelf	FLFP	Female Labor Force Participation
COVID-19	Coronavirus Disease 2019	FMIS	Financial Management Information Systems
CPF	Country Partnership Framework	FSAP	Financial Sector Assessment Program
CPSD	Country Private Sector Diagnostic	GDP	Gross Domestic Product
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership	GNI	Gross National Income
DAK	<i>Dana Alokasi Khusus</i> (Special Allocation Fund)	GPI	Gender Parity Index
DAU	<i>Dana Alokasi Umum</i> (General Allocation Fund)	GVC	Global Value Chain

HCI	Human Capital Index	MENPAN	<i>Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi</i> (Ministry of Administrative and Bureaucratic Reform)
ICRAF	World Agro-Forestry Center	MoEC	Ministry of Education and Culture
ICT	Information and Communication Technologies	MoEF	Ministry of Environment and Forestry
IDR	Indonesian Rupiah	MoF	Ministry of Finance
IFLS	Indonesia Family Life Survey	MoHA	Ministry of Home Affairs
IMF	International Monetary Fund	MSEs	Micro and Small Enterprises
InfraSAP	Infrastructure Sector Assessment	MSMEs	Micro, Small and Medium Enterprises
IRRI	International Rice Research Institute	NCD	Non-Communicable Disease
IT	Information Technology	NPL	Non-Performing Loan
IUU	Illegal, Unreported and Unregulated	NTM	Non-Tariff Measure
JHT	<i>Jaminan Hari Tua</i> (Old Age Insurance)	NTR	Non-Tax Revenue
JKK	<i>Jaminan Kecelakaan Kerja</i> (Work Injury Insurance)	OECD	Organization for Economic Cooperation and Development
JKM	<i>Jaminan Kematian</i> (Casualty Benefit)	OJK	<i>Otoritas Jasa Keuangan</i> (Financial Services Authority)
JKN	<i>Jaminan Kesehatan Nasional</i> (National Health Insurance)	PBI-JKN	<i>Penerima Bantuan Iuran</i> (Health Insurance for the Poor)
JP	<i>Jaminan Pensiun</i> (Pensions Scheme)	PEFA	Public Expenditure and Financial Accountability
KPK	<i>Komisi Pemberantasan Korupsi</i> (Corruption Eradication Commission)	PER	Public Expenditure Review
KPPOD	<i>Komite Pemantauan Pelaksanaan Otonomi Daerah</i> (Regional Autonomy Watch)	PFM	Public Financial Management
KPPU	<i>Komisi Pengawas Persaingan Usaha</i> (Competition Commission)	PIAAC	Programme on International Assessment of Adult Competencies
LKPP	<i>Lembaga Kebijakan Pengadaan Barang/Jasa Pemerintah</i> (National Public Procurement Agency)	PIP	<i>Program Indonesia Pintar</i> (Smart Indonesia Program)
LPP	<i>Lembaga Pengelola Perikanan</i> (Fishery Management Council)	PISA	Programme for International Student Assessment
LPS	<i>Lembaga Penjamin Simpanan</i> (Deposit Insurance Corporation)	PIT	Personal Income Tax
M&E	Monitoring and Evaluation	PKH	<i>Program Keluarga Harapan</i> (Family Hope Program)
MEMR	Ministry of Energy and Mineral Resources	PKT	<i>Pola Kerja Terpadu</i> (Cash-for-Work Program)

PLN	<i>Perusahaan Listrik Nasional</i> (National Power Utility)	SOE	State-Owned Enterprise
PPP	Purchasing Power Parity	SPAN	<i>Sistem Perbendaharaan dan Anggaran Negara</i> (National Treasury and Budget System)
PP	<i>Peraturan Pemerintah</i> (Government Regulation)	SPSE	<i>Sistem Pengadaan Secara Elektronik</i> (Electronic Procurement System)
PSO	Public Service Obligation	STEM	Science, Technology, Engineering and Mathematics
PTA	Preferential Trade Agreement	SUSENAS	<i>Survei Sosial Ekonomi Nasional</i> (National Socio-Economic Survey)
Rastra	<i>Program Beras untuk Keluarga Sejahtera</i> (Rice Distribution Scheme)	TB	Tuberculosis
RE	Renewable Energy	TORA	<i>Pemanfaatan Tanah Objek Reforma Agraria</i> (Tenurial and Agrarian Reform)
REDD+	Reducing Emissions from Deforestation and Forest Degradation	TVET	Technical and Vocational Education and Training
RIA	Regulatory Impact Assessment	UK	United Kingdom
RKP	<i>Rencana Kerja Pemerintah</i> (Government Work-Plan)	US	United States
ROB	Regulatory Oversight Body	USD	United States Dollar
RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> (National Medium-Term Development Plan)	UU	<i>Undang-Undang</i> (Acts of Law)
RZWP3K	<i>Rencana Zonasi Wilayah Pesisir dan Pulau-Pulau Kecil</i> (Coastal and Small Islands Zoning Plans)	VAT	Value-Added Taxes
SCD	Systematic Country Diagnostic	ViPER	Village Public Expenditure Review
SDGs	Sustainable Development Goals	WBES	World Bank Enterprise Survey
SJSN	<i>Sistem Jaminan Sosial Nasional</i> (National Social Security System)	WDI	World Development Indicators
SNG	Subnational Government	WEF	World Economic Forum
SNI	<i>Standard Nasional Indonesia</i> (Indonesian National Standards)	WHO	World Health Organization
		WPP	<i>Wilayah Pengelolaan Perikanan</i> (Fisheries Management Area)

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## Executive Summary

### Indonesia has made substantial progress in poverty reduction and shared prosperity

**Since Indonesia's first Systematic Country Diagnostic (SCD) in 2015, the economy has grown steadily, poverty has declined to an all-time low and incomes of the bottom 40 percent have climbed.** Between 2015 and 2019, solid macroeconomic fundamentals have underpinned stable economic growth averaging 5 percent per year. The economy created about 2 million jobs per year, leading to low unemployment and a decline in the poverty rate to below 10 percent. Meanwhile, average per capita consumption growth of the bottom 40 percent increased slightly to 4.1 percent per year in 2014-18, suggesting that growth was relatively inclusive.



**Increasingly solid macroeconomic management and better allocation of public expenditures have underpinned stable economic growth and job creation.** Indonesia's macro-fiscal policy framework has strengthened since the sharp currency depreciation witnessed in the 'taper tantrum' of 2013. The fiscal deficit remained within the limits of Indonesia's strict fiscal rule and debt levels have been stable. The composition of expenditure improved, with a reallocation from untargeted energy subsidies to infrastructure and social expenditures. A higher budget and related policy developments contributed to an acceleration in the growth of public capital and a reduction in stunting rates. Monetary and exchange rate policies have gained credibility and led to a sustained reduction in inflation. While Indonesia has been hit by occasional bouts of capital outflows since the 'taper tantrum', exchange rate flexibility and adequate reserves have helped the country to quickly recover and, together with prudent fiscal management, maintain overall growth on a steady keel.

**Indonesia can make further progress against poverty and decisively move away from the 'middle-income trap' and into a 'middle-class society'.** Additional efforts to reduce poverty will be needed as it becomes progressively harder to reach the poor, as reflected in a decline in the pace of poverty reduction post-2010 to only about half (0.3 percentage points per year) of the pace for the period 2003 – 2010 (0.6 p.p. per year). Moreover, only one in five Indonesians has reached the economic security of the middle-class, the bottom 40 percent remains at high risk of falling into poverty, and inequality remains high. Environmental degradation combined with risks of natural disasters increase the vulnerability of large segments of the population. Boosting shared prosperity and expanding the middle-class will require creating opportunities for higher-paying work. Economic growth will need to accelerate against the demographic headwinds of a labor force that will grow ever more slowly, which means that productivity and investments in human and physical capital need to accelerate significantly from past trends.

**The ongoing Coronavirus disease 2019 (COVID-19) global pandemic will increase the challenges of Indonesia's transition and will impact its prospects for growth and shared prosperity for years to come.** The COVID-19 global pandemic will have both short- and long-term effects, although it is difficult to specify them at this time given that this SCD Update is being written in the middle of the crisis. In the short-term, economic growth in 2020 is likely to be close to zero or even negative, while the recovery may be protracted as households both in Indonesia and globally, facing significant losses of income, may take time to resume consuming at pre-crisis levels, thus leading firms to invest less and create fewer jobs. Productive investments along global supply chains will become scarcer, but firms may seek even greater diversification in production locations; both factors increase the urgency of upgrading policy frameworks to attract investments. Moreover, the crisis has revealed that public health and social protection systems need to be significantly upgraded to provide resilience against future crises, potentially changing expenditure priorities with opportunity costs in other areas, such as infrastructure development.

**To accelerate progress in light of the COVID-19 pandemic and make it sustainable, Indonesia will need to address longstanding challenges to boosting competitiveness, ensuring equal opportunities to all, and improving the management of natural resources.** The 2015 SCD identified excessive reliance on commodities, overexploitation of natural resources, and substantial inequality of opportunities as the key constraints to achieving poverty reduction and shared prosperity. These diagnostics remain broadly valid and relevant.

**Before the emergence of the pandemic commodity extraction and a closed economy had continued to shift resources towards low-value-added services, resulting in the creation of too few stable, well-paying jobs; an emerging digital sector is a promising exception.** Indonesia's economy has diversified over the past decades and more recently a vibrant digital sector has emerged. However, growth of fixed investment and gross domestic product (GDP) remain closely tied to the prices of Indonesia's key export commodities. Reliance on commodity sectors for exports is associated with the creation of jobs primarily in low-value-added services (trade, transport and hospitality), often in micro and small firms, where the productivity gains from moving out of agriculture are low. Between 2000 and 2017, the share of workers in these services increased by 13 p.p., far more than the increase in these sectors' share of output. Wages in low-value-added sectors are usually insufficient to provide economic security, and work is informal, exposing workers to income and other shocks. The nascent digital sector appears to be an exception, as its rapid growth, increasing competition, and high productivity-high wages model represent an important innovation in the sectoral landscape in Indonesia.

**The management of commodity sectors has often led to an overexploitation of Indonesia's natural assets, environmental degradation and higher vulnerability.** For example, large tracts in the designated forest area are planted or mined without licenses, or are degraded as holders of concessions and permits abandon the land after selling the timber or taking the minerals. This has also hurt competitiveness and productivity, as these practices have damaged Indonesia's brand in global markets and led to costly forest fires and a carbon intensive economy that exacerbates climate change. Natural resource exploitation provides little benefit for surrounding communities and exposes them to health and environmental risks.

**Uneven delivery of public services and lack of connectivity to economic opportunities contribute to inequality of opportunity.** Differences in the quality of a household's human resources continue to account for a large share of inequality in Indonesia. These differences also coincide with income levels and narrow the pathways to economic security. Many poorer households have limited access to clean water, nutrition,

proper sanitation and quality health services. The geographical dimension of these differences cannot be overstated for a far-flung archipelago as Indonesia. On average, large urban areas tend to do better than their rural counterparts, resulting in human capital levels at par with Vietnam and China in metropolitan-Java, and levels comparable to Chad and Sierra Leone in non-metro rural Papua. While decentralization has brought some convergence on access to services, wide gaps remain. The costs of migrating to metropolitan areas from rural areas are also high. This poor connectivity between people and economic opportunities limits the prospects of sharing the prosperity generated in Indonesia's growing cities.

### Mega-trends shaping long-term prospects

**At the time of writing it is not clear how long-lasting the COVID-19 pandemic will be. Besides that the megatrends that were identified by the 2015 SCD as having a bearing on the country's long-term prospects remain relevant.** Four mega-trends that would shape Indonesia's long-term prospects identified in 2015 remain relevant today: (i) commodity prices; (ii) developments in China; (iii) Indonesia's demographics; and (iv) rapid urbanization.

- *Demographic factors and urbanization.* Indonesians are getting older. The growth rate of the labor force is already declining and will turn negative in less than 20 years. A larger number of elderly Indonesians has important implications for health care, social assistance and pension systems. Likewise, Indonesians are increasingly living in cities: by 2045 nearly three-quarters of Indonesians will be urban dwellers. Because it becomes increasingly costly to alter the trajectory of urbanization, Indonesia needs to act now to plan and deliver the required infrastructure and services that urban Indonesians will require.
- *Developments in China and commodity prices* have become increasingly intertwined. The Chinese economy has been slowing in recent years.<sup>1</sup> At the same time, as China's labor force ages and wages increase, the economy has been moving away from low- and medium-skilled manufacturing towards sophisticated manufacturing and modern services. This shift, together with trade tensions with the US, has created opportunities for emerging economies to attract the factories that are moving out of China. Slowing growth in China is linked to a slump in the demand for commodities, which is likely to continue.<sup>2</sup>

**In addition, broader adoption of digital technology and automation by firms has emerged as a new megatrend that will likely change the nature of jobs and how services are delivered.** With the largest internet user base in Southeast Asia, Indonesia is one of the world's ten most internet-engaged countries in the world. It has also been attracting global as well as domestic investments in a variety of internet-based businesses that are beginning to have a stronger footprint on retail and commerce, logistics, services and jobs. Digital transformation can catalyze other efforts to boost inclusive growth but also carries the risk that instead of closing existing income, skills and geographic divides, it will widen them further. Indonesia will need an increasingly skilled labor force with the right level and mix of skills, including advanced cognitive skills and skill combinations supportive of adaptability. Moreover, it is likely that a larger share of the workforce will move away from traditional jobs to periods of non-wage or self-employment. The informal

<sup>1</sup> World Bank (2020a). *Global Economic Prospects: Slow Growth, Policy Challenges*. Washington, D.C.: The World Bank.

<sup>2</sup> World Bank (2019h). *Commodity Markets Outlook: The Role of Substitution in Commodity Demand*. Washington, D.C.: The World Bank.



sector in Indonesia still employs more than 50 percent of workers and a high level of informality will likely persist given current trends and growth of the ‘gig’ economy and e-commerce.

### The pathways to shared prosperity: competitiveness, infrastructure, human capital and natural assets

**This SCD Update identifies four pathways leading to shared prosperity via higher productivity and better jobs, equal opportunities and greater resilience.** The 2015 SCD identified three main pathways for achieving poverty reduction and shared prosperity. These were: (i) economic growth and job creation; (ii) stronger service delivery and opportunities for all, and (iii) better management of natural resources. Pathways I and II remain higher-level objectives through which shared prosperity is reached, but this Update focuses on the underlying levers to achieve these objectives: increasing competitiveness and resilience of the economy, building more infrastructure better and faster, and nurturing world-class human capital. Although competitiveness, infrastructure and human capital are well-recognized drivers of growth and job creation, they are also closely related to strengthening service delivery, which not only involves human capital-related services (health, education) but also many infrastructure-related services (water, sanitation), and highlights the importance of connecting people to opportunities. Pathway III remains unaltered. Strengthening revenue mobilization and state effectiveness by, among others, improving accountability and managing for performance, and strengthening vertical and horizontal coordination and transparency remain the common bedrock on which these pathways need to be built and have been incorporated into the cross-cutting beam.

**Figure ES.1: Pathways to poverty reduction and shared prosperity in Indonesia**



Source: World Bank staff

**Indonesia has made some progress in reforms along each of these pathways, but many challenges remain to be addressed.** The government has undertaken positive reforms such as introducing a formula to set the minimum wage, reducing barriers to entry in the logistics markets as well as the port sector, and reducing energy subsidies while increasing allocations to infrastructure and expanding social assistance and health insurance. However, the pace of reforms has been uneven. In some areas (notably revenue policy)

reforms have been delayed, while in a few cases (a recent law that risks weakening the anti-corruption body KPK, energy subsidies and import tariffs) reforms have been partially or fully reversed, further entrenching existing constraints.

**The ongoing process of revision of multiple laws could be one of the most ambitious reform efforts in the past decades.** The government has recently stepped up its reform efforts by recently submitting to Parliament a law (the Omnibus Bill on Job Creation), which aims to amend 79 individual laws with the goal of attracting investments and boosting competitiveness. This is arguably the most significant reform effort in the areas of investment and trade in the last decades, with measures aiming to substantially reduce investment and trade restrictions while reducing the discretion of individual ministries to introduce investment deterring rules. The bill has the potential to significantly boost competitiveness and investments, if passed and some key pitfalls avoided – for example undermining Indonesia’s ability to ensure environmental and safety standards of investments, and the welfare of workers, particularly when they are exposed to negative shocks.

**The four pathways not only remain highly relevant in the context of the COVID-19 pandemic but accelerating progress has become even more urgent.** While the SCD Update is unable to do a full analysis of the impact of COVID-19 on Indonesia, it is apparent that it can only increase the urgency to boost competitiveness of the economy, to diversify away from commodities as prices may be depressed for several years; to build infrastructure faster and better with the help of the private sector to compensate for competing requirements for government funds; to nurture human capital including through sustaining higher investments in health and social protection and making up for the losses from closed schools; and to improve the management of natural assets, which has been linked not only to risks to respiratory health through impact of forest fires, but also to higher risks of onset of a future pandemic.<sup>3</sup>

### **Pathway I: Strengthening the competitiveness and resilience of the economy**

**Strengthening the competitiveness and resilience of the economy will contribute to higher labor productivity, economic growth and the creation of more and better jobs.** Indonesia can leverage four key assets to strengthen its competitiveness in the next five years: (i) a relatively diversified production base, with manufacturing, services and commodities all providing incomes and jobs; (ii) one of the most dynamic digital economies in the region, with an average growth rate of 94 percent per year between 2015 and 2018, compared with annual growth rates of 87 percent in Vietnam and less than 50 percent in Thailand, the Philippines, Malaysia, and Singapore; (iii) enormous potential in tourism, which only started to be realized with an increasing share of international tourist receipts over the past five years, albeit from a low base, and finally (iv) a stable financial sector, well-capitalized and featuring low non-performing loans (NPLs), which limit the risks of banking crises. To strengthen its competitiveness however, Indonesia will need to address some key binding constraints. These include insufficient access to inputs, key markets and skills; restrictions on investment; an underdeveloped financial sector and unpredictable regulations.

#### *Binding constraints*

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<sup>3</sup> See for example, Shah (2017). *Pandemic: Tracking Contagions, from Cholera to Ebola and Beyond*. New York: Farrar, Straus and Giroux.



- *Insufficient access to inputs, to key markets and to skills.* Restrictive trade policies have raised prices and reduced the availability of physical and services inputs, which weakens competitiveness and limited Indonesia's participation in global value chains (GVCs). On access to skills, almost 80 percent of Indonesian companies reported that they were unable to fill managerial vacancies. While the long-term solution is to nurture Indonesia's human capital, the short-term solution can be to import skills to fill this gap. Lastly, Indonesia has signed many preferential trade agreements (PTAs) to obtain better market access for their exports. Despite good progress, Indonesia still lags regional peers such as Vietnam and Malaysia in terms of scope and ambition of PTAs.
- *Restrictions on investment.* Indonesia has some of the tightest restrictions on foreign direct investment (FDI) among middle-income countries surveyed by the OECD, which inhibit market entry, diminish commercial performance, and increase prices. Furthermore, Indonesia's weak competition framework prevents authorities from effectively discouraging anticompetitive behavior. Finally, despite government efforts to increase public spending for innovation and business support, these are not associated with any uptick in firms' innovative activities.
- *Underdeveloped financial sector.* Indonesia's financial sector is too shallow. Furthermore, it lacks scale and competition- banks remain the most dominant institution in the financial sector and are highly concentrated. The lack of competition enables banks to charge higher mark-ups for credits and other services, leading to higher cost of credit in Indonesia. These, along with an inadequate supervisory framework, expose Indonesia to financial and non-financial shocks, thus increasing its vulnerability.
- *Unpredictable regulations.* The uncoordinated design and uneven implementation of business-related laws and regulations increase regulatory uncertainty, further weakening the business environment, inhibiting competition, and deterring potential investors.

## **Pathway II: Building more infrastructure, better and faster**

**Building more infrastructure, better and faster, will contribute to economic growth and job creation, and to improving service delivery and more sustainable growth.** Indonesia's infrastructure capital stock has increased in the past five years. Transport and digital connectivity infrastructure have advanced, with the government exceeding its target for road construction as the budget allocation for infrastructure increased and state-owned enterprises (SOEs) drove an acceleration of infrastructure development. On the digital side, Indonesia has completed the Palapa Ring project comprising over 50,000 km of land and undersea fiber optic cables. Some progress is also noted in electricity access, which is now widespread in Indonesia, with 95 percent of the population now connected to the grid. However, the country needs to build more infrastructure, better and faster, in order to support productivity, service delivery, resilience and inclusion. Achieving that rests on addressing key binding constraints, including insufficient infrastructure spending by both central and subnational governments (SNGs); limited participation of the private sector; the lack of a disaster lens to support resilience; and specific regulatory bottlenecks that constrain the expansion of digital infrastructure.

### *Binding constraints*

- *Insufficient investments.* Despite recent improvements, investments by central and SNGs are insufficient to close the gap. Estimates suggest that additional investments of 5.6 percent of GDP are

required to achieve the Sustainable Development Goals (SDGs) for infrastructure. Furthermore, infrastructure spending is not effective and capacity gaps prevent adequate planning and execution. This is especially true for projects that are the joint responsibility of the central government and SNGs, or those that face cross-jurisdictional boundaries. Capacity for planning and implementation are lacking at both the central and subnational levels.

- *Unsustainable infrastructure.* Poor enforcement of climate and disaster resilience, as well as sustainability standards often put people and assets at risk. There is no standardized and systematic project appraisal for climate and disaster risks for infrastructure development. Thus, there is low compliance with risk-informed building codes such as a green open space requirement, and a need for resilience-building standards to be updated. Between Indonesia's high exposure to climate change and natural disasters and high concentration of people and assets in vulnerable areas, infrastructure needs to be made more resilient to such shocks.
- *Unfavorable investment climate, especially for renewable energy.* The ecosystem for private sector investment in infrastructure is deficient. This is due to the existing model being reliant on SOEs, in which publicly-supported SOEs become dominant players in key sectors, leaving little room for the private sector. Pricing regulations and insufficient financial instruments also pose problems for investment. Together with current regulations, this tilts the energy matrix towards non-renewable sources as they cap the price the national power utility (PLN) can pay for renewable energy purchases. In another example, port tariffs are not based on cost-recovery, and low capital availability along with inconducive domestic lending practices further limit domestic infrastructure financing.
- *Regulatory bottlenecks that limit the expansion of digital infrastructure.* Licensing limits competition in fixed broadband and value-added services, as service providers are made to apply for service-specific licenses. Further, current policies limit access to wholesale internet bandwidth on non-discriminatory terms.

### **Pathway III: Nurturing world-class human capital**

**Nurturing world-class human capital is key to economic growth and job creation in the face of rapid technological change, to ensure all Indonesians have equal opportunities to take up those jobs, and to enhance economic security.** The past five years have seen important progress in the human capital agenda. An all-of-government program to reduce Indonesia's alarming stunting rate has started to show results. The social protection system has continued to expand, with the budget and reach of core programs on education, food security, health, and conditional cash transfers increasing substantially. Indonesia has also made progress towards universal health coverage and as of May 2019, over 85 percent of the population are enrolled in the national health insurance scheme (JKN). Indonesia needs to build upon this progress by addressing binding constraints in five key areas: (i) continuing the fight against stunting by improving nutrition and increasing access to water and sanitation; (ii) boosting education quality at all levels to close the gap between schooling and learning, and prepare workers for today's and tomorrow's jobs; (iii) modernizing and increasing the size, scope, and benefits of the social protection system; (iv) investing in prevention and preparedness in the health sector; and (v) removing barriers to women's full economic participation.

#### *Binding constraints*

- *Inadequate nutrition and limited access to water and sanitation.* Malnutrition remains a significant problem for Indonesia. Over 10 percent of infants are born with low birth weight, and inappropriate feeding practices during the first 1,000 days of a child's life contribute directly to high malnutrition rates. Dietary intake is neither adequate nor diverse, and this is in part due to high food prices. A third of Indonesian households do not have access to an improved source of drinking water or improved sanitation facility. Poor sanitation, unhygienic practices, and unsafe water lead to high rates of infectious diseases, which are in turn linked to chronic malnutrition.
- *Education quality that has not kept up with higher enrolments.* Indonesian children have limited exposure to preschool, which means that they are not adequately prepared for school. For those who are able to enroll in preschool, the quality of basic education is also low, with a need to improve teachers' content mastery and pedagogical practices. The quality of their technical and vocational education and training (TVET) and tertiary education is also low, with little change in recent years and few opportunities for up-skilling outside the education system.
- *The social protection system remains limited relative to needs.* Social assistance benefits are relatively modest, and the system is unable to reach many who may find themselves temporarily poor. Social assistance for disaster response operates independently and is often not timely. Notwithstanding the important expansion of JKN, the extent of financial protection has been limited. Many of the poor and vulnerable remain excluded from social insurance beyond JKN, and there is no unemployment insurance and only limited retirement protection.
- *Limited investments in prevention and preparedness in the health sector.* There are no incentives for the provision of quality health services nor for efficiency in service provision. Health information systems are fragmented, and there is a wide variation in the health facilities' abilities to deliver services. Together with the limited use of preventive health services, low quality of services, and unhealthy behaviors, these shortcomings lead to vulnerabilities in adult survival. Furthermore, Indonesia's social protection system faces several design and administrative challenges, thus reducing its effectiveness. Indonesia prioritizes breadth over depth of health insurance coverage, and many of the poor and vulnerable remain excluded from social insurance beyond JKN.
- *Barriers to women's full economic participation.* Women still face challenges on both the education and health fronts. Low educational attainment and gender streaming contributes to low labor force participation among women and a higher risk of skill deficits. Furthermore, laws and policies supporting women's participation in the labor force are weak and poorly enforced. Indonesia also records poor health outcomes among women. High maternal mortality rates go hand in hand with the low use and quality of essential maternal and child health services in the country.

#### **Pathway IV: Managing natural assets for enduring prosperity**

**Sustainable management of natural assets will support the de-linking of Indonesia's economy from commodities and boost prosperity of all Indonesians, including those living near forests and coastal areas.** In the past five years, Indonesia has implemented reforms which have improved some aspects of natural assets management. These include moratoria of primary forest and peatland conversions, and of palm oil plantation expansion, as well as the establishment of an agency mandated to restore peatlands. In the fisheries sector, aggressive policies curtailed illegal fishing, leading to some stock recovery. Further

progress will require addressing binding constraints to reduce land depletion and related forest fires, reduce related air pollution and protect the blue economy from marine debris, overfishing and climate change. These include governance reforms to improve enforcement and provide incentives for sustainable land management, facilitate access to secure land tenure, improve management practices and institutions across the natural resources sectors, increase efficiency of government spending, and better waste collection and management.

### *Binding constraints*

- *Weak enforcement and lack of incentives to prepare land in less destructive ways.* The weak enforcement of existing legal land designations, especially the moratorium on the conversion of primary forests and peatlands, contributes to land depletion. At the same time, groups that benefit from slash and burn practices do not bear most of the costs from negative spillovers. The lack of viable alternatives to clearing land has further contributed to fires spreading to forests and peatlands, where options such as labor-intensive manual clearing and using heavy equipment are either very expensive or topographically unfeasible.
- *Mismatch between land suitability and farming systems.* In large parts of the lowlands, existing farming systems are unsuitable for the local biophysical and climatic conditions. For example, oil palm is often cultivated in areas of low suitability and productivity, mostly farming systems in Kalimantan and Sumatra where the land is in deep peat. However, farmers are reluctant to change cropping patterns given the fixed costs of shifting production and the artificially high prices of basic crops due to trade restrictions. Poor paddy farming households still tend to rely on rainwater as their source of irrigation, thus increasing the likelihood of losses during droughts.
- *Difficult access to land tenure.* Despite progress in issuing land certificates to smallholders, accessing land tenure is difficult, especially for those who need it most. There are multiple types of rights and designations, and the process of obtaining tenurial legal status is uncertain and difficult to navigate, with fragmented governance across ministries. As a result, land conflict is rife in areas with low certainty of legal status and boundaries, and in the absence of effective conflict resolution mechanisms, slash and burn becomes a way to reclaim land.
- *Lack of effective management practices and institutions.* Lack of institutional clarity across the natural resources sector leads to poor monitoring and enforcement of the government's plans. Spatial data related to natural assets is not easily accessible nor harmonized, nor is it updated frequently enough. In fisheries, fishery management councils lack the capacity to monitor stocks and prevent overfishing. In the land sector, weak cross-sectoral coordination and the practice of dual land administration continue to hinder sustainable land management. Many forestry and spatial planning regulations are not synchronized, along with overlapping sectoral operational boundaries.
- *Inefficient government spending.* Spending on natural resources management has been focused on expensive fire suppression and ecosystem rehabilitation efforts, rather than on cost-effective fire prevention and conservation. In the agricultural sector, spending is dominated by input subsidies (especially fertilizer), which are poorly targeted, regressive, abused, and cost-ineffective at increasing production. In the fisheries sector, fiscal incentives can be better aligned with productivity and sustainability goals. Currently, fossil fuel subsidies mainly benefit medium to large-scale segments of the fishing fleet, with only 16 percent benefitting small-scale traditional fishers.

- *Poor waste collection and management.* Poor waste collection and treatment services lead to higher rates of ocean leakage and is the main cause of Indonesia's marine debris problem. More than 50 percent of 65 million tons of domestic waste including plastics remain uncollected per year, being burned, dumped or entering waterways and oceans. Sea-based marine debris leakage also occurs due to weak ship waste management systems and poor port infrastructure and enforcement.

### **Paving the pathways: Collecting more; spending and governing better**

**Cutting across the four pathways are the need for additional resources, better utilization of resources, and stronger governance.** Given Indonesia's low tax ratio, growing spending needs and limited room for additional borrowing, improvements in both tax policy and administration will be required to collect more and adequately fund Indonesia's development priorities while ensuring fiscal sustainability. Public finance institutions have succeeded in increasing compliance with rules and processes but spending better will require balancing compliance with more effectively motivating and enabling agents of the state to transform spending into results. Many of the constraints along the pathways can be traced to challenges in governance – namely the elaboration and enforcement of policies, rules and regulations. Those challenges lead to a large volume of poorly coordinated regulations, conflicting and poorly coordinated policies, poor policy implementation and non-compliance, all of which reduce competitiveness, provide opportunities for corruption and limit the effectiveness of the government in accelerating economic development.

#### *Binding constraints*

- *High thresholds, wasteful exemptions, uneven treatment between sectors, and limited environmental, health and wealth taxes limit the tax base and reduce collections.* Indonesia's registration thresholds for value-added-taxes (VAT), for the definition of micro, small and medium enterprises (MSMEs) in the corporate income tax (CIT), and for non-taxable income threshold for personal income are high, resulting in a narrow tax base. Exemptions and preferential treatment for particular sectors, as well as the lack of taxation on fuel, carbon emissions, single-use plastics, sugar-sweetened beverages, and low tariffs on natural assets such as fisheries, all contribute to the low revenue take.
- *Revenue administration is weak, contributing to low compliance.* Indonesia's tax revenue agency, the Directorate General of Taxes (DGT) suffers from outdated IT systems, which limit its ability to conduct compliance risk management. A high share of staff is generalist and relatively low-skilled, partly because DGT has little flexibility to manage its resources.
- *Planning and budgeting processes and systems are not harmonized.* Five-year medium-term plans (RPJMN), annual plans (RKPs) and annual budget documents (APBN) are often inconsistent. Performance information is insufficiently used in budget preparation. These challenges are exacerbated by the lack of a medium-term perspective in budgeting.
- *Accountability for results as well as for integrity, efficiency and value for money in public procurement and financial management remain weak.* Audits remain focused on compliance rather than on adherence to principles/substance or on performance. Procurement officials remain compliance-focused, with weak incentives for performance.
- *Indonesia's intergovernmental financing system provides SNGs with large spending autonomy but does not effectively incentivize them to spend well.* SNGs, districts in particular, depend heavily on transfers,

and 85 percent of these transfers are unearmarked. This leaves the central government with limited levers for steering SNG spending to national priorities or for holding SNGs to account for spending well. In addition, the intergovernmental financing system makes no distinction in the spending autonomy granted to high- and low-performing and high- and low-capacity districts.

- *Poor data on spending and performance limit the ability to focus on results.* Despite excessive detail, the subnational chart of accounts does not produce consistent and decision-relevant spending data. The absence of harmonized charts of accounts do not allow consolidated expenditure reporting across SNGs and between the central government and SNGs. Administrative data on outputs is available in some sectors, but it is of poor quality and not consistently used. Civil, tax and business registries are either incomplete or inaccurate.
- *Lack of coordination, predictability, and transparency in the processes of policy formulation, implementation and enforcement.* Influential actors with discretion over economic rents and resources have continued to flourish and have used their influence to secure financial and political support, at the expense of creating an uncoordinated, unpredictable and opaque environment for policy formulation and enforcement. This puts Indonesia at risk of getting stuck in a ‘state capacity trap’ where policymaking is at risk of elite capture, preventing the emergence of inclusive economic institutions that underpin equitable and more sustainable growth. International experience shows that often a state capacity trap and a middle-income trap are two sides of the same coin.

### **Reducing poverty and boosting shared prosperity: policy priorities along the pathways**

**The four pathways described above, accompanied by the foundation of collecting more and spending and governing better, provide a useful framework to identify priority reform areas.** As in the 2015 SCD, this Update attempts to prioritize reforms within the four pathways and the underlying beam based on impact (evidence-based), complementarity/synergy, sequencing and feasibility. The policy priorities identified in this SCD can be summarized as follows:

#### **To strengthen the competitiveness and resilience of the economy:**

*Open the economy by eliminating unnecessary restrictions on imports, investments and access to global talent.* Opening Indonesia’s economy – to trade, investment and talent – will make firms more competitive and productive. This requires removing barriers to imports of goods and services, increasing preferential access to key markets, and reducing restrictions on work permits in high-skilled occupations while providing incentives to help firms nurture in-house talent. Relaxing restrictions on investment will increase foreign investment and promote competition. World Bank estimates that sector-wide removal of foreign-equity limits can bring an additional USD 3.8 billion in foreign investments and USD 3 billion in domestic investments.

*Improve business regulation and competition through enhanced enforcement and quality of business-related policies and regulation, including on competition.* Clear and enforced rules support healthy competition that boosts productivity. This requires enhancing competition supervision and the detection of anti-competitive practices. Strengthening KPPU’s technical capacity is an important step in enforcing competition laws and advocating pro-competition policies. Regulatory uncertainty raises country risk, which reduces investment; reducing uncertainty boosts it. The quality of business-related policies can be



improved by subjecting the policy-making process to transparent cost-benefit criteria and proper regulatory oversight.

*The financial sector needs to be deeper, more efficient and more resilient.* Greater depth in the financial system will help mobilize financing for development needs and new investments, and to build resilience in the face of financial crises and external shocks. Greater efficiency will improve the allocation of funds to the most promising firms. There are several measures to improve efficiency of the financial system, which include promoting competition in the financial system, strengthening insolvency and creditor rights framework, protecting consumers and personal data, and strengthening financial infrastructure. Solid supervision of the financial markets and institutions, especially including financial conglomerates, is vital for the financial system to be able to withstand financial and non-financial shocks.

### **To build more infrastructure, better and faster:**

*Increase the quantity and quality of infrastructure spending by the central government and SNGs.* Public resources will continue to be required for infrastructure development, especially for key infrastructure required for service delivery at subnational levels. Beyond resources, an improvement in the quality of infrastructure, including its resilience for climate change will also help close the infrastructure gap. This means increasing resources available for infrastructure investment across several sectors and at all levels of government and improving policies and systems so that central and SNGs can use infrastructure resources more effectively. Screening for and mitigating climate and disaster risks will help build more resilient infrastructure.

*Create conditions to attract more private participation in infrastructure development.* Although more public resources need to be devoted to infrastructure, large gains can come from attracting more private investment to infrastructure. This will require improving the regulatory, institutional and financial environment for projects done under public-private partnerships. It will also require right-sizing the role of SOEs to make space for the private sector and direct public and quasi-public resources to projects with high social but low commercial returns. Removing implicit and explicit subsidies to non-renewable energy and turning disincentives into incentives through market-based instrument(s) are key requirements to develop renewable energy. Financial and regulatory reforms will also be needed, including new approaches to financing further investments; calculating allowed revenues; setting viable electricity, water and port tariffs; and setting and paying electricity public service obligation (PSO) subsidies. Finally, requiring or encouraging telecom operators to share passive infrastructure presents tremendous scope for efficiency gains and further expansion of the digital economy.

### **To nurture world-class human capital:**

*Boost human capital formation from the earliest age through basic education and skills training.* Indonesia needs to focus on the entire human capital ‘value chain’. To strengthen foundations of human capital formation, targeted and complementary investments in early childhood development (ECD) are needed across multiple sectors including nutrition, health, sanitation and education. Improving the basic education system will take a shift in management practices, with improvements in learning and pedagogical practices

at the focus of reform efforts. To close skill deficits, the quality of TVET, tertiary and lifelong education need to be improved, while firms can be given the right incentives to invest in training.

*Target health resources at the most cost-effective interventions and underserved populations, improve the quality of service delivery, and introduce integrated care.* Often the most cost-effective interventions are those that come early, such as preventive care and pandemic preparedness. Improving service delivery requires reforming the institutions, systems and processes that hold the healthcare system together, namely public sector management functions for health, planning and budgeting that link inputs to outcomes, strengthening health management information systems to benchmark performance, and improving budget execution and other financial management functions. The design of JKN and its implementation needs to be improved to ensure fiscal sustainability and to create incentives for improved provider performance. The improvements can be financed partially through increases in public spending on health, which can be financed through wider use of excises earmarked to the health sector, for example, on tobacco and sugar-sweetened beverages.

*Implement a new social contract which provides a “guaranteed minimum” protection across the life cycle, helping build, deploy and protect Indonesia’s human capital.* Such a contract would entail expanding coverage to excluded groups and protecting against disasters, pandemics and climate change. The protection floor would be set to bring households above the poverty line, with a tapered benefit exhibiting reduced support as households’ needs reduce over time when moving up the consumption distribution. The guarantee can also be designed to promote objectives such as human capital development, labor mobility, and disaster and pandemic response. While the guaranteed minimum would provide universal coverage in principle, benefit payments can be contingent and progressive, meaning that benefits are available when and where needed. The minimum guarantee can be complemented by a coherent set of mandated and individually financed social insurance programs, decoupled from how or where people work. These reforms would require an increase in public spending on social assistance, which at 0.67 percent of GDP in 2018 is well below the lower middle-income country and regional averages.

*Undertake coordinated efforts across multiple sectors to unlock women’s potential to contribute to economic growth.* Within the education sector, a stronger focus is needed on improving girls’ participation in science, technology, engineering and mathematics (STEM) subjects and, more broadly, access to higher education. To support female students’ transition from education to work, reform of the Labor Law can aim to remove disincentives for employing women in the formal sector. A range of options for high quality affordable childcare needs to be developed and deployed, procedures for documented migrant workers reformed and eased, and access to legal identity documents improved (such as certificates needed to claim right to assets and inheritance, etc.). Economic opportunities for women offered by new technologies such as digital service provision, online advertising and e-commerce need to be explored and supported, with interventions targeted to women entrepreneurs to unleash the economic potential of the businesses they own.

### **To manage natural assets for enduring prosperity:**

*Strengthen institutions for land management and governance.* Providing greater clarity of land rights and creating adaptable schemes for land allocation, forest management, and conflict resolution can protect



communities and create the right incentives for preservation. This requires unifying land-related policy targets and governance under an integrated landscape management approach, including in lowland areas. Existing peatland restoration and rehabilitation efforts are commendable, but a broader focus on the management of peatland, land, and water resources can be pursued. Legal land designation needs to be clarified, then enforced while ensuring that forests benefit local communities.

*Invest in cost-effective measures to promote sustainable management of natural assets and environmental protection.* Indonesia can make greater use of financial incentives (through budget resources and market-based instruments) to disincentivize deforestation and the use of fire to clear land. In the agricultural sector, instead of inefficient fertilizer subsidies, resources can be directed to the provision of agricultural extension services, which can be expanded to increase productivity and facilitate shifting crop patterns to increase profitability and reduce pressure on forests and peatlands. Integrated air quality management plans for critically polluted urban areas, specifically Jakarta, need to be developed to determine the most cost-effective policies and investments.

*To realize the potential of the blue economy, fisheries and coastal resource management need to be strengthened.* Decentralized fisheries management can be made more effective through policy reforms, public investments, stronger enforcement, and coordination. Many potential livelihood opportunities from sustainable use of coastal and marine ecosystems can be identified and promoted. Investments in local infrastructure and management capacity in coastal areas are also needed. Beyond investments in solid waste management and public recycling facilities, a broader circular economy approach is needed to reduce waste. The introduction of a plastic excise can be directed to such investments.

