



REPUBLIC OF INDONESIA

APPENDIX
PRESIDENTIAL REGULATION
NO 18 OF 2020
CONCERNING

THE NATIONAL MEDIUM-TERM DEVELOPMENT PLAN FOR 2020-2024



Narration

APPENDIX I
PRESIDENTIAL REGULATION NO. 18 OF 2020
CONCERNING THE NATIONAL MEDIUM-TERM
DEVELOPMENT PLAN FOR 2020-2024

**THE NATIONAL MEDIUM-TERM
DEVELOPMENT PLAN FOR 2020-2024**

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LIST OF TERMS

APBN	State Budget	GDP	Gross Domestic Product
APEC	Asia-Pacific Economic Cooperation	GER	Gross Enrollment Ratio
ASEAN	Association of Southeast Asian Nations	GFCF	Gross Fixed Capital Formation
ASFR	Age Specific Fertility Rate	GHG	Greenhouse Gas
ASN	State Civil Apparatus	GII	Global Innovation Index
ATR/BPN	Ministry of Agrarian Affairs and Spatial Planning	GNI	Gross National Income
ATS	Children Not in School	GPDK	Grand Design of Population Development
BCD	“Be Creative” District	GRDP	Gross Regional Domestic Product
BLU	Public Service Agency	HDI	Human Development Index
BMN	State Property	HTA	Health Technology Assessment
BNP2TKI	National Agency for the Placement and Protection of Indonesian Workers	IBPA	Indonesian Bond Pricing Agency
BOE	Barrel of Oil Equivalent	ICT	Information and Communications Technology
BP	Non-Worker	IDR	Gender Empowerment Index
BPJS	Social Security Administration	IKN	New Capital City
BPJS-TK	BPJS for Employment	INSW	Indonesia National Single Window
BPS	Statistics Indonesia	IPA	Child Protection Index
BRI	Belt Road Initiatives	IPD	Village Development Index
BUMDes	Village-Owned Enterprise	IPG	Gender Development Index
BUMN	State-Owned Enterprise	IPKP	Border Area Management Index
CEPA	Comprehensive Economic Partnership Agreement	IPR	Intellectual Property Rights
CPR	Contraceptive Prevalence Rate	ISO	International Organization for Standardization
DALYs	Disability Adjusted Life Years	JKN	National Health Insurance
DJSN	National Social Security Board	KBI	Western Indonesia
DMO	Domestic Market Obligation	KEK	Special Economic Zone
DPP	Priority Tourism Destination	KI	Industrial Estate
DTKS	Integrated Social Welfare Data	KKBPK	Family Planning and Family Development
DTPK	Disadvantaged Regions, Borders, and Islands	KLIK	Accelerated Construction Program
DTU	Orderly Measurement	KPBPB	Free Trade Area and Free Port
EBT	New and Renewable Energy	KPBU	Government-to-Business Scheme
EoDB	Ease of Doing Business	KPE	Economic Potential Area
EPPD	Evaluation of Local Government Administration		
FKTP	Primary-Level Health Facility		
FTA	Free Trade Agreement		

KPPN	National Priority Rural Area	PTSP	One-Stop Integrated Services
KSN	National Strategic Area	RDTR	Detailed Spatial Plan
KSNT	Specific National Strategic Area	RIPD	Master Plan for Persons with Disabilities
KSPN	National Tourism Strategic Area	RKP	Government Work Plan
KTI	Eastern Indonesia	RPJMN	National Medium-Term Development Plan
KUR	People's Business Loan	RPJPN	National Long-Term Development Plan
LNPRT	Non-Profit Institutions Serving Household	RRTR	Detailed Spatial Plan
LP2B	Sustainable Agricultural Land	RTRW	Spatial Planning
LPTK	Teacher Training Institution	RZ	Zoning Plan
mCPR	Modern Contraceptive Prevalence Rate	RZKSN	Spatial Planning for Strategic Area
MICE	Meeting, Incentive, Convention, Exhibition	RZWP3K	Spatial Planning for Coastal Areas and Small Islands
MPD	Mobile Positioning Data	SDG	Sustainable Development Goal
MSS	Minimum Service Standard	SIH	Green Industry Standard
NIK	Population Registration Number	SJSN	National Social Security System
OECD	Economic Cooperation and Development	SJSN	National Social Security System
PAUD	Early Childhood Education	SKPT	Integrated Marine Fishery Center
PBI	Contribution Assistance Recipient	SNI	Indonesian National Standard
PBI	Premium Assistance Beneficiary	SP3	Development Assistance Strengthening System
PBPU	Non-Wage Worker	SPBE	Electronic-Based Government System
PISA	Program for International Student Assessment	SPHPN	National Women's Life Experience Survey
PKB	Family Planning Instructors	SPM	Minimum Service Standard
PKL	Local Activity Center	STP	Segmentation, Targeting, and Positioning
PKN	National Activity Center	Supas	Inter-Census Population Survey
PKSN	National Border Strategic Activity Center	Susenas	National Socio-Economic Survey
PKW	Regional Activity Center	TFP	Total Factor Productivity
PLKB	Family Planning Field Officers	TFR	Total Fertility Rate
PMTB	Gross Fixed Capital Formation	TKDD	Regional Transfer and Village Funds
PNBP	Non-Tax Revenue	TKDN	Local Content Requirement
PP	Government Regulation	TORA	Land for Agrarian Reform
PPG	Professional Preparatory Program		
PPU	Wage Earner		
PTA	Preferential Trade Agreement		

TPAK	Female Workforce Participation Rate	VAT	Value-Added Tax
UKG	Teacher Competency Test	WEP	World Economic Forum
UMK	Micro and Small Enterprise	WM	Metropolitan Area