### **To collect more; spend and govern better:**

*Raise the tax potential by broadening the base and raising taxes on tobacco and top income.* Broadening the tax base will allow Indonesia to collect more revenues, reduce distortions in its tax system, and improve the equity of taxation. Higher taxes on top-incomes and on wealth will raise revenues and improve tax progressivity. By raising tobacco taxes and streamlining the multiple-tier structure, Indonesia can boost revenues and cut smoking rates, saving lives and reducing health spending on tobacco-related disease. Tying tax reforms to additional spending pledges and creating tax policy packages will increase support for higher domestic revenue mobilization. Strengthening property taxation will further improve tax progressivity and improve the ‘fiscal social contract’ at the subnational level. Finally, reforming non-tax revenue (NTR) tariffs will raise further funds and support sustainable management of natural assets.

*Improve tax compliance through upgrading the capacity of the tax administration.* To shift Indonesia into a new equilibrium of high compliance at lower costs to the taxpayer, the revenue administration needs to invest in technology and skills, reform business processes, and foster a culture of integrity and transparency. Prioritizing the procurement and deployment of the commercial-off-the-shelf (COTS) IT system for DGT and reforming business process and tax forms in-line with COTS, and then placing risk-management as the core function of the new DGT, will be critical in this regard.

*Design institutions to balance performance and compliance, upgrade public financial management (PFM) systems and reform intergovernmental finance systems.* Shifting the focus from compliance to performance will greatly enhance the efficiency of expenditures. In the case of education, for example, this entails a

much greater focus on assessing how much students are learning, and focusing resources and incentives at improving learning, rather than compliance with requirements that are dissociated with the ultimate objective. This shift can be greatly supported by upgrading PFM systems to close the gap between resources and results. Intergovernmental finance systems similarly need to be reformed to incentivize performance. Finally, information systems need to produce better data to measure performance.

*Strengthen information systems to produce better performance data.* This includes strengthening the ‘center of government’ (CoG) to enable more effective coordination and cooperation in the formulation of policies and regulations, clarifying the status of ministerial regulations, as well as the rules for making them. Policy engagements need to be inclusive of all and evidence-based. Finally, efforts to fight corruption can be strengthened, which is critical for reducing waste of public resources and for strengthening public trust in the state.

**The COVID-19 pandemic has enhanced the challenges faced by Indonesia in eradicating poverty and ensuring wellbeing for all, increasing the relevance of many of the reform priorities identified in this SCD update.** For example, increasing tax revenue collection and improving the quality of public spending are even more necessary considering the mounting public debt to finance the increase in the pandemic-related government spending. For the same reasons, mobilizing the private sector to fill the infrastructure gap is particularly important as public resources are less available. In the competitiveness pillar, the need to increase openness to trade and investments and to deepen and improve financial markets has also become more urgent. The former priority will help firms reduce input costs and households the cost of the consumption basket at a time when revenues and incomes are collapsing. Increasing the depth, efficiency and resilience of the financial system, including expanding financing to MSMEs will strengthen the country’s ability to respond and its resilience to the crisis. The crisis has also increased the urgency of social assistance reforms, as these provide a cushion against shocks for vulnerable sections of the population, and of reforms to institutions for land management and governance, as pressure on land may increase as other sources of income dwindle.

**These reform priorities are largely the same as those identified in the 2015 SCD, suggesting a greater focus on the political economy underpinnings of the challenges identified to increase the likelihood of reform progress.** Except for the introduction of a minimum wage formula, almost no reform priorities have been adequately addressed since the 2015 SCD. This points to the political difficulties in undertaking them and emphasizes the need to factor in the political economy dimension into the technical recommendations. Future analytical work should focus on better understanding the underlying political economy dynamics and tailoring recommendations and interventions to maximize the chance of implementation.

## Introduction

Since Indonesia's first Systematic Country Diagnostic (SCD) in 2015, the economy has continued to grow steadily, poverty has declined, and incomes of the bottom 40 percent have expanded. Between 2015 and 2019, solid macroeconomic fundamentals have underpinned stable economic growth, averaging 5.0 percent per year despite a challenging external environment. Poverty reduction has continued apace, with the share of the population in absolute poverty continuing to decline to below 10 percent. The April 2019 elections returned to power incumbent president Joko Widodo, who has pledged to continue economic policies identified in the previous Country Partnership Framework (CPF), notably investing in infrastructure and human capital, and reforming regulations to attract more investments.



**To accelerate progress and make it sustainable, Indonesia will need to address longstanding challenges.** Recent analytical work has confirmed that the constraints to poverty reduction and shared prosperity identified in the 2015 SCD remain relevant. This new work has deepened the earlier diagnostics, including through the identification of specific root causes of constraints to development, which in turn helped refine and provide granularity to policy priorities. For example, this SCD Update identifies as policy priorities trade, investment and labor restrictions behind the high costs of doing business in Indonesia, thus operationalizing the higher-level message to address the high costs of business identified in the earlier SCD. Meanwhile, this SCD Update emphasizes the importance of policies that reduce unit labor costs through productivity improvements over policies that reduce firms' direct labor costs, such as enhancing the minimum wage setting mechanism and lowering severance pay, which the previous SCD highlighted.

**Analytical work since the 2015 SCD has deepened diagnostics and sharpened the policy priorities arising out of the diagnosed constraints.** Substantive analytical work was conducted in the past five years, notably an Infrastructure Sector Assessment (InfraSAP), a Financial Sector Assessment (FSAP), a report on Indonesia's emerging middle class, a flagship report on urbanization, a flagship report on social protection, a comprehensive public expenditure review (PER), a book on stunting, a Country Private Sector Diagnostic (CPSD) and analytics related to: human capital development, decentralization, public financial management (PFM), procurement, basic education, competitiveness, energy, agriculture, rural poverty and the environment. This new analytical work has informed a Development Policy Review (DPR) which was completed recently. This body of work deepens previous diagnostics but does not materially modify the general findings of the 2015 SCD. This is reflected, for example, by the types of constraints identified in the 2019 DPR, which are largely similar to those identified in the DPR conducted in 2014 and which informed the 2014 SCD. As such, this SCD is being done as an Update rather than a Full SCD.

**The ongoing outbreak of the Coronavirus disease 2019 (COVID-19) can increase the challenges faced by the economy and society to unprecedented levels but their treatment goes beyond the scope of this SCD update.** Compared to countries in Europe, the Middle East and the Western Hemisphere, the spread of the COVID-19 has been relatively limited in Indonesia so far, with 26,940 cases and 1,641 deaths as of June 1<sup>st</sup>. It is difficult to overstate the potential health, societal and economic impacts of this pandemic. The short-term impact can quickly strain Indonesia’s limited ability to cope with health as well as economic shocks, and that will require a substantive assessment of appropriate policy responses. However, such assessment goes beyond the scope of this update as the pandemic is evolving. A post-COVID “new normal” is expected to emerge and will shape the economic recovery – but the details or duration of such “new normal” are yet unclear. As such, this document acknowledges the potentially drastic implications that such fast-moving shock may have and considers only its implications on the medium-term priorities (See also Box 2.1 and section 9 below).

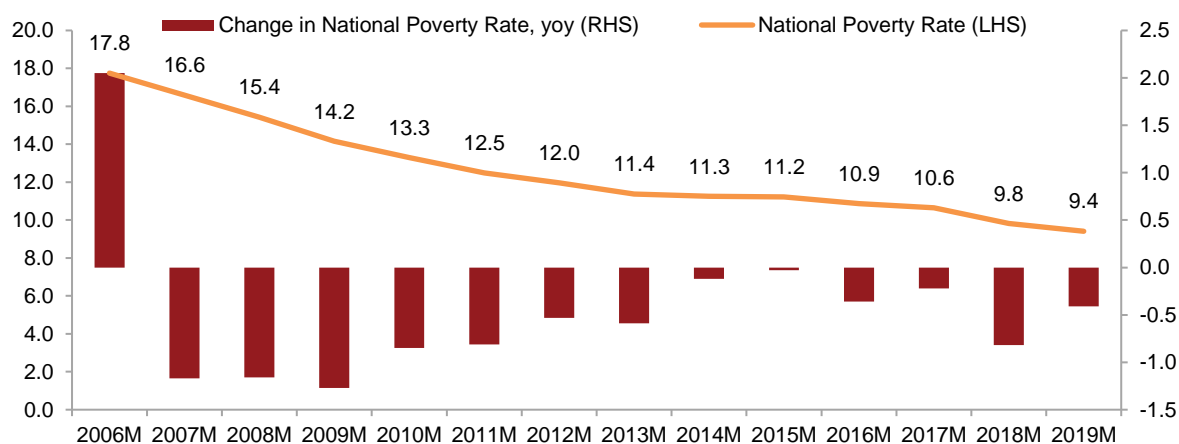
**Thus, this SCD Update aims to:** (i) provide an updated narrative on progress towards the World Bank Group’s twin goals of reducing poverty and boosting shared prosperity in Indonesia; (ii) revisit the overall framework and pathways laid out by the previous SCD and make modifications as necessary in light of new information generated by recent analytical work; and (iii) leverage this recent work to provide a more granular set of policy priorities to address the constraints identified.

## Progress on Poverty and Shared Prosperity

### 2.1. Poverty and vulnerability continued to decline, but bringing Indonesians into the full economic security of the middle-class remains a daunting challenge

**Indonesia continues to make progress in reducing poverty, but the pace of decline has slowed.** Based on the internationally comparable benchmark of USD 1.9 dollars a day in 2011 purchasing power parity (PPP) terms, Indonesia is among countries that have made the fastest gains in poverty reduction in the last two decades. Between 2000 and 2015, the USD 1.9 poverty rate in Indonesia declined by 2.1 percentage points (p.p.) a year, almost comparable to India and China (2.4 and 2.5 p.p. a year, respectively). Based on the national poverty line, poverty has also continued to decline, reaching 9.4 percent in March 2019 (Figure 2.1). However, this means that 25.1 million Indonesians still live below the poverty line, and as Figure 2.2 also shows, the pace of poverty reduction post-2010 was only about half (0.3 p.p. per year) of the pace for the period 2003 – 2010 (0.6 p.p. per year). Although the rate of poverty reduction tends to decline at lower rates of poverty, as it becomes progressively harder to reach the poor, some countries like Vietnam buck the trend.

**Figure 2.1: The poverty rate has continued to decline in Indonesia...**  
(share of population that is poor, percent)



Source: World Bank staff calculations using data from various rounds of SUSENAS

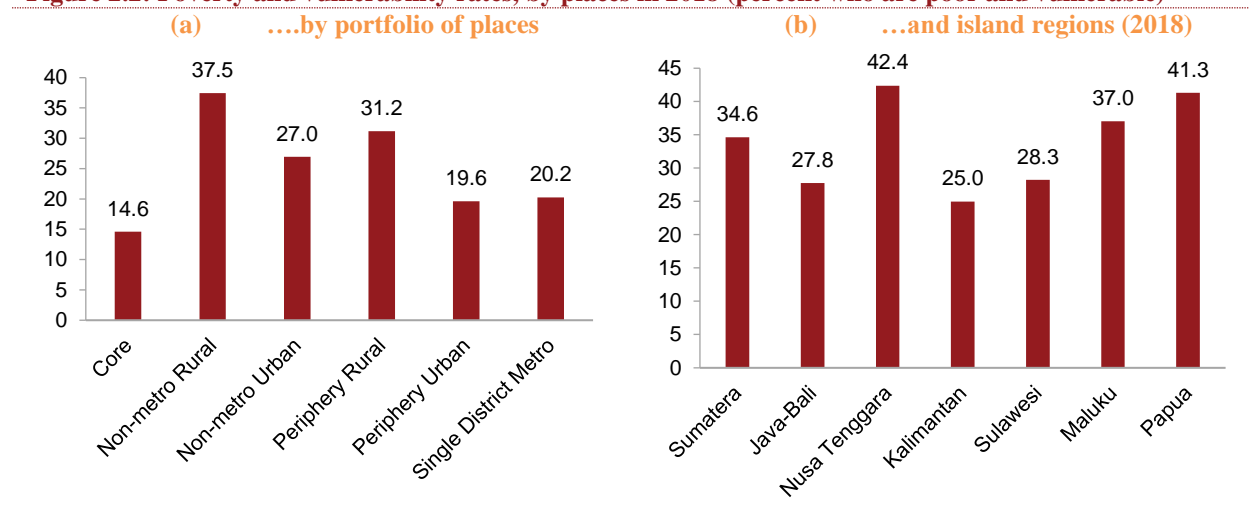
**Poverty reduction has been driven by sustained economic growth and robust job creation, mostly in cities.** Supported by a sound macroeconomic framework, real GDP expanded by an average of 5.5 percent annually between 2010 and 2019. Growth moderated to 5 percent in the 2014-19 period, as the tailwinds of commodity prices waned and global uncertainty increased. Growth went hand in hand with robust job creation. Between 2010 and 2019, the economy created 2 million new jobs per year, although mostly in low-end services (wholesale and retail trade, restaurants and hotels). As a result, the employment rate reached a two-decade record high in 2019 while the unemployment rate continued to fall. Approximately half of workers in 2018 had wage-paying jobs, compared to only 30 percent in 2001. The diversification of jobs out of agriculture and into other sectors has increased productivity and wages. This process is

associated with rapid urbanization and some of the more productive jobs have been created in the city cores or the expanding urban periphery.<sup>4</sup>

**A declining but still sizeable share of the population remains vulnerable to falling into poverty.** Many Indonesians are vulnerable to economic and health-related shocks as well as natural and climate-related disasters, which disproportionately affect the poor. Although the share of Indonesians vulnerable to falling into poverty (defined as those consuming between 1 and 1.5 times the poverty line) has declined from 33 to 20 percent between 2002 and 2018, 53.3 million Indonesians remain in this category. Together, the poor and vulnerable groups account for the bottom 30 percent of the population.

**The geographic profile of the poor and vulnerable highlights the unevenness of economic outcomes across space in Indonesia.** Metropolitan cores have the lowest rates of poverty and vulnerability (14.6 percent) while non-metro rural areas have the highest (37.5 percent). Rural peripheries of metro areas, despite their proximity to cities, have the second highest incidence rate of poverty and vulnerability (31.2 percent). Across island-regions, Papua and Nusa Tenggara have poverty and vulnerability incidence rates of over 40 percent whereas the incidence rates for Kalimantan and Java-Bali are lower at 25 and 28 percent respectively (Figure 2.2).

**Figure 2.2: Poverty and vulnerability rates, by places in 2018 (percent who are poor and vulnerable)**



Source: World Bank staff calculations using SUSENAS (2018)

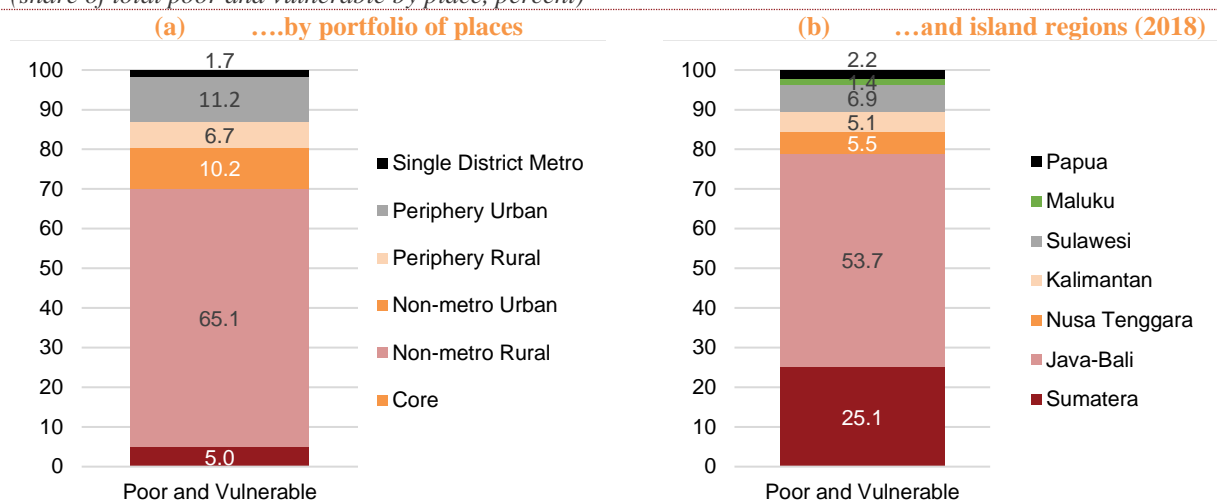
Note: The bars represent the proportion of population that is either poor or vulnerable in each geography.

<sup>4</sup>See Roberts et al. (2019). *Time to ACT: Realizing Indonesia's Urban Potential*. Washington, D.C.: The World Bank. 57 percent of Indonesia's population currently resides in metropolitan areas. There are two key findings about Indonesia's recent urbanization experience. First, most of Indonesia's recent urbanization has been driven by reclassification (erstwhile rural areas being administratively converted to urban areas) as opposed to through rural to urban migration (which still accounted for a sizeable 18.8 percent of urbanization). Second, contrary to perceptions, the pace of Indonesia's urbanization is what might be considered "typical" for the country's level of development. It is neither too rapid, nor too slow. If anything, relative to the decades 1980-90 and 1990-00 when the urban share of the population was growing at 3 percent per year on average, the 2010-17 period has seen a deceleration to about 1.2 percent per year.

**Further gains will require reaching areas where poverty and vulnerability may be entrenched.** Given their large population shares, it is unsurprising that the non-metro rural areas (65.1 percent) and the islands of Java-Bali (53.7 percent) are home to the largest number of Indonesia’s poor and vulnerable (Figure 2.3). But smaller pockets of poverty exist everywhere. Of the total number of poor and vulnerable, 11.2 percent reside in the urban periphery of large metros, 10.2 percent in small towns and about 5 percent in metro-cores. The outer-islands account for anywhere between 1.4 percent (Papua) and 7 percent (Sulawesi) of the total poor and vulnerable. Poverty and vulnerability may be entrenched in these areas. For example, while poverty reduction tends to go hand in hand with economic growth in the predominantly urban districts of Indonesia, the relationship is less clear-cut for the predominantly rural districts. Broad based policies that work in some parts of the country may need further customization and tailoring to address the needs of the remaining poor.

**Figure 2.3: Where are the poor and vulnerable located?**

*(share of total poor and vulnerable by place, percent)*



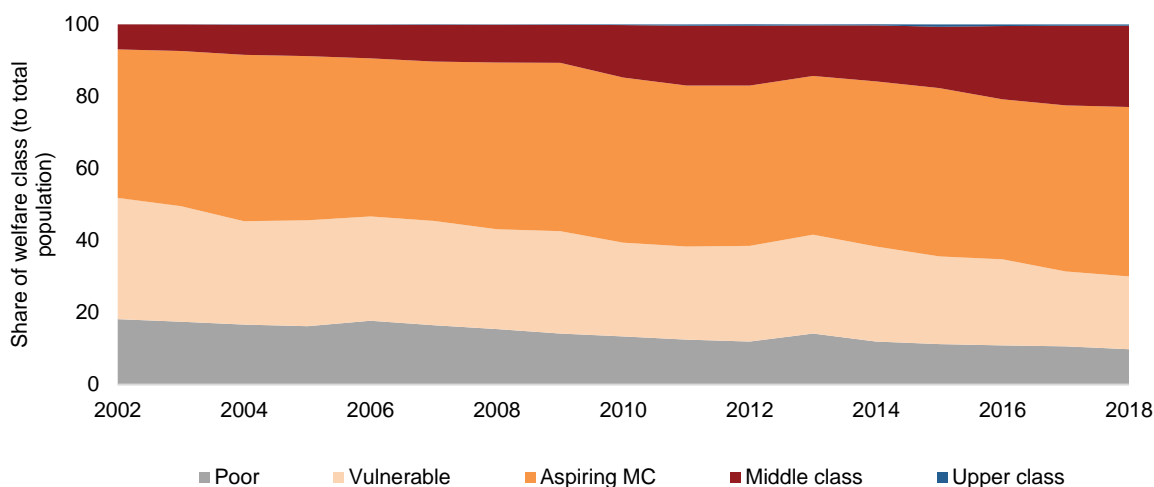
Source: World Bank staff calculations using SUSENAS (2018)

Note: The bars represent the share of the total number of poor and vulnerable population that resides in each geography.

**At the other end of the consumption spectrum, Indonesians enjoying the full economic security of the middle class represent a growing share of the population.** The middle class enjoys higher incomes and consumption, freedom from insecurity and vulnerability, and is an increasingly confident and visible part of Indonesia. The emergence of this new middle class has occurred within a single generation: from only 7 percent of the population in 2002, the middle class grew to 22.5 percent of the population in 2018 (Figure 2.4). At 59.5 million, the Indonesian middle-class today is just shy of the population of Thailand and almost twice the entire population of neighboring Malaysia.



**Figure 2.4: The middle class has grown from 7 percent of the population in 2002 to 22.5 percent in 2018**



Source: World Bank staff calculations using data from various rounds of SUSENAS

Note: specific middle-class definition relies on the vulnerability-to-poverty approach following Ortiz-Juarez and Lopez-Calva (2014). The upper thresholds for each class, as defined in the “Aspiring Indonesia: Expanding the Middle Class”, are 1.5 times the poverty line for the vulnerable group, 3.5 times the poverty line for the aspiring middle class and 17 times the poverty line for the middle-class group.

**Yet, as rapid as the growth of the middle class in Indonesia has been, it still lags other countries in the region and there are signs of deceleration in recent years.** The growth in the proportion of this economically secure class in Indonesia is slower than in Thailand, and less than half as large as the growth seen in China, Mongolia and Vietnam.<sup>5</sup> Moreover, the rate of growth of the middle class post-2016 has slowed down to 7 percent per year between 2016 and 2018 relative to the 2002-2016 period during which it grew at 10 percent annually.<sup>6</sup>

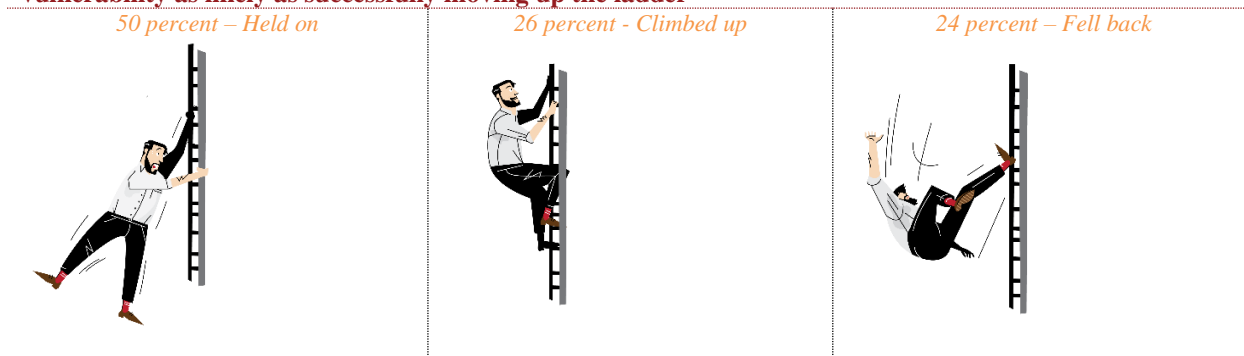
**The largest group of Indonesians – including many in the bottom 40 percent– has escaped poverty but has not reached the economic security of the middle class.** Nearly half (47 percent) of Indonesians belong to an “aspiring middle-class” that is neither poor, nor highly vulnerable to becoming poor, yet lacks the means to be fully secure economically. The precariousness of this group’s economic position is highlighted by the fact that of all Indonesians who were in the aspiring middle-class in 2000, downward movements to poverty and vulnerability were almost as likely (24 percent) as upward movements to join the middle class (26 percent), while most (50 percent) were stuck in their positions (Figure 2.5). Indonesia’s challenge of boosting shared prosperity going forward is to bring economic security to more Indonesians: moving them out of poverty and vulnerability while also accelerating their entry into the full economic security of the middle class.

<sup>5</sup> See World Bank (2018a). *Indonesia Infrastructure Sector Assessment Program (InfraSAP)*. Washington, D.C.: The World Bank. Figure 2. Note, this regional study uses the same economic security definition for the middle class, but it is based on regional data and international poverty lines rather than just Indonesia’s. As such, the class definitions are not the same, although they are broadly consistent. The Indonesia specific middle-class definition relies on the vulnerability-to-poverty approach following Ortiz-Juarez & Lopez-Calva (2011). *A vulnerability approach to the definition of the middle class*. Washington, D.C.: The World Bank.

<sup>6</sup> This draws from World Bank (2019a). *Aspiring Indonesia— Expanding the Middle Class*. Washington, D.C.: The World Bank.



**Figure 2.5: Protecting gains is difficult for the aspiring middle class; falling back into poverty and vulnerability as likely as successfully moving up the ladder**



Source: Indonesia Family Life Survey (IFLS) 2000 and 2014

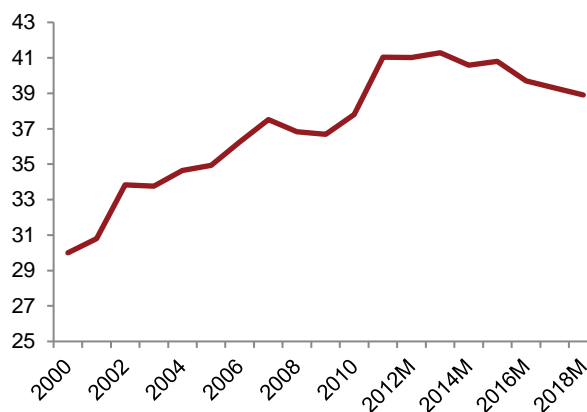
Note: IFLS is a longitudinal survey that tracks households and individuals over time. These mobility statistics are derived from observations about the economic conditions of the same household at two different points in time.

## 2.2. Driven by gains in the middle of the distribution, inequality has come down from its recent peak, but it remains significant and likely understated

**Inequality has moderated in recent years, driven largely by gains at the middle of the distribution.** Indonesia

witnessed one of the fastest increases in inequality ever seen in East Asia during the fast growth period between 2000 and 2013. Since 2015, there has been a distinct, albeit somewhat modest, downward trend in inequality. The Gini coefficient for consumption, which soared by 12 points in 2000-2013, currently stands at 38.9, 2.2 points below the peak in 2013 (Figure 2.6). Most of the inequality decline has come as a result of gains made at the middle of the distribution: between 2014 and 2018, the consumption share of the middle-40 (fifth to the eighth decile of the distribution) increased from 35 percent to 37 percent while that of the top 20 decreased from 48 percent to 46 percent. Strong job creation in low-end services, although insufficient to dramatically enlarge the middle-class, did provide better income opportunities compared to the agricultural jobs that used to be more common in this segment of the welfare distribution.

**Figure 2.6: Inequality has started to moderate in recent years**  
(Gini coefficient of per capita consumption, 2000-2018)



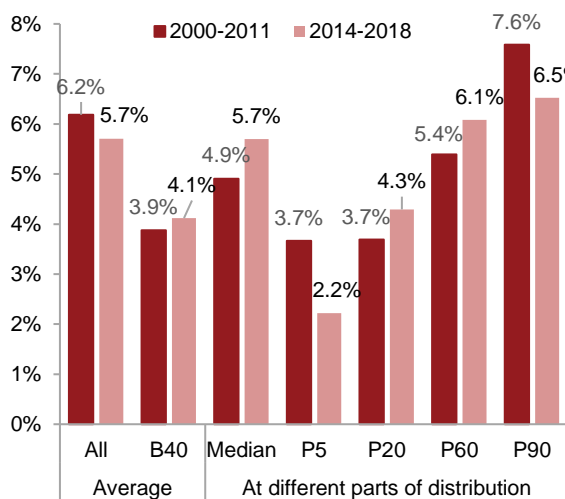
Source: World Bank staff calculations based on various rounds of SUSENAS

**Official measures likely understate the true extent of inequality.** Surveys of incomes and consumption all over the world struggle to capture households at the top end of the income distribution and it has been well recognized that estimates of inequality coming from these surveys could be understating true inequality. Ongoing work in Indonesia to understand the extent of this bias suggests that the Gini index can be higher by as much as 5 points if top income households are to be accounted for. Likewise, the consumption share

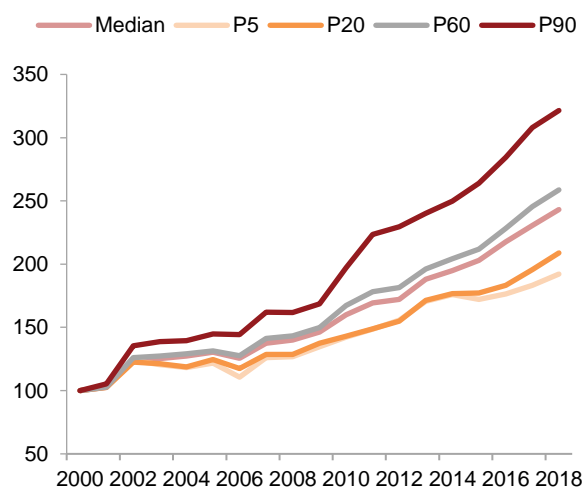
of the top 1 percent of the distribution can be around 23 percent of total, which will be three times its current estimate.<sup>7</sup>

**Consumption growth of the bottom 40 as a group has accelerated but continues to lag average growth, highlighting the persistent challenges of boosting shared prosperity.** Average per capita consumption has grown by an annual average of 5.7 percent in the 2014-18 period. This is lower than the 6.2 percent growth in the 2000-11 period during which the economy was growing at a faster pace as well. In contrast, consumption growth of the bottom 40 has increased slightly from 3.9 percent per year in 2000-11 to 4.1 percent per year in 2014-18 (Figure 2.7). As a result, the shared prosperity premium – the difference in the growth rate of the consumption of the bottom 40 and the average – remains negative but narrowed. The 2014-18 period has delivered higher growth rates at the middle of the distribution – the 20th and 60th percentile have grown 0.6 and 0.7 percent per year faster than in 2000-11 – and lower growth rates at the tails. On the other hand, households at the 5th percentile (roughly corresponding to the median poor household in 2018 terms) has experienced a sharp reduction in consumption growth during this period.

**Figure 2.7: Growth at the middle parts of the distribution (P20 and P60) has picked up in 2014-18**  
(Consumption growth, annualized)



**Figure 2.8: Over the long run, those at the top of the distribution have seen higher cumulative growth**  
(Evolution of living standards at different parts of the distribution between 2002 and 2018, 2000 levels normalized to 100 for all groups)



Source: World Bank staff calculations based on various rounds of SUSENAS

Note: In Figure 7, P5, P20, P60 and P90 refer to the fifth, twentieth, sixtieth and the ninetieth percentiles of the consumption distribution in the base year 2000.

**The pick-up in growth for middle-income households notwithstanding, the long-term trend on inequality and shared prosperity remains broadly unchanged from 2015: those at the higher end of the income ladder continue to experience faster growth in living standards.** Wealthier Indonesians have fared much better relative to those at the lower parts of the distribution. Between 2000 and 2018, the median household in Indonesia saw its living standards (measured by per capita household consumption) grow cumulatively by 143 percent (Figure 2.8). During the same period, households at the 90th percentile of the income distribution experienced more than a three-fold increase (221 percent) in living standards. In

<sup>7</sup> Wai-Poi et al. (forthcoming).

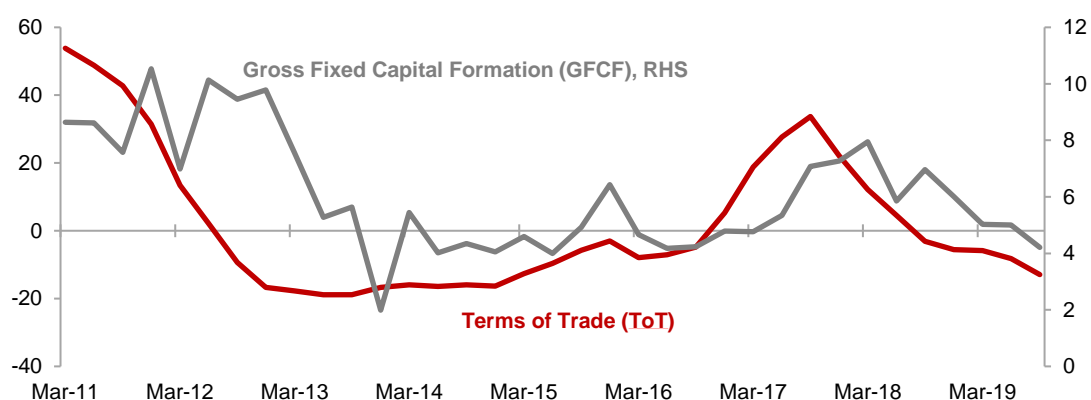
contrast, the cumulative growth in living standards experienced by households in the 5th percentile was a more modest 92 percent. As most household surveys, Indonesian household surveys do not measure income reliably. But as poorer households are likely to save smaller shares of their income relative to the rich who generally have higher savings rate, it is plausible that the evolution of income growth for the different groups over this period will show even wider divergence.

## 2.3. What has held back progress in poverty reduction and shared prosperity?

### 2.3.1. Labor productivity is low, limiting the creation of middle-class jobs

**Natural resource extraction still plays a key role in Indonesia’s economy, tying its fate to commodity cycles and creating negative spillovers that reduce aggregate productivity and contribute to climate change.** Although Indonesia’s economy has diversified over the past decades, fixed investment and GDP growth remain closely tied to the prices of Indonesia’s key export commodities, namely coal, natural gas, non-ferrous metals, palm oil, pulp and paper, timber and rubber (Figure 2.9). The management of commodity sectors has often failed to adequately account for externalities of resource extraction, leading to low productivity and excessive depletion of Indonesia’s natural assets. For example, output growth in palm oil has been driven by increases in planted areas rather than yields, resulting in lower productivity compared to Malaysia. Large areas in the forest estate are planted or mined without licenses, or are degraded as holders of concessions and permits abandoned the land after selling the timber or taking the minerals. These practices have damaged Indonesia’s brand in global markets, led to costly forest fires, and engendered a carbon emissions intensive economy contributing to climate change.

**Figure 2.9: Gross fixed capital formation is driven by movements in commodity prices**  
(change from the previous year, percent)



Source: BPS; World Bank, Pink Sheet; World Bank staff calculations.

Note: Net trade-weighted price index is constructed from Indonesia’s major commodities (rubber, metals, coal, oil, gas, and palm oil).

**Commodity dependence is linked to the subdued performance of the manufacturing sector.** Between 2004 and 2019, the output share of manufacturing has declined from 26 to 21 percent, while employment has increased from 12 to 15 percent, suggesting subdued productivity growth<sup>8</sup>. Excluding food production (a largely domestic-oriented and protected industry), the share of manufacturing in Indonesia’s GDP has

<sup>8</sup> In real terms, value-added per worker in manufacturing grew an average of 0.7 percent per year between 2004 and 2019, compared to 3.3 percent for the economy as a whole.

declined by 7 p.p. in the same period. This poor performance reflects in large part public policies that constrain investment, trade and labor mobility, and that do not adequately address infrastructure and skills gaps. While these constraints affect all sectors, they hurt manufacturing more due to different import intensities and the raw nature of commodity exports. Moreover, high commodity prices in the 2000s lifted the real effective exchange rate, further dampening prospects for export-oriented manufacturing.

**As the economy becomes increasingly closed, output and employment shifts towards low-value-added services that are predominantly domestic-oriented.** The already low share of trade in GDP in the early 2010s has declined even further since 2014 (from 48.1 percent to 43 percent in 2018), one of the lowest in the world. Between 2000 and 2017, low-value-added services (wholesale and retail trade, accommodation and food/beverage services, and other services) accounted for nearly half of all new jobs and the share of workers in these sectors increased by 13 p.p. over the period. This was far more than the increase in the share of output of these sectors, implying declining productivity. In contrast, the share of Indonesian workers employed in high value-added services sectors (which also displayed higher productivity growth) only increased by 3 p.p. over the same period.<sup>9</sup> The small productivity gains from shifting between agriculture and low-value-added services have limited the benefits from structural transformation in Indonesia.

**As a result, labor productivity is low and growing slowly.** Consistent with low levels of innovation and skills, the productivity of labor is lower among Indonesian firms than among firms in other countries in the region. This pattern persists across sectors, ranging from the labor-intensive textile industry to the capital-intensive nonmetallic mineral industries. Limited gains from structural transformation and modest technological upgrading in firms have kept productivity growth below peers over the past decade.

**Activity in low-value-added services and small-scale manufacturing is concentrated in micro and small enterprises, many of which are not traditional firms but self-employed workers with weak growth and income prospects.** In sectors outside of agriculture and public administration, less than 2 percent of firms have 20 workers or more while more than 89 percent have fewer than 5 workers and are classified as microenterprises (Table 2.1). Based on data from the 2016 Census and Labor Force Survey, the vast majority of the 24 million microenterprises are in fact self-employed workers, most of whom operate alone, though some may employ temporary, unpaid, or family labor.

**Table 2.1: Distribution of nonagricultural private-sector firms by size**

Size	Definition	No. of firms	Firms (percent)	Employment	Employment (percent)
<b>Micro</b>	Total labor < 5	23,864,230	89.3	41,032,298	58.4
<b>Small</b>	5 < Total labor < 20	2,399,419	9.0	12,609,226	17.9
<b>Medium</b>	19 < Total labor < 100	412,208	1.5	8,132,148	11.6
<b>Large</b>	Total labor > 99	35,144	0.1	8,546,794	12.2
		<b>26,711,001</b>	<b>100</b>	<b>70,320,466</b>	<b>100</b>

Source: 2016 Economic Census by BPS.

<sup>9</sup> This is the case despite high employment elasticity. For every 1 percent growth in the output of financial services, employment in the sector grows by 1.5 percent, above the economy-wide average elasticity of 0.4 percent. Source: Wihardja (2017). Unpublished report.

**Low labor productivity translates into many ‘entrepreneurs of necessity’ and few jobs that pave the way to the middle class.** Indonesia’s economy is not creating enough “good jobs” needed to broaden the pathway to the middle-class.<sup>10</sup> Jobs in low-value added sectors generally pay below what will be needed to join the middle-class. For example, in the trade, hotel and restaurant sector, which accounts for a quarter of all employment, less than a tenth of all workers earn a ‘middle-class wage’ – defined as at least IDR 3.7 million per month (USD 260). Approximately 40 percent of workers in these sectors are employees without a work contract (including casual and unpaid workers), and more than 35 percent are self-employed or own a household enterprise. In turn, self-employed workers are concentrated in low-value-added services sectors performing relatively unproductive activities that use less-sophisticated forms of capital, including motorcycle or tuk-tuk taxi services, street vending, and independent trash collection. The average income of self-employed workers is about half of the median wage for employed workers in 2018. Due to the limited scalability of many of these activities, many self-employed workers are more likely to increase their income by transitioning into wage employment rather than by expanding their businesses.<sup>11</sup> Productivity also remains low for many that remain in agriculture.

### **2.3.2. Widespread vulnerabilities and the inability of the current social protection system to fully address them translate into economic insecurity.**

**Many Indonesians remain vulnerable to shocks, including economic shocks, health related shocks and natural and climate-related disasters.** The three catastrophic events in 2018—including the series of earthquakes in West Nusa Tenggara, earthquake and tsunami in Central Sulawesi, and tsunami along Sunda Strait—and the still-evolving outbreak of the COVID-19 are some grim, recent reminders of these shocks (see Box 2.1). Vulnerability can have significant adverse consequences for growth, as well as for social and political stability and inclusion. Without adequate protection, shocks can force poor households to resort to negative or damaging coping strategies, such as liquidating savings and assets, reducing nutrition levels, taking children out of school to work, and postponing or neglecting health needs.

**Food insecurity remains a source of vulnerability, especially among the poorest.** Food expenditures average 66 to 75 percent of the household budget for poor and vulnerable households and about 58 percent for the aspiring middle class. Over the last 15-year period, food price inflation (8.2 percent per year) has consistently outstripped general inflation (7.5 percent). Food prices have also been more volatile,<sup>12</sup> with welfare consequences for households with consumption baskets heavily tipped toward food items.<sup>13</sup> A recent study found that 19 percent of poor and vulnerable rural households in Indonesia did not have enough food in the previous year. Among the reasons cited for food distress, problems with weather-related shocks such as droughts, floods, the length of the lean season (47 percent), and spells of un- and underemployment

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<sup>10</sup> These are jobs that pay well, have some benefits and stability of tenure associated with them.

<sup>11</sup> Data from the Indonesian Family Life Survey suggest that around 11 percent of self-employed workers in 2007 had become wage employees by 2014, while 13.3 percent had become casual or family workers. Meanwhile, only 3.2 percent of self-employed workers in 2007 had hired permanent workers by 2014. The median monthly nominal profits of these expanding self-employed workers increased from Rp 900,000 in 2007 to Rp 3,000,000 in 2014.

<sup>12</sup> The standard deviation of the food price index for the 2002-2018 period was 63 percent higher than the standard deviation for the general price index.

<sup>13</sup> World Bank (2017a). *Social Assistance Public Expenditure Review Update*. Jakarta: The World Bank.

(30 percent) were the most common.<sup>14 15</sup> The incidence of food insecurity was found to be higher among beneficiaries of the family hope cash transfer program (PKH), cash-for-work program (PKT) and the rice distribution scheme (Rastra), suggesting that while these programs actually reached the households needing assistance, benefit sizes had perhaps been inadequate to provide them with full protection.

### **Box 2.1: Economic Impact of the COVID-19 on Indonesia**

The outbreak of COVID-19 has rapidly evolved into a global pandemic. The size and scale of the impact on Indonesia is still unclear. To date, over 26,000 cases of infection have been detected in the country, and the eventual magnitude of impact will depend on how the virus continues to spread in the coming months and how the public health infrastructure responds to the crisis.

The COVID-19 outbreak and related containment measures in affected countries have led to a significant external shock, with tourism flows, commodity prices, and growth in advanced economies plummeting. Financial market volatility spiked, and Indonesia experienced massive capital outflows that led to higher bond yields and exchange rate depreciation. These factors significantly compounded upon the global trade and investment uncertainties of late 2019. Domestically, the government has started implementing stricter mobility restrictions from mid-March. This has led to both domestic supply and demand shocks, as many firms and shops are unable to operate, while many consumers are unable or unwilling to shop given the heightened uncertainty about income prospects and infection risks. Activity in services sectors, which contribute the most to the economy and employ the majority of the poor, vulnerable and aspiring middle-class groups, has already been heavily impacted.

While global contagion is somewhat beyond Indonesia's control, a strong response on the public health, social protection and business preservation fronts is not. Indonesia has made notable progress in building health infrastructure to deal with disease outbreak but needs to urgently ensure health service readiness and expand laboratory capacity in testing and disease surveillance. To mitigate the impact of the economic shock on the most vulnerable households, the government has already announced large increases in social assistance, and may consider accelerating the expansion of social protection programs to a larger share of the bottom 40, and further increasing the size of the benefit. Similarly, a number of measures have been announced to avoid mass bankruptcies and layoffs, although these still need to be adequately targeted and implemented together with structural reform efforts to attract investments and deepen and strengthen the financial sector.

### **Natural disasters and hazards exacerbated by climate change are growing sources of vulnerability.**

Indonesia is in one of the most geologically active regions in the world and experiences frequent earthquakes, volcanic eruptions, and tsunamis. In addition, hazards exacerbated by floods and landslides also pummel infrastructure, lives and livelihoods with frightening regularity. According to records maintained by the National Disaster Management Authority (BNPB), over the last thirty years, Indonesia has experienced an average of 290 natural disasters (of varying magnitudes) per year. Estimates suggest that Indonesia loses an average of about 0.3 percent of GDP to damage caused by natural disasters, with the most recent events in Lombok (Nusa Tenggara Barat) and Palu (Central Sulawesi) accounting for damage and losses equivalent to 0.2 percent of GDP. As Indonesia urbanizes, disasters can have a larger

<sup>14</sup> World Bank (forthcoming). *Rural Poverty in Indonesia*. The sample consisted of 2400 households across 120 villages in 6 provinces. Interviewed households were largely among those who are beneficiaries of the PKH and PKT programs.

<sup>15</sup> Another recent study finds that food price distortions associated with Indonesia's tariff and non-tariff barriers on imports have substantial impacts on nutrient intake and dietary diversity.



impact as economic and population density increase. With climate change,<sup>16</sup> extreme weather events are likely to increase in frequency, posing significant risks for the poor and vulnerable who are more likely to be residing in flood prone parts of cities and low-lying coastal areas and mountainous slopes in outer islands. These shocks dampen prospects of both intragenerational economic mobility by eroding savings and other forms of assets, and of longer-term intergenerational mobility by forcing households to cope by curtailing crucial investments in the human capital of their children.

### **Health insurance coverage has surged in the last few years, but many Indonesians remain uncovered.**

Health shocks are another prominent source of vulnerability within the population. In recent years, health insurance coverage has surged to meet this challenge, with government subsidies to cover premium payments driving this increase. Almost 60 percent of those covered are currently under full government subsidy while the remainder either pay a flat premium (non-workers, non-salaried workers) or a fixed proportion of their wages (5 percent; salaried workers). Among the bottom 40 percent of the distribution who are meant to be covered by the subsidy (PBI-JKN), at least half are excluded and more than one fifth of the highest quintile is being subsidized. These gaps can greatly magnify the adverse health and economic impacts of a health shock as the COVID-19.

### **2.3.3. Uneven delivery of public services and limited connectivity with economic opportunities result in large inequalities of opportunity**

**Deprivations along non-monetary dimensions coincide with income levels and narrow pathways to economic security.** Differences in the quality of a household's human resources drive a large degree of inequality in Indonesia. Many poorer households have limited access to nutrition, clean water, proper sanitation and quality health services, and as a result, children in these households too often fail to reach the right height for their age. Despite recent improvements, 27.7 percent of Indonesian children are stunted. About 35 percent of Indonesian children at late primary age suffer from "learning poverty", defined as the lack of basic reading proficiency. This is 14.2 p.p. higher than the average for the East Asia and Pacific (EAP) region.<sup>17</sup> Gaps in access to health care and basic education have been closing over time but remain significant. More importantly, a quality gap persists. With an overall human capital index score of 0.53 in 2017, Indonesia ranked 87 out of the 157 countries that were included in the analysis, suggesting the risk of severe underutilization of the human potential of one of Indonesia's key assets, its people.<sup>18</sup>

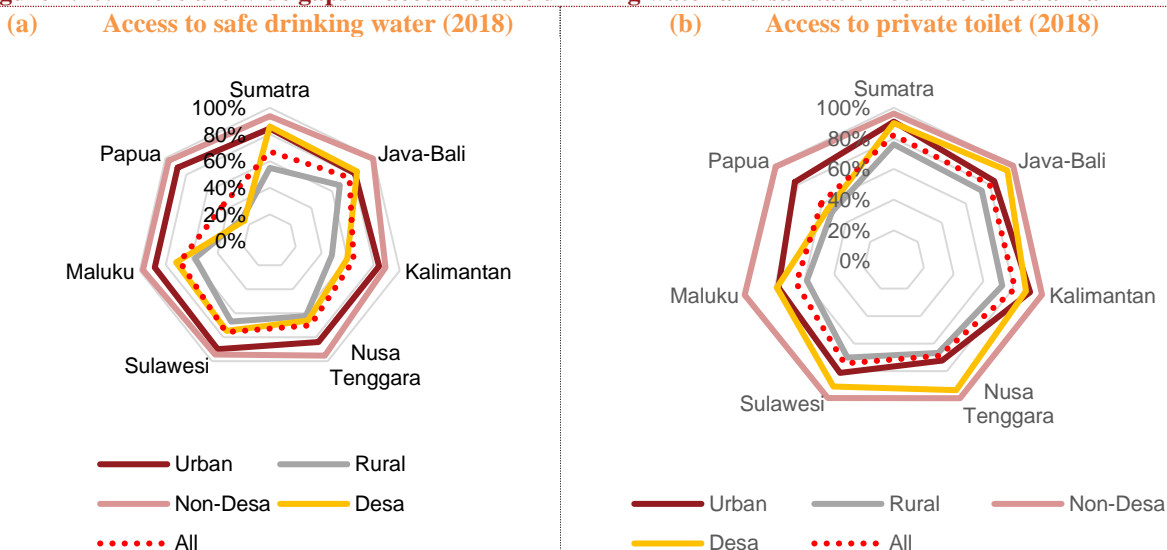
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<sup>16</sup> Indonesia is ranked in the top-third of countries in terms of climate risk, with high exposure to all types of flooding, one of the most vulnerable countries to potentially extreme heat waves, with over 4.2 million people exposed to permanent flooding by the 2070s to end of the century, as well as projected reduction in rice crop yields due to global changes in El Nino patterns.

<sup>17</sup> World Bank (2019b). *Ending Learning Poverty: What will it take?* Washington, D.C.: The World Bank.

<sup>18</sup> World Bank (2018b). *The Human Capital Project*. Washington D.C.: The World Bank.

**Figure 2.10: There are wide gaps in access to safe drinking water and sanitation outside of Java-Bali**



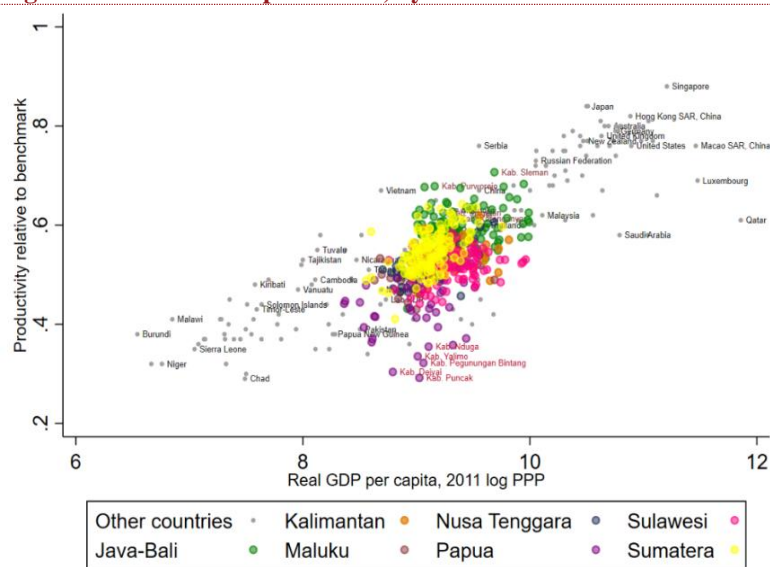
Source: World Bank staff calculations using data from Susenas and Potensi Desa

Note: For the urban-rural cut the figures show share of households with access to safe drinking water and private toilet. For desa/non-desa cut, the figures show the proportion of villages with access to these services.

**For a far-flung archipelago, the geographic dimension of these differences cannot be overstated.**

Larger urban areas in Indonesia tend to do better, on average, than their rural counterparts in terms of access to hospitals and schools, clean water, and safe sanitation, all of which are important determinants of an area's human capital. Virtually all Indonesians in metropolitan cores have easy access to primary care facilities (*puskesmas*), delivery facilities, and hospitals; by contrast, more than 20 percent of those residing in nonmetro rural areas do not have easy access to hospitals, and over 80 percent lack easy access to a private practice doctor. In terms of access to safe drinking water and adequate sanitation, the gaps between urban and rural as well as non-*desa* (non-village) and *desa* (village) are quite wide across regions in Indonesia, except in Java-Bali (Figure 2.10). Those gaps indicate that *desa* and rural areas lag far behind their urban and non-*desa* peers in terms of access to basic sanitation. Across all regions, Papua has the widest gaps between urban and rural as well as non-*desa* and *desa*. All of this is manifest in the wide disparities in aggregate human capital across space in Indonesia: some parts of the country (mainly in metropolitan-Java) are almost at par with countries like

**Figure 2.11: Human capital index, by districts of Indonesia**



Source : Sari & Tiwari (forthcoming) and Kraay et al. (2019).

Note: Per capita GDP for Indonesian districts were found to be unreliable for this representation. What has been used in the plot is the average (national) per-capita GDP scaled by welfare ratios for each district. Welfare ratio is the ratio of average per capita consumption of district *i*, relative to the national average.



Vietnam and China while others (mainly in non-metro rural Papua) have human capital levels that are comparable to Chad, Niger, and Sierra Leone (Figure 2.11).<sup>19</sup>

**Decentralization has helped bring about some convergence on access to services, but gaps in the quality of services remain wide.** Indonesia's decentralization gives subnational and village governments significant resources and autonomy on matters related to service delivery and infrastructure provision. This has brought about some convergence of service delivery across space. But the size of the quality differentials points to substantial remaining challenges. On the one hand, the existing fiscal transfer system disadvantages places such as urban peripheries that need to cater to large and growing populations and have very little recourse from other sources of financing (unlike metropolitan city cores). On the other hand, less populous districts that have received relatively favorable flows from the fiscal transfer system have serious capacity constraints for implementation, which limit their ability to convert resources into results.

**Poor connectivity between people and economic opportunities limits the prospects of prosperity generated in Indonesia's growing cities from being shared more broadly across the country.** Unlike countries such as India and China, benefits of urbanization in Indonesia have not been shared within cities as well as across the country's portfolio of places.<sup>20</sup> The lack of infrastructure to connect the core and periphery of metropolitan areas on the one hand and metro and nonmetro areas on the other, has limited the integration of factor and output markets. Access to economic opportunities in urban areas is further constrained by inadequate public transport services, particularly for the poor who do not have access to private motor vehicles. Despite large earnings premia in metropolitan areas and the persistent welfare gaps across Indonesia's portfolio of places, surprisingly few Indonesians migrate to capitalize on these opportunities. In 2015, about one in five Indonesians had ever migrated and those that had, preferred to move to places closer to home, predominantly within the same island-region.<sup>21</sup> Indeed Indonesia is one of the countries with the highest costs to labor mobility.<sup>22</sup> This highlights the importance of connecting places – especially lagging regions – to economic opportunities. Connecting people across Indonesia's vast footprint is a major challenge that will require making judicious choices on connectivity infrastructure that maximize inclusion.

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<sup>19</sup> Sari & Tiwari (forthcoming). *The Geography of Human Capital in Indonesia: Evidence from Subnational Analysis of the Human Capital Index*. Jakarta: The World Bank.

<sup>20</sup> Roberts et al. (2019) for Indonesia; Cali & Menon (2013). *Does urbanization affect rural poverty? Evidence from Indian districts*. Washington, D.C.: The World Bank. for India; and World Bank (2014). *Urban China: Toward Efficient, Inclusive and Sustainable Urbanization*. Washington, D.C.: The World Bank. for China.

<sup>21</sup> Roberts et al. (2019). Nationally 75 percent of migrants stay within their home island-region. Among migrants from Java, 87 percent moved within Java.

<sup>22</sup> See Cali et al. (forthcoming) and Bryan & Morten (2019). The Aggregate Productivity Effects of Internal Migration: Evidence from Indonesia. *Journal of Political Economy*, 127(5), 2229-2268. DOI: [10.1086/701810](https://doi.org/10.1086/701810)

## Pathways to Poverty Reduction and Shared Prosperity

### 3.1. Megatrends shaping long-term prospects

**At the time of writing it is not clear how long-lasting the COVID-19 pandemic will be. Besides that the megatrends identified in the 2015 SCD as having a bearing on the country's long-term prospects remain relevant.** Four mega-trends that would shape Indonesia's long-term prospects identified in 2015 remain relevant today: (i) commodity prices; (ii) developments in China; (iii) Indonesia's demographics and; (iv) rapid urbanization. Indonesians are getting older. The growth rate of the labor force is already declining and will turn negative in less than 20 years. A larger number of elderly Indonesians has important implications for health care, social assistance and pension systems. Likewise, Indonesians are increasingly living in cities: by 2045 nearly three-quarters of Indonesians will be urban dwellers. Because it becomes increasingly costly to alter the trajectory of urbanization, Indonesia needs to act now to plan and deliver the required infrastructure and services that urban Indonesians will require.

**Developments in China and trends in commodity prices have become increasingly intertwined.** The Chinese economy has slowed down, and in 2020 it is expected to grow below 6 percent for the first time in 30 years (World Bank, 2020a). At the same time, as its labor force ages and wages increase, the economy has been moving away from low- and medium-skilled manufacturing towards sophisticated manufacturing and modern services. This shift, together with trade tensions with the US, has created opportunities for emerging economies to attract the factories that are moving out of China. These trends are linked to a slump in the demand for commodities, which is likely to continue (World Bank, 2019h). As a result, the need for Indonesia to upgrade its policy framework to attract manufacturing investments and move away from its dependence on commodities is likely to become even more pressing.

**At the same time, newer megatrends have emerged on the horizon, notably broader adoption of digital technology and automation by firms, which will reshape the working world.** With the largest internet user base in Southeast Asia, Indonesia is one of the world's ten most internet-engaged countries in the world. It has also been attracting global as well as domestic investments in a variety of internet-based businesses that are beginning to have a stronger footprint on retail and commerce, logistics, services and jobs.<sup>23</sup> The digital transformation has significant potential to catalyze other efforts to boost inclusive growth. But it also carries risks. Chief among them is that instead of closing the existing income, skills and geographic divides, it will widen them further. Indonesia will need an increasingly skilled labor force with the right level and mix of skills, including advanced cognitive skills and skill combinations supportive of adaptability, such as reasoning and self-efficacy. Moreover, it is likely that a larger share of the workforce will move away from traditional one-job-per-career patterns to having many sources of employment over the course of their careers, including periods of non-wage or self-employment. The informal sector in Indonesia still employs more than 50 percent of total workers (70 percent in rural areas). This high level of informality will likely persist given current trends and growth of the 'gig' economy and e-commerce and may be even exacerbated by the COVID-19 crisis, which may shrink businesses' budget to hire formal workers.

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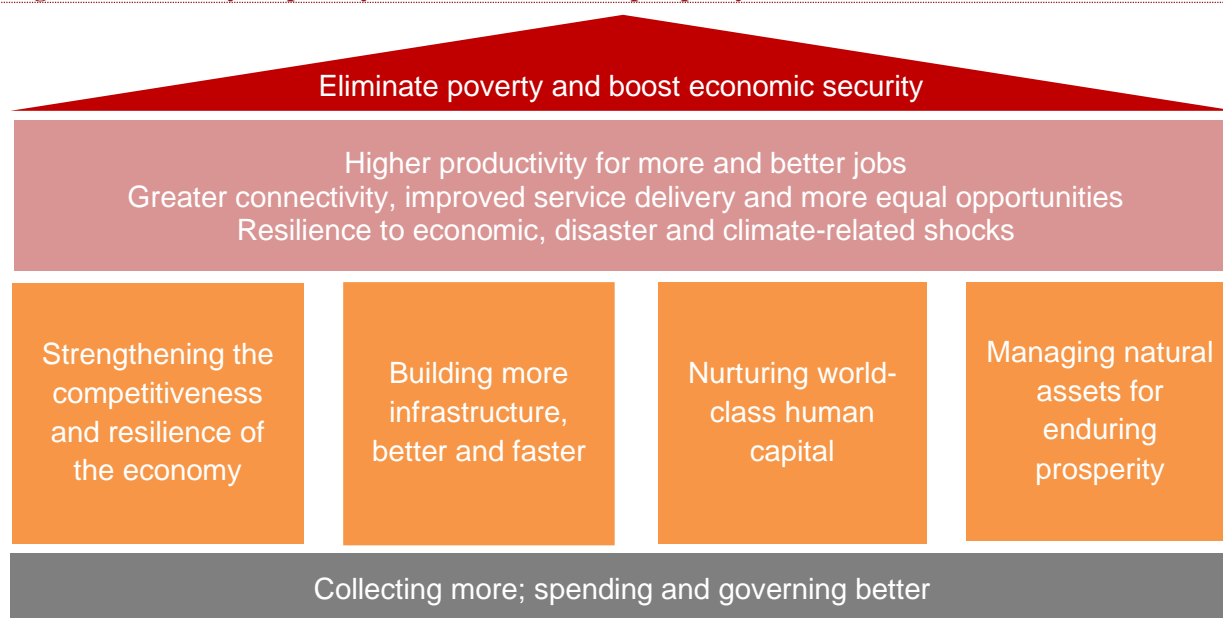
<sup>23</sup> By one estimate, Indonesia has the largest (USD 27 billion in 2018) and the fastest growing (49 percent compound annual growth rate between 2015-2018) internet economy in South East Asia. Four out of nine sub-regional unicorns and one out of 19 global decacorns is based in Indonesia.

### 3.2. Analytical Framework

*This SCD Update posits four pathways to overcome the constraints to poverty reduction and shared prosperity: (i) strengthening the competitiveness and resilience of the economy; (ii) building more quality infrastructure, faster; (iii) nurturing world-class human capital; and (iv) managing natural assets. Enabling the four pathways is a government that collects more and spends better, and that effectively formulates and implements policies and regulations for the common good (Figure 3.1).*

**In order to accelerate progress towards creating economic opportunities for all Indonesians, while ensuring sustainability of resource use and meeting the challenges of the identified megatrends, Indonesia needs to adjust its growth model.** The Indonesian economy needs to move towards a more outward-looking, less commodity-intensive and more human capital-based growth model in order to create enough quality jobs to expand the middle class and ensure the economy’s financial and environmental sustainability. The four pathways, which are derived from standard economic growth literature, summarize the proposed new growth model.

**Figure 3.1: Pathways to poverty reduction and shared prosperity in Indonesia**



Source: World Bank staff

**Making the economy more productive to create more and better jobs requires attracting more “efficiency-seeking” foreign direct investment (FDI).** In contrast to rent-seeking investments, such as those in natural resource sectors or in protected sectors with high mark-ups, “efficiency-seeking” investments are generally associated with global and domestic competitiveness. Export-oriented FDI is one of the main types of efficiency-seeking investments. Analysis finds that these investments create jobs that pay higher wages and stimulate domestic investments.<sup>24</sup> Export-oriented FDI is constrained by an inward-looking policy and regulatory environment that inhibits investment and trade, a shallow financial sector, poor infrastructure and a shortage of skills in the labor force. Moreover, poor management of natural

<sup>24</sup> Cali et al. (forthcoming).

resources hurts Indonesia's brand and often distorts investments towards natural resources at the expense of other sectors.

**Connecting Indonesians to economic opportunity will necessitate substantial investments in hard and soft infrastructure.** Policymakers in Indonesia have tried a range of place-based policies in the past. Consistent with global evidence, policies to incentivize firms to locate to lagging places have had no clear impact.<sup>25</sup> It is not possible to bring the same level of job-creating investments everywhere in Indonesia. But it is possible to equip Indonesians for, and connect them with the jobs created through stronger economic competitiveness. This entails augmenting the access to and the quality of public services so that children from poor, vulnerable and aspiring households have a fairer start and are equipped with the human capital needed to capitalize on available economic opportunities. It also entails building connective infrastructure that gives access to services and economic opportunities. Augmenting service delivery and connecting Indonesians to opportunity requires both hard infrastructure such as roads and ports, but also soft infrastructure of quality health and education services. Better management of natural assets will provide more opportunities for communities living in forest and mining areas, reduce negative environmental externalities that erode human capital, and increase the provision of ecosystem services including added resilience to the impact of climate change.

**Boosting resilience to economic and disaster and climate related shocks entails building systems that protect people and their environment.** A solid macroeconomic framework and sound financial sector are key to protect the economy against shocks and minimize job losses that hit the poor the hardest. Sound fiscal policies will also allow the government to modernize its social protection system to more effectively protect Indonesia's human capital. Infrastructure needs to be planned and built to adapt to and mitigate climate change and disaster risk. Finally, better management of natural assets plays a key role in reducing vulnerability to natural shocks. The lowland development model, dominated by palm oil, has induced deforestation and forest degradation to clear the land for expanding agriculture. This has contributed substantially to greenhouse gas emissions, threatened some of the most biodiverse lands in Indonesia, and caused large damage to the economy.<sup>26</sup> Similarly, the reliance on coal for energy and exports has further contributed to climate change. Building a resilient economy requires Indonesia to secure a long-term strategy towards low carbon growth.

**To enable progress along the four pathways Indonesia needs to collect more, spend and govern better.** The delivery of human and physical infrastructure depends not only on the effectiveness of government spending, but also on the regulations to attract private funds to factories, infrastructure and skills development. Indonesia's government has one of the lowest levels of revenue-to-GDP in the world and is inadequately resourced for the task of closing the infrastructure and capital gaps. Strong regulatory governance that provides predictability and supports competition is key to competitiveness and resilience of the economy. Similarly, the management of Indonesia's natural assets is ultimately a question of designing and enforcing appropriate laws and regulations that consider the broader public good.

**Although this formulation presents the four pathways as distinct channels, there are significant complementarities.** Not only does each pathway contribute to achieving all higher-level objectives, but

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<sup>25</sup> Roberts et al. (2019).

<sup>26</sup> Four-fifths of the forest fires that blanketed Sumatra and Kalimantan in 2015 occurred in the lowlands, with an estimated cost to the economy of 1.9 percent of GDP (World Bank, 2016a. *The cost of fire: an economic analysis of Indonesia's 2015 fire crisis*. Washington, D.C: The World Bank.)

reforms and investments within each of the pathways also catalyze efforts in the other pathways. For example, human capital and infrastructure investments contribute to competitiveness, which in turn reduces Indonesia's dependence on natural resource extraction. Investments in service delivery infrastructure (e.g., drinking water and sanitation) strongly complement efforts to nurture world class human capital. Better management of natural assets boosts competitiveness and human capital: the heavy exploitation of coal for energy and exports has contributed to air pollution and respiratory diseases due to pollution, which could cause 238 premature deaths/million people per year and cost up to USD 805 billion between 2012 and 2030.<sup>27</sup> The infrastructure and natural resource management pathways cross on a number of dimensions: infrastructure development needs to be compatible with environmental preservation, and energy infrastructure less carbon intensive.

**Ensuring that all pathways pay special attention to the role of women is instrumental not only to ensure stronger inclusion outcomes but also to boost growth.** Indonesia's progress on key human development indicators has been accompanied by an achievement of gender parity in health and education. The female human capital index (HCI) is higher (0.55) than the male HCI (0.52). Yet, the inability to activate women in the labor market continues to remain a critical misallocation. Indonesia's female labor force participation has remained stagnant at around 51 percent for the last two decades and is significantly lower than participation rates for males (86 percent) and female labor force participation (FLFP) rates in other East Asian countries. By one estimate, closing the gap by just 25 percent by 2025 would enable Indonesia achieve 9 percent higher GDP over the business as usual scenario.<sup>28</sup> Women who are in the labor force face critical barriers to being more productive. The burden of unpaid work (within the household as well as in the primary sector of the economy) falls more heavily on women. Women also own 44 percent of the micro, small and medium enterprises (MSMEs) in the country, which is a significantly larger share compared to 27 percent for larger enterprises and largely reflecting limited growth opportunities.

**Interventions targeted at families and places left behind will be instrumental in going the last mile on eradicating poverty and strengthening inclusion outcomes, but more needs to be learnt on what works.** With poverty now in the single digits, the remaining poor are in harder-to-reach pockets of poverty that exist in, for example, urban slums of large metropolitan cities, coastal and forest communities, or in the outer islands and may need targeted approaches to finish the job. Persistent regional disparities and high rates of poverty associated with certain geographies – entire regions (e.g., Papua) as well as pockets within seemingly prosperous places (e.g., urban and rural peripheries of large metropolitan areas, rural areas in Java) – may also call for targeted interventions to complement other broad-based measures. Policies to improve human capital outcomes have yielded clear positive results across all types of places. Based on these lessons, policies for rural, more remote places may first consider augmented service delivery. Beyond this, more work can be done to explore what works, specifically in the country's unique context.

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<sup>27</sup> Bloom et al. (2015). *The economics of non-communicable diseases in Indonesia*. Geneva: World Economic Forum (WEF).

<sup>28</sup> McKinsey (2018). *The Power of Parity: Advancing Women's Equality in Asia Pacific*. McKinsey Global Institute. MGI's calculation is a supply-side estimate of the size of the additional GDP available from closing the gender gap in employment. It considers labor-force participation rates by gender and age cohorts, the prevalence of part-time vs. full-time work among men and women, and employment patterns for men and women across sectors of the economy

## Pathway I: Strengthening the Competitiveness and Resilience of the Economy

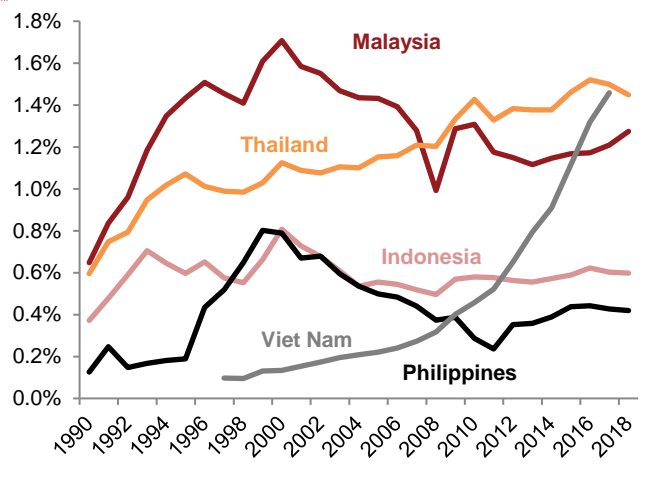
Except for the emerging digital sector, the Indonesian economy remains relatively uncompetitive, continuing to rely on commodity production and having a subdued manufacturing sector. Indonesia has increased its share of international tourist receipts from 0.76 percent between 2010 and 2014 to 0.91 percent between 2015 and 2018. However, most other competitiveness measures have either stagnated, such as merchandise and manufacturing export competitiveness (Figure 4.1), or deteriorated, such as FDI inflows, imports and exports as a share of GDP.<sup>29</sup> The manufacturing sector, often a major engine behind the transition from middle- to high-income status, has continued to decline relative to the other sectors of the Indonesian economy. As a result, commodity

related sectors still dominate Indonesia's export basket. Such trends set Indonesia apart from successful regional peers, such as Vietnam and Thailand. The nascent digital sector is an exception to this trend, and its growth has outpaced that in Indonesia's regional comparators.<sup>30</sup>

**This limited progress has come about despite an extensive reform effort over the past five years, suggesting that key constraints to competitiveness remain unaddressed.** Besides increasing infrastructure spending (see Pathway II below), the government has tried to improve the business climate through a series of economic policy packages in 2015-18. These reforms have helped Indonesia move up the Ease of Doing Business ranking (from 120th in 2014 to 73rd in 2019), with marked improvements in the ease of obtaining electricity connections, of starting a business and of paying taxes. The government has also started addressing other issues, including making minimum wage setting more predictable, facilitating access to financial services (particularly digital), and increasing competition in sectors as logistics and transport. These reforms however do not seem to have increased Indonesia's attractiveness to investors looking for a competitive production base. For example, only a handful of the increasing number of investors relocating production out of China as a result of the US-China trade tensions plan to relocate to Indonesia, while vast numbers are moving to other Southeast Asian countries.<sup>31</sup>

**Figure 4.1: Indonesia's export competitiveness in manufacturing has been declining vis-à-vis its regional comparators**

(Share in global manufacturing exports)



Source: World Development Indicators

<sup>29</sup> See World Bank (2019c). *Creating Markets in Indonesia: Country Private Sector Diagnostic*. Washington D.C.: The World Bank. for details on the trend in these indicators.

<sup>30</sup> For example, the Indonesian e-commerce subsector expanded at an average rate of 94 percent per year between 2015 and 2018, compared with annual growth rates of 87 percent in Vietnam and less than 50 percent in Thailand, the Philippines, Malaysia, and Singapore (Google & Temasek, 2018. *e-Conomy SEA 2018*).

<sup>31</sup> Citi Innovation Lab. (2019).



**A host of restrictions in input, capital, labor and product markets along with the uncertainty in the policy environment make it difficult to produce competitively in Indonesia.** For example, shallow and inefficient financial markets make it difficult to allocate credit where it is needed and increase the economy's exposure to financial shocks. Similarly, sourcing inputs from global markets is costly and uncertain due to a host of import barriers, thus stifling the participation of firms into global value chains (GVCs). Some of the recent policies have aggravated these constraints by further reducing the openness of the economy and placing restrictions on new investments – particularly foreign.

**The government has recently proposed some major reforms to boost competitiveness.** The government recently submitted to Parliament a law (the Omnibus Bill on Job Creation), which aims to amend 79 individual laws with the goal of attracting investments and boosting competitiveness. This is arguably the most significant reform effort in the areas of investment and trade in the last decades, with measures aiming to substantially reduce investment and trade restrictions while reducing the discretion of individual ministries to introduce investment deterring rules. The bill has the potential to significantly boost competitiveness and investments, if passed and some key pitfalls avoided – for example undermining Indonesia's ability to ensure environmental and safety standards of investments, and the welfare of workers, particularly when they are exposed to negative shocks.

#### **4.1. Key challenges to strengthen competitiveness and resilience of the economy**

*Indonesia's economy is inward-looking, its firms relatively unproductive, its FDI limited and not linked to GVCs, its financial sector shallow and inefficient, stifling the financing of productive investments. These characteristics make it difficult to produce better paying jobs and make the economy vulnerable to financial and non-financial risks.*

**The productivity of the Indonesian economy is relatively low, and its firms innovate little.** The increasing proportion of inward-looking, rent-seeking FDI limits Indonesia's exposure to global knowledge and technologies. Indonesian firms are less likely to innovate and invest in new technologies than their regional peers. Data from the World Bank Enterprise Survey (WBES) shows that the share of firms with budget for research and development (R&D) is only about 5 percent in Indonesia, significantly lower than Vietnam and the Philippines (both at 15 percent). The rate of innovation is also low in Indonesia with less than 25 percent of firms introducing new products or process-innovation, whereas more than 50 percent of firms in Vietnam and the Philippines engage in product-innovation or process-innovation. The low levels of innovation are reflected in low labor productivity with Indonesian firms lagging country comparators (Figure 4.2).

**Indonesia's exports are small, declining, and unsophisticated.** Despite some positive signs from tourism, Indonesia's merchandise export performance has been declining since 2000 and relies more on commodity exports. Its share in the global goods and services export declined from 0.95 percent in 2011 to 0.85 percent in 2017.<sup>32</sup> Manufacturing export decline has been even more pronounced: Indonesia's share of the global manufacturing export fell from 0.8 percent in 2000 to 0.6 percent in 2018. In contrast, Vietnam and Thailand have been increasing their shares in global goods and services exports since 2000, and their shares in global manufacturing exports. Moreover, Indonesia's merchandise exports are concentrated in

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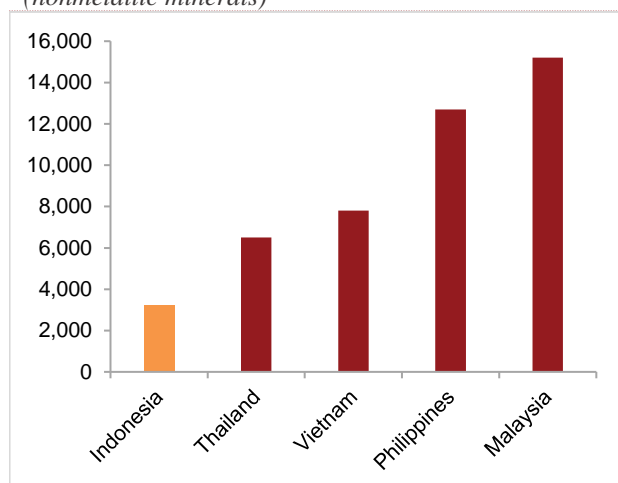
<sup>32</sup> Statistics are based on World Development Indicators data.



commodity-related products, and this focus has remained broadly unchanged over the past 20 years (World Bank, 2019c). By contrast, the export structures of regional comparator countries such as Vietnam have undergone dramatic transitions from commodities and simple light manufactures to an increasingly sophisticated range of machinery, electronics, and other complex products.

**Figure 4.2: Labor productivity in Indonesia is below the levels of comparator countries**

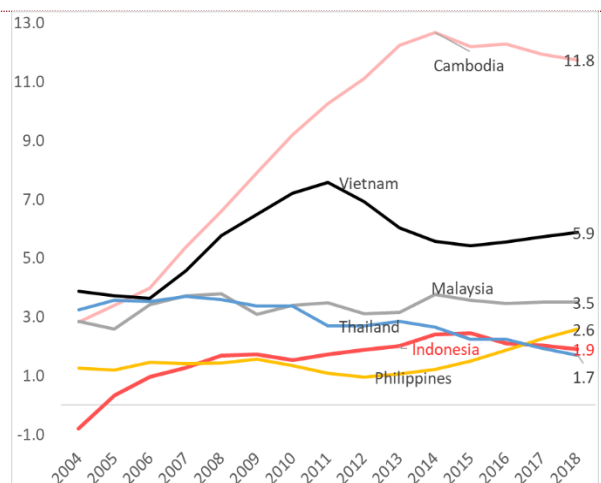
Median value added per worker, 2015 U.S. dollars (nonmetallic minerals)



Source: World Bank staff estimates on World Bank Enterprise data  
 Note: Data for all countries is from 2015 except for Thailand (2016 data).

**Figure 4.3: Indonesia attracts little FDI**

FDI, net inflows (percent of GDP, 5-year moving average)



Source: World Bank staff estimates on World Development Indicators

**Indonesia attracts little FDI, particularly efficiency-seeking FDI, thus losing a source of dynamism and external funding for the economy.** FDI inflows to Indonesia are relatively low compared to other countries in the region (Figure 4.3). Perhaps more worryingly its composition has shifted from export-oriented sectors to natural resources sectors and production for the domestic market.<sup>33</sup> The changing nature of the FDI adversely impacts Indonesia’s competitiveness. Export-oriented manufacturing FDI is associated with rapid labor productivity growth, higher average wages, larger introduction of new products, and higher investment rates.<sup>34</sup> The reduced attractiveness to FDI makes it also difficult to fund Indonesia’s current account deficit (CAD), which has been expanding from 2 percent of GDP in 2015 to close to 3 percent of GDP in 2019.

**The financial sector lacks capacity to boost growth.** Indonesia’s financial sector has not been adequately developed to meet its development needs. The level of financial sector assets is 71 percent of GDP, among the lowest in Southeast Asia. Access to finance remains an issue in Indonesia as individuals are mostly excluded and firms are underserved. Approximately 95 million adults, and two-thirds of poorest adults, in Indonesia do not have an account at a financial institution. Exclusion from formal financial institutions means these individuals are deprived from the opportunity to invest in their future and the capacity to protect themselves from unanticipated events in their life. The Indonesian financial system is not serving MSMEs

<sup>33</sup> World Bank (2018c). *Indonesia Economic Quarterly: Strengthening Competitiveness*. Jakarta: The World Bank.

<sup>34</sup> World Bank (2018c).

as only 1 out of 4 MSMEs have ever received loans from a bank, a low figure in Asia-Pacific where MSMEs account for more than a third of bank loans.<sup>35</sup> For larger firms, the financial system is too small to meet financing needs and those firms rely more on internal funds to finance fixed assets.

**Credit is expensive.** Distribution of affordable bank credit is vital for sustainable and inclusive economic growth. The current condition in Indonesia is not ideal as credit remains costly with average net interest margins (NIMs) of 4.9 percent as of end December 2019, higher than the world average (3 percent). High interest spreads can distort domestic savings and investments and hinder bank lending. World Bank analysis indicates that more than three-quarters of the difference in net interest margins observed in Indonesia and the world is explained by the small size of Indonesian banks, weak institutions, and high operating cost. Out of the 1,713 banks operating in Indonesia, the top ten banks hold approximately 60 percent of the total banks' assets. Among the ten top banks are four state-owned banks which hold 40 percent of total banks' assets.

**Although the banking sector is well-capitalized, the financial system is vulnerable to shocks.** Non-performing loans (NPLs) are low but have been climbing even before the COVID-19 shock. The level of NPLs as of December 2018 was about IDR 125 trillion and went up to IDR 142 trillion in December 2019.<sup>36</sup> The financial sector is dominated by banks which are part of financial conglomerates (FC).<sup>37</sup> Most of these FCs have a horizontal structure with the non-regulated holding company controlling the group. The structure of these FCs carries different risks to the financial system which can be systemic.

## 4.2. Binding constraints to strengthening competitiveness and economic resilience

*Insufficient access to inputs, to key markets and to skills, along with restrictions on investments and a financial sector which is shallow, uncompetitive and with inadequate supervision reduce the competitiveness of Indonesian economy and make it vulnerable to shocks.*

**Access to high quality inputs of production is expensive and difficult.** Combined with weak transport and energy infrastructure (discussed in Pathway II below), Indonesia's trade restrictions constrain the sourcing of high-quality physical inputs of production, increasingly important in current global markets. These are increasingly dominated by GVCs, whereby firms import in order to export (so-called backward integration) and their exports are used as inputs for other exports (forward integration).<sup>38</sup> Indonesia's import-export pattern suggests it is not as integrated into GVCs as its neighbors (Figure 4.4). Besides rising import duties, some non-tariff measures (NTMs) increase firms' costs and/or reduce the quality of physical inputs.<sup>39</sup> These NTMs include pre-shipment inspections, letters or recommendations and conformity with

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<sup>35</sup> McKinsey (2019). *Asia-Pacific Banking Review 2019- Bracing for consolidation: The quest for scale*. Retrieved from McKinsey website: <https://www.mckinsey.com/industries/financial-services/our-insights/bracing-for-consolidation-in-asia-pacific-banking-the-quest-for-scale#>

<sup>36</sup> Figure from the Indonesian Financial Services Authority (OJK).

<sup>37</sup> There are 49 FCs in Indonesia which accounts for 80 percent of assets in the banking sector and 60 percent of financial system assets, 39 of these FCs listed banking as their primary business.

<sup>38</sup> World Bank (2020b). *World Development Report 2020: Trading for Development in the Age of Global Value Chains*. Washington, D.C.: World Bank.

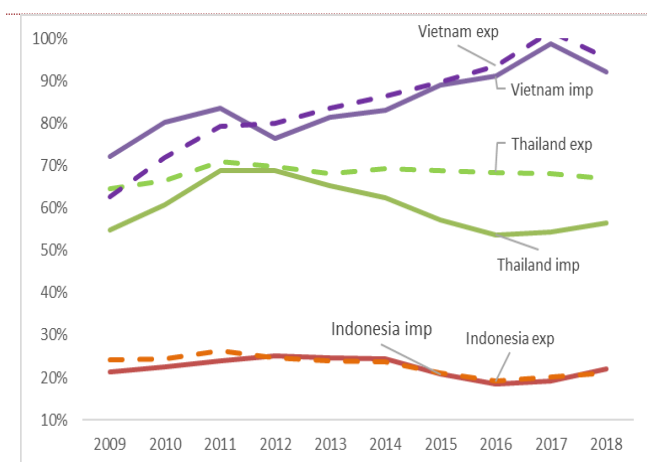
<sup>39</sup> For the impact of import tariffs on manufacturing productivity see Amiti & Konings (2007). Trade Liberalization, Intermediate Inputs, and Productivity: Evidence from Indonesia. *American Economic Review*, 97(5), 1611-1638.; Narjoko et al. (2018). The

national standards (SNI). Services inputs, such as legal and transportation services, are also subject to substantial barriers. These barriers are particularly harmful in the context of the likely reconfiguration of GVCs following COVID-19 disruptions, as they constrain firms' ability to adjust their supply chains.

**Access to key markets is inadequate.** Countries have increasingly pursued preferential trade agreements (PTAs) to obtain better market access for their exports as well as to lock in domestic reforms. Indonesia is currently a signatory to 13 PTAs, 9 of which have come into effect but compared to regional peers such as Vietnam and Malaysia, Indonesia lags in terms of scope and ambition of PTAs.<sup>40</sup>

**Figure 4.4: Countries need imports to export and Indonesia does little of both**

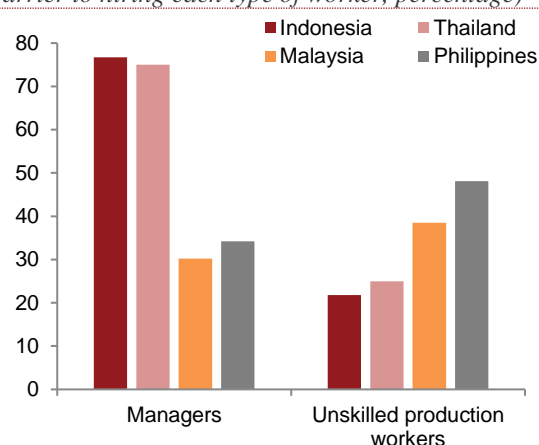
(imports and exports of goods as a share of GDP)



Note: dotted line are exports; solid lines are imports. Source: World Development Indicators.

**Figure 4.5: Indonesian firms face a deep skills mismatch, particularly for managers and professionals**

(Share of firms that cited inadequate skills as the key barrier to hiring each type of worker, percentage)



Source: Gomez-Mera and Hollweg (2018) based on WBES data

**Access to essential skills is problematic.** Indonesian firms have difficulties in recruiting qualified managers and professionals. Close to 80 percent of Indonesian companies reported they were unable to fill managerial vacancies (Figure 4.5). Although Indonesia needs to nurture its domestic human capital in the long-term (see Pathway II below), in the short term, importing skills from abroad can fill this critical skills gap. However, restrictions on foreign high-skilled professionals constrain skills import. High-skilled foreign professionals are subject to stringent requirements, limiting firms' ability to reduce skills shortage. Low rates of on-the-job training compound the skills gap problem. Only 13 percent of Indonesian firms (compared to 31.7 percent in the EAP region) offered formal training programs to their full-time permanent employees in 2015.

Elusive Pursuit of Import Substitution in 21st Century Indonesia. *Asian Economic Papers*, MIT Press, 17(1), 73-93; Rahardja et al. (2014). *Nothing to fear but fear itself: evidence on imported intermediates in Indonesia*. Washington, D.C.; The World Bank. For the impact of NTMs see Cali et al. (forthcoming).

<sup>40</sup> For example, computations based on the World Bank dataset on deep trade agreements (De Soyres et al., 2018. *How Much Will the Belt and Road Initiative Reduce Trade Costs?* Washington, D.C.: World Bank Group.) suggest that Vietnamese firms will enjoy preferential access to 60 percent of world markets once the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the comprehensive partnership agreement with the European Union (EU) are ratified.

**Restrictions to investments inhibit market entry, diminish commercial performance, and increase prices.** Indonesia has some of the tightest restrictions on FDI among middle-income countries surveyed by the OECD. Indonesia's Negative Investment List (*Daftar Negatif Investasi*, DNI) imposes foreign-equity limits, sectoral reservations for MSMEs, special licensing regimes, and minimum local content requirements. These restrictions reduce both foreign and domestic investments, as well as employment and GDP growth (Cali et al., forthcoming). DNI restrictions have an especially negative impact on export-oriented manufacturing plants. Reduced competition benefits incumbent firms through higher prices and profits, and as competition declines, so does average plant performance.

**The weak competition framework prevents authorities from effectively discouraging anticompetitive behavior.** The 1999 Indonesian Competition Law established the Business Competition Commission (*Komisi Pengawas Persaingan Usaha*, KPPU), which is tasked with enforcing competition policy. However, both the competition framework and the KPPU still suffer from limitations that make Indonesia's competition regime one of the least effective among 49 countries surveyed by the OECD. For example, the KPPU is the only competition agency that cannot perform unannounced inspections to gather evidence at the premises of firms investigated for antitrust infringement. As a result, the number of cartels detected by the KPPU has been very limited, even compared to smaller economies.<sup>41</sup> In addition, the KPPU has few deterrence powers: the maximum penalty it can levy is less than USD 2 million, significantly lower than the maximum penalty for comparable agencies in other jurisdictions.

**Public spending for innovation is highly fragmented and ineffective at addressing the needs of the private sector.** World Bank analysis suggests that the Indonesian government implements at least 141 innovation- and business support-related policy instruments across several central government ministries/agencies. This proliferation of instruments, which are often of very small scale, is not associated with any uptick in firms' innovative activities.

**Inefficiencies in financial markets constrain firm's activities.** Underdeveloped financial markets limit firms' access to credit and weakens their competitiveness. About 60 percent Indonesian firms are deterred from applying for loans.<sup>42</sup> Financial-market inefficiencies in the form of high interest rates, high collateral requirements, and complicated procedures are the leading deterrents for a firm's credit application. Credit constraints are associated with lower growth rates in productivity and employment, further eroding Indonesian firms' competitiveness.

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<sup>41</sup> In the 2000–17 period, the KPPU investigated only 11 cartel cases, excluding collusion with government officials in public procurement tenders (source: KPPU decisions published online). In comparison, in South Africa, whose economy is three times smaller than Indonesia's, some 76 cartels were detected and sanctioned between 2005 and 2015, excluding construction projects (World Bank, 2016b). *South Africa Economic Update: Promoting Faster Growth and Poverty Alleviation Through Competition*. Washington, D.C.: The World Bank.

<sup>42</sup> Based on data from the 2015 World Bank Enterprise Survey.

**The large untapped potential of tourism, horticulture and fisheries illustrate the extent of some of these constraints (Box 4.1).**

**Box 4.1: The Indonesian horticulture, fisheries, and tourism sectors are examples of forgone earning opportunities due to inefficiencies**

The Indonesian **tourism sector** has been growing and holds the potential to become world-class, generating significant employment opportunities and raising incomes for millions of Indonesians. However, Indonesia's tourism industry is not yet operating at a level consistent with its endowments. Despite the steady growth in foreign visitors, Indonesia's level of foreign visitors (11.6 million) remains lower than its neighbors<sup>43</sup>, such as Thailand (32.6 million), Malaysia (22.9 million), and Singapore (16.4 million).<sup>44</sup> Indonesia's tourism growth and competitiveness are constrained by four key factors. Firstly, there is poor inter-ministry/agency, central-subnational and public-private coordination and weak implementation capabilities, particularly for monitoring and preserving Indonesia's natural and cultural assets. Secondly, poor access and poor infrastructure quality continue to afflict Indonesia's tourism industry. Thirdly, outside of Bali there are limited skills in the tourism workforce and private-sector tourism services and facilities. Finally, a weak enabling environment constrains private investment and business entry to the tourism industry.

Indonesia attempted to develop its **horticulture sector** through the 2010 Horticulture Law (Law. No. 13) by combining restrictions on foreign investments and imports.<sup>45</sup> Foreign investment restrictions have reduced foreign seed companies' participation in the horticulture sector and diminished opportunities in obtaining invaluable knowledge in a technology-intensive sector. Trade restrictions have constrained horticulture import growth and raised prices of fruits and vegetables in Indonesia. These restrictions lead to inefficiencies and have not produced a significant increase in horticulture exports. On the other hand, by opening the horticulture sector to foreign participation, Vietnam has scaled up their imports and exports. Trade and investment are pivotal in developing Vietnam's horticulture sector, with foreign companies controlling 80 percent of the domestic seed market; 80 percent of the domestic supply of fruit and vegetable seeds are from foreign markets. Vietnam has increased its horticulture exports five-fold in a decade to USD 5 billion, while imports have grown tenfold to around USD 3 billion.

Inefficiencies also plague Indonesia's **fisheries sector** with repercussions on poverty in coastal areas. Capture fisheries employ 2.7 million people,<sup>46</sup> but their average income is only 60 percent of the minimum wage.<sup>47</sup> Profitability for small-scale fishers remains low.<sup>48</sup> Resource overexploitation and inadequate management undermine stock resilience and economic returns by shrinking stocks and reducing their productivity. Difficulties in accessing credit, technical assistance, technology, and gaps in marketing and management skills result in further inefficiencies in the fisheries sector. Access to credit is essential in critical coastal areas, including insurance to

<sup>43</sup> BPS (2017). International visitor arrivals by port of entry and nationality. Using BPS data on international visitors arriving through the 19 key gateways makes comparison across years possible. New definitions and data collection approaches for visitors through other ports of entry generate higher numbers for 2015 (10.4 million) and 2016 (11.5 million).

<sup>44</sup> The Tourism Authority of Thailand (2017); Malaysia Tourism Statistics (2017); Government of Singapore (2017).

<sup>45</sup> By introducing licensing requirements and port entry restrictions.

<sup>46</sup> CEA (2018). *Trends in Marine Resources and Fisheries Management in Indonesia: A 2018 Review*. Jakarta: California Environmental Activists.

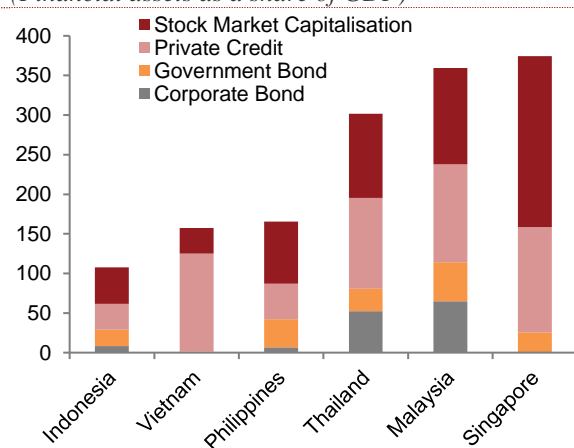
<sup>47</sup> Cahyagi & Gurning (2018). A Review on Indonesian Fishermen Prosperity in the Coastal Area. *Applied Mechanics and Materials*, 874, 3-9. DOI: 10.4028/www.scientific.net/AMM.874.3; Furthermore, 20-48 percent of fishers are estimated to be poor according to BPS (2018), as quoted in Republika, <https://republika.co.id/berita/ekonomi/korporasi/18/11/15/pi7qdl383-guru-besar-ipb-sampaikan-penyebab-nelayan-indonesia-miskin>

<sup>48</sup> In some locations, lack of basic infrastructure such as cold storage and poor handling lead to an estimated 28 percent of loss in catch value FAO (2017). Case Studies on Fish Loss Assessment of Small-Scale Fisheries in Indonesia. *Food and Agriculture Organization Fisheries and Aquaculture Circular No. 1129*. Rome: United Nations.

cushion against potential income shocks during low seasons or unanticipated events (e.g. storms preventing fishers from sailing and catching fish). Optimal fish stock management, investments in basic infrastructure and handling practices could earn the sector an additional USD 3-8 billion in profits, from receiving higher prices from improved quality and reducing post-harvest losses.<sup>49</sup>

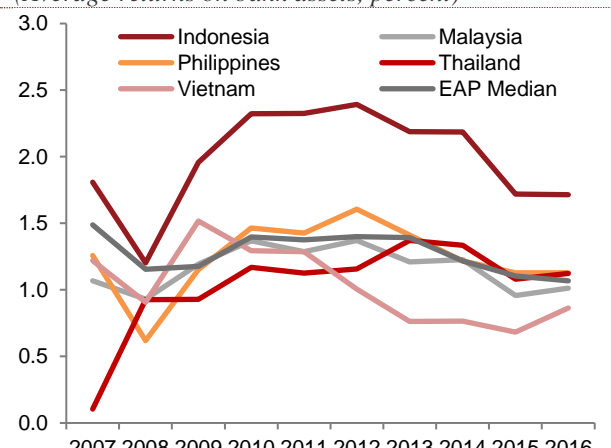
**The financial sector is too shallow.** The Indonesian banking system and capital market are both shallow, stifling the allocation of credit to the economy. The credit-to-GDP ratio in 2019 was 36 percent, significantly lower than the regional median (48 percent of GDP). Albeit increasing, domestic bank deposits are 38 percent of GDP, also considerably lower than the regional median of 69 percent of GDP. Stock market capitalization and turnover is 46 percent of GDP, lower than the regional median of 82 percent (Figure 4.6). The Indonesian equity market remains modest by international standards despite recent growth in the number of listed companies and listed shares. The fixed-income market is also shallow despite growing issuance of government bonds. Corporate bonds are growing rapidly but outstanding amounts are low by international standards. As a result, bank loans continue to be the preferred funding option for firms. But the breadth and type of financial services are insufficient to meet firms and investors’ needs, and there is minimal product diversification. Financial market products lack sophistication: most instruments are plain vanilla bonds, due to the emerging stage of bond-market development in Indonesia, limited investor literacy, and regulator and tax impediments for certain financial products (e.g. infrastructure bonds). Asset-backed or revenue-backed securitization structures, project bonds and various hedging instruments are not sufficiently present.

**Figure 4.6: Indonesia’s combined financial assets are small relative to the size of the economy.**  
(Financial assets as a share of GDP)



Source: Finstats.

**Figure 4.7: Indonesian banks are unusually profitable, indicating a lack of competition.**  
(Average returns on bank assets, percent)



Source: Finstats

**The financial sector lacks competition, leading to higher costs.** Banks remain the most dominant institution in the Indonesian financial sector, holding 78 percent of assets. The banking sector is highly concentrated and most banks in Indonesia are small and have limited capital, which prevents them from leveraging economies of scale and contributes to high intermediation costs. As such, the financial sector

<sup>49</sup> Based on analysis published in Costello et al. (2016). Global fishery prospects under contrasting management regimes. *Proceedings of the National Academy of Sciences* 113(18): 5125-5129.



remains highly profitable with higher NIMs, and returns on equity and assets than the average of regional peers (Figure 4.7), suggesting that limited competition enables Indonesian banks to charge higher markups for credits and other services, leading to higher cost of credit.

**The shallow financial sector along with an inadequate supervision framework exposes Indonesia to financial and non-financial shocks.** The shallow financial system exposes the country to short-term foreign capital and hence increases its vulnerability. The gaps, ambiguities, overlaps and conflicts within the current legal and regulatory framework to supervise the financial sector further increase its exposure to financial shocks.<sup>50</sup> Some of the key financial sector related laws (such as on capital market, pension fund, and insurance) are quite outdated or have limited compliance with globally accepted standards and codes governing the financial sector. At the same time, the current platform for financial sector supervision requires further reforms as confirmed by the insolvencies of the two largest national life insurers. Moreover, financial exclusion of half of the adult population means they remain vulnerable not only to financial shocks but also non-financial shock from natural disasters. Indonesia is one of the world's natural disaster-prone areas with high exposure to the effects of climate change, thus necessitating the development of proper risk management platforms within the financial system.

**A sound legal framework for financial stability also requires a clearly designated resolution authority and effective coordination with the supervisory authority.** In the case of banks, the Indonesia Deposit Insurance Corporation (LPS) provides protection to depositors in the event of bankruptcy and acts as the resolution authority. Yet some coordination issues between LPS and the Financial Services Authority (OJK) remain to be addressed to ensure a smooth resolution function.<sup>51</sup> In the case of insurers, pension fund and financial market infrastructure, OJK acts as both supervisor and resolution authority. However, OJK's resolution powers are unlikely to be adequate for large insurers, especially if an insurer is systemically important or has market dominance in sectors of the economy. A strengthening of the resolution framework and the development of an industry-funded resolution funding mechanism are therefore desirable.

**An unpredictable regulatory process further weakens the business environment, inhibits competition, and deters potential investors.** The uncoordinated design and uneven implementation of business-related laws and regulations exacerbate deficiencies in the business climate by increasing regulatory uncertainty. This is especially daunting for prospective investors, who are typically less willing to deal with such uncertainty than are incumbent businesses. For example, in 2014 Parliament approved a law which would make the indication of Halal compliance compulsory for products marketed in the country. The push-back of the business community, which would face increased costs for the certification, induced the government to postpone the law implementation, but the uncertainty associated with it lingers on. Similarly, Parliament is currently discussing a draft law that will bar the commercialization of all financial products that do not conform to Islamic law, which has raised serious concerns in the business community.

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<sup>50</sup> For example, there is no definition for Financial Conglomerates (FC) in the OJK Law and the Banking Law does not provide OJK with legal authority over non-regulated entities of a FC.

<sup>51</sup> Issues include (i) the coordination between OJK and LPS at early stage of emerging distress of banks; (ii) overlaps between recovery planning, resolvability assessments and resolution planning between OJK and LPS and (iii) unequal voting terms of LPS with other Financial System Stability Committee (“Komite Stabilitas Sistem Keuangan” or “KSSK”) members.



### 4.3. Reform Priorities

#### *Eliminate unnecessary restrictions on imports, investments and access to global talent*

*Reduce barriers to import of goods and services.* The government may consider significant reductions in import tariffs and unnecessarily burdensome NTMs as doing so can increase the availability and reduce the cost of quality productive inputs, paving the way for the development of more competitive and sophisticated exports, and integration into GVCs.

*Increase preferential access to key markets.* Increased market access from participation in PTAs can attract efficiency-seeking FDI and serve as a tool to cement domestic policy reforms, not only on trade but also in investment, competition, and procurement.

*Reduce restrictions on work permits* in high-skilled occupations while providing incentives to help firms nurture in-house talent. While recent work permit reforms have increased the ability of firms to access scarce skills, several of the most restrictive requirements to hiring high-skilled foreign professionals remain.<sup>52</sup> As a result the density of foreign professionals in Indonesian labor force is still the lowest in the region. Meanwhile it will be important to increase the currently low rate of on-the-job training in Indonesian firms, possibly through training incentives.

*Relax restrictions on investment* to increase foreign investment and promote competition. The government may consider revising the DNI not only to ease investment restrictions, especially on foreign-equity limits, but also to introduce more competition in restricted sectors. World Bank estimates that sector-wide removal of foreign-equity limits can bring an additional USD 3.8 billion in foreign investments and USD 3 billion in domestic investments.<sup>53</sup>

#### *Improve the enforcement and the quality of business-related policies including on competition*

*Enhance competition supervision and detection of anti-competitive practices.* Strengthening KPPU's technical capacity is an important step in enforcing competition laws and advocating pro-competition policies. KPPU's improved technical capacity enhances the analytical and investigative outputs required to ensure success in promoting anti-competitive practices in Indonesia.

*Reduce regulatory uncertainty and improve the quality of business-related policies* by subjecting the policy-making process to transparent cost-benefit criteria and proper regulatory oversight. This recommendation is discussed in more details in Section 8.3 below that concerns the need to improve the institutions of governance.

#### *Increase the depth, efficiency and resilience of the financial system*

*Increase the depth of the financial system* to mobilize financing for development needs and to build resilience in the face of financial crises and external shocks. Increasing the depth of the financial system

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<sup>52</sup> Presidential Regulation No. 28/2018 and Ministry of Manpower decree No. 229/2019.

<sup>53</sup> Calculation based on estimated response of investments to foreign equity limits from empirical model described in World Bank (2018c).

can be done through increasing access to and usage of financial services via harmonizing existing agent network program and expanding channels for non-cash social assistance distribution; broadening the financial market products by piloting the use of more sophisticated instruments, and establishing a tax level playing field among capital market instruments and investors, and mobilizing long-term savings. On the latter, there is a need for active policy measures to promote the accumulation of pension and insurance, and to promote their investment in long-term assets.

*Improve the efficiency of the financial system.* There are several measures to improve efficiency of the financial system, which include promoting competition in the financial system, strengthening insolvency and creditor rights framework, protecting consumers and personal data, and strengthening financial infrastructure, which can be done through setting up interoperable and interconnected payment system infrastructure and credit information system.

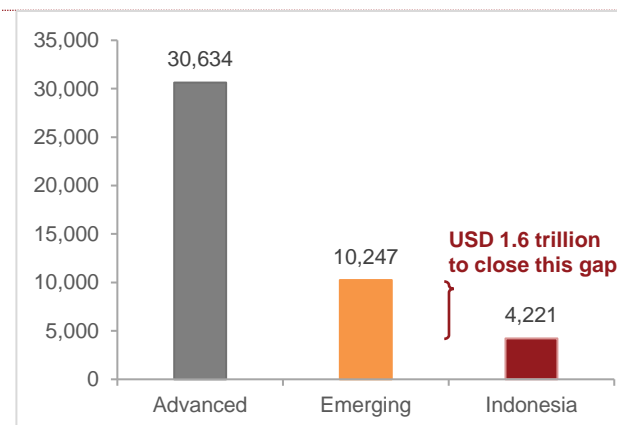
*Strengthen the resilience of the financial system.* Solid supervision of the financial markets and institutions, especially including financial conglomerates, is vital for the financial system to be able to withstand financial and non-financial shocks, including strengthening the resolution framework of troubled banks and developing a sound funding mechanism for resolution with robust safeguards. Strengthening risk-based supervision in the capital markets and of non-bank financial institutions (including insurance companies) is important to improve the confidence needed to mobilize savings through non-bank channels. Further, strengthening disaster risk finance is vital to withstand non-financial shocks, for example by establishing a pooling fund to finance the cost of natural disasters.

## Pathway II: Building More Infrastructure, Better and Faster

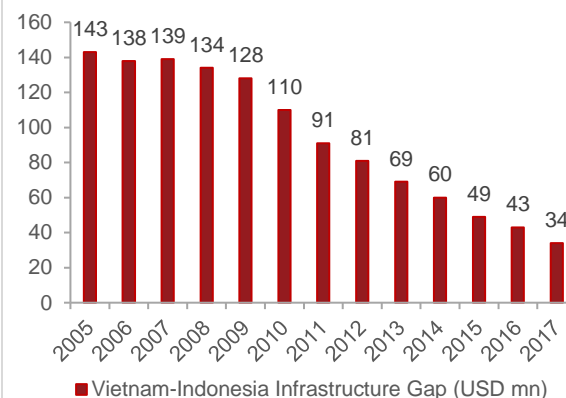
### Indonesia's infrastructure capital stock has increased, but it remains low and unevenly distributed.

Growth of the public capital stock accelerated from an average 4.2 percent annually in the 2002-11 period to 4.9 percent in the 2012-17 period. This has increased the infrastructure stock per capita to USD 4,221, an improvement from USD 3,783 in 2014. However, this was not sufficient to reduce Indonesia's infrastructure gap vis-à-vis other emerging markets, which is now around USD 1.6 trillion (Figure 5.1). Some lower income countries are making faster progress and catching up with Indonesia. Between 2005 and 2017, Vietnam has reduced its infrastructure deficit vis-à-vis Indonesia by more than 75 percent (Figure 5.2).<sup>54</sup> While the pace of infrastructure development has improved, it is inadequate to keep up with the growing needs of a highly urbanizing population. Moreover, quality of infrastructure remains a concern, as the quality of Indonesia's infrastructure is perceived to be lower than ASEAN averages in all aspects but railroads. Large geographical disparities in infrastructure development also remain, exacerbating the inequality of opportunity.<sup>55</sup>

**Figure 5.1: Public capital stock per capita**  
(2017 estimates, in 2011 USD)



**Figure 5.2: How Vietnam is catching up**  
(Difference between Indonesian and Vietnam infrastructure financing, in 2011 USD million)



Source: World Bank staff calculations using IMF (2019) data

Note: Unweighted averages computed for 13 advanced economies and 21 emerging market economies.

**The 2015 SCD focused on increasing public spending on infrastructure, which has been achieved mainly through a reduction in energy subsidies; this SCD Update shifts the focus to improving quality of spending and attracting private capital to fund infrastructure.** The 2015 SCD recognized under-investment in infrastructure and the subsequent slow growth in infrastructure stock as key binding constraints to growth and job creation, while emphasizing that large energy subsidies have crowded out public spending on infrastructure. Partly as a result of a refocusing of public expenditures from energy subsidies, general government investment in Indonesia has since increased, from 3 percent of GDP in 2014 to 3.8 percent in 2018. This included large-scale transport, utilities and information and communication

<sup>54</sup> Based on World Bank estimates. Latest data up to 2017.

<sup>55</sup> See Chart A1 in Annex 1.

technology (ICT) projects, as well as new schools, hospitals, and water supply and treatment plants.<sup>56</sup> SNGs also play a key role. Between 2015 and 2018, fiscal transfers to SNGs amounted to USD 14 billion, and district governments provided an estimated USD 10.3 billion to around 75,000 villages with a focus on infrastructure. However, due to the COVID-19 outbreak, SNGs have faced budget cuts of 30-40 percent, with 40-50 percent of the SNG allocation for infrastructure (*DAK Fisik*) redirected whilst there has been a decrease of 23 percent at the central level. Several analyses such as the InfraSAP, Village Public Expenditure Review (ViPER) and a PER have been conducted since 2014, revealing the need to improve the quality of spending in infrastructure, the need for private participation and more recently a need to reverse infrastructure spending cuts post-COVID.

### 5.1. Key challenges to build more infrastructure, better and faster

*Transportation and digital connectivity infrastructure are insufficient and often of poor quality; energy access is often unreliable and its generation largely from non-renewable sources; lack of resilient urban infrastructure drives up congestion and vulnerability to disasters.*

**Although the government exceeded its target for road construction, the national and subnational road infrastructure is still inadequate and often of poor quality, limiting spatial integration.** To cater for an estimated growth of 5 percent per annum in traffic demand, an estimated 3,000-4,000 lane-km of road space needs to be added annually. This is about the same amount delivered by government (3,387 km of national roads and 380 km of expressways) in the five years between 2014 and 2018. National roads and expressways together account for only 10 percent of the total road system but carry nearly 40 percent of the traffic. Road transport demand has outstripped network capacity, creating a backlog that has led Indonesia to fall behind on indices of competitiveness against peers. Subnational roads, which are critical for increasing the spatial integration of markets for goods, services, labor, and capital, are generally in bad condition with about 40 percent of them classified as damaged or poor. In 12 percent of villages, four- or more- wheeled vehicles cannot pass through all year round. Only 18 percent of travel takes place on smooth roads and it takes up to 4 hours to travel 100 km. Traffic congestion is estimated to cost Indonesia USD 4 billion a year (0.5 percent of GDP).

**Airport performance remains poor and maritime connectivity is limited, which combined with the poor road infrastructure add up to high logistics costs.** Two-thirds of domestic traffic and 79 percent of international traffic go through only two airports (Jakarta and Bali) in Indonesia, and the only commercial entities operating airports are the state-owned operators Angkasa Pura I and II. The airport sector is set to face more pressure as Indonesia has an anticipated growth in total passenger traffic of 5.0 percent between 2014 and 2034. Further, port infrastructure increases the logistics costs of both imports and exports, adversely affecting international competitiveness. Indonesia's port infrastructure is below the EAP region average and specifically ranks lower than Singapore, Malaysia and Thailand.<sup>57</sup> As such, Indonesia has higher monetary and time costs of importing and exporting, 38 percent higher compared to Singapore for

<sup>56</sup> For 2015-19, USD 415 billion, and for 2020-24, USD 412 billion: Sourced from Jakarta Post quoting the Minister of Bappenas, <https://www.thejakartapost.com/news/2019/05/16/indonesia-has-a-412-billion-plan-to-rebuild-the-country.html>.

<sup>57</sup> World Economic Forum (2017). *Executive Opinion Survey*.

instance. The performance in lower class ports is comparable to the slowest tier of ports in South Asia, with vessel turnaround above two days and the global average of about 1.4 days.<sup>58</sup>

**Indonesia is lagging on key foundations for the digital economy, amidst the high demands of a growing consumer class and large access and quality gaps.** The growth of Indonesia's digital sector has outpaced its regional comparators. The e-commerce subsector expanded at an average rate of 94 percent per year between 2015 and 2018, compared with growth rates of 87 percent in Vietnam and less than 50 percent in Thailand, the Philippines, Malaysia, and Singapore.<sup>59</sup> Twice as many individuals in 2018 were using the internet than in 2014.<sup>60</sup> Although the uptake of mobile broadband (36 percent of the population 2018)<sup>61</sup> is comparable to that of its regional peers, fixed broadband penetration (3.2 percent of the population) is substantially below the levels of countries in the region such as Thailand (13.4 percent), Malaysia (8.2 percent) and Singapore (26.2 percent) but higher than it was in 2014 (1.3 percent). The digital infrastructure gap limits access to broadband services and diminishes their quality and affordability. This is a concern for both governments and businesses, which are large users of data. In addition, mobile and fixed broadband speeds in Indonesia are among the lowest (12.12 Mbps vis-à-vis an average of 17.7),<sup>62</sup> while the median price per Mbps (USD) is much higher than that of many regional comparators and OECD countries.

**Electricity access is widespread but unevenly distributed across the provinces and IS often unreliable.** The household electrification ratio (ER) was at 88.2 percent in 2016,<sup>63</sup> with the government targeting access of 99.7 percent by 2020. The national ER, however, hides regional disparities as provinces such as Papua and East Nusa Tenggara had ERs of 43.5 percent and 58.9 percent respectively. The 12 percent of households and 2,519 villages that remain to be connected pose a challenge as most are in remote areas. In the many parts that are now electrified via the grid, the quality of service remains poor. Firms in Indonesia report more than three times the average number of power outages per year than those in peer countries.<sup>64</sup> The demand for electricity is expected to grow at about 8.8 percent per annum on average between 2015 and 2024 and cost a total of USD 95 billion until 2025.<sup>65</sup>

**Clean and renewable energy (RE) development has been slow, and non-renewable sources dominate the energy sector.** An estimated 88 percent of energy production is still fossil-based and the annual growth rate of new installed RE capacity has dropped from 15 percent (2013-2015) to 3.6 percent (2015-2017).<sup>66</sup> The energy sector contributes to about 30 percent of Indonesia's CO2 emissions. In 2018, only 12.4 percent of installed generation capacity fuel type was from renewable sources,<sup>67</sup> which are made uncompetitive because of subsidies. The government aims to increase the share of renewable energy to 23 percent of installed capacity by 2025, but infrastructure challenges remain in developing and delivering cleaner energy.

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<sup>58</sup> The World Bank (2018a).

<sup>59</sup> The World Bank (2019c).

<sup>60</sup> An estimated 40 percent of the population in 2018 vis-à-vis 17 percent in 2014 (WDI Data)

<sup>61</sup> The World Bank - World Development Indicators (WDI)

<sup>62</sup> World Bank estimates based on Ookla, August 2019 data.

<sup>63</sup> Based on the GoI Ministry of Energy and Mineral Resources (MEMR) data

<sup>64</sup> The World Bank (2019c).

<sup>65</sup> The World Bank - WDI

<sup>66</sup> Institute for Essential Services Reform.

<sup>67</sup> The World Bank (2018a).

The weak development of the renewable energy sector is also preventing Indonesia from achieving its climate targets under Paris Agreement, realizing the economic potential of one of the sectors with the fastest expected growth rate globally and an opportunity for reliable, affordable energy in remote and poorly-served regions. The global renewable energy sector employed 11 million people in 2018, higher than 10.3 million in 2017.<sup>68</sup> There is also much untapped potential from energy efficiency investments and financial instruments to finance these investments.

**Infrastructure in urban areas is insufficient, driving up congestion costs and limiting the ability of cities to deliver shared prosperity and poverty reduction.** More than half of Indonesians live in urban settlements, making the country more urbanized than the Philippines (47 percent), Thailand (49 percent), and Vietnam (35.2 percent).<sup>69</sup> Yet, the economic returns from this urbanization are already relatively low, mainly as a result of congestion costs estimated at 6 percent of GDP.<sup>70</sup> Close to one-third of the population (22 million households) live in housing with at least one substandard feature, with an estimated 20 percent of households in urban peripheries and nonmetro urban areas living in slums without access to safe drinking water nor safe sanitation. The cost of poor sanitation and hygiene alone is estimated to be 2.3 percent of GDP. Urban transport networks are limited, and pollution partly related to traffic congestion costs 3.5 percent of GDP annually. Spatial inequalities also persist within urban areas and across Indonesia's portfolio of places. The potential growth from urbanization is thus potentially lost when local-level infrastructure does not measure up. The benefits of urbanization can also potentially be lost due to growing exposure to disaster and climate risks as a result of poorly planned and constructed infrastructure and settlements.

**Poor waste collection and treatment infrastructure at the local level lead to higher rates of waterways leakage and have negative impacts on health and competitiveness.**<sup>71</sup> More than half of 65 million tons of domestic solid waste in Indonesia remain uncollected per year, being burned, dumped or entering waterways and the ocean. More than 70 percent of local disposal cells and treatment facilities function poorly within a few years of handing over to the government. Currently, recycling is still a largely informal sector capturing only 7.5 percent of national waste,<sup>72</sup> and the level of private sector investments in the recycling industry is low. The government's commitment to reduce marine debris (a major detractor for tourism) by 70 percent by 2025 might face challenges from insufficient investment in solid waste management collection, which requires around USD 5 billion, in addition to the lack of enabling legal framework and policies such as plastic excises or producer responsibility schemes. Successful solid waste management offers potential for greenhouse gas mitigation and energy generation.

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<sup>68</sup> The International Renewable Energy Agency (2019).

<sup>69</sup> See Roberts et al. (2019). Urbanization levels as of 2017.

<sup>70</sup> A 1 percent increase in urbanization results in a 4 percent increase in per capita GDP for Indonesia, compared to 13 percent for India, 10 percent for China, 8 percent for Vietnam, and 7 percent for Thailand.

<sup>71</sup> Jambeck (2015) ranked Indonesia as the world's 2<sup>nd</sup> highest marine debris polluter to the oceans. (Jambeck et al., 2015. Plastic waste inputs from land into the ocean. *Science*, 347(6223), 768-771. DOI: 10.1126/science.1260352.) INAPLAS, 2018 data shows that Indonesia's per capital plastic consumption is much lower than Germany, Korea, and Vietnam. <https://www.liputan6.com/bisnis/read/4110454/konsumsi-plastik-indonesia-lebih-rendah-dari-korea-dan-jerman>

<sup>72</sup> Ministry of Environment and Forestry (2015).



**With high exposure to climate change and natural disasters, existing infrastructure is not sufficiently resilient, especially in high vulnerability cities.** Indonesia has a high concentration of people and assets in areas exposed to climate change and natural disasters. Up to 4.2 million people living in low-lying coastal areas projected to be exposed to permanent flooding by the 2070s.<sup>73</sup> A 2016 report by the International Disaster Database placed Indonesia among the top five countries that are most frequently hit by natural disasters and among the top 10 countries in disaster mortality.<sup>74</sup> Although the country has made progress on integrating climate change and natural disasters into some of its infrastructure governance institutions, there is a general lack of standardized and systematic project appraisal systems to screen for risks.<sup>75</sup> Broader sustainability considerations, including green open space requirements in urban infrastructure projects, has not been adequately enforced and not integrated to project appraisals and investments.

## 5.2. Binding constraints to infrastructure development

*Insufficient investments and unsustainable infrastructure continue to constrain infrastructure development. The investment climate does not favor renewable energy investments and regulatory bottlenecks limit the expansion of the digital economy.*

**Even the current higher levels of investment by the central and SNGs are insufficient to close the gap.** Allocations from the central and subnational budgets have increased since 2015 but remain lower than needs. Indonesia's public investment remains lower than peers (Figure 5.3). Moreover, because of the COVID-19 outbreak, there has been a shift away from infrastructure spending and possibly suspending infrastructure projects in the 2020-2024 RPJMN until recovery. Meanwhile, estimates suggest that total additional investments of 5.6 percent of GDP are required to achieve the SDGs by 2030.<sup>76</sup> SNGs, which are responsible for a significant share of infrastructure – for example connecting toll roads to centers of local economic activity - also do not mobilize enough resources for infrastructure investment because of limited own-source revenues and restrictions on subnational borrowing. The fiscal transfer system does not provide enough financing amounts for infrastructure grants and predictability to enable medium and large-scale infrastructure development. The government's model of relying on state owned enterprises (SOEs) to deliver infrastructure investments has been exhausted, as strained balance sheets are stretched with debt/equity ratios above international benchmarks.

**Infrastructure spending can be more effective, and capacity gaps prevent adequate planning and execution.**<sup>77</sup> Coordination between and across levels of government is needed to ensure efficiency and better quality (Figure 5.4). Programs that are the joint responsibility of SNGs and the central government, or which cross jurisdictional boundaries, often face implementation challenges. Capacity for planning and implementation is lacking at both central and subnational levels. For example, the use of data systems and monitoring and implementation of infrastructure investment from the village funds require additional

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<sup>73</sup> World Bank (2019d). *Climate Risk Country Profiles Indonesia*. Washington, D.C.: The World Bank.

<sup>74</sup> In the past 30 years, the frequency of disasters has increased, resulting in an estimated USD 3 billion of average annual cost of disasters. World Bank (2012), based on original data EM-DAT CRED and WRN

<sup>75</sup> World Bank (2019e). *Indonesia Development Policy Review*. Washington, D.C.: The World Bank.

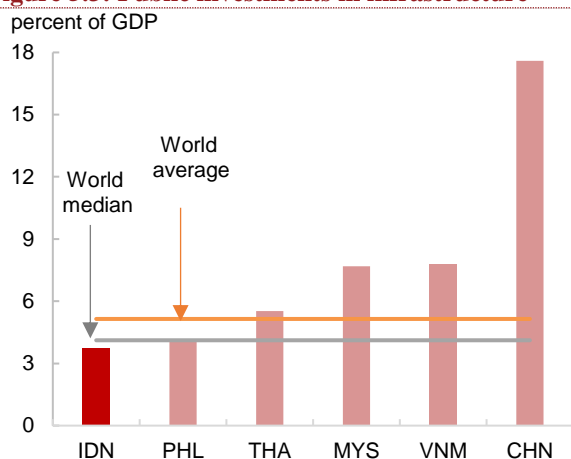
<sup>76</sup> Fouad, et al. (2018). *IMF PIMA- Indonesia*. Washington, D.C.: The World Bank.

<sup>77</sup> Detailed analysis on the effectiveness and efficiency of spending including policy messages for Indonesia are well documented in the forthcoming PER (March 2020).

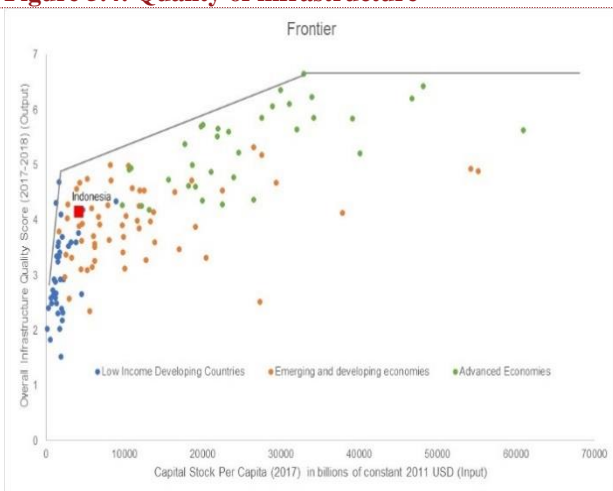


capacity. Many of the challenges stem from the absence of focus on specific investment projects when planning, budgeting and monitoring. This makes it difficult to determine if the best projects are selected, and whether they are properly managed and implemented.<sup>78</sup> The national power utility (PLN) overinvests in generation and underinvests in transmission leading to capacity constraints in transmission. In roads, spending on new construction and administration takes priority over operations and maintenance, leading to poor quality and higher costs.

**Figure 5.3: Public investments in infrastructure**



**Figure 5.4: Quality of infrastructure**



Source: World Bank staff calculations using IMF (2019) data and WEF

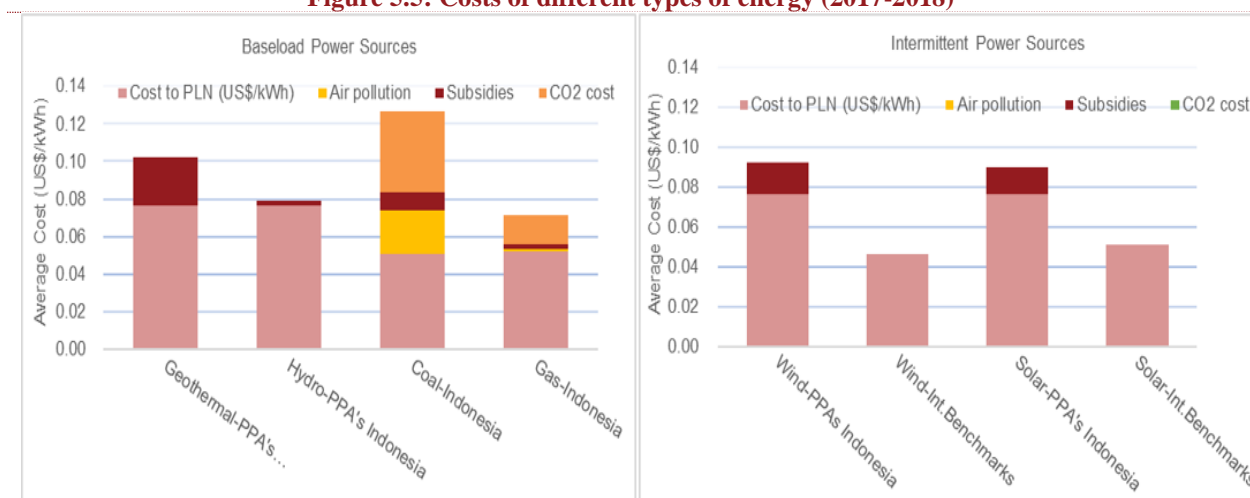
**Meanwhile, poor enforcement of risk-informed spatial planning, building codes and regulations often put long-term sustainability of infrastructure projects at risk.** There is no standardized and systematic project appraisal for climate and disaster risks for infrastructure development. Thus, there is low compliance with risk-informed building codes and a need for building resilience standards to be updated. Meanwhile, poor enforcement of Strategic Environmental Assessment and Environmental Impact Assessment (AMDAL) in the planning process threatens the quality of both the infrastructure asset and its surrounding environment. Compliance with spatial plans, including required urban Green Open Space is critical to ensure long-term sustainability.

**The ecosystem for private sector investment in infrastructure is deficient due to the existing SOE model, tariff regulations and insufficient financial instruments.** The legal framework for public-private partnerships is complex and fragmented and there is a lack of a systematic mechanism to allocate projects between SOEs and the private sector. SOEs leave little room to the private sector as they receive public subsidies and operate as monopolists or dominant players in key sectors. For instance, limited competition in operating commercial ports and airports is a key contributor to currently low performance levels. Tariffs are also too low for the development of financially viable projects that would attract private investors. Port tariffs, for instance, are not based on cost recovery and all commercial ports are operated by four state-owned port operators, reducing investor appetite for investing in domestic ports which is needed to improve port infrastructure. There are further limitations in the domestic market for infrastructure financing due to low capital availability and inconducive domestic lending practices.

<sup>78</sup> There is no Project ID in the budget classification structure. Therefore, one cannot monitor budget allocation and expenditure for different investment projects, including infrastructure.

**Pricing and non-pricing disincentives for the development of renewable and clean energy sources are still paramount.** Current regulations tilt the energy matrix towards non-renewable sources as they cap the price PLN can pay for renewable energy purchases. In the case of wind and solar energy, the price cap is even more stringent at 85 percent of PLN’s average generation cost. The minimum local content requirement of 60 percent imposed on the sale of solar panels increases the cost of panels at least by 25 percent and reduces the quality relative to imported ones. Regulations also dictate that solar plants built by private companies are transferred to PLN at the end of power purchase agreements and that solar from rooftops is compensated at only 65 percent of the prevailing electricity tariff. Low-carbon electricity is therefore far from being the cost-effective option in terms of generation and the subsidies granted to coal generation through the domestic market obligation (DMO) artificially reduce the cost of coal use in generation. However, when subsidies and negative externalities to the environment are considered, coal is by far the priciest option (Figure 5.5).<sup>79</sup> There are no regulations incentivizing development of off-grid renewables and limited financing opportunities hinder the advancement of RE technology and innovation.

**Figure 5.5: Costs of different types of energy (2017-2018)**



Source: World Bank Staff calculations from various sources<sup>80</sup>

**Regulatory bottlenecks limit the expansion of digital infrastructure.** Licensing limits competition in fixed broadband and value-added services, as service providers are made to apply for service-specific licenses. State-owned telecommunications company Telkom and PLN limit the sharing of their infrastructure with other providers, further limiting competition. Limited sharing of digital infrastructure restricts competition and prevents efficiency gains. Telecom operators in Indonesia have typically invested in proprietary network infrastructure, which has resulted in duplication and cost inefficiencies. Spectrum (radio frequency) scarcity is the main reason for the remaining access and quality challenges, yet spectrum

<sup>79</sup> Often solar is viewed as variable or intermittent power that still requires back-up capacity, but new solar design integrates latest battery tech to make it available to dispatch, or firm (Dutta, 2020). Solar storage tariff spells trouble for coal. *The Times of India*. Retrieved from <https://timesofindia.indiatimes.com/>

<sup>80</sup> IISD (2019) from Koplitiz et al. (2017). Burden of Disease from Rising Coal-Fired Power Plant Emissions in Southeast Asia. *Environmental Science & Technology*, 51(3), 1467–1476. DOI: 10.1021/acs.est.6b03731; IHME (2016); Lazard’s (2017). *Lazard’s Levelized Cost of Energy Analysis*. Lazard.; Various ESDM (Indonesia’s Ministry of Energy and Mineral Resources) documents (2017); Indonesia Investments (2018); BP (2017); Burnard et al. (2016). *Energy Technology Perspectives 2016: Towards Sustainable Urban Energy Systems*. International Energy Agency.

policy also restricts competition in mobile data. Further, current policies limit access to wholesale internet bandwidth on non-discriminatory terms.

### 5.3. Reform Priorities

#### *Central and subnational governments need to spend more and better in infrastructure*

*Increase resources available for infrastructure investment across several sectors and at all levels of government.* Additional spending is warranted in several infrastructure sectors such as roads, urban infrastructure and water and sanitation, especially as these investments would have slowed due to the economic downturn the pandemic poses, yet they remain critical to the recovery in the medium to long-term. For example, additional investments are required in solid waste management and recycling infrastructure to achieve 100 percent waste collection in urban areas. In the roads sector, maintenance budgets need to be increased, though not at the expense of continuing to develop critical connective infrastructure. Climate-proofing new road infrastructure is a necessary investment. In the power sector, additional investments in transmission are required, although investments in generation may be scaled back. Although some reallocation within the budget remains possible, sustainably increasing the infrastructure budget will require additional revenues, which are discussed in Section 8 below. Developing a policy on SNG borrowing, enhancing creditworthiness of SNGs, and using innovative instruments to leverage private funding for SNGs can create space at the subnational level for infrastructure investments.

*The central government and SNGs can use infrastructure resources more effectively.* As the decentralization architecture regulates vertical relationships of different levels of government, coordination across jurisdictions, especially urban areas, is difficult. Improving the efficiency and effectiveness of new and existing spending begins from improved coordination across ministries and central government agencies (e.g. on housing); between provinces and districts (e.g. on water); and between the center government and the SNGs (e.g. on roads). There are large disincentives in terms of financial and accountability for mayors to engage in large- multi city/district projects, resulting in island views of cities and councils related to infrastructure development. The central government has started to acknowledge the metropolitan challenges, with the newly released RPJMN highlighting metropolitan management and investments as priorities. More systematic identification, prioritization and appraisal of potential investments are also needed. Improvements in technical capacity for land-use planning, administration, project preparation, and implementation will allow for more environmentally sound project development. Moreover, improvements in the procurement system will be critical to get more value for money and the right level of quality for the infrastructure developed.

*Screen for and mitigate climate and disaster risks to build more resilient infrastructure.* Standardized and systematic project appraisal for climate and disaster risks for infrastructure development, along with enforcement of existing environmental safeguards mechanism, is critical to ensure long-term sustainability. Beyond disaster resilience, broader sustainability considerations should be mainstreamed in planning processes. For example, enforcement of a green open space requirement in spatial plans, project appraisals, and investments can provide key benefits such as clean and reliable water, reduced air pollution, and flood prevention. To support more resilient infrastructure, the government can consider revising the Ministry of Finance (MoF) Regulation 247 on Insurance of Public Assets for the allocation of premium payments and launch insurance of public assets, to ensure that safeguards can be put in place.

### *Create conditions to attract more private participation in infrastructure development*

*Improve the regulatory, institutional and financial environment for public-private partnership projects.* Procurement regulations can be amended to reduce exceptions to competitive procurement imposed by the National Public Procurement Agency (LKPP). Making infrastructure subject to user charges can elicit effective demand and make infrastructure more economically efficient, favorable on the environment and attractive to the private sector.<sup>81</sup> Energy, port and other tariffs should be based on economic prices reflecting both costs of supply and demand considerations while creating targeted subsidies for basic services for those who need it most. Finally, introducing new capital market solutions and products as well as regulatory reforms will broaden the range of financial products and incentivize long-term investment behavior in support of infrastructure financing.

*Right-size the role of SOEs.* There is also a need to promote more transparency of SOE data and develop and implement a comprehensive asset recycling framework that resolves tax, accounting and ownership issues. Introducing key performance indicators and efficiency benchmarks can improve the efficiency of SOEs. For PLN, there is a need to reconcile competing objectives in order for a new revenue model to be adopted. This can be done by issuing guidelines on SOE subsidies, financing and guarantees. Further, SOEs requesting government capital and guarantees can be required to demonstrate efforts to mobilize private capital and maximize efficient service delivery.

*Remove subsidies to non-renewable energy and provide an adequate and predictable pricing structure for renewable energy.* Removing implicit and explicit subsidies to non-renewable energy and turning disincentives into incentives through market-based instrument(s) is a key requirement to developing renewable energy. Further improvements can be made in having more favorable treatment from PLN towards renewable energy sources and adopting regulations incentivizing off-grid development.

*Financial and regulatory reforms will be needed,* including new approaches to financing further investments, calculating allowed revenues, setting viable electricity, water and port tariffs, and setting and paying electricity PSO subsidies. This is particularly important for areas with limited access as well as for reducing pollution and greenhouse gas emissions of electricity generation.

*Requiring or encouraging telecom operators to share passive infrastructure presents tremendous scope for efficiency gains.* Indonesia can introduce passive infrastructure sharing not only for towers (which is already practiced), but also for ducts, poles, rights of way and related civil works needed for fiber rollout. Spectrum reallocation and management are needed to accelerate mobile broadband deployment, particularly in rural areas which remain largely unserved. To prevent abuse of monopoly power, open access and nondiscriminatory pricing for wholesale bandwidth can be encouraged.

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<sup>81</sup> The absence of user charges has usually not promoted access to services by the poor, but rather reduced availability and worsened inequalities (Kessides, 1993. *The contributions of infrastructure to economic development: a review of experience and policy implications*. Washington, D.C.: The World Bank.)

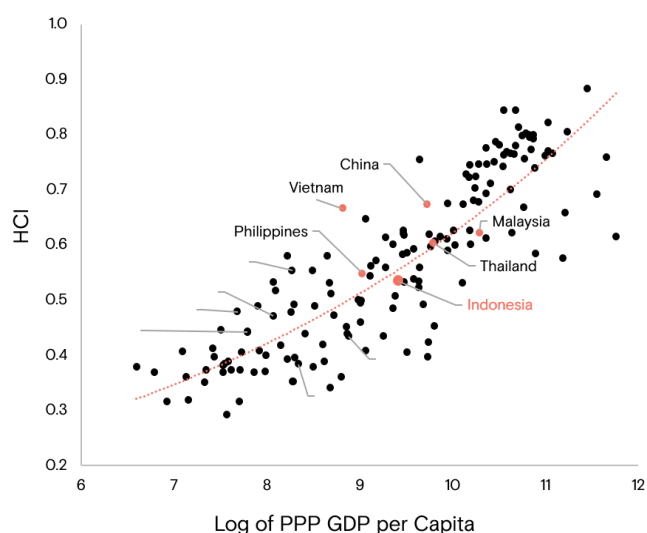
## Pathway III: Nurturing World-Class Human Capital

The 2015 SCD recognized the role of human capital issues as facilitating factors or binding constraints to growth and job creation, and to accessing services and opportunities; evidence amassed over the past five years suggests elevating human capital to a standalone pathway in this SCD Update. As this chapter shows, while some progress has been made on relaxing some constraints, most remain firmly entrenched. And while the depth of the impact of the coronavirus pandemic on human development outcomes remains uncertain at the time of writing, some of the gains made to date will be eroded, if only partially. For each human capital constraint, this SCD Update offers new insights based on analytical work conducted since 2015 that has deepened our understanding of why progress has been slow in some areas, especially in the domain of early childhood development (ECD) where Indonesian children exhibit serious deficits rarely seen outside of crisis situations. The chapter also describes the potential mechanisms through which the ongoing pandemic may influence outcomes.

**Although Indonesia has made progress on human capital issues since 2015, it lags most of its economic peers in human capital formation.** With an HCI score of 0.53 in 2017, Indonesia ranks 87 among the 157 countries included in the HCI.

The score, higher than the average for lower middle-income countries but below the EAP region average (Figure 6.1), implies that children born in Indonesia today are estimated to be only 53 percent as productive by the age of 18 years as they could be if they enjoyed complete education and full health, and as such reflects significant losses in productivity of the next generation of workers compared to a benchmark of complete education and full health. Key factors underlying the low HCI score are (i) a high rate of stunting<sup>82</sup> among children under 5 years of age; (ii) low learning-adjusted schooling of 7.9 years; and (iii) low adult survival rates (83 percent of 15-year olds survive by age 60). If Indonesia closed the gap between its HCI score and reached full health and education, at a rate of 4 percent per year (the median rate among countries in the database), GDP per capita may increase by 7.1 percent by 2050.<sup>83</sup>

**Figure 6.1: Human Capital Index, Indonesia and other countries**



Source: World Bank (2018b)

Key factors underlying the low HCI score are (i) a high rate of stunting<sup>82</sup> among children under 5 years of age; (ii) low learning-adjusted schooling of 7.9 years; and (iii) low adult survival rates (83 percent of 15-year olds survive by age 60). If Indonesia closed the gap between its HCI score and reached full health and education, at a rate of 4 percent per year (the median rate among countries in the database), GDP per capita may increase by 7.1 percent by 2050.<sup>83</sup>

<sup>82</sup> Stunted growth refers to low height-for-age, when a child is short for his/her age.

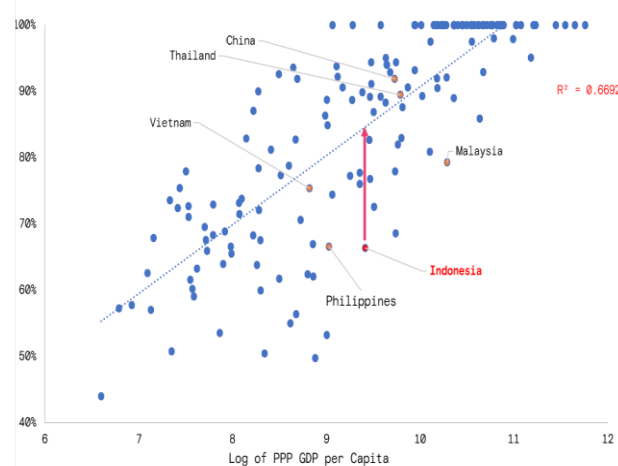
<sup>83</sup> Collin & Weil (2018). *The Effect of Increasing Human Capital Investment on Economic Growth and Poverty: A Simulation Exercise*. Policy Research working paper; no. WPS 8590. Washington, D.C.: World Bank Group.

## 6.1. Key challenges to nurture world-class human capital

Childhood stunting rates above crisis levels and poor learning outcomes in basic education will dampen the productivity of tomorrow's labor force; Indonesia's workforce is not prepared for today's jobs, let alone tomorrow's; a high burden of disease and associated mortality constrains productivity.

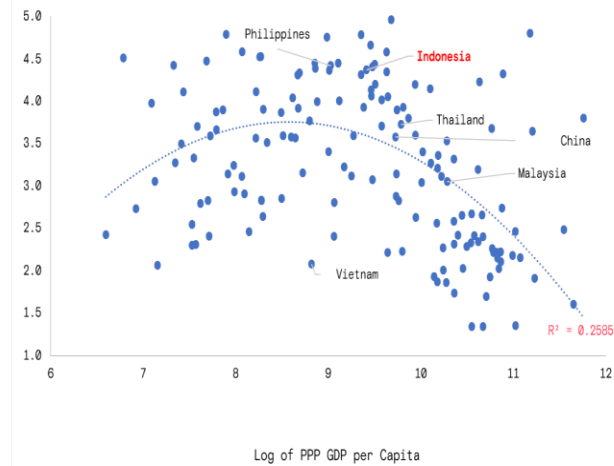
**ECD outcomes, particularly stunting, reflect weak foundations of human capital formation.** Under-five mortality declined from 222 to 25 per 1,000 live births between 1960 and 2017, while infant mortality declined six-fold to 21 per 1,000 live births. On the other hand, 27 percent of Indonesian children were stunted in 2018, among the highest rates in the world and consistent with studies elsewhere (Figure 6.2).<sup>84</sup> Indonesians whose growth was stunted in childhood are shorter as young adults exhibit lower cognitive function and spend fewer years in education, and lower adult stature and cognitive ability are in turn linked to lower earnings.<sup>85</sup> It is estimated that 53 percent of the current labor force is stunted as children<sup>86</sup>, a significant headwind for labor productivity.

**Figure 6.2: Share of children not stunted, Indonesia and other countries**



Source: World Bank (2020)

**Figure 6.3: Countries' learning gap (years) vs. per capita income**



Source: World Bank (2020)

**Enrolments in basic education are near universal, but learning poverty is high.** Indonesian children attend on average 12.3 years of school by age 18, close to regional peers. However, they effectively receive only 7.9 years of schooling, implying a learning gap of 4.4 years. While learning gaps tend to be larger among middle-income countries, Indonesia underperforms even within this group (Figure 6.3). Indonesia's learning poverty rate, defined as the share of children who are either not enrolled in school or not proficient

<sup>84</sup> Alderman et al. (2006). Long term consequences of early childhood malnutrition. *Oxford Economic Papers*, 58(3), 450-474. DOI: 10.1093/oepl008.

<sup>85</sup> Giles et al. (2017). Screening for Functional Cognition in Postacute Care and the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014. *The American journal of Occupational Therapy: official publication of the American Occupational Therapy Association*, 71(5), 1-6. DOI: 10.5014/ajot.2017.715001 ; Perkins et al. (2016). Adult height, nutrition, and population health. *Nutrition reviews*, 74(3), 149-165. DOI: 10.1093/nutrit/nuv105

<sup>86</sup> Galasso & Wagstaff (2018). *The aggregate income losses from childhood stunting and the returns to a nutrition intervention aimed at reducing stunting*. Policy Research working paper; no. WPS 8536. Washington, D.C.: World Bank Group.



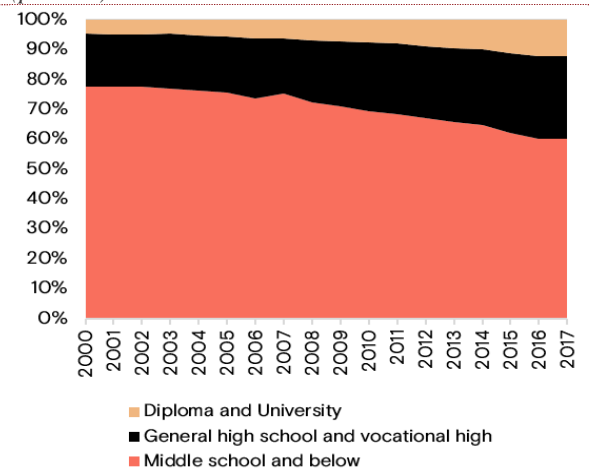
in reading at age 10, is also high at 35 percent.<sup>87</sup> The performance of 15-year-old students in the Programme for International Student Assessment (PISA) lags regional and OECD averages by approximately 3 years of schooling. In 2015, just over half of all students failed to reach the basic proficiency level in reading and science; the share was just under 70 percent in math. In 2018, the reading score fell to the year-2000 level, while math and science scores declined slightly. Most students also do not meet the national learning targets Indonesia has set for itself. The average score across all subjects and school types for the national end-of-secondary exam was 49.5 points in 2018, below the minimum passing score of 55.<sup>88</sup> Further, inequality in learning outcomes is growing. In the PISA, the learning gap between the bottom and top 50 percent of students by household income increased from one to two years of learning between 2003 and 2015.<sup>89</sup>

**Gender gaps in school enrolment and achievement have largely closed, but localized gaps remain.**

Indonesia has overall achieved gender parity in enrolments. The Gender Parity Index (GPI) for school participation for children aged 7–12 years increased from 0.89 in 1971 to 1.00 in 2018, while the national GPIs at 1.02 for ages 13–15 and 16–18 years show that girls are staying in secondary education at slightly *higher* rates than boys.<sup>90</sup> Learning outcomes tend to be superior among girls: in the 2018 PISA, girls outperformed boys significantly in reading, and in math and science to a lesser extent. However, local gaps exist – for example, in South Buton Regency, South Sulawesi Province, the enrollment rate among boys aged 16–18 years is twice that among girls.

**Education levels in the workforce have not kept up with employer demand, and there is a mismatch between skills needed and those available in the labor market.** While educational attainment among Indonesian workers has improved slightly since 2015, only a third of workers attain education beyond the junior secondary level (Figure 6.4). The 2015 SCD highlights the role of skill shortages and mismatches as a source of structural weakness in the economy and a binding constraint to growth. More than 60 percent of Indonesian firms identified skills as a constraint to growth and competitiveness. Little progress has occurred since then: skill shortages continue to be a major constraint for Indonesian businesses (Table 6.1), especially for managerial jobs. A broad literature documents a lack

**Figure 6.4: Share of workers by highest level of education attained**  
(percent)



Source: World Bank (2020)

<sup>87</sup> World Bank (2019b).

<sup>88</sup> MoEC (2019).

<sup>89</sup> World Bank (2018b). In addition, national assessment data reveal large geographical inequalities. Central provinces perform far better than eastern and western ones on the senior secondary exam, and only four of 34 provinces had an average 12th grade score above the minimum passing score of 55 (World Bank, 2019. *The Promise of Education in Indonesia: Consultation Edition: Highlights*. Washington, D.C.: World Bank Group.)

<sup>90</sup> Yarrow et al. (forthcoming).



of workers qualified in engineering and ICT, and deficits in English language and computer skills.<sup>91</sup> Importing skills from abroad can fill this critical skills gap in the short-term. However, restrictions on foreign high-skilled professionals constrain skills import.

**Table 6.1: Percentage of firms that cited inadequate skills when hiring each type of worker**

Type of worker	Indonesia (2009-15)	Malaysia (2015-16)	Thailand (2015-16)	Philippines (2015-16)
Managers	76.7	30.2	75	34.2
Non-production technicians, associate professionals, and sales workers	67.3	50	86.7	55.6
Skilled production workers	55.1	39.5	46	69.3
Unskilled non-production workers	43.4	25.6	57.1	38.9
Unskilled production workers	21.8	38.5	25	48.1

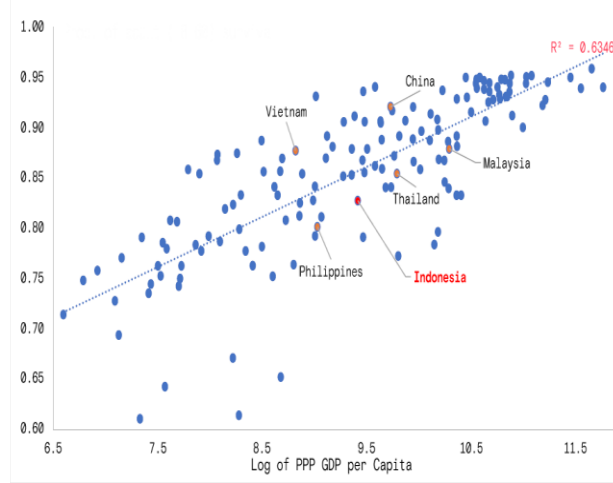
Source: Gomez-Mera and Hollweg (2018). *Firm performance and constraints in Indonesia*. Mimeo, World Bank.

**The workforce lacks core skills for 21<sup>st</sup> century jobs and is ill-prepared for the transformation needed in the agriculture sector.** Indonesia was the lowest-scoring country in the 2014-15 OECD International Assessment of Adult Competencies (PIAAC) conducted in Jakarta, which measures adult literacy, numeracy and problem solving among adults aged 16-65 years in technology-rich environments. The share of adults scoring at or below Level 1 stood at 70 and 60 percent for literacy and numeracy, respectively. At this level, individuals can only read brief texts or complete simple math processes such as counting. Meanwhile, poor skills in an ageing and declining workforce in the agriculture sector curtail productivity in the sector, limiting the innovation and adoption of new technologies.

**Adult health outcomes are poor.** Adult survival rates are low relative to economic and regional peers (Figure 6.5). A significant share of Indonesia’s burden of mortality continues to stem from maternal mortality, which is also high (Figure 6.6). Indonesia is now also the second largest contributor to the global tuberculosis (TB) burden. TB is the second highest cause of premature deaths in Indonesia. Other leading causes of death – ischemic heart disease, cerebrovascular disease, diabetes, and chronic respiratory diseases – are all non-communicable diseases (NCDs) which account for the largest share of burden of disease (66 percent) in Indonesia.

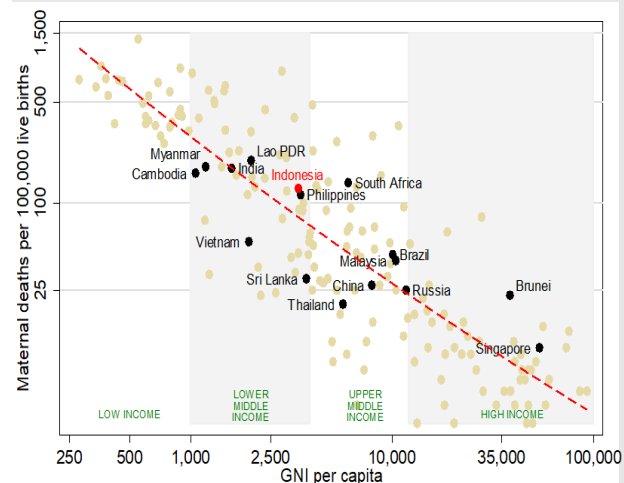
<sup>91</sup> Gropello et al. (2011). *Skills for the labor market in Indonesia: trends in demand, gaps, and supply*. Washington, D.C.: The World Bank.; Tong & Waltermann (2013). *Tackling Indonesia’s Talent Challenges: Growing Pains, Lasting Advantage*. Singapore: The Boston Consulting Group.; Tan & Tang (2016). *New skills at work: Managing skills challenges in ASEAN-5*. Singapore: Research Collection School of Economics.; Malik et al. (2019). *Chapeau Paper: Indonesia Technical and Vocational Education and Training*.

**Figure 6.5: Probability of adult survival vs. per capita income**



Source: World Bank (2020)

**Figure 6.6: Maternal mortality ratio vs. GNI per capita**



Source: World Bank (2019)

*A small social protection system limits Indonesia's ability to build, employ, and protect human capital*

**Social protection systems have expanded, but remain limited in benefits, size and scope.** Indonesia's social assistance system continued to expand since 2015. The core permanent programs – the conditional cash transfer program PKH, an education subsidy (*Program Indonesia Pintar - PIP*), food security assistance (Rastra/BPNT), and subsidized health insurance premiums (JKN-PBI) – have expanded substantially<sup>92</sup>. Despite this progress, coverage and adequacy of benefits to the elderly, people with disabilities, and the poor and vulnerable affected by natural disasters and climate-related shocks remain limited. The National Social Security System (SJSN) aims to provide health, employment and old-age insurance to all Indonesians but except for healthcare, coverage is limited. JKN-PBI helped increase in the number of people covered by health insurance (JKN) from 130 to 216 million (81 percent of the population). Other aspects of social insurance are less developed. Those covered for work injury (JKK) and survivor benefits (JKM) now total about 27 million workers but only 14 and 11 million for old age savings (JHT) and pensions (JP), respectively.

## 6.2. Binding constraints to human capital development

*Inadequate nutrition and limited access to water and sanitation; education quality that has not kept up with higher enrolments; the social protection system remains limited relative to needs; limited investments in prevention and preparedness in the health sector; barriers to women's full economic participation.*

**Inappropriate feeding practices during the first 1,000 days of a child's life contribute directly to high malnutrition rates.** Over 10 percent of infants in Indonesia are born with low birth weight.<sup>93</sup> After birth, low levels of exclusive breastfeeding contribute to chronic malnutrition. In 2017, only half of Indonesian children up to six months of age were exclusively breastfed. And, during the transition from exclusive breastfeeding to complimentary feeding (i.e. solids plus continued breastfeeding) at six months, only about a third of children are fed an appropriate diet.

<sup>92</sup> PKH and PIP quadrupled the number of beneficiaries between 2010 and 2017. See World Bank (2018b) for details.

<sup>93</sup> BPS (2012).

**Dietary intake is neither adequate nor diverse, in part due to high food prices stemming from low agricultural productivity and restrictive food trade policies.** In 2017, 8.3 percent of Indonesians were undernourished i.e. their caloric intake was below minimum energy requirements.<sup>94</sup> For a middle-income country, Indonesia has exceptionally low consumption of fruit and vegetables.<sup>95</sup> Food security continues to be patchy across the archipelago. Adequate amounts of quality food are not always available, particularly to the poor in rural areas. High food prices are partly to blame: Between 2009 and 2014, consumer food price inflation was considerably higher than that seen in the region's other middle-income countries. Volatility in prices is in turn linked to low agricultural productivity, low resilience to climate shocks and restrictive trade policies.<sup>96</sup> In agriculture, contributing factors include fragmented and labor-intensive production, poorly maintained rural infrastructure, concentration in the wholesale market for food, and underfunded, institutionally fragmented R&D. Restrictive food trade exacerbates the problems leading to higher prices for consumers, with little benefit for farmers. Key factors include non-tariff barriers on imports of fruits and vegetables, cereals, monopolized rice imports, animal products and other foods, restrictions on various other commercial activities related to food and agriculture (i.e. seed distribution, food retail investment), and high logistics costs due to regulatory barriers to entry and underdeveloped infrastructure.<sup>97</sup>

**Access to water and sanitation is low.** Over a third of households in Indonesia do not have access to an improved source of drinking water or an improved sanitation facility, with wide geographic and wealth differences in access.<sup>98</sup> Open defecation is also common. Poor sanitation and hygiene practices and unsafe water lead to high rates of infectious diseases, which are in turn linked to chronic malnutrition.<sup>99</sup> Further, access to nutrition-related services offered within the health and education sectors is also very low (Table 6.2) and often poorly targeted.<sup>100</sup>

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<sup>94</sup> BPS (2020).

<sup>95</sup> SUSENAS (2011).

<sup>96</sup> Jaffee (2016). *Future of food: shaping the global food system to deliver improved nutrition and health*. Washington, D.C.: World Bank Group.

<sup>97</sup> Cali et al (forthcoming) find that streamlining all inefficiently implemented NTMs and removing unnecessary trade restrictions could lower the prevalence of undernourishment to as low as 0.23 percent at the national level.

<sup>98</sup> NIHRD (2013); WHO/UNICEF (2015).

<sup>99</sup> Torlesse et al. (2016). Determinants of stunting in Indonesian children: evidence from a cross-sectional survey indicate a prominent role for the water, sanitation and hygiene sector in stunting reduction. *BMC public health*, 16, 669. DOI: 10.1186/s12889-016-3339-8.; Cameron et al. (2017). *Child Stunting and Cognitive Impacts of Water, Sanitation and Hygiene in Indonesia*. Washington D.C.: The World Bank.

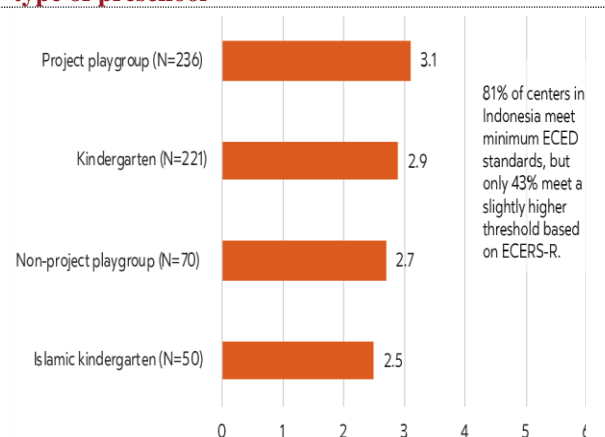
<sup>100</sup> Riskesdas (2018).

**Table 6.2: Access to select nutrition-specific and nutrition-sensitive interventions**

Services	Percent mothers or children	
<b>Maternal and child health</b>	Prenatal care visit (at least four)	77
	Took 90+ iron tablets during pregnancy	33
	Children receiving Vitamin A supplements in last 6 months	76
	Vaccination - basic immunization (children 0-1-year-old)	65
	Vaccination - complete immunization (children 0-2 years old)	36
	Deworming tablet in last 12 months (children 1-4 years)	26
<b>Nutrition</b>	Community growth promotion	77
<b>Early learning and development</b>	Access to ECED (children 0-2 years old)	8
	Access to ECED (children 3-6 years old)	46

Source: World Bank (2018)

**With limited exposure to preschool, most Indonesian children are not adequately prepared to learn when entering school.** One of the drivers of learning poverty is children entering school unprepared to learn: 55 percent of children 5–6 years old are enrolled in preprimary education, with the share falling to 22 percent among children 3–4 years old.<sup>101</sup> Overall, an estimated 11.7 million children aged 3–6 years are not enrolled in preschool education.<sup>102</sup> And for those who are enrolled, the quality of services is modest (Figure 6.7). Lack of quality early childhood education also contributes to the low participation rate among women: marital status and the presence of children aged 0–2 years in the household drastically lower the likelihood that a woman is working or looking for work, especially in urban areas.<sup>103</sup>

**Figure 6.7: Quality of Indonesian preschools, by type of preschool**

Source: Brinkman et al. (2017). The role of preschool quality in promoting child development: evidence from rural Indonesia. *European Early Childhood Education Research Journal*. 25. 1-23. DOI: 10.1080/1350293X.2017.1331062.

**The quality of basic education is low, with a need to improve teachers' content mastery and pedagogical practices.** In 2015, after the tripling of government spending on education over a decade-long period, teachers scored an average of merely 53 points on a teacher test with a 100-point scale. Scores varied little whether teachers were certified or not. Beyond theoretical knowledge, teachers in Indonesia lack basic pedagogical competencies.<sup>104</sup> For example, teachers rarely pose strategic and open-ended questions that require complex and specific student responses that would demonstrate students' understanding of content. Close to 90 percent of the students observed responded to teacher questions using

<sup>101</sup> SUSENAS (2018).

<sup>102</sup> Ministry of Education and Culture (MoEC) (2019) and SUSENAS.

<sup>103</sup> Cameron et al. (2018). *Female Labour Force Participation in Indonesia: Why Has It Stalled*. Melbourne: Melbourne Institute of Applied Economic and Social Research, The University of Melbourne.

<sup>104</sup> Ragatz et al. (2015). *Indonesia - A video study of teaching practices in TIMSS eighth grade mathematics classrooms: understanding what teaching practices are used, why they are used and how they relate to student learning*. Washington, D.C.: World Bank Group.

only a single word, evidence of weakness in pedagogical practices that support engagement of students to learn in the classroom. Further, ineffective teacher hiring practices, insufficient professional development training, the absence of incentives for performance, poor supervision of education services and inefficient district and provincial level management are all factors that severely constrain the quality of education.

**The quality of their technical and vocational education and training (TVET) and tertiary education is also low, with little change in recent years and few opportunities for up-skilling outside the education system.** The needs identified in the 2015 SCD – strengthening incentives to make vocational and tertiary education responsive to employer needs; improving information flows; and accelerating the expansion of good quality training opportunities in higher value-added skills in strategic sectors – all remain valid. Poor performance is linked to lack of qualified faculty members and infrastructure, low capacity and reach of accreditation systems, limited number of certification providers, and lack of competency frameworks developed in consultation with the private sector. Inadequate labor market information and intermediation makes it hard to align curricula and teaching with occupations and skills needed. Most TVET providers have no mechanisms to assess the labor market performance of their graduates. There are few opportunities for training outside the formal education system, with only 5 percent of Indonesians in the labor force receiving training on the job.<sup>105</sup> Underlying factors include limited capacity among small firms to allocate resources for training, and talent poaching that perpetuates high turnover rates, especially among high-skilled and young workers.<sup>106</sup>

**Low educational attainment and gender streaming contribute to low labor force participation among women and a higher risk of skill deficits.** At 52 percent, women’s labor force participation is 30 p.p. lower than that of men<sup>107</sup> and represents another domain that has seen little progress since 2015.<sup>108</sup> While gender gaps in education has evolved to favor women, who are now overrepresented at all levels of the education system<sup>109</sup>, the completion rate of upper secondary stood at a mere 63 percent in 2017 among both young men and women<sup>110</sup>, while 18 percent of 25-34 year-old women had completed a tertiary degree compared to 14 percent of men<sup>111</sup>. The gender employment gap in Indonesia narrows as education level rises: Among young adults the gender gap in employment rates is 44 p.p. for those with less than secondary education, 41 ppt for those with upper secondary or post-secondary non-tertiary education and only 12 ppt for those with a tertiary education. Therefore, low tertiary enrolment rates among women (relative to enrolment of women elsewhere in the region)<sup>112</sup> have a particularly high cost in terms of the quality and quantity of the human capital available in the labor market. Women are underrepresented in science, technology, engineering, and mathematics (STEM) subjects in technical education and universities, which

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<sup>105</sup> World Bank (2019g). *Indonesia Skills Development Project*. Washington, D.C.: The World Bank.

<sup>106</sup> World Bank (2019g); Tong & Waltermann (2013).

<sup>107</sup> ILOSTAT (2019).

<sup>108</sup> Out of a large labor pool of 37 million working-age Indonesians that was inactive, 86 percent were women (World Bank, 2015. *Indonesia - Systematic Country Diagnostic: connecting the bottom 40 percent to the prosperity generation*. Washington, D.C.: World Bank Group.)

<sup>109</sup> World Bank (2019b).

<sup>110</sup> UNESCO UIS.

<sup>111</sup> OECD (2019).

<sup>112</sup> Indonesia’s gross tertiary enrolment rate for women is 39 percent, lower than in Korea, China, the Philippines, Thailand, Malaysia and Singapore. While Vietnam’s rate is lower (31 percent), it has more women enrolled in post-secondary, non-tertiary programs (27 percent).

places them at risk of failing to take advantage of new opportunities offered by the digital economy and automation. Finally, as elsewhere, the responsibility for caring for children and elderly falls disproportionately on women. An aging population together with fertility rates that raise dependency ratios may increase demand for urban women's time on care responsibilities at home, exerting a downward pressure on their labor force participation.

**Limited use of preventive health services, unhealthy behaviors and limited quality of service delivery interact to produce deficits in adult survival and to make the country particularly vulnerable to health shocks such as the ongoing COVID-19 pandemic.** Indonesians' use of preventive health services is extremely low.<sup>113</sup> They also have one of the highest rates of cigarette consumption in the world (85 million smokers in 2016), particularly among males (68.1 percent of men including 35 percent of 13-15-year-olds). Tobacco use is a key risk factor for all leading causes of death in the country. The quality of health services is low. Not only are primary health facilities still ill-equipped – with limited progress since 2015, when not a single primary health facility in Indonesia had all the required general service readiness items – but provider knowledge is weak with most unable to accurately diagnose and treat patients.<sup>114</sup> These characteristics increase Indonesians' vulnerability to health shocks such as the COVID-19 pandemic, thus potentially magnifying their negative health, social and economic impacts.

**Poor health outcomes among women are not just a challenge today, they also undermine the wellbeing of the next generation.** High maternal mortality goes hand in hand with the low use and quality of essential maternal and child health services in Indonesia (Table 6.2). Poor maternal diet impacts fetus growth, thus increasing a child's risk of being born with low birth weight and developing chronic malnutrition. Other risks for poor health stem from social factors. Child malnutrition is linked to early marriage and adolescent pregnancy,<sup>115</sup> both common in Indonesia.

**There are no incentives for provision of quality health services nor for efficiency in service provision.** First, fragmented health information systems and the absence of a formal mechanism to coordinate and consolidate information on health resources, cost, utilization, and outcomes across tiers and government agencies limit the Ministry of Health's ability to oversee the sector and target limited resources. Second, the lack of performance-orientation in healthcare financing undermines accountability. On the supply side, *Dana Alokasi Khusus* (DAK)—the main inter-governmental fiscal transfer earmarked for health—is linked partly to need but not to performance, resulting in wide variation in facilities' ability to deliver services. On the demand side, provider payment arrangements and infrequent supervision under the health insurance scheme give little incentive to optimize the quantity of care or improve its quality. This leads not only to underutilization of primary care services and overburdening of tertiary hospitals, but also to the progression of avoidable diseases due to a lack of early diagnosis and treatment at the primary care level.

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<sup>113</sup> Mulyanto et al. (2019). Socioeconomic inequalities in healthcare utilisation in Indonesia: a comprehensive survey-based overview. *BMJ open*, 9(7), e026164. DOI: 10.1136/bmjopen-2018-026164.

<sup>114</sup> World Bank (2019a).

<sup>115</sup> Fall et al. (2015). Association between maternal age at childbirth and child and adult outcomes in the offspring: a prospective study in five low-income and middle-income countries. *The Lancet. Global health*, 3(7), e366–e377. DOI: 10.1016/S2214-109X(15)00038-8; UNICEF (2016).



**Indonesia's social protection system faces several design and administrative challenges, limiting its effectiveness.** First, Indonesia has prioritized breadth of health insurance coverage over depth of services and the extent of financial protection has been limited. While out-of-pocket expenditure has declined, it remains high at 37 percent and about 2.3 million Indonesians still experience catastrophic health spending, while an estimated 4 million are pushed deeper into poverty.<sup>116</sup> At the same time, the financial sustainability of the health insurance scheme is not clear. JKN's cost to the government is increasing and deficits have been rising (about 0.1 percent of GDP in 2018). The system lacks cost controls and allows for adverse selection. The national health insurance agency has limited power to introduce financial incentives and monitoring tools that can influence the quantity, quality, and efficient production of health services. Most of the key health insurance functions (e.g. defining the benefit package, determining premiums, setting provider payment rates and contracting terms) lie outside the purview of the agency. Second, many of the poor and vulnerable remain excluded from social insurance beyond JKN. Private sector salaried worker participation in SJSN Employment is low, while most non-salaried workers remain outside the system.<sup>117</sup> Low coverage, in turn, threatens the fiscal sustainability of SJSN, particularly in the context of an aging population. And in addition to the short-term fiscal pressure arising from health insurance deficits, the demographics of the civil service will lead to increased pension spending in the coming decade. Third, there is no unemployment insurance, which creates pressures to withdraw from the old age savings scheme. Finally, social assistance for disaster response operates independently and is often not timely due to cumbersome budget reallocation processes. The 2015 SCD raised most of these concerns, but they remain largely unresolved today.

**Laws and policies supporting women's participation in the labor market are weak and weakly enforced.** The Labor Law 13/2003 includes provisions for maternity leave, menstrual leave, working hours for pregnant employees, breastfeeding during working hours, and prohibition from firing due to pregnancy. But enforcement is limited.<sup>118</sup> Further, severe gaps remain in anti-discrimination clauses based on gender such as provisions for equal pay, minimum wages, sexual harassment at work, and job security after maternity leave.<sup>119</sup>

### **6.3. The COVID-19 pandemic: Adverse impact on human capital formation and disruption of essential services**

**Morbidity and mortality will spike in the short term, potentially straining the health system beyond its capacity.** The high prevalence of chronic disease and comorbidities, poor diets, low access to quality health services, high prevalence of smoking, poor hygiene and sanitation practices, and poor preventive behaviors are all factors that increase Indonesians' vulnerability to infection and the risk of death due to the COVID-19. Adult mortality is thus expected to spike during the pandemic, first in cities hit hard by the pandemic, followed by rural areas if the social distancing measures and lockdowns imposed by the

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<sup>116</sup> World Bank (2019e). Catastrophic health spending occurs when households spend more than a quarter of their total household expenditures on health.

<sup>117</sup> World Bank (tba).

<sup>118</sup> For example, while it is mandatory for employers to provide a breastfeeding room in the workplace, only 11 percent of government, public and private offices had such a space (Save the Children, 2013).

<sup>119</sup> Of particular concern are female migrants who are more vulnerable to undocumented migration, receive lower pay, less job security, and fewer chances to upgrade skills (Jarvis et al, 2019. *Why gender is an important part of migration policy: an example.* World Bank Blogs. [https://blogs.worldbank.org/developmenttalk/why-gender-important-part-migration-policy-example.](https://blogs.worldbank.org/developmenttalk/why-gender-important-part-migration-policy-example))

government are unable to contain transmission within urban hotspots. Morbidity and mortality outcomes are likely to worsen not just due to the pandemic itself, but also as increasingly taxed health care providers are forced to divert provision of care away from other illnesses to attend to the urgent needs of severe COVID-19 cases. Care may also be foregone as people avoid visiting health facilities due to fear of contracting the virus.

**In addition to its direct effects on health, the pandemic threatens a range of human capital outcomes by severely disrupting delivery of essential services.** The extent of the impact on other dimensions of human capital such as ECD outcomes, learning and skills, will depend on the duration of government-imposed lockdowns and social distancing behaviors in Indonesia, the depth and breadth of the government’s economic relief response packages, and the extent to which expanded social protection measures and support to enterprises successfully reach those most in need. Reduced household incomes or increases in food prices due to disruptions in supply chains, for example, may lead to substitution away from nutritious foods or increased hunger, which can exacerbate the already poor nutrition outcomes among children. Reduced access to maternal and child health services such as ante- and post-natal care would curtail healthy growth of young children and place their mothers at higher risk of poor maternal outcomes. At the time of writing, all schools, universities, and post-secondary institutions in Indonesia are indefinitely closed and examinations are cancelled for 8 million students. Indonesia’s high learning poverty is thus likely to deepen in the short run and opportunities to build skills have come to a complete standstill. Extended interruptions that disengage students from the teaching and learning process can lower student learning levels. At the secondary level, long school closures increase the risk of students dropping out, particularly among lower income ones more likely to enter the labor force than to return to education once the situation has normalized. And the responsibility for care of children now at home from school, or other family members in poor health, likely falls disproportionately on mothers or other female family members, constraining female labor supply among those fortunate enough to remain employed during the crisis.

#### **6.4. Reform Priorities**

*Boost human capital formation from the earliest age through basic education and skills training with interventions that are complementary and focused on boosting quality*

*To strengthen foundations of human capital formation, targeted and complementary investments in ECD are needed across multiple sectors.* Globally and in Indonesia, there is growing consensus that a “convergence” approach—in which a combination of multisectoral nutrition interventions are coordinated to target priority geographic areas and beneficiaries—is needed to address stunting. Accordingly, successful implementation of the ambitious National Strategy to Accelerate Stunting Prevention (NatStrat Stunting) is critical to accelerate stunting reduction and drive convergence at the national, district and village levels. Second, to ensure that children are ready to learn when they enroll in school, there is a need to improve access to early childhood and education development (ECED), expand parenting programs linked to the stunting agenda, improve governance, and enforce minimum quality and service standards. Finally, policies that support agricultural productivity, boost resilience to climate shocks and lower trade restrictions, in particular by streamlining and/or removing inefficiently implemented NTMs and restrictions arising from pre-shipment inspections, use of specific ports of entry, and import monopoly, may support the stunting reduction agenda, in addition to improving access to affordable nutritious foods in the general population.

*Improving the education system will take a shift in management practices, with improvements in learning and pedagogical practices at the focus of reform efforts<sup>120</sup>. With 55 percent of civil servant teachers retiring over the next decade (about 960,000 individuals)<sup>121</sup>, there is a major opportunity for improving teacher quality. ICT can be harnessed to support learning and performance to inform education policy, allocate funds, and manage all levels of the system for performance<sup>122</sup>. A clear, evidence-based vision is needed for deployment of curriculum-aligned education technology with a focus on lower-income and rural, remote areas. Finally, curricula need to be aligned to nurture 21st century skills for Industry 4.0, such as communication, collaboration, and critical thinking.*

*To close skill deficits, improve the quality of TVET, tertiary and lifelong education and reduce restrictions on work permits while creating incentives for firms to nurture talent. Data systems are needed to identify occupations and skills in demand for prioritization of resources and training, monitor institutions' compliance with quality standards, allow for allocation of funds to high-performing providers, and provide relevant information to jobseekers. The private sector needs a central role in the governance structure for TVET education, which will facilitate crowding in of resources from enterprises and individuals. The subsector needs to provide training relevant to students of all ages, varied backgrounds and occupations, and offer opportunities for frequent upskilling throughout the lifetime, with due attention to skills needs in the agriculture sector where a new generation of skilled, entrepreneurial farmers is essential for improving productivity and adoption of new technologies. Incentives also need to be created for firms to increase the currently low rate of on-the-job training. These measures complement the reduction in restrictions on work permits for foreign workers with scarce skills discussed in Pathway I above.*

*Focus resources on targeting the most cost-effective interventions and underserved populations, strengthen pandemic preparedness, improve the quality of service delivery, and introduce integrated care. Increased investments are needed in the institutions, systems and processes that hold the healthcare system together, namely public sector management functions for health, planning and budgeting that link inputs to outcomes, strengthening health management information systems to benchmark performance, and improving budget execution and other financial management functions. The design of JKN and its implementation need to be improved to ensure fiscal sustainability and create incentives for improved provider performance. The improvements can be financed partially through increases in public spending on health, which can be financed through wider use of excises, for example, on fuel, tobacco, plastics, and sugar-sweetened beverages.*

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<sup>120</sup> World Bank (2019b).

<sup>121</sup> World Bank (2018b).

<sup>122</sup> For details, see World Bank (2019a).

*Increase and improve spending on social insurance and social assistance to create the social protection system of tomorrow*

*A new social contract can provide a “guaranteed minimum” protection across the life cycle, expanding coverage to excluded groups and protecting against disasters, pandemics and climate change.<sup>123</sup> The protection floor will be set to bring households above the poverty line, with a tapered benefit exhibiting reduced support as households’ needs reduce over time when moving up the consumption distribution. The guarantee can also be designed to promote objectives such as human capital acceleration, productivity and labor mobility, and disaster and pandemic response. While the guaranteed minimum will provide universal coverage in principle, benefit payments can be contingent and progressive, meaning that benefits are available when and where needed. The minimum guarantee can be complemented by a coherent set of mandated and individually financed social insurance programs, decoupled from how or where people work. These reforms cannot be achieved without a significant increase in public spending on social assistance, which at 0.67 percent of GDP in 2018 is well below the lower middle-income country and regional averages. Expansion can be financed by increased revenues from tobacco taxation, reduced tax evasion, and lowered deductions.*

*Unlock the potential of women to contribute to economic growth*

*Unlocking the potential of women to contribute to economic growth will require coordinated efforts across multiple sectors. Within the education sector, a stronger focus is needed on improving girls’ participation in STEM subjects and, more broadly, their access to higher education. To support female students’ transition from education to work, reform of the Labor Law can aim to remove disincentives for employing women in the formal sector, a range of options for high quality affordable childcare needs to be developed and deployed, procedures for documented migrant workers reformed and eased, and access to legal identity documents improved (such as certificates needed to claim right to assets and inheritance, etc.). Economic opportunities for women offered by new technologies such as digital service provision, online advertising and e-commerce need to be explored and supported, with interventions targeted to women entrepreneurs to unleash the economic potential of the businesses they own.*

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<sup>123</sup> See World Bank (2018b) for details.

## Pathway IV: Managing Natural Assets for Enduring Prosperity

**In the past five years, the government has implemented reforms which have improved some aspects of natural assets management.** Since 2015, the government has been introducing regulations to improve the governance of forest and oceans ecosystems. These policies include a moratorium of primary forest and peatland conversions, a moratorium of palm oil plantation expansion, and the establishment of agency mandated to restore 2.6 million hectares of peatlands. The government has credited these reforms to helping achieve a 55 percent drop in deforestation between 2015 and 2017 and roughly 60 percent decline in total burned forest and land between 2016 and 2017.<sup>124</sup> In the fisheries sector, Indonesia has implemented aggressive policies to curtail foreign-vessel illegal, unreported, and unregulated (IUU) fishing, leading to a 90 percent decrease in fishing hours by foreign boats and some stock recovery.<sup>125</sup> In 2017, Indonesia announced its commitment to reduce 70 percent of marine plastic debris by 2025.<sup>126</sup> Furthermore, an agency for environment fund management (BPDLH) was established in late 2019 to manage funding for climate action and sustainable management of natural resources.

**However, the effectiveness of these reforms has yielded only modest improvements in overall outcomes, as the severe forest and land fires in 2019 illustrate.** Strengthened measures to control fires after a major episode in 2015 have proven insufficient to overcome intensified climatic factors. During prolonged dry season in 2019, Indonesia went through another major forest and land fire episode, resulting in economic damage estimated to cost over USD 5.2 billion and affecting vulnerable communities the most.<sup>127</sup> Furthermore, less than 40,000 hectares of mangroves have been rehabilitated between 2011 and 2019, well behind the 2045 target of 1.8 million hectares,<sup>128</sup> leaving coastal communities more vulnerable to increased climate risks such as floods and storm surges. Indonesia's air and oceans are also considered as some of the most polluted in the world, with the country ranking second in marine debris flowing into oceans and Jakarta the most polluted city in Southeast Asia.<sup>129</sup> Opportunities to add value and increase productivity in natural resources sector have remained generally elusive.

### 7.1. Key challenges in the management of Indonesia's natural assets

*Despite progress, natural resource exploitation practices in Indonesia do not sufficiently benefit local communities and continue to be costly and inefficient.*

**Despite a moratorium on primary forest and peatland conversion, Indonesia still has the world's second highest rate of forest loss.**<sup>130</sup> Half of Indonesia's terrestrial area is covered by forests, 90 percent

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<sup>124</sup> Ministry of Environment and Forestry (2018) for deforestation statistics, and Ministry of Environment and Forestry (2019) for estimated annual burned area.

<sup>125</sup> Cabral (2018). Rapid and lasting gains from solving illegal fishing. *Nature ecology & evolution*, 2(4), 650–658.

<sup>126</sup> The Government of the Republic of Indonesia: Indonesia's Plan of Action on Marine Plastic Debris 2017-2025.

<sup>127</sup> World Bank (2016a) and World Bank (2019f). *Indonesia Economic Quarterly: Investing in People*. Jakarta: The World Bank.

<sup>128</sup> Ministry of Environment and Forestry presentation (2019).

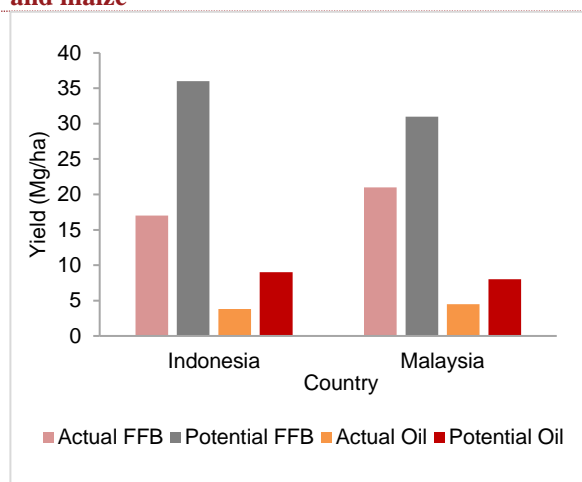
<sup>129</sup> Indonesia ranks 133<sup>rd</sup> out of 180 countries in Environmental Performance Index (2018), and second highest oceans plastic polluter after China according to Jambeck et al. (2015).

<sup>130</sup> FAOSTAT Database: Indonesia's annual average deforestation is second highest in the world in 2011-2017.

of which are included under legally designated forest areas.<sup>131</sup> However, between 2015 and 2017, over 1.1 million hectares was deforested,<sup>132</sup> including areas under the moratorium. In 2019, almost 1.6 million hectares of forest and land also burned,<sup>133</sup> including significant areas of carbon-rich peatlands and at least 270,000 hectares of forests inside the moratorium border.<sup>134</sup> Removal of forests means removing critical ecosystem services to surrounding communities such as timber and bioproducts, ecological functions such as carbon storage, nutrient cycling, water and air purification, as well as cultural and social benefits.

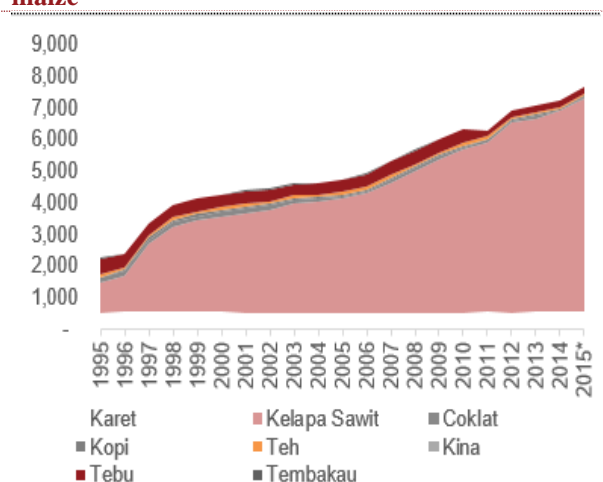
**Unsustainable practices such as draining peatlands in lowlands and fertilizer overuse further degrade land and lower its productivity.** Existing agricultural development on carbon-rich peatlands triggers massive oxidation leading to subsidence, carbon emissions, and overall heightened risk of frequent or even permanent floods affecting 60 million people in lowland areas.<sup>135</sup> Intensive plantation-based cultivation of Sumatra and Kalimantan lowlands has begun to lower their productivity.<sup>136</sup> Past peatland conversion is estimated to result in USD 50 billion in net social loss, primarily from health impacts, damage to crops from fires, carbon emissions, and subsidence leading to flood risks, and over USD 100 billion of net social loss by 2030 if this practice continues.<sup>137</sup> At the same time, overuse of inorganic fertilizer, particularly by small-scale farmers, leads to land degradation and negatively impacts yield in the long run.

**Figure 7.1: Indonesia has more than 50 percent in crop yield gaps in key commodities such as palm oil and maize**



Source: World Bank Staff analysis, various sources

**Figure 7.2: Indonesia's plantation is dominated by a few, monocultural crops such as palm oil, rice, and maize**



Source: World Bank Staff calculations, Indonesia Bureau of Statistics, 2018

<sup>131</sup> Forest cover includes primary forests, secondary forests, and plantation forests, expanding across legally designated Forest and Non-Forest Areas. *State of Indonesia's Forests*, MoEF (2018).

<sup>132</sup> MoEF (2018).

<sup>133</sup> MoEF, SIPONGI (2020) accessed from [http://sipongi.menlhk.go.id/hotspot/luas\\_kebakaran](http://sipongi.menlhk.go.id/hotspot/luas_kebakaran)

<sup>134</sup> World Bank staff analysis (2019).

<sup>135</sup> World Bank staff calculation (2019).

<sup>136</sup> Without drastic restoration of natural peat hydrological regimes, large areas of Sumatra will be at the risk of becoming unproductive in the next 20-25 years. (World Bank, 2019i). *Pilot ecosystem account for Indonesian peatlands: Sumatra and Kalimantan islands*. Washington, D.C.: World Bank Group.)

<sup>137</sup> GPS (2020).



**Low agricultural productivity and profitability in Indonesia curb the extent to which farmers benefit from land cultivation, while diversification to more profitable crops remains elusive.** Indonesia has more than 50 percent in crop yield gaps in most commodities including palm oil and maize, with rice as the only exception with a gap below 50 percent (Figure 7.1). While relatively productive and profitable, Indonesia's palm oil production remains well below the estimated potential of 8.45 tons per hectare.<sup>138</sup> This points to untapped opportunity from intensification to achieve increased production targets while enforcing moratorium on forest conversion and sustainable land use planning. Overall, Indonesia's crop production is still dominated by low-profitability crops such as rice, palm oil, and maize, especially among small-scale rural farmers (Figure 7.2). Production of alternative crops with higher profitability such as horticulture is still limited.

**Widespread destruction of mangroves increases vulnerability of coastal communities to climate-related risks.** Indonesia is home to over a fifth of global mangrove covers. Mangroves are important assets that strengthen resilience against flood, storm surges, and coastal erosion (valued at an estimated USD 1.5 billion per year), and they provide critical grounds for commercial fish nurseries (valued at USD 378 million per year).<sup>139</sup> Mangroves also play a critical role in climate adaptation, reducing risks from sea level rise and increased flood frequency for up to 42 million people living in low-laying and coastal zones, including the poor and vulnerable who will be disproportionately affected.<sup>140</sup> Despite the importance of these valuable ecosystem services, Indonesia has one of the highest rates of mangrove removal in the world.<sup>141</sup> Some known drivers of mangrove removal include conversion to shrimp ponds, logging, and conversion to agriculture or salt pans.<sup>142</sup> In Central Java, mangrove removal, along with aquaculture activities and sea level rise, has led to abrasion that reduced a land area roughly the size of Jakarta between 2000 and 2014.<sup>143</sup>

**Key sectors of the blue economy—particularly fisheries and coastal tourism—are threatened by marine debris, overfishing, and climate change.** The government estimates that Indonesia discharge 0.27-0.59 million tons of marine debris to the oceans per year,<sup>144</sup> 20 percent of which are sea-based. Overall, marine debris leads to estimated annual revenue loss of USD 32.3 million from the fisheries sector<sup>145</sup> and threatens Indonesia's international reputation, affecting tourism growth potential of USD 138.8 million.<sup>146</sup>

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<sup>138</sup> Current productivity level is at 2-4 tons of crude palm oil per hectare.

<sup>139</sup> Over 30 years' time period. Murdiyarso (2015). The potential of Indonesian mangrove forests for global climate change mitigation. *Nature Climate Change* 5,1089-1092. 10.1038/nclimate2734; and Campbell & Brown (2015). Indonesia's vast mangroves are a treasure worth saving. *The Conversation*. Available at <http://theconversation.com/indonesias-vast-mangroves-are-a-treasure-worth-saving-39367>

<sup>140</sup> According to Citi Research (2019), Indonesia is the 7<sup>th</sup> most vulnerable country in the world to such risks; Indonesia NDC.

<sup>141</sup> FAO (2007). *Mangroves of Asia 1980–2005: country reports*. Forest Resources Assessment Working Paper No. 136. Rome: FAO.

<sup>142</sup> FAO (2007).

<sup>143</sup> Ministry of Maritime Affairs and Fisheries (2019). Accessed from Kahfi (2019). Indonesia has lost land equal to size of Jakarta in last 15 years. *The Jakarta Post*. Retrieved from <https://www.thejakartapost.com/>

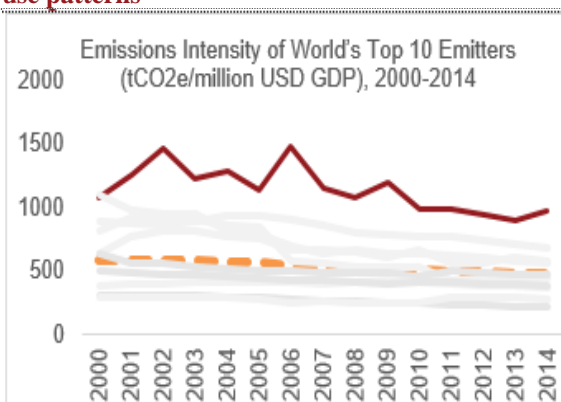
<sup>144</sup> Harsono (2019). Government: Indonesia produces up to 0.59 million tons of marine debris per year. *The Jakarta Post*. Retrieved from <https://www.thejakartapost.com/>

<sup>145</sup> Marine plastic debris contaminate fish, as evidenced in Makassar where over 28 percent of fish in the fish market were found to contain plastic in one study.

<sup>146</sup> Making Oceans Plastic Free. <https://makingoceansplasticfree.com/hidden-cost-plastic-bag-use-pollution-indonesia/>

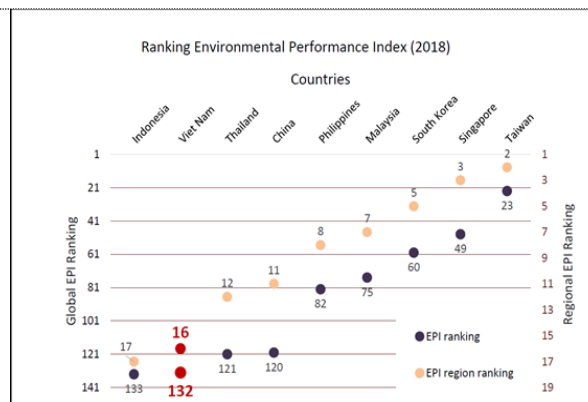
An assessment in 2016 recorded at least 817 marine species affected by marine debris.<sup>147</sup> Meanwhile, coral reef tourism, estimated at USD 3 billion every year, is threatened by climate-induced acidification and unsustainable fishing practices using cyanide and explosives.<sup>148</sup> In the fisheries sector, about 38 percent of fish stocks have been overexploited and 52 percent of them are fully exploited across 11 fisheries management areas (WPPs) in 2016,<sup>149</sup> leading to below-potential socio-economic, food, and nutrition benefits. At the same time, medium- and small-scale domestic fleets continue to expand and, without a comprehensive management strategy, risk undermining gains from reduced foreign fishing.

**Figure 7.3: Indonesia has the world's highest emissions intensity (tCO<sub>2</sub>e/USD GDP) due to land use patterns**



Source: World Bank Staff calculations based on data from ClimateWatchData.org and GDP (PPP constant 2011)

**Figure 7.4: Indonesia lags regional peer in 2018 Environmental Performance Index**



Source: Wendling et al. (2018).

**Partly as a result of its resource use patterns, Indonesia has been the world's most carbon-intensive economy in the past decade—with substantial pollution challenges.** This is driven by an expansionary approach by farmers and companies in increasing commodity production, which entails deforestation, fires, and peat drainage. Between 2000 and 2014, Indonesia produced more carbon emissions per unit of economic output than any other country (Figure 7.3). Overall, the land sector (agriculture, land use, land use change, and forestry) is responsible for 59 percent of Indonesia's emissions<sup>150</sup> and risks derailing the efforts of achieving the emissions reduction target of 29-41 percent against business as usual projections by 2030, as stipulated in its Nationally Determined Contribution. Meanwhile, increased water releases and air pollution from growing manufacturing activities and small medium enterprises are growing concerns, along with pollution from the mining sector.<sup>151</sup> Overall, Indonesia lags regional peers in key environmental performance indicators, such as air quality, water and sanitation, carbon emissions, marine protected areas, and tree covers (Figure 7.4).<sup>152</sup>

<sup>147</sup> CBD - Secretariat of the Convention on Biological Diversity. (2016). *Marine Debris: Understanding, Preventing and Mitigating the Significant Adverse Impacts on Marine and Coastal Biodiversity*. Montreal, Technical Series No. 83, 78 pages.

<sup>148</sup> Spalding et al. (2017). *Reefs at Risk Revisited*. Washington D.C.: World Resources Institute.

<sup>149</sup> Suman et al. (2018). The 2016 Status of Fish Stocks within the Fishery Management Areas of the Republic of Indonesia. *Indonesian Fisheries Policy Journal* 10:107-128.

<sup>150</sup> Government of Indonesia (2017). *Third National Communication*.

<sup>151</sup> Bose-O'Reilly et al. (2010). Health assessment of artisanal gold miners in Indonesia. *Science of the Total Environment*, 408:713-725.

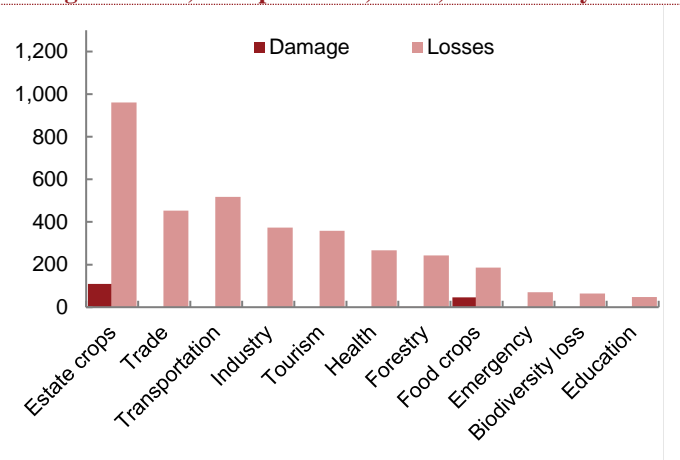
<sup>152</sup> Wendling et al. (2018). *2018 Environmental Performance Index*. New Haven, CT: Yale Center for Environmental Law & Policy

**In urban areas, air pollution has increasingly been an impediment to productivity and wellbeing, with increased traffic and fossil fuel-based power plants identified as key sources of pollutants.** Indonesia's air quality ranks the 11<sup>th</sup> worst worldwide and its capital Jakarta is one of the most polluted cities in Southeast Asia.<sup>153</sup> While haze from forest and land fires mainly affects communities in Kalimantan and Sumatra islands, Indonesians living in Java island are concentrated in cities which are polluted by traffic and in close proximity to fossil fuel-based power plants. New analysis shows that the average Indonesian can expect to lose 1.2 years of life expectancy because of poor air quality and that loss of life expectancy in the most polluted regions such as Jakarta is more than 5 years.<sup>154</sup> Overall, the cost of air pollution in Indonesia is estimated to be around 5 percent of GDP in the form of welfare losses and forgone labor output.<sup>155</sup>

**Current practices of natural resource exploration generate large and widespread negative spillovers but little prosperity for the communities living in and around natural assets.** The use of fires on forests and peatlands for agricultural preparation releases a thick haze with harmful effects to health, the environment, and the economy. Losses associated with the 2019 forest fires are estimated to reach USD 5.2 billion (Figure 7.5),<sup>156</sup> and the losses from the 2015 fires (USD 16.1 billion) are higher than the total value addition from the country's palm oil production.<sup>157</sup> These destructive practices typically

disproportionally benefit small groups in the local communities. One study found that 85 percent of the cashflow generated from palm oil development in lands claimed and cleared with fires goes to local elites.<sup>158</sup> Meanwhile, the poverty rate in villages around forest areas is estimated at 16.2 percent while poverty inside forest areas reaches 23.5 percent, which is more than double the national poverty rate.<sup>159</sup> Similarly, Indonesia coastlines provide jobs to over 7 million people in the fisheries and marine aquaculture, and

**Figure 7.5: Recurring forest and land fires costed Indonesia USD 5.1 billion in 2019, with the highest loss recorded from the agricultural, transportation, trade, and industry sectors**



Source: World Bank staff analysis, 2019

<sup>153</sup> IQAir (2018). *World Air Quality Report 2018*. Switzerland: IQAir.

<sup>154</sup> Air Quality Life Index produced by the Energy Policy Institute at the University of Chicago (EPIC) (2019).

<sup>155</sup> World Bank and Institute for Health Metrics and Evaluation (2016). *The costs of air pollution, Strengthening the Economic Case for Action*.

<sup>156</sup> The costs were mainly through agriculture, transportation, trade, and industry sectors - sources: World Bank (2016a) and loss assessment in World Bank (2019f).

<sup>157</sup> These estimates do not include the longer-term effects of repeated exposure to haze on human capital such as acute respiratory illnesses, premature deaths (Estimated at 100,300 by Koplitz et al.) and reduced quality of education due to affected health of teachers and students.

<sup>158</sup> Purnomo et al. (2017). Fire economy and actor network of forest and land fires in Indonesia. *Forest Policy and Economics* 78, 21-31. DOI: 10.1016/j.forpol.2017.01.001

<sup>159</sup> Data from the National Social and Economic Survey (Survei Sosial Ekonomi Nasional, SUSENAS) and Village Census (Pendataan Potensi Desa, PODES).

millions more in marine and coastal tourism sectors.<sup>160</sup> However, unsustainable fisheries practices and land utilization have damaged mangroves, sea grass, and coral reefs, which are important for maintaining fish stocks, local tourism, and climate resilience. Data shows that the average income of fishers is only 60 percent of the regional minimum wage,<sup>161</sup> and a lower proportion of coastal villages has access to most basic services.<sup>162</sup>

**Under current trends, natural resources will rapidly reduce their contributions to the Indonesian economy and their degradation will become increasingly hard to reverse.** Indonesia's fast economic growth has relied on natural resources exploitation. In the next 25 years, due to environmental stress and resource constraints, Indonesia is predicted to have lowered land productivity, increased scarcity of renewable natural resource goods and services, and worsened impacts of climate change. As a result, the government's Low Carbon Development Initiative predicted Indonesia's economic growth to slow to below 4.5 percent growth rate annually by 2045 under a business as usual scenario.<sup>163</sup>

## 7.2. Binding constraints to effective management of Indonesia's natural resources

*Primary constraints in the land sector include weak enforcement of existing legal designations, continued uncertainties of land boundaries, and externalized costs of unsustainable practices.*

**Factors affecting low productivity and profitability in the agriculture sector include a mismatch between land suitability and farming systems, limited extension services and infrastructure bottlenecks.** In large parts of the lowlands existing farming systems are unsuitable for the local biophysical and climatic conditions (Figure 7.6). Oil palm is often cultivated in areas of low suitability and low potential productivity. Most of the areas where current farming systems are completely unsuitable are in Sumatra and Kalimantan, which are mainly in deep peat. This mismatch reduces productivity, but farmers are reluctant to change cropping patterns given the fixed costs of shifting production, which are high in the absence of government support through extension services. This reluctance is compounded by trade restrictions that keep prices of basic crops, such as rice and maize, artificially high, thus incentivizing their cultivation. Furthermore, poorer paddy farming households tend to rely on rainwater as their source of irrigation, increasing the likelihood of loss due to drought compared to using water pump or dam irrigation systems.

*Government spending in the agricultural sector is dominated by input subsidies, which are poorly targeted, regressive, abused, and cost-ineffective at increasing production.* Over 36 percent of central government spending on agriculture is used to subsidize fertilizer through the SOEs that dominate fertilizer production. Between 2014 and 2017, spending on fertilizer subsidies has increased by 37 percent. Fertilizer only accounts for 6 percent of rice production costs and targeting is very poor.<sup>164</sup> Over 60 percent of the

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<sup>160</sup> CEA (2018).

<sup>161</sup> Cahyagi & Gurning (2018).

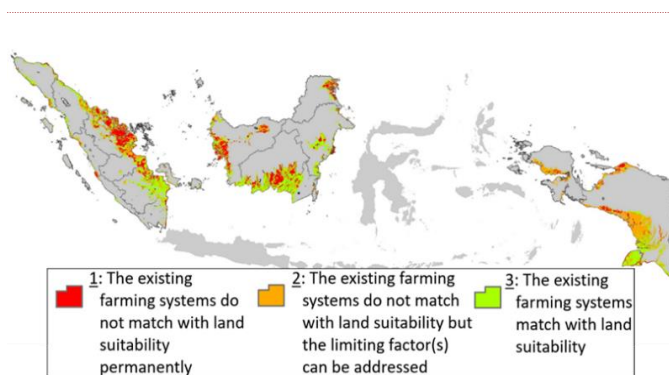
<sup>162</sup> PODES (2018).

<sup>163</sup> The government's Low Carbon Development Initiative comprises efforts to mainstream low-carbon policies into development planning (RPJMN), including modeling projections and scenarios until 2045, with its link to the national policy planning process.

<sup>164</sup> World Bank (2011). Indonesia - Agriculture public expenditure review 2010. *Public Expenditure Review (PER)*. Washington, D.C.; World Bank Group.

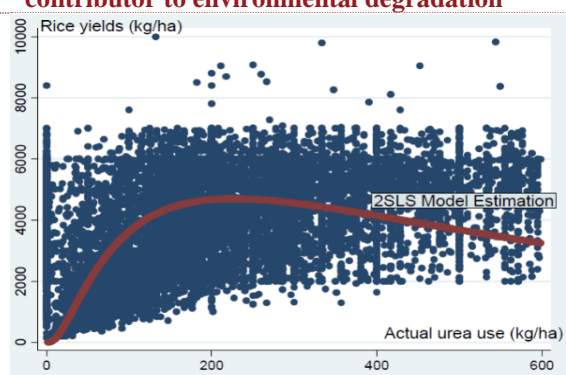
subsidized fertilizer benefits the largest 40 percent of farmers and is often sold by non-targeted producers at rates as high as 40 percent above the state-set price.<sup>165</sup> On average, farmers also pay similar prices for fertilizer, regardless of their land size, location, or revenues, indicating mistargeting and inefficiency. The subsidy has led to fertilizer overuse especially among small-scale farmers with unintended negative impacts in terms of soil degradation. This is consistent with the negative relation between fertilizer use and land productivity above a certain usage threshold (Figure 7.7). Other than irrigation, less than 5 percent of agricultural spending has been allocated for public goods provision.

**Figure 7.6: Existing farming systems poorly match land suitability in Indonesia**



Source: World Agroforestry Center (ICRAF) (2019).

**Figure 7.7: Fertilizer subsidies may have decreased yields in some areas and been a contributor to environmental degradation**



Source: FAOSTAT, IRRI, World Bank

**Accessing land tenure is difficult, especially for those who need it most.** There are multiple types of rights and designations, and the process of obtaining tenurial legal status is uncertain and difficult to navigate, with fragmented governance across ministries. While over 18,000 villages are located inside legally designated forest area borders and are home to 34 million people, restrictions over forest resources have limited how communities benefit from forests. The government’s major program of social forestry recognizes five types of social forestry status, including village forest, community forest, community industry forest, *adat* forests, and partnership forests. The limitation in land ownership size under the tenurial and agrarian reform (TORA) program has discouraged existing farmers managing larger areas from coming forward and submitting claims. Overall, the regulations tend to confuse communities, discouraging them from engaging in the complicated process. At about 0.2 percent of claimed *adat* areas identified, the recognition process has been slower than expected.<sup>166</sup>

**As a result, land conflict is rife in areas with low certainty of legal status and boundaries, and in the absence of effective conflict resolution mechanisms, slash and burn becomes a way to reclaim land.** Data from 2014 shows that land conflicts can be found in over 20 percent of the forest estate, either over permits for mining, timber, or oil palm.<sup>167</sup> Limited capacity in mediation of land-related social conflicts

<sup>165</sup> World Bank (2011).

<sup>166</sup> To date, only 22,000 hectares out of 9.6 million hectares of identified *adat* forests have been recognized in 307 communities by AMAN. This figure also only comprises 1 percent compared to other forms of social forestry. Indicative maps have been issued by MoEF, but uncertainties remain without robust legal recognition.

<sup>167</sup> World Bank (2014). *Towards Indonesian Land Reforms: Challenges and Opportunities*. A Review of the Land Sector (Forest and Non-forest) in Indonesia. DOI: 10.13140/RG.2.2.16062.02883



means that local communities often resort to slash and burn practices to claim lands. This, along with other uncertainties in land boundaries creates fertile ground for illegal slash and burn practices to claim rights in conflict areas.<sup>168</sup>

**At the local level, patronage networks of farmer group organizers benefit from the illegal and destructive practice of using fires to claim lands.**<sup>169</sup> Groups that benefit from slash and burn practices do not bear most of the costs from negative spillovers. Significant economic rents of up to USD 856 per hectare accrue to those who claim and sell land, clear land, establish new settlements, hold overlapping land claims in concession areas, as well as hold overlapping claims between local communities and local vested interests. This chronic practice has created a certain degree of dependency for farmer group organizers, village heads, former forest concession employees, and farmer group members.

**The lack of viable alternatives to clear land and the uncertainty surrounding the legality of slash-and-burn practices for small-scale agriculture have further contributed to fires spreading to forests and peatlands.** Both the environmental protection law and plantation law prohibit ‘the use of fires for land clearing’ and ‘any forms of land clearing with fires that result in pollution in environmental degradation’. However, the former recognizes exemptions based on local wisdom, which includes controlled burning of lands under two hectares given that procedural requirements are met. At the same time, the proposed alternatives for land preparation without burning, such as labor-intensive manual clearing and using heavy equipment, are either topographically unfeasible or very expensive. Surrounding communities also generally lack the incentives and support to switch from slash and burn practices. The combination of limited low-haze land clearing options and legal uncertainty has led to the continuation of destructive practices.

**Weak enforcement of existing legal land designations and of the moratorium on conversion of primary forests and peatlands contributes to land depletion.** Forest cover removal between 2016 and 2018 declined from 533,000 hectares to 139,000 hectares, indicating progress from the moratorium implementation.<sup>170</sup> However, 270,000 hectares still burned in 2019 under the current moratorium boundaries, indicating the need to strengthen enforcement.<sup>171</sup> Furthermore, between 2011 and 2016, roughly 3 million hectares have been exempted from the initial moratorium map and exemption categories have expanded, including areas with a principal permit or designated by the Ministry of Environment and Forestry (MoEF) for exploration.<sup>172</sup> As a result, uncertainties remain for the remaining 1 million hectares of existing palm oil concessions inside the moratorium boundaries,<sup>173</sup> especially without clear mechanisms on enforcement or for compensating for already-issued permits. Meanwhile, legal designation often does not represent actual biophysical condition: only about 70 percent of land areas legally designated as part of

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<sup>168</sup> Suyanto (2007). Underlying Cause of Fire: Different Form of Land Tenure Conflicts in Sumatra. *Mitigation and Adaptation Strategies for Global Change*, 12, 67-74. DOI: 10.1007/s11027-006-9039-4.

<sup>169</sup> Purnomo et al. (2017).

<sup>170</sup> GFW (2019). Accessed from Samadhi (2019). Three Benefits of Jokowi’s Permanent Ban on Forest Clearance Permit for Indonesia. *World Resources Institute*. Retrieved from <https://wri-indonesia.org/>

<sup>171</sup> World Bank (2019f). IEQ Box.

<sup>172</sup> Madani Berkelanjutan (2019). Critical Notes on the Presidential Instruction No. 2015 on the Halting of Issuance of New Licenses and Improvement of Governance in Primary Natural Forests and Peatlands.

<sup>173</sup> Madani Berkelanjutan (2019).



the forest estate have actual forest cover. In 2019, the government has made the temporary moratorium permanent, although measures to ensure effective enforcement are yet to be introduced.

**There has been limited government spending on fire prevention efforts beyond peat restoration but spending on fire suppression is large.** Under the current scheme, SNGs affected by forest and land fires are entitled to receive transfers from the national government for fire suppression purposes, which may create perverse incentives for SNGs to allow fires in order to generate revenue. At least IDR 2.7 trillion and IDR 1.1 trillion were spent for fire suppression efforts in 2015 and 2019, respectively, mainly under disaster response schemes. In 2016, only 10 percent of the MoEF's fire management budget was allocated for fire prevention measures such as awareness-raising and early detection and warning systems; the remaining 90 percent was allocated for suppression. Furthermore, budget allocations for government functions related to fire prevention (such as land preparation, water management, and irrigation) in seven fire-prone provinces have been declining between 2015 and 2017, and could not reach critical geographies such as fire-prone forest areas due to jurisdictional constraints.<sup>174</sup>

**Weak cross-sectoral coordination and the practice of dual land administration also hinder sustainable land management.** Currently, the mandate over land administration fall under the jurisdictions of both MoEF and Ministry of Agrarian Affairs and Spatial Planning, creating a dualism that leads to an inefficient planning process. As a result, many forestry and spatial planning regulations are not synchronized, and sectoral operational boundaries overlap. In Kalimantan, for example, over 19 percent of land is subject to overlapping land utilization plans, while 63 percent of oil palm plantation boundaries reported to MoEF may be inaccurate. Land-related development targets are often set without coordination across ministries and related agencies, creating objectives that are overlapping and impossible to achieve.<sup>175</sup> This dualism also precludes integrated water management critical to ensure effective monitoring of private sector practices in peatland areas.

**The pandemic-related economic recession might further increase pressure on land and forests, which increases the importance of adequate land management.** Studies show a strong correlation between economic crises and the opening of new agricultural land, especially in forest areas, and the tendency of farmers to adopt mixed farming methods to complement their income in the short-term, especially food and crops.<sup>176</sup> This can play an important role in post-COVID recovery programs, especially given the labor-intensive nature of this sector.<sup>177</sup> At the same time, it makes addressing the constraints to sustainable land management even more salient.

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<sup>174</sup> World Bank (2016a).

<sup>175</sup> There are simply not enough lands to achieve both environmental protection goals such as moratorium of primary forests and peatlands, social forestry goals (12.7 million hectares), as well as energy and food-sufficiency goals (including USD 25 billion export target from the Vice Ministry of Foreign Affairs)

<sup>176</sup> Sunderlin et al. (2020). The Impact of Indonesia's Economic Crisis on Small Farmers and Natural Forest Cover Outside of Java (in Bahasa Indonesia). *Center for International Forestry Research (CIFOR)*.

<sup>177</sup> Constitutional Court Decree No. 137/PUU-XIII/2015 revoked article 251 (2) (3) (4) and (8) of Law 23/2014 which stipulated that a Governor may revoke a City/District regulation or Mayor/Regent regulation if it contradicts with public interest, morality or higher-level regulations. Constitutional Court Decree No. 56/PUU-XIV/2016 revoked article 251 (1) (2) (4) (8) of Law 23/2014 concerning Subnational Government that a Minister may revoke a provincial regulation. The argument underlying both decisions was that the Constitution (Article 24(1)) previews the right of revoking lower level regulations as the role of the judiciary, namely of the Supreme Court.

In the *oceans sector*, key constraints toward effective management lie in weak governance, low investment, as well as limited capacity at the local level.

**Fishery management is poor due to lack of capacity and limited coordination between provinces and levels of government.** Fishery Management Councils (*Lembaga Pengelola Perikanan*, LPPs) currently lack the resources and the institutional capacity to implement actions in the fisheries management areas under their jurisdiction, including to sufficiently and reliably monitor stocks and prevent overfishing. There is also a lack of clarity in the relation between LPPs and the central and subnational fisheries departments. While fishery management plans exist, they do not contain robust harvest control strategy and rules, fisheries restrictions, and gear specifications.<sup>178</sup> Timely data and analysis on exploitation levels at area- and species-levels are either missing or insufficiently reliable to inform decision making, resulting in the reliance of fishing license issuance on historical stock estimates and unreliable data. Furthermore, over 95 percent of 550,000 national fishing boats are small-scale boats under 5 gross tonnage, which do not require licenses under the national law. These vessels are insufficiently monitored, leading to inaccurate data on the overall harvest, which affects the design and enforcement of fisheries policies.

**The government lacks the instruments to monitor, implement, and enforce marine and coastal management plans, which involve more than 18 ministries and agencies.** Spatial data on mangrove, coral reefs and seagrass are not easily accessible or harmonized, with their quality and update frequency in need of validation and improvement. Currently, Indonesia has transferred the mandate over coastal and small island zoning plans, known as the Coastal and Small Islands Zoning Plans (RZWP3K), to the subnational governments, which often have limited capacity. By the end of 2019, 21 of 34 provinces have completed their plans, but among those that have, marine and terrestrial spatial plans often overlap. Furthermore, provinces lack the instruments to monitor, implement, and enforce these plans. Despite policies outlining the need for mangrove management and the target to rehabilitate 1.8 million hectares of mangroves by 2045, less than 40,000 hectares of mangrove rehabilitation was achieved between 2011 and 2019.<sup>179</sup>

**The effectiveness of subsidies and fiscal incentives can be improved by aligning them with productivity and sustainability goals.** Currently, fossil fuel subsidies mainly benefit medium to large-scale segments of the fishing fleet, with only 16 percent benefitting small-scale traditional fishers.<sup>180</sup> The government is also directly subsidizing fishing capacity through a program of boat and gear distribution that has provided over 2,500 new nearshore ocean-going vessels and over 18,000 sets of gear; however, they are not directly tied to sustainability. On the revenue side, there is potential to increase government revenue from the fisheries sector in ways that improve the sector's sustainability and productivity at the same time, such as through incentivizing higher productivity and value per boat instead of higher fishing effort. Currently license revenues are driven by the number of boats, which put management needs in conflict with revenue incentives. These incentives can later be invested in improving management efforts and supporting stakeholders affected by the new management regimes.

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<sup>178</sup> Indonesia is ranked 22<sup>nd</sup> out of the largest 28 fishing nations on fishery management effectiveness (Melnychuk, 2016. Fisheries management impacts on target species status. *Proceedings of the National Academy of Sciences*, 114. 201609915. DOI:10.1073/pnas.1609915114.)

<sup>179</sup> Ministry of Environment and Forestry presentation (2019).

<sup>180</sup> Nawawi M. Noer (2018). Manajemen Subsidi yang Efektif untuk Nelayan. *Kompasiana*. Retrieved from <https://www.kompasiana.com/>

**Poor waste collection and treatment services lead to higher rates of ocean leakage and is the main cause of Indonesia's marine debris problem.** More than 50 percent of 65 million tons of domestic waste including plastics remains uncollected per year, being burned, dumped or entering waterways and oceans. More than 70 percent of the local disposal cells and treatment facilities function poorly within few years after hand-over to the government. Recycling is still a largely informal sector, capturing only 7.5 percent of national waste. Overall, private sector investments in the recycling industry are still low. The government's commitment to reduce marine debris by 70 percent by 2025 might face challenges from insufficient investment in solid waste management collection, which requires around USD 5 billion, in addition to the lack of enabling legal framework and policy such as plastic excise or extended producer responsibility schemes.

**At the same time, sea-based marine debris leakage, particularly in the form of ghost nets, occurs due to weak ship waste management system, poor port infrastructure and lack of enforcement.** Given poor port waste reception facilities and limited space in the fishing vessels, fishers and ships are prompted to dump waste illegally into the sea. This often consist of oils, garbage, sewage, and specific hazardous waste.

### 7.3. Reform Priorities

#### *Strengthen institutions for land management and governance*

*Unify land-related policy targets and governance under an integrated landscape management approach,<sup>181</sup> including in lowland areas.* In 2019, the government introduced several adjustments in the ministerial structure, including a strengthened leadership role to coordinate between key ministries related to natural resources and implement integrated landscape management. This mandate can be leveraged to promote a paradigm shift toward an integrated landscape governance for coordinated actions and processes across sectors. For example, the government can consider introducing a framework to manage peatland areas as landscape units, and a comprehensive national fire policy, under which relevant ministries work closely together with clear distribution of roles and responsibilities. Such framework can also inform spatial planning process and resource allocation across the central government and SNGs. Coordination can also be strengthened at the subnational level, highlighting the key role of provinces.

*Existing peatland restoration and rehabilitation efforts are commendable, but a broader focus on the management of peatland, land, and water resources can be pursued.* Beyond restoration, efforts to protect and conserve existing peatlands need to be increased. Current efforts have been focused at achieving the remaining target of 1.7 million hectares of restoration of degraded peatlands. However, preliminary results of World Bank modeling suggest that preventing further drainage of 5.51 million hectares of peatland areas in Sumatra, Kalimantan, and Papua will avoid USD 19 billion of net economic loss.<sup>182</sup> Weak oversight of private sector practices can be improved using performance-based license renewal. Recent plans to expand

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<sup>181</sup> "Integrated Landscape Approaches" refers to a basic framework for balancing competing demands and integrating policies for multiple land uses within a given area.

<sup>182</sup> World Bank (2020). Cultivation of perennial crops such as paddy rice, oil palm, and rubber.

the mandate of Peat Restoration Agency to include overall peat management can provide the important first step towards this end.

*Strengthen enforcement of and clarify legal land designations while ensuring that forests benefit local communities.* Strengthening the legal basis of the moratorium to go beyond presidential instruction and expanding its application to secondary forests and/or critical mangrove ecosystems are necessary to protect Indonesian forests from undue exploitation. At the same time, the legal designation of forest estates needs to better reflect biophysical conditions and a vision for sustainable land use, accompanied by comprehensive land tenure reforms including through a more systematic approach toward a single land registry and an acceleration of the One Map implementation, including in the forest estate. Finally, the government may consider simplifying and expediting the *adat* legal recognition processes.

*Incorporate adaptable schemes for land allocation, forest management, and conflict resolution.* Under the currently implemented TORA, flexibility in land ownership size such as based on existing land cover, historical land use, as well as geographical condition can invite more community members to participate in the process. Meanwhile, social forestry schemes achieving both social and environmental goals for affected communities may include the investment in community capacity to manage and sell forest products, including market access and improved product competitiveness. In parallel, the government can invest in local capacity to assess conflict and provide mediation services. Finally, the government can regulate land banking practices in Indonesia, providing less time lag between issuance and utilization, to allow for efficient reallocation that benefit surrounding communities.

*Invest in cost-effective measures to promote sustainable management of natural assets and environmental protection*

*Allocate financial resources and market-based instruments to disincentivize deforestation and the use of fire to clear land.* The climate budget tagging exercise allows for an assessment of current levels of public investment and remaining gaps to be financed through private or international sources, mobilized through the BPDLH. Such investment can be justified by the need to internalize the negative externalities imposed by the burning activities in the absence of the state's ability to identify the perpetrators and sanction them. The central government may also utilize performance-based fiscal transfers to SNGs such as for peat restoration, haze reduction, forest protection, and/or water management. The government may also consider providing enough funding to compensate for the benefits that local patronage networks derive from fires. Funding can come from a combination of, for instance, village funds, payment for ecosystem services such as Reducing Emissions from Deforestation and Forest Degradation (REDD+), as well as recent plan to develop a domestic emissions trading market. In non-forest and non-peatland areas that need to be cleared, the government can provide land clearing assistance and/or controlled burning for farmers in non-fire-prone areas, such as mineral lands. Finally, existing certification schemes can be improved to allow farmers to get a price premium for implementing sustainable agricultural practices.

*The provision of agricultural extension services can be expanded to increase productivity and facilitate shifting crop patterns to increase profitability and reduce pressure on forests and peatlands.* The previous SCD has identified the inefficiencies and regressive nature of fertilizer subsidies, but between 2014 and 2017, the figure has increased by 37 percent. The government may consider reallocating inefficient and poorly targeted fertilizer subsidies to providing public goods that improve productivity, profitability, and

resilience. These include strengthening irrigation systems and extension services. The latter include timely weather information and climate forecasts, innovative farming systems, as well as broad research to develop crop varieties that are more profitable and tolerant to changing conditions. This is particularly important to ensure that farming on peatlands, if it takes place at all, imposes minimal burden on these fragile ecosystems. By increasing the productivity of land, these measures can help reduce the need to expand agricultural land, thus complementing other measures to protect forests.

*Integrated air quality management plans for critically polluted urban areas, specifically Jakarta, need to be developed to determine the most cost-effective policies and investments.* Indonesian cities still lack full air pollution source inventories, source apportionment monitoring, and health impact assessments which hinder informed policy interventions. The government can consider a limited number of targeted policy and investment measures which have achieved substantial reduction of population exposure to air pollution in the short term, as implemented in other countries with a similar challenge such as Mexico and China. In China, a five-year policy action plan has been introduced and adopted for industrial sectors, heating, fuel standards, and pollution control standards based on a comprehensive analysis of key pollution sources and cost-effective interventions, which has led to a 40 percent reduction of PM2.5, a substance harmful to human health. In Mexico City, coordination across federal, city, and surrounding states' governments has been established to implement cross-boundary, comprehensive air quality management programs, including the development of an efficient mass transit system, renewable power supply, and the regulation of open waste burning. Comparable approaches can help address water quality and pollution from industrial sources and the manufacturing sector, while enhancing competitiveness.

#### *Strengthen fisheries and coastal resources management*

*Decentralized fisheries management can be made more effective through policy reforms, public investments, stronger enforcement, and coordination.* The success in slashing foreign IUU activities through reforms and enforcement is substantial, but similar attention now needs to be paid towards the governance of domestic vessels. The government may also consider undertaking reforms in the licensing framework and promoting management of rights for traditional fishers, including territorial user rights for in-shore fishing grounds. The roles and responsibilities of the central government and SNGs at the fisheries management area (FMA)-level should be clarified and communicated, and the resources and mandate required for effective monitoring, control, and surveillance of fish stocks should be allocated to the LPPs. Overall, the government should promote science-based management, including through improved stocks assessment, a process to accurately match allowable catch targets, and stock restoration efforts which should be constantly updated. This requires investment in data collection methods and quality—including through community-led data collection and the use of innovative technologies to track fishing activities. Fishers can be incentivized toward sustainable fishing practices, including through environmental requirements upon becoming a subsidy recipient. Such measures can be partly supported through innovating financing opportunities, including through blended finance between public and private sources and blue bonds. In Seychelles, blue bonds have been used to raise capital on private markets for oceans-related investments and marine conservation such as sustainability-focused enterprises, livelihood, coastal ecosystem protection, and public infrastructure.

*Identify livelihood opportunities from sustainable use of coastal and marine ecosystems.* Existing moratoria on primary forests and peatland conversion can be expanded to mangroves, including those outside protected conservation areas. At the same time, other sustainable uses of coastal and marine ecosystems can be explored, including non-timber products from mangrove areas and increased ecotourism development. These alternative livelihood options become critical complements of sustainable fish stock management, as fishers will need to find other sources of economic livelihoods during the transition period.

*Invest in local infrastructure and management capacity.* Significant investments are required to strengthen coastal and marine resources' management capacity and to ensure the provision of basic infrastructure. Integrating the 'gray' infrastructure plans (roads, buildings, ports) with green infrastructure such as forests and mangroves is critical to protect and restore coastal ecosystems and build climate resilience. Innovative financing mechanisms and incentives instruments such as the payment for ecosystem services or ecological fiscal transfers can be explored to foster community involvement. Furthermore, the private sector in coastal areas can be involved through regulations promoting extended producer responsibilities for sustainable management. The government may also support fishers' effort to gain certification through continued investment and reform of traceability systems, as well as the implementation of required sustainability measures such as harvest controls, which can improve market access.

*Beyond investments in solid waste management and public recycling facilities, a broader circular economy approach is needed to reduce waste.* The government can consider phasing out single-use plastic products where sustainable alternatives are readily available and affordable, while gradually implementing single-use plastic excises or other suitable economic and policy instruments. At the same time, plastic imports with low value for recycling and therefore high externalities such as contaminated plastics can be restricted. In high waste leakage areas, broader awareness raising initiatives and stronger waste collection can be introduced. These actions can help the government achieve the national target of 70 percent marine debris reduction by 2025, which requires a robust baseline as well as a monitoring and verification system. In addition, cost-effective targeted beach and shallow-sea clean-ups to remove substantial accumulated plastic hotspots before these migrate to deeper ocean or marine/tourism areas can also be considered.



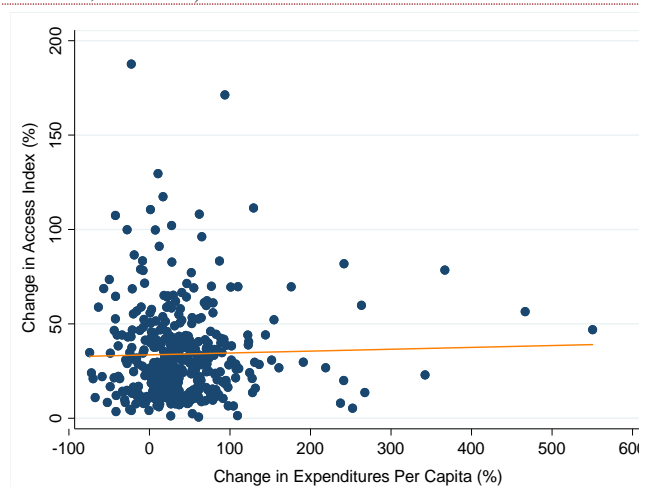
## Paving the Pathways: Collecting More; Spending and Governing Better

**Indonesia's spending on priority areas to boost growth and shared prosperity has increased since 2015 but remains low relative to its needs.** At 14.9 percent of GDP in 2018, Indonesia's level of expenditure is less than half the average of other emerging markets. This means spending on priority areas, namely infrastructure, health and social protection is low given Indonesia's needs. For example, between 2000 and 2013, Indonesia spent an average of 3.6 percent of GDP in public investments and public private partnerships in infrastructure per year, compared to 17.7 percent in China, 11.3 percent in Malaysia and 6.3 percent in Thailand. In health, Indonesia spends 1.4 percent of GDP or a third of the global average, and in social protection, Indonesia also spends less as a share of GDP than the average lower middle-income country. To enable the four pathways, Indonesia will need to increase its level of spending.

**Spending plans cannot be realized unless additional revenues are mobilized.** Given the country's prudent fiscal rule that limits deficits of the general government to 3 percent of GDP, expanding fiscal space cannot be achieved through debt accumulation, particularly in the context of Indonesia's external financing vulnerabilities. Nor will the solution come in a revival of non-tax revenues from natural resources. Thus, only by collecting more tax revenue at the central and subnational levels will government be able to sustainably finance the needed investments in infrastructure, health and social protection. Hovering around 12 percent, the general government's tax-to-GDP ratio is one of the lowest anywhere in the world, reflecting under-performance in revenue collection at both the central and subnational levels of government.

**The government also needs to spend existing resources better.** Central and subnational government spending is not sufficiently translating into developmental outcomes, particularly in lagging regions, leading to poor infrastructure, education and health. Inefficient and ineffective spending is a challenge across sectors. This is a concern at the local level, as SNGs are responsible for over half of total expenditures. Large increases in subnational per capita spend since 2008 have not translated in improved access to services (Figure 8.1). For example, an unconditional doubling of base teacher salaries led to no improvements in measures of teacher effort and had no impact on student learning outcomes.<sup>183</sup> Addressing these challenges requires a fundamental reorientation of the machinery of the state towards greater performance.

**Figure 8.1: More money at the local level does not necessarily lead to better access to services** (change in spending per capita vs. change in access to services, 2008-17)



Source: Indonesia Development Policy Review 2019, The World Bank

<sup>183</sup> Ree et al. (2017). Double for nothing? *Experimental evidence on the impact of an unconditional teacher salary increase on student improvement in Indonesia*. Washington, D.C.: The World Bank.

**At the root of many constraints to accelerate progress towards poverty reduction and shared prosperity are governance challenges preventing the effective formulation and implementation of policies and regulations.** The limited implementation of policy priorities identified in the 2015 SCD (which explains why the priorities identified at the time remain largely relevant in 2020) can trace its roots to deeper governance challenges related to the ability of elite actors to influence the policy-making and regulatory process and block reforms. For example, the previous SCD identified the importance of raising revenues so that the government can spend more in priority areas; however, revenue collection remains weak. This can be traced to the slow reform process in tax policy and administration, including the delays in procuring a new IT system, as well as the difficulty that policy makers have faced in proposing to the legislature tax reforms that would boost tax revenues. Tobacco taxation provides a relevant example. Indonesia has among the highest smoking rates in the world, and relatively modest excise taxes, below the WHO-recommended levels. The MoF has adopted a roadmap to simplify tiers, reducing opportunities for tax avoidance and evasion. Ahead of the presidential elections in 2019, the tier simplification roadmap was dropped and has not been revived.

### 8.1. The government needs to collect more...

*The government does not collect enough revenues to meet its spending needs, limiting the potential of fiscal policy to support faster economic growth and shared prosperity.*

**The decline in commodity prices sharply reduced revenue collections in 2014, and low tax collection has kept Indonesia's revenues low since then.** From 2005-2008, Indonesia's commodity-linked revenues<sup>184</sup> averaged 4.9 percent of GDP. Following the global recession, this contribution fell to 3.1 percent of GDP on average in 2009-2014. It fell sharply again to an average of 1 percent of GDP in 2015-2018 following the oil price collapse in 2014. At the same time, non-commodity linked revenue collections remained low. This is due to three main drivers: (i) a narrow tax base; (ii) low and costly compliance; and (iii) low rates on some taxes. As a result, while Indonesia's total revenues averaged 17.5 percent of GDP in 2005-2008, they averaged only 12.7 percent of GDP in 2015-2018.

**SNGs contribute little to general government revenues.** At about 37 percent of general government spending, expenditures by Indonesia's SNGs are comparable to those of large federal countries (such as Brazil, Germany, Australia) and to highly decentralized unitary countries (Vietnam, Russia). Indonesia's SNGs can collect property tax, taxes on land transactions, taxes on vehicles, and taxes on hotels and restaurants. But Indonesia far lags these peers in terms of SNGs' own-source revenues, which represented only 13.5 percent of general government revenues in 2016. Incentives are misaligned, as transfers to SNGs tend to decline when own-revenues increase. This discrepancy results in a weakening of the 'fiscal social contract', as "local residents are more likely to hold officials accountable if local public services are financed to a significant extent from locally imposed taxes and charges as opposed to central government transfers."<sup>185</sup>

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<sup>184</sup> Commodity-linked revenues here are defined as the sum of non-tax revenues from natural resources and oil and gas income taxes. Other correlated revenue items, including import VAT and export duties are not included here.

<sup>185</sup> Bird (2011). *Subnational Taxation in Developing Countries: A Review of the Literature*. Washington, D.C.: The World Bank

### 8.1.1. Binding constraints to collecting more revenues

*High thresholds, wasteful exemptions, uneven treatment between sectors, and limited environmental, health and wealth taxes limit the tax potential; revenue administration is weak, contributing to low compliance.*

**The tax net is narrow because of high thresholds, wasteful exemptions, uneven treatment between sectors, and limited environmental, health and wealth taxes.** Indonesia's registration threshold for value-added-taxes (VAT) of IDR 4.8 billion as a ratio to GDP per capita was 1:86 in 2018, compared to 1:7 in Thailand, 1:11 in Malaysia, and 1:12 in the Philippines. This means that a vast share of businesses whose annual turnover is below the VAT threshold are excluded from the VAT system, narrowing the base and distorting the tax. This same high threshold is also applied to the definition of MSMEs for the purposes of the corporate income tax (CIT), with MSMEs accordingly excluded from the general regime and provided a simplified final tax regime with a lower tax burden. Similarly, a high non-taxable income threshold is applied on personal income, resulting in the exclusion of the majority of the middle-class from paying payroll taxes. Exemptions and preferential treatment for specific sectors narrow the bases of VAT and income taxes further. Further, no taxes are applied on fuel, carbon emissions, single-use plastics, sugar-sweetened beverages, or on wealth transfers such as inheritance and gifts. The overall result is a narrow tax base where only a limited number of taxpayers and economic activities shoulder the majority share of taxation.

**Low marginal tax rates on top-incomes combined with low property taxation mean the wealthy are not paying their fair share of taxes.** The top marginal tax rate for personal income tax (PIT) in Indonesia is 30 percent, while the average for the OECD in 2018 was 41.2 percent, with large countries typically higher (e.g. France 55.2; Germany 47.5; Italy 42.3; and UK 45.0 percent). Lower PIT in Indonesia combine with low property taxes levied at the local level, and no taxes on wealth transfers including inheritance and gifts. Consequently, high net-worth individuals pay low levels of taxation, and government collects lower revenues overall and its ability to support a reduction in inequality across society is limited.

**A multiple-tariff tobacco excise with low rates results in revenue losses and reduces the effectiveness of tobacco taxation in curbing high cigarette consumption.** The current policy applies a complex 10-tier tariff system, with tariffs set below the Excise Law's recommended 57 percent minimum and the WHO's recommended 70 percent. The multiple-tier system results in revenue losses, increases the administrative costs of managing the tax, and reduces the policy's effectiveness in reducing cigarette consumption.<sup>186</sup>

**Weaknesses in revenue administration lead to low compliance and contribute to the narrow tax base.** Indonesia's tax revenue agency, the Directorate General of Taxes (DGT), faces severe capacity constraints and organizational shortcomings, including in IT, staff capacity, and inefficient business processes. Weak revenue administration contributes to Indonesia's narrow tax base (limited taxpayer registration capacity), and to low tax compliance ratios amongst its existing tax base, resulting in significant revenue losses across

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<sup>186</sup> A study finds, for example, that reducing the tariffs to six levels and increasing tariffs by 47 percent would decrease consumption by 2 percent and increase excise revenue by 6.4 percent. See: Marquez (2018). *The Economics of Tobacco Taxation and Employment in Indonesia*. Washington, D.C.: The World Bank.

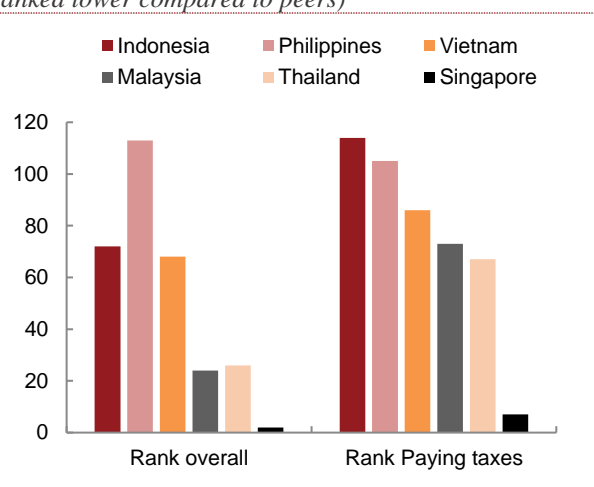
major tax instruments.<sup>187</sup> DGT suffers from outdated IT systems, which limit its ability to conduct compliance risk management. For example, DGT is often unable to match and analyze data from different sources. A high share of staff is generalist and relatively low-skilled. This is in part because DGT has little flexibility to manage its resources.<sup>188</sup> The on-going tax administration reform program will require significant investment to run DGT's operations, upgrade the tax IT system (software and hardware), and to strengthen the capacity of staff. Similar compliance and capacity challenges feature at the local level, resulting in weakened own-source revenue for SNGs.

**Tax code complexity and uneven implementation of tax rules hurt competitiveness, costing businesses time and money, and reduce their willingness to comply.**

Complicated tax regulations make it more costly for both DGT's compliance management and voluntary compliance. Indonesia currently ranks lower on the ease of paying taxes compared to neighboring Malaysia, Thailand or Vietnam on the World Bank's Doing Business indicators (Figure 8.2). Indonesian businesses in 2019 required an average of 191 hours and 26 payments a year to comply with paying taxes, compared to an average of 191 hours and 21.1 payments for Asia Pacific and 161 hours and 10.9 payments for Europe (Doing Business 2020). The higher compliance burden means businesses are losing money and time that could otherwise be channeled to productive activities. A higher compliance burden is also associated with higher tax evasion, resulting in lost revenues for the government.

**Figure 8.2: Indonesia ranks lower than its peers on ease of paying taxes in the 2018 Doing Business Indicators**

(country rank, where a higher score means the country is ranked lower compared to peers)



Source: Doing Business Indicators, World Bank

**Low tariffs on natural assets such as fisheries limit non-tax revenues and contribute to over-exploitation of these assets.** Indonesia is the second-largest producer of fish after China, with the fisheries industry employing some 12 million Indonesians. But the government faces serious challenges with illegal fishing and over-exploitation of fisheries, threatening the sustainability of a major source of nutrition and economic activity in the country. Similar problems beset management of other natural assets such as forestry, where illegal logging and over-exploitation of forests feature as major challenges.

<sup>187</sup> Voluntary compliance across Indonesia's major tax instruments has been estimated in the range of 50-60 percent, meaning that tax ratio may be doubled if evasion in the system can be prevented. For example, Hidayat & Sugana estimate that compliance in VAT is approximately 56.6 percent. See: Hidayat & Sugana (2014). Analysis of 2013 VAT Revenue Potential and Gaps in Indonesia. *Journal of Indonesian Economic Development*.

<sup>188</sup> For example, according to the OECD (2015), DGT is among three out of eleven Asian revenue administrations lacking the ability to hire and dismiss staff, and discretion over budgeted expenditures.

### 8.1.2. Reform Priorities

*Raise the tax potential by broadening the base and raising taxes on tobacco and top income*

*Broadening the tax base will allow Indonesia to collect more revenues, reduce distortions in its tax system, and improve the equity of taxation.* Measures to broaden the tax base include: (i) lowering the VAT registration threshold, and making registration optional for businesses below the threshold and who meet minimum book-keeping requirements; (ii) lowering the MSME threshold in-line with the VAT threshold; (iii) removing the category of ‘non-taxable’ treatment from the VAT Law, and broadening the VAT by limiting exemptions to common exemptions such as final consumption of health and social services, basic food, and public transport; (iv) rationalizing tax incentives and preferential treatment in the corporate income tax regime, including considering the removal of the sector-specific final tax regimes on construction and real estate; (v) introducing environmental taxation, including an adjustable fuel excise and an excise on single-use plastics; and (vi) issuing clear rules to enable VAT on the digital economy, including digital services.

*Higher taxes on top-income and on wealth will raise revenues and improve tax progressivity.* PIT reform is a key instrument to enable more progressive taxation. Here, the Indonesian authorities may consider different measures, including: (i) reducing the threshold for the top PIT rate to the current ceiling of the third tax bracket; (ii) raising the top PIT marginal rate to move closer to OECD average (e.g. 35 percent); and (iii) introducing taxes on wealth transfers (inheritance and lifetime gifts) that can help address inter-generational equity considerations.

*By raising tobacco taxes and streamlining the multiple-tier structure, Indonesia can boost revenues and cut smoking rates, saving lives and reducing health spending on tobacco-related disease.* An important reform entails reviving and strengthening the tobacco simplification roadmap of 2018, so that Indonesia can gradually move to a single tax rate on tobacco. Other reforms include removing the maximum threshold of tobacco tariffs/price of 57 percent in the Excise Law or raising it in-line with WHO recommendations.

*Tying tax reforms to additional spending pledges and creating tax policy packages will increase support for higher domestic revenue mobilization.* International evidence shows that support for tax reforms increase when governments motivate financing popular spending programs with the needed tax reforms. Targeting a raise in tax revenues over the short-to-medium term needs also to balance other objectives, particularly the impacts on growth and equity, and so trade-offs are inevitable. One approach is to design package reforms so that different measures can address different objectives and so that support for the reform can be broadened by appealing to different groups. Well-designed policy measures need to also carefully assess how implementation of the tax changes can be conducted in a way to mitigate negative impacts on industry and business, and to lower the costs of compliance. Wide socialization of proposed reforms is a critical success factor: if citizens do not understand tax changes, this will foster confusion, or worse, distrust in the system, reducing the intended goal of improved compliance.<sup>189</sup>

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<sup>189</sup> For more discussion on country experience, see World Bank (2018d). Part B. Collecting more and spending better for inclusive growth. *Indonesia Economic Quarterly: Towards Inclusive Growth*. Jakarta: The World Bank.

## *Improve tax compliance through upgrading the capacity of the tax administration*

*To shift Indonesia into a new equilibrium of high compliance at lower costs to the taxpayer, the revenue administration needs to invest in technology and skills, reform business processes, and foster a culture of integrity and transparency.* Important reforms and investments include: (i) prioritizing the procurement and installment of the commercial-off-the-shelf (COTS) IT system for DGT; (ii) reforming business process and tax forms in-line with COTS, placing risk-management as the core function of the new DGT; (iii) shifting the majority share of DGT staff from generalists to specialists (in areas such as data analysis and audit), through a combination of new hires and significant investment in skills-training; (iv) centralizing compliance risk-management function in headquarters, and making it responsible for audit selection using automated risk-management; (v) closing space for discretion by simplifying rules, drawing on input from a survey of taxpayers and tax specialists to identify areas where tax rules are considered ambiguous; and (vi) creating a zero-corruption culture at DGT, through strong enforcement of laws on those implicated in corruption, and a focus on integrity, transparency and accountability in staff training, internal events, and performance management.

*Strengthening property taxation will further improve tax progressivity and improve the “fiscal social contract” at the subnational level.* Higher local own-source revenue can be partly achieved by strengthening property taxation through: (i) putting in place incentives and clear rules to encourage regular, systematic cadastral updates and simplified valuation approaches; (ii) encouraging SNGs to raise property taxes beyond their historical rate of 0.1 percent; and (iii) raising property tax rate ceiling, in line with international benchmarks.

*Reforming non-tax revenue (NTR) tariffs will raise further funds and support sustainable management of natural assets.* For example, current tariffs on fisheries are based on the type of boat used for fishing and the weight of fish, with no distinction made on fish variety and value. Reforms of the current system will require parallel investment in skills-training of staff across ministries responsible for NTR, to strengthen the government’s capacity to design and implement a more robust NTR regime tailored to supporting sustainable management of natural assets.

## **8.2. ...spend better at both central and subnational levels...**

*Public finance institutions do not effectively motivate and enable agents of the state to transform spending into results: across levels of government, Indonesia’s bureaucratic institutions emphasize compliance with rules and processes, but insufficiently focus on motivating and enabling public officials to perform.*

**The focus on strengthening compliance in the post-*Reformasi* era helped contain corruption but came at a significant price.** Detailed regulations aimed at curbing the discretion of public agents have proliferated,<sup>190</sup> while central oversight bodies, namely, the external (BPK) and internal audit body (BPKP) and the anti-corruption commission (KPK), have gained strength in ensuring that regulations and administrative procedures are adhered to. This has led to major improvements

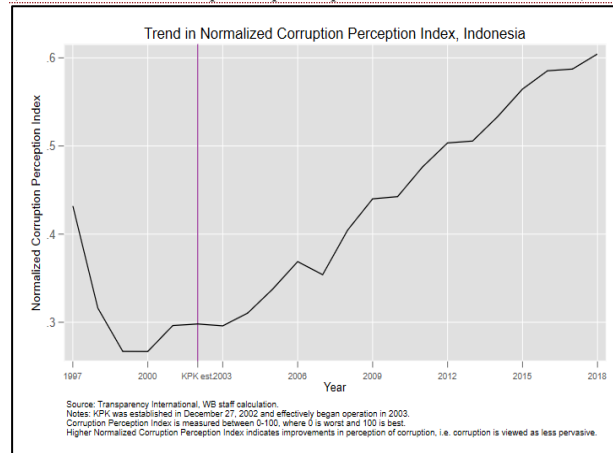
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<sup>190</sup> For example, PMK 190 FY 2012, prescribes that ten documents are required for submitting contractor payment requests. The subnational budget classification, most recently regulated by Permendagri 90/2019, requires SNGs to break down planned program and activity expenditures in excessive detail.



in compliance. For example, the share of SNGs with unqualified audits has grown from near zero in 2007 to 82 percent in 2018.<sup>191</sup> Corruption perceptions also improved during the period (Figure 8.3), although they remain higher than neighboring countries. Yet, as a side-effect, excessively detailed procedures and reporting requirements often absorb a large share of public servants' time in Indonesia's 24,000 spending units, diverting their attention from performing the functions of the state towards complying with its forms. For example, SNGs prepare excessively detailed budgets of hundreds of pages, with individual line-items sometimes as small as a few million Rupiah. Moreover, excessive control deprives spending units of the autonomy they require to deliver services effectively. If Kota Surabaya, for example, would like to create a new structural position within its local tax office, this requires approval from the central MENPAN-RB.

**Figure 8.3: Perceptions of corruption have improved**  
(Normalized corruption perception index, 1997-2018)



Source: Transparency International, World Bank staff calculations

**Institutions that encourage performance, by contrast, are only emerging gradually.** Planning and budgeting systems are not geared towards supporting strategic decision making on resource allocations and effective spending. Low data quality and fragmented information systems make it difficult to measure and manage for performance, and fiscal, organizational and individual incentive systems fail to effectively motivate performance. While some dedicated performance management systems exist for SNGs,<sup>192</sup> these do not adequately signal strengths and weaknesses, inform the targeting of capacity-building support nor promote healthy competition among SNGs.

**Getting the balance between performance- and compliance-orientation right hence is a central challenge for Indonesia to spend better the scarce resources of the state.** Improving this balance requires reforms in four major systems: (i) public financial management; (ii) intergovernmental transfers; (iii) the civil service; and (iv) government information systems.

### 8.2.1. Binding constraints to spending better

*The public financial management (PFM) system creates accountability for compliance, but not enough accountability for results and efficiency; the intergovernmental financing system provides few incentives for performance; outdated and fragmented information systems create opportunities for discretion and fail to provide timely and adequate data for managing for performance.*

<sup>191</sup> Source: Badan Pemeriksa Keuangan, Republik Indonesia (2019). IHPS I Tahun 2019. Ikhtisar Hasil Pemeriksaan Semester I Tahun 2019.

<sup>192</sup> These comprise MENPAN-RB's Government Institutions Performance Accountability System (SAKIP) and MoHA's Subnational Government Performance Evaluation System (EPPD).

**Indonesia’s biggest obstacle to more effective spending is the lack of harmonization between planning and budgeting.** Five-year medium-term plans (RPJMN), annual plans (RKPs) and annual budget documents (APBN) are prepared by separate agencies—BAPPENAS and the MoF—and are inconsistent. Whereas the RKPs identify and allocate resources for national priority programs, the APBN allocates resources for a different set of programs mapped to “Echelon-1” units (directorates). Performance information is insufficiently used in budget preparation. The budget process currently does not ensure that allocation decisions are made with a view to achieving a consistent and well-defined set of outputs and outcomes. These challenges are exacerbated by the lack of a medium-term perspective in budgeting. A lack of clear criteria and processes for selecting capital investment projects undermine the effectiveness of capital spending,<sup>193</sup> especially at the subnational level.

**Indonesia has enhanced the operational efficiency of public expenditures, but spending units still face major compliance costs.** The implementation of SPAN in all 183 local treasuries and the adoption of the Treasury Single Account have been major milestones towards efficiency. However, disintegrated PFM IT applications remain one major source of inefficiencies. Further, inefficiencies in the budget cycle lead to slow and late capital spending. Further, some financial procedures are detailed and time-consuming to comply with (Box 8.1). For example, processing a payment for a contractor requires submitting hardcopies of 10 documents to the responsible treasury.<sup>194</sup>

#### **Box 8.1: Inefficiencies in the budget cycle lead to low and slow capital budget execution**

Indonesia faces a challenge of ‘low’ and ‘slow’ capital budget execution, at both central and SNG levels. In 2019, only 82 percent of the national capital budget was spent, with 49 percent of expenditures occurring in the fourth quarter and 28 percent in the last month of December. This results in a double inefficiency: the government incurs unnecessary borrowing costs, as most borrowing occurs in the first half of the year, but a large share of the funds remain idle till the end of the fiscal year. Further, contractors who pre-finance capital projects and only submit payment requests at the end of the year will price their own borrowing costs into contracts. These inefficiencies are a concern for Indonesia’s challenge of building more infrastructure, faster.

A survey of spending units suggests that ‘low’ and ‘slow’ capital budget execution is due to inefficiencies in the budget cycle. For example, while spending units are, in principle, entitled to procure early, before the beginning of the year, few use this option, preferring to wait until the budget is firmly committed. Similarly, difficulties in securing multi-annual commitments discourage the use of multi-annual contracts. Late payment requests are in part due to the above-mentioned cumbersome payment procedures.

**Indonesia has greatly strengthened accountability for financial compliance in public spending, but accountability for results remains weak.** One symptom of this is that audits remain focused on compliance with procedures, rather than on adherence to principles/substance or on performance. Budget oversight by the legislature and supreme audit institution is adequate, but external audits (by BPK) remain similarly compliance-focused, limiting accountability for the quality of spending.<sup>195</sup>

<sup>193</sup> IMF (2019). *Indonesia Public Investment Management Assessment (PIMA) report*.

<sup>194</sup> See Footnote 178. This is (likely) one major reason for why contractor prefer to submit only one payment request at the end of a project, contributing to late budget execution at the end of the FY.

<sup>195</sup> A recent peer review report of BPK notes that “More effort is still needed to fully understand the concept of performance audit by the BPK auditors, especially the notions of “efficiency” and “effectiveness”. (p. 7) Source: Ministry of Finance (2019). *SAI*

**Accountability for integrity, efficiency and value for money in public procurement remains a challenge.** With about 52 percent of total public spending flowing through procurement systems, procurement is a critical function. Procurement officials remain compliance-focused, with weak incentives for performance. While the electronic procurement system (SPSE) provides a foundation for enhancing transparency, efficiency and economy, its use remains suboptimal. A large share of procurement<sup>196</sup> continues to happen outside SPSE, often with small packages<sup>197</sup> and through uncompetitive methods, especially at the subnational level. Absent a robust procurement monitoring and evaluation (M&E) system, decision-makers make little use of the SPSE procurement data to assess performance and to inform procurement policies. The approach of the Government of Indonesia to procurement reform has been ad hoc, rather than being guided by a holistic strategic approach.

**Accountability through public participation in decision-making remains limited.** Indonesia's budget transparency is ranked second in the EAP region in the Open Budget Index.<sup>198</sup> But it lags in ensuring public participation in the preparation, execution and oversight of the budget, scoring only 22 out of 100 in the Open Budget Survey. This stands in contrast with extensive bottom-up participation in the development planning process (*Musrenbang*). Transparency, public participation and oversight are even more critical at the district and village levels, where most frontline service delivery responsibilities lie. For example, a study investigating the patterns of participation under the Village Law between 2015 and 2018 found that levels of community participation in village meetings (*musdes*) were low at around 16 percent, and not broad-based and inclusive, with participation mainly coming from well-off, socially-engaged males, with women and other marginalized groups largely absent.<sup>199</sup>

**The performance of Indonesia's civil service is hampered both by rigid controls and by a lack of incentives for improving performance.** Since the introduction of nation-wide mandatory Computer Assisted Tests in 2014, recruitment into the civil service has been largely meritocratic. Since Bureaucracy Reform, some agencies, such as MoF, can attract top talent from the labor market through competitive pay. However, tight central establishment controls and recruitment processes often focusing on tests and degrees (as was the case with teachers) often lead to a skills mismatch, with limited incentives for staff to develop specialist skills. Moreover, there is limited focus on staff performance.

**Indonesia's intergovernmental financing system provides SNGs with large spending autonomy but does not effectively incentivize them to spend well.** SNGs, and districts in particular, depend heavily on transfers, and 85 percent of these transfers are unearmarked. This leaves the central government with limited levers for steering SNG spending to national priorities or for holding SNGs to account for spending well.

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*Performance Measurement Framework Peer Review Report on the Audit Board of the Republic of Indonesia Badan Pemeriksa Keuangan.*

<sup>196</sup> According to a 2018 PEFA Report for Indonesia, about 30 percent of total public procurement in Indonesia happens non-competitively and outside the electronic procurement system (SPSE).

<sup>197</sup> World Bank analysis of SPSE data on public works-related tenders from 36 districts in Jawa suggests that the median package size was only about 500 million IDR.

<sup>198</sup> Source: <https://www.internationalbudget.org/open-budget-survey/results-by-country/country-info/?country=id>

<sup>199</sup> World Bank (forthcoming). *Sentinel Villages Study 2015-2018*.

While the government is increasingly introducing results-oriented earmarked transfers,<sup>200</sup> these face significant design and data challenges. The general equalization grant (DAU), as the centerpiece of the transfer system, leads to large inequities in per capita spending across districts<sup>201</sup> and creates a perverse incentive for overstaffing.<sup>202</sup> Most fundamentally, the intergovernmental financing system currently makes no distinction in the spending autonomy granted to high-performing and low-performing districts, despite vast disparities in their capacity and performance.

**The village funds are poorly implemented, resulting in wasted resources and ineffective outcomes.**

For example, between 2014 and 2018, annual fiscal transfers to villages increased sevenfold from approximately USD 1.2 billion to USD 8.4 billion. Yet, increased money has not resulted in higher spend on priority developmental areas: in 2016, villages spent almost 40 percent of their budget on village administration, 38 percent on village infrastructure, and very little on health, education and livelihoods.<sup>203</sup> Infrastructure spend in turn is fragmented into small-scale infrastructure projects that have limited impact on economic growth and poverty reduction.

**An analogue government generates inefficiencies, creates opportunities for discretionary decision-making and increases corruption risks.** Government agencies have adopted many digital initiatives both for citizen- or business-facing services and for back-office processes. However, digitization has mostly been partial and paper-based approval systems persist in parallel. Bidders, for example, still need to register in person at the central procurement agency (LKPP) to participate in e-procurement,<sup>204</sup> likely creating barriers to entry. SNGs run electronic financial management information systems (FMIS), but commitment and payment authorizations still require a parallel paper-trail. Such continued dependence on paperwork raises the costs of tracking and monitoring of bureaucratic conduct, creates opportunities for discretionary decision-making and enhances corruption risks, undermining fair and even treatment of businesses, civil society groups, and citizens.

**The quality of spending and performance data is inadequate for managing for performance.** Despite excessive detail, the subnational chart of accounts, for example, does not produce consistent and decision-relevant spending data by functions, making it difficult to evaluate subnational spending. This is due to the absence of harmonized charts of accounts that enable consolidated expenditure reporting across SNGs and between the central government and SNGs. Administrative data on outputs is available in some sectors, but

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<sup>200</sup> For example, the DAK Fisik for SNG capital spending conditions disbursements on the physical and financial process of a project. A performance-based transfer (BOS Kinerja) is tied to too many school characteristics, diluting clear signals that could trigger behavioral change.

<sup>201</sup> Total per capita revenues in the most populous quintile of districts are nearly 5 times lower than in the least populous quintile (PER, 2020).

<sup>202</sup> Lewis and Smoke (2017). Intergovernmental fiscal transfers and local incentives and responses: the case of Indonesia. *Fiscal Studies* 38 (1):111-139.

<sup>203</sup> World Bank (2017b). *The Village Public Expenditure Review (VIPER)*. Washington, DC: The World Bank.

<sup>204</sup> This is stipulated in a LKPP chairman regulation regarding LPSE of 2012. Similarly, after completion of bid evaluation, and before notification of contract award, the recommended bidder has to physically come to the office of the procuring agency for a face to face meeting for purpose of verifying the qualification information (with supporting documents) that was earlier submitted in the bid through the SPSE system.

is of poor quality<sup>205</sup> and not consistently used. Critical registries, including civil, tax and business registries, are either incomplete or inaccurate.

**Information management systems remain fragmented, undermining effective decision-making.**

Reference data standards are not consistently defined or maintained across the government, and data is not methodically shared across and within ministries, departments and agencies. In the central government, adoption of enhanced IT and data management is uneven, with some areas making significant progress while others lag.<sup>206</sup> Even in the most advanced ministries, such as MoF, IT systems remain highly fragmented with limited interoperability. At the subnational level, existing PFM applications for planning, budgeting, execution and reporting remain fragmented, without minimum standard requirements for data integration and systems interoperability. This contributes to the challenges in consolidating data on SNG spending and performance. The recently issued *Satu Data Indonesia* Government Regulation has great potential to address some of these issues, but it is yet to be implemented and needs to be aligned with the implementation of the e-government regulation.

### 8.2.2. Reform Priorities

*Design institutions to balance performance and compliance*

**Indonesia will need to strike the right balance between performance and compliance.** On the one hand, this implies tightening accountability for results—by orienting budgeting and transfer systems towards better spending, by incentivizing enough specialization within the civil service, and by developing information systems that generate reliable and integrated data useful for decision-making. On the other hand, this requires recalibrating controls and administrative procedures to both reduce the compliance-burden on public officials and provide public managers with enough autonomy for effectively managing for results.

*Upgrade PFM systems to close the gap between resources and results*

**Making spending more effective above all requires better integration of planning and budgeting.** This can be achieved by harmonizing business processes, integrating information systems, and adopting program budgeting reforms. In addition, the medium-term perspective in planning and budgeting should be strengthened.<sup>207</sup> To improve capital spending it is essential to strengthen the screening process for capital investment projects through economy analysis, especially at the SNG level.

**Strengthening accountability for results of public spending requires system and process improvements.** It requires making spending data more transparent, for example by enabling end-to-end tracking of public investment projects and by harmonizing charts of accounts to generate consistent and decision-relevant spending data. It requires reducing opportunities for corruption in spending decisions, by

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<sup>205</sup> As one indication, in the health sector, for example, administrative data and HH survey data on the same indicator (e.g. full immunization rate) yield vastly inconsistent results.

<sup>206</sup> For example, the finance and planning ministries have heavily invested in IT. For a more detailed assessment, see IMF (2019).

<sup>207</sup> For example, line-ministries could be provided with a medium-term top-down budget ceiling so they can plan beyond a single year budget.

fully digitizing government systems, generating transparent audit trails. It requires a shift in the focus of audits from compliance to principles/substance and to performance. It requires encouraging more effective participation in the preparation, execution and oversight of budgets. For example, the Ministry of Villages and the Ministry of Home Affairs may consider developing broad-based information campaigns and tools to better inform the public about roles and responsibilities related to village governance and village development. SNGs may consider implementing special-interest meetings for under-represented voices, including women, people with disabilities, and other vulnerable groups.

**Strengthening accountability for transparent, efficient and economic procurement calls for a more strategic approach.**<sup>208</sup> As one key element, the government can expand the coverage of electronic procurement to all public tenders, regardless of value and procurement method, in view of encouraging more competitive procurement. Further, LKPP can develop a robust procurement business intelligence module as part of the SPSE system to enable granular measurement, analysis and reporting of public procurement performance and results across the country.<sup>209</sup> These results should be published to enhance public scrutiny of procurement results.

**Relaxing rigid establishment controls and strengthening incentives for specialization and performance within the civil service can improve efficiency of service delivery.** Especially high-performing spending units can be granted greater autonomy in determining their staffing needs (within centrally set ceilings) and in adapting organizational structures to delivery needs. The government's emphasis on bureaucratic reform in the RPJMN for 2020-24 and the recent decision to reduce the number of Echelon 3 and 4 positions may provide an enabling environment for these reforms.

#### *Reform intergovernmental finance systems to incentivize performance*

**Adopt an asymmetric approach to decentralization that grants greater autonomy to better-performing SNGs.** This entails, in general terms, calibrating the share of earmarked transfers to SNG performance. Such an overall approach would enable high-capacity SNGs to effectively manage for performance, while the central government can exert tighter oversight and provide capacity-building support to low-capacity SNGs.

**Strengthen the results-orientation of fiscal transfers.** This includes: (i) shifting the basis for equalizing transfers (DAU) to a 'per client' basis and abolish the basic allocation- this will require a politically viable transition strategy; (ii) moving towards an asymmetric design of the transfer system, including by granting more spending autonomy to better-performing SNGs; (iii) expanding *Hibah* to finance missing-middle multi-year urban infrastructure investments for better-performing SNGs; (iv) designing targeted transfers to bring infrastructure in lagging regions with low capital stocks to a common minimal standard; and (v) carefully strengthening the performance-orientation of earmarked transfers by linking them to independently verified results. For the village fund, similar reforms are needed, including clearer roles and responsibilities between different government agencies, streamlined reporting requirements for transfers,

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<sup>208</sup> Such an approach can be informed by the ongoing comprehensive assessment of the public procurement system using the universal MAPS tool. See <http://www.mapsinitiative.org/methodology/MAPS-methodology-for-assessing-procurement-systems.pdf>

<sup>209</sup> The modern procurement monitoring dashboard already developed by Bandung City is an available example.



linked to outputs and outcomes, strengthened operations and maintenance guidelines, and enhanced technical support and supervision.

**Shift policy on lagging regions from focus on converging economic growth to augmenting access to services and connecting people with opportunity.** While additional analysis is required to tailor interventions to Indonesia's context, recommendations from a recent World Bank study are likely to be relevant: (i) addressing macro-structural weaknesses that limit regional growth potential; (ii) improving the regional business environment so that firms in lagging regions can grow and compete nationwide; (iii) investing in skills; and (iv) strengthening institutional endowments.<sup>210</sup>

*Strengthen Information Systems need to produce better performance data*

**Implement the One Data policy and digitize government in view of improving data quality and use.**

If implemented successfully, *Satu Data Indonesia* can be a key driver for improving data quality and integration which is critical to enabling evidence-based policy design and effective M&E. This requires: (i) building data systems and quality assurance mechanisms that improve the quality of administrative data at source (in health, education, infrastructure); (ii) establishing and implementing reference data standards to enable greater data integration across government; (iii) integrating fragmented existing information systems, for example for planning and budgeting, public investment management or in the health sector; and (iv) revising the business models and processes of ministries, departments and agencies in line with digital technologies. Expanding and deepening of e-government through such measures has the potential to increase operational efficiency, enhance transparency, and reduce opportunities for rent-seeking.

**Make information available through transparency initiatives and public through the media and civil society to strengthen accountability to citizens.** Specifically, this could comprise: (i) developing and publishing performance dashboards (on district-level procurement or health results), available to all stakeholders; (ii) establishing a subnational human capital index, and developing village-level human capital scorecards; (iii) eradicating parallel monitoring systems; and (iv) publishing M&E results to incentivize positive competition and peer learning. This will increase the pressure on ministries, departments and agencies and SNGs to deliver, including by improving the quality of spending.

### **8.3 ...and strengthen institutions to govern better**

*Many of the constraints to accelerating progress along the four pathways can be traced to governance challenges. Overall, these weaknesses lead to a large volume of poorly coordinated regulations, conflicting and poorly coordinated policies, poor policy implementation and non-compliance, all of which reduce competitiveness, provide opportunities for corruption and limit the effectiveness of the government in accelerating economic development.*

**This section makes a preliminary and high-level diagnosis of some of the deeper governance constraints to unlocking the four pathways and related policy priorities.** Designing smart policies that improve good regulatory practices (for example, through cost-benefit assessment, open and balanced public consultations, introduction of a regulatory oversight bodies) can be a vehicle for improving the

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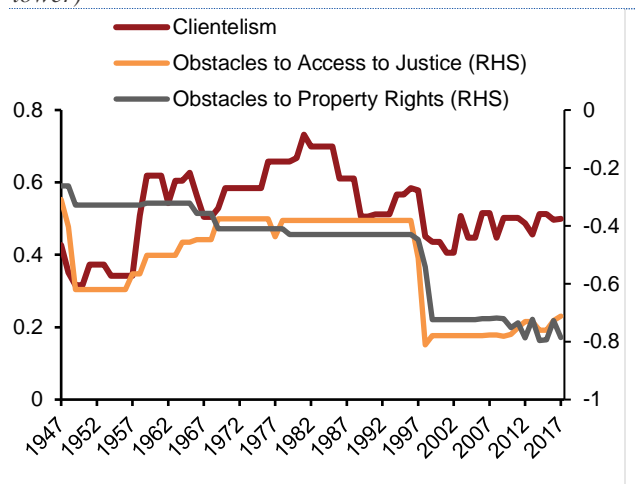
<sup>210</sup> Farole et al (2018). *Rethinking Lagging Regions*. Washington, D.C.: The World Bank.

predictability and efficiency of policymaking and regulation, also reducing opportunities for corruption. Ultimately, however, curbing grand corruption and ensuring the full alignment of policymaking with the broader public interest requires political will across all levels of government and empowering those parts of society that suffer from corruption and distorted policies to hold to account those that benefit from it. This cannot be achieved through reforms within the machinery of the public administration alone, but likely requires far-reaching reforms of Indonesia's governance institutions, which are beyond the scope of this SCD.

**The key governance challenge is the lack of coordination, predictability, and transparency in the processes of policy formulation, implementation and enforcement.** In the past twenty years, Indonesia has come a long way in improving voice and accountability, in maintaining the rule of law and in curbing clientelism (Figure 8.4). Nevertheless, influential actors with discretion over economic rents and resources continued to flourish and have used their influence to secure financial and political support, at the expense of creating an uncoordinated, unpredictable and opaque environment for policy formulation and enforcement<sup>211</sup>. Importantly, local elections only function partially in holding local leaders to account, due to clientelism-risks.<sup>212</sup> Such accountability at the local ballot box is crucial, because SNGs bear most responsibility for service delivery. This puts Indonesia at risk of getting stuck in a 'state capacity trap'<sup>213</sup> where policymaking is at risk of elite capture, preventing the emergence of inclusive economic institutions that underpin equitable and more sustainable growth. International experience shows that often a state capacity trap and a middle-income trap are two sides of the same coin.

**Figure 8.4: Risks of state capture and clientelism**

(A decline means risks of state capture and clientelism are lower)



Source: Varieties of Democracy (V-Dem) Database, Version 9

Notes: 'Obstacles to Access to Justice' and 'Obstacles to Property Rights' are based on Access to Justice and Property Rights measures but are inverted so that a lowering of the lines represents progress.

<sup>211</sup> Examples of such elite influence include for example protectionist trade policies that shield domestic firms from competition, the award of public contracts to politically connected firms. On vote-buying and corruption in local elections, see for example: Aspinall and Berenschot (2019). *Democracy for Sale: Elections, Clientelism and the State in Indonesia*, Cornell University Press; Allen (2014), From Patronage Machine to Partisan Melee: Subnational Corruption and the Evolution of the Indonesian Party System. *Pacific Affairs* (Vol. 87, No. 2). On procurement risks, see Buehler et al (2014). *The Dynamics of Centralized Procurement Reform in a Decentralized State: Evidence and Lessons from Indonesia*. *Policy Research Working Paper 6977*. Washington D.C.: The World Bank.

<sup>212</sup> One indication of limited local electoral accountability is vote-buying. 71 percent of experts surveyed for a clientelism index constructed by Berenschot (2018) estimated that over 60 percent of Indonesian voters participated in such arrangements. Source: Berenschot (2018). *The political economy of clientelism: A comparative study of Indonesia's patronage democracy*. *Comparative political studies* 51.12 (2018): 1563-1593.

<sup>213</sup> Crabtree, James. *Avoiding Asia's state capacity trap*. *Nikkei*, June 20, 2018.

### 8.3.1. Binding constraints to strengthening governance

*Indonesia's intergovernmental financing system provides SNGs with large spending autonomy but does not effectively incentivize them to spend well; poor data on spending and performance limit the ability to focus on results; lack of coordination, predictability, and transparency in the processes of policy formulation, implementation and enforcement.*

**In view of addressing risks of clientelism and rent-seeking, post-*Reformasi* state institutions have been shaped by a strong focus on ensuring control and compliance, with little emphasis on performance.**

As discussed in Section 8.2 above, these institutions have come at the price of a bureaucracy that is heavily process-oriented and that provides public officials with insufficient autonomy and incentives for performance.

**As the 2015 SCD highlighted, the ‘center of government’ (CoG) is weak, leading to weak coordination between government agencies and between level of governments.** Complex problems that require a whole-of-government approach (such as eliminating stunting and increasing tourism competitiveness) have at times been met by partial solutions as incentives for policy coordination are few, and the ability of any actor to enforce policy coordination is limited.

**Regulatory coordination and oversight are fragmented and weak in Indonesia.** No clear guidance is given to ministers on the regulatory practices they should adhere to, and oversight and enforcement of the “rules for rulemaking” is lacking. This is critical, as ministerial regulations represent about 85 percent of central regulations overall.<sup>214</sup> Subject to significant ministerial discretion, they are the least likely regulatory instrument to follow a “whole-of-government” policy. Indonesia’s Law on Making Rules (UU 12/2011 revised by UU 15/2019) codifies regulatory quality principles, ex-ante scrutiny of regulations and forward planning. Indonesia’s regulatory institutions, however, have several major weaknesses. Indonesia still lacks a central regulatory oversight body (ROB), charged with ensuring efficient and coordinated policymaking.<sup>215</sup>

**Existing mechanisms for ensuring that SNG regulations align with national regulations are ineffective.** According to Law 23/2004, central and SNGs have concurrent responsibilities across a range of policy domains, and SNGs can adopt local regulations within the limits of central regulations. This concurrent responsibility has led to frequent inconsistencies of subnational with national regulations. As one indication, in the first decade after decentralization (between 2001 and 2010), MoF recommended that

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<sup>214</sup> Between 2015 and 2018, central ministries adopted an average of 1,587 new ministerial regulation per year, compared to only 144 Presidential Regulations (Perpres), 92 Government Regulations (PPs) and 16 Acts (UUs) per year. Source: WBG staff calculations based on <http://peraturan.go.id/>, accessed August 27, 2019.

<sup>215</sup> All OECD countries have established one or more ROBs. For instance, Korea’s Regulatory Reform Committee reports directly to the president and is responsible for the review of all proposed regulations as well as the pool of existing regulations, and is supported through a secretariat, the Regulatory Reform Office in the PM’s Office. More than 25 percent of the draft regulations proposed within the year after the introduction of RIA were rejected by the Regulation Reform Committee, as the proposals were found to be without sufficient evidential basis. In recent years (2001-2016), 60 non-OECD countries introduced regulatory impact assessment (RIA). Their success depended on whether RIA was a mandatory tool as part of preparing a new regulation and whether a body/unit existed that provided credible oversight of regulatory quality. 31-non-OECD countries have established ROBs (as of 2016) to vet RIAs.

the Ministry of Home Affairs (MoHA) invalidate about 4,900 (37 percent) out of over 13,200 SNG regulations it examined, but only 1,800 were actually revoked.<sup>216</sup> While Law 23/2004 originally provided ministers (MoHA/MoF) and provincial governors with the right to revoke inconsistent district regulation, Indonesia's Supreme Court revoked this right as unconstitutional in 2015/2016.<sup>217</sup> This decision has left the central executive with few levers for ensuring regulatory consistency. The problem, however, persists. A 2017 review (KPPOD 2017) found that 61 percent of local regulations related to the levies and business licensing contradicted central regulations.

**Public engagement in the formulation of policies and regulations is limited.** While Law 12/2011 (revised by UU 15/2019) encourages public consultation, it does not make open and balanced public consultation mandatory or codify public consultation standards.

### 8.3.2. Reform Priorities

*Strengthen institutions to increase the predictability and quality of the policy-making and regulatory processes*

**Strengthen the CoG to enable more effective coordination and cooperation in the formulation of policies and regulations.** Establishing a ROB is a critical step towards improving policy coordination at the center. The ROB should have a strong mandate for ensuring that new regulations are developed through due process (regulatory impact assessments, open and balanced public consultations), are consistent and effective. The ROB can, for instance, further measure and monitor the volume of regulations that apply to each sector and set medium-term targets for appropriate reductions. The KPPU can enhance competition supervision and detection of anti-competitive practices (as discussed in section 4.1 above). Furthermore, the government could (i) clarify the mandates and powers of the State Secretariat, Cabinet Secretariat, and Presidential Staff Office; and (ii) set up and empower multi-agency platforms on key priorities (e.g. and education quality).

**Clarify the status of ministerial regulations, as well as the rules for making them.** Law 12/2011 (nor its UU 15/2019 revision) did not clarify the role of ministerial regulations in the legal/regulatory hierarchy (OECD 2012). This can be addressed by amending the Presidential Regulation (PerPres87/2014) on the process for preparing and enacting ministerial regulations.

**Clarify roles and responsibilities between different levels of government to strengthen oversight over and accountability for SNG policymaking.** Potential levers could comprise establishing mechanisms for the ex-ante review of SNG regulations, to ensure consistency with national regulations; and publishing information about SNG regulatory complexity, potentially encouraging competition between SNGs to improve the business environment.<sup>218</sup>

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<sup>216</sup> Source: Regional Governance Survey 2011.

<sup>217</sup> KPPOD (2017). *Regulasi Usaha di Daerah: Kajian Perda Pungutan dan Perizinan* (Bahasa Indonesia). Jakarta: Komite Pemantauan Pelaksanaan Otonomi Daerah.

<sup>218</sup> Vietnam's Provincial Competitiveness Index (<http://eng.pcivietnam.org/>) is one successful example of how published, firm survey-based indexes that measure the local business environment, can inspire a race to the top among SNGs for improving the business environment.

**Make policy engagement inclusive of all and evidence-based.** Government should strive to ensure active, broad-based, civic participation, especially over critical policy decisions. This can be achieved by amending Presidential Regulation (PerPres 87/2014) to introduce and enforce public consultation standards and Regulatory Impact Assessment requirements.

**Strengthen efforts to fight corruption, which is critical for reducing waste of public resources and for strengthening public trust in the state.** A first step is to protect the independence and powers of the KPK and of anti-corruption courts, and to resource-them properly.

## Conclusions and the Way Forward

**The COVID-19 pandemic has enhanced the challenges faced by Indonesia in eradicating poverty and ensuring wellbeing for all, increasing the relevance of many of the reform priorities identified in this SCD update.** For example, in the cross-cutting pillar, increasing tax revenue collection and improving the quality of public spending are even more necessary considering the mounting public debt to finance the increase in the pandemic-related government spending. For the same reasons, mobilizing the private sector to fill the infrastructure gap is particularly important as public resources are less available. In the competitiveness pillar, the need to increase openness to trade and investments and to deepen and improve financial markets has also become more urgent. The former priority will help firms reduce input costs and households the cost of the consumption basket at a time when revenues and incomes are collapsing. Increasing the depth, efficiency and resilience of the financial system, including expanding financing to MSMEs will strengthen the country's ability to respond and its resilience to the crisis. The crisis has also increased the urgency of social assistance reforms, as these provide a cushion against shocks for vulnerable sections of the population, and of reforms to institutions for land management and governance, as pressure on land may increase as other sources of income dwindle.

**The persistence of these reform priorities, which are largely the same as those identified in the previous SCD in 2015, suggest mixed progress in many reform areas.** The comparison of this SCD's reforms priorities with those of the previous one shows a remarkable similarity (Table 9.1). The few discrepancies are mainly related to the slightly different way in which the key pillars are framed and the refinement of a few priorities, as mentioned in section 2 above. Some areas, such as fuel subsidy and barrier to competition in logistics and transport, have seen progress but are not yet sufficient to fully address the existing constraints. Perhaps except for the introduction of a minimum wage formula, most reform priorities still require some effort by the policymakers to address the country's key development challenges.

**In a few areas recent policies have further entrenched the existing constraints.** For example, the recent KPK law risks reducing the institution's effectiveness at attracting high-quality employees and its independence in gathering information. This can partly reverse the remarkable progress in controlling high-level corruption since the institution's establishment.<sup>219</sup> Similarly, in the area of trade and investments, increases in import tariffs and in certain NTMs and the rising uncertainty around policy implementation have stifled the investment climate in the past years. While some of the proposed reforms in the area are ambitious, they still must undergo a lengthy approval process.

**As in many other contexts, political economy and governance factors are factors contributing to uneven progress of the reform agenda.** The global experience clearly suggests that the unequal distribution of power in the policy arena is typically behind the persistence of ineffective and often harmful policies.<sup>220</sup> Vested interests can leverage this power to block reforms that are in the public's interest, through policy capture and clientelism, while large sections of the population, who can benefit from the reforms, remain excluded. As hinted in the preceding section, these principles are likely to apply to the

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<sup>219</sup> Unpublished analysis by the World Bank shows the rapid improvement of Indonesia across a range of control of corruption indicators since the establishment of KPK.

<sup>220</sup> World Bank (2017c). *World Development Report: Governance and the Law*. Washington, D.C.: The World Bank.



Indonesian context too. Many of the policies that the reform priorities propose to change benefit relatively small sections of the population at the expense of the majority. Low tax revenues, high trade and investment barriers, energy and fertilizer subsidies and the lack of competition in key utilities are but a few examples of such policies.

**Understanding better how these factors interact with the decision-making process and how they can be addressed are priorities to help push the reform agenda.** Given the urgency of the reforms, addressing the governance and political economy challenges is a priority at this juncture. To that end it will be useful to analyze how previous experience with policy reforms has been affected by such constraints, and for each reform agenda outlined in the SCD update, developing a detailed understanding of the vested interests involved, of the levers used to maintain (or further entrench) the policy status quo and how these affect the relevant policy processes. This information will help identify possible strategies to help redress the power asymmetries and make the reforms more desirable. This type of analysis is one of the key knowledge gaps that would have to be filled possibly in the short-term; Annex 2 below summarizes the knowledge gaps identified.

**While the challenges to reforms are formidable, Indonesian policymakers have already showed resolve to address similar challenges in the past and reaped large payoffs.** The Indonesian people and its policymakers have already showed the ability of undertaking bold and effective reforms to navigate difficult moments in recent history. A case in point is the Asian financial crisis. More than two decades ago it has prompted one of the most remarkable transitions to democracy in modern times and a series of far-reaching reforms, which have paved the way to the ensuing robust socio-economic progress of Indonesia in the last two decades. The same type of resolve and courage will also help Indonesia navigate this critical juncture now and use it to spearhead the bold reforms needed to become a prosperous and poverty-free country.

**Table 9.1: The remarkable persistence of reform priorities over time**

SCD 2015	SCD 2020
<b>Business Environment</b>	<b>Competitiveness</b>
<ol style="list-style-type: none"> <li>1. Enhance the openness and consistency of trade and investment regulations.</li> <li>2. Modernize agricultural policies, away from the current narrow focus on ‘food sovereignty’ in rice to higher value-crops and processing.</li> <li>3. Deepen financial markets, given severe credit constraints.</li> <li>4. Ensure flexible labor markets, by addressing potential constraints in severance payments and moving to a formula-based minimum wage setting.</li> <li>5. Improve the business climate, particularly by streamlining business licensing.</li> <li>6. Close the country’s skills gap, by strengthening early childhood and basic education and technical and vocational training.</li> </ol>	<ol style="list-style-type: none"> <li>1. Eliminate unnecessary restrictions on imports, investments and access to global talent.</li> <li>2. Improve the enforcement and the quality of business-related policies including on competition.</li> <li>3. Increase the depth, efficiency and resilience of the financial system.</li> </ol>
	<b>Nurturing world-class human capital</b>
	<ol style="list-style-type: none"> <li>1. Boost human capital formation from the earliest age through basic education and skills training.</li> <li>2. Improve quality and efficiency of health sector interventions, especially for underserved populations.</li> </ol>

	<ol style="list-style-type: none"> <li>Increase and improve spending on social insurance and social assistance to create the social protection system of tomorrow.</li> <li>Unlock the potential of women to contribute to economic growth.</li> </ol>
<p style="text-align: center;"><b>Infrastructure and Energy</b></p> <ol style="list-style-type: none"> <li>Increase investment in both urban and rural infrastructure.</li> <li>Increase investments in the energy sector while also focusing on enhancing the efficiency and sustainability of the sector.</li> <li>Mainstream disaster risk resilience in infrastructure investments.</li> <li>Increase mobilization of private investments for infrastructure.</li> </ol>	<p style="text-align: center;"><b>Infrastructure</b></p> <ol style="list-style-type: none"> <li>Increase the quantity and quality of infrastructure spending by central and local governments.</li> <li>Create conditions to attract more private participation in infrastructure development.</li> </ol>
<p style="text-align: center;"><b>Natural resource management</b></p> <ol style="list-style-type: none"> <li>Reform the governance of land allocation, land rights access and spatial planning.</li> <li>Adopt a more integrated approach to agriculture, energy and water management, given their linkages.</li> <li>Strengthen the sustainable management of marine and fishery resources.</li> </ol>	<p style="text-align: center;"><b>Managing natural assets for prosperity</b></p> <ol style="list-style-type: none"> <li>Strengthen institutions for land management and governance.</li> <li>Invest in cost-effective measures to promote sustainable management of natural assets and environmental protection.</li> <li>Strengthen fisheries and coastal resources management.</li> </ol>
<p style="text-align: center;"><b>Collect more &amp; spend better &amp; Governance</b></p> <ol style="list-style-type: none"> <li>Implement sustained fiscal reforms, in particular reforms to collect more revenues.</li> <li>Strengthen the Center of Government, especially regarding the management of major capital projects.</li> <li>Update and modernize public sector institutions, particularly in order to strengthen coordination across different stakeholders and levels of the government.</li> <li>Streamline the bureaucracy in order to address fragmentation of roles and functions and enhance accountability.</li> <li>Expand anti-corruption efforts, including by strengthening the Indonesian Corruption</li> </ol>	<p style="text-align: center;"><b>Collect more; spend and govern better</b></p> <ol style="list-style-type: none"> <li>Raise the tax potential at the central and local levels by broadening the base and raising taxes on tobacco and top income.</li> <li>Improve tax compliance through upgrading capacity of the tax administration.</li> <li>Design institutions to balance performance and compliance.</li> <li>Upgrade PFM systems to close the gap between resources and results.</li> <li>Reform intergovernmental finance systems to incentivize performance.</li> <li>Strengthen information systems to produce better performance data.</li> <li>Strengthen institutions to increase the predictability and quality of the policy-making and regulatory processes.</li> </ol>

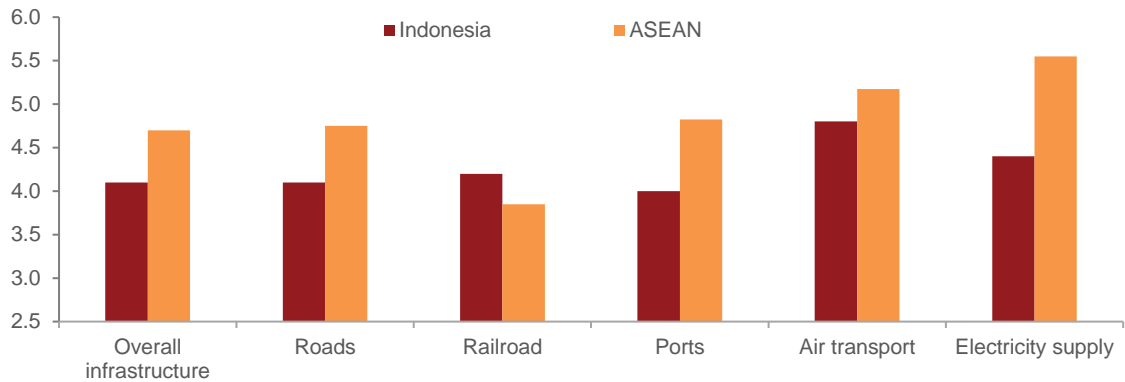
Eradication Commission (KPK), the judiciary and corporate governance.

### **Service delivery and opportunity for all**

1. Incentivize performance of LGs increasing the share of the DAK in the total allocation and refocusing the DAK's targeted sectors.
2. Tailor fiscal policy towards sub-national governments to the challenges faced by large municipalities, small- and medium-sized cities, and rural districts.
3. Eliminate perverse incentives in the grant allocation system to spend more on local services and infrastructure and less on personal and administration.
4. Build capacity and enhance the performance of local governments; and adopt a more bottom-up approach to local services.
5. Expand social assistance while ensuring fiscal sustainability of the programs and focusing on most effective programs.

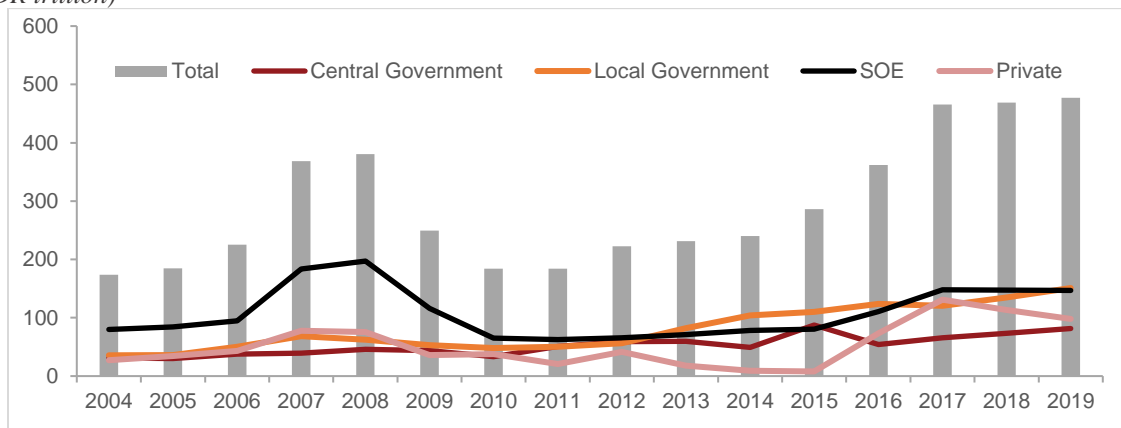
## Annex 1: Additional Infrastructure Charts

Figure A1.1: Quality of Infrastructure



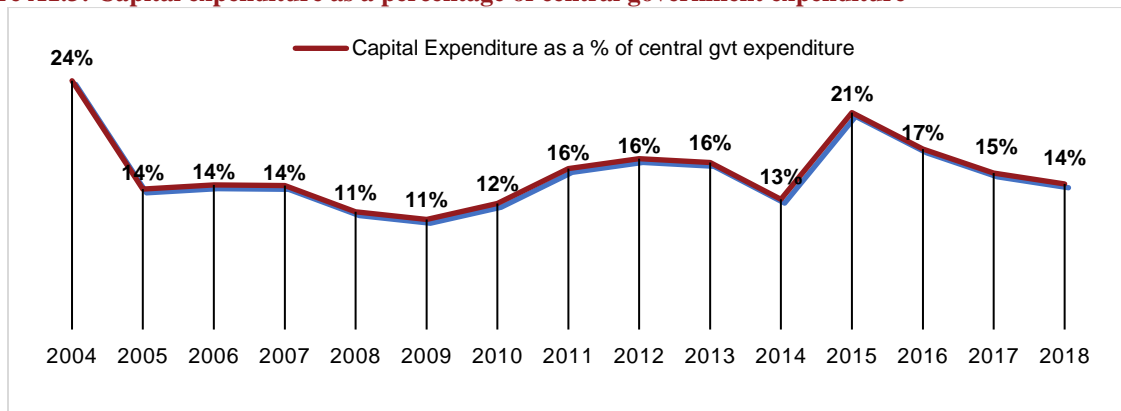
Source: World Bank staff calculations from World Economic Forum Global Competitiveness Report (2017-2018) data  
 Note: ASEAN is the unweighted average of Malaysia, Singapore, Thailand and Philippines

Figure A1.2: Real infrastructure investment 2010 prices  
 (in IDR trillion)



Source: INFRA-Dashboard

Figure A1.3: Capital expenditure as a percentage of central government expenditure



Source: World Bank Calculations from GoI Budget documents

## Annex 2: Assessment of Knowledge Gaps

Table A2.1: Key knowledge gaps to be addressed

Knowledge gap	Description
Center of government	Limited understanding of challenges in achieving successful policy reform and multi-sectoral programs. It is important to conduct a political-economy analysis that traces the roots of Indonesia's weak center of government, poor coordination in policy planning and elaboration, and its compliance-focused bureaucratic culture that dampens the performance orientation of the government and limits the quality of spending.
Political economy constraints	One of the key bottlenecks to reforms are political-economy constraints. The World Bank needs to develop a better understanding of such constraints to specific reforms in order to address them. To that end it would be useful to analyze how previous World Bank's advisory and operations' work has been affected by and has responded to such constraints. These lessons should be complemented by analyses of the political economy of specific big-ticket reforms to address them more effectively.
Policies to help micro and small enterprises (MSEs)	MSEs make up over 98 percent of enterprises in Indonesia, the vast majority of which are self-employed type activities (e.g. two-wheeler taxis, street vendor, farmer), which are often informal. The global evidence suggests that transitioning to more formal jobs in larger and more productive firms is often the most effective strategy to increase incomes for people involved in MSEs. However, such transition takes time and may not benefit every MSE worker. Hence, it is important to understand what policies can help boost incomes of existing MSEs in Indonesia, an area which has been under-researched so far. The outstanding questions relate to what determines the availability and efficiency of the production factors used by these enterprises.
Lagging places	The uneven geographic distribution of income and welfare with pockets of persistent poverty concentrated in specific areas, highlight the importance of a coherent strategy to improve the welfare of the populations in lagging places. A better understanding of the monetary and non-monetary returns to different types of public investments at the local level would be needed. And that assessment should be evaluated against the returns on facilitating internal migration to opportunities, which is the natural alternative to lagging places-based policies.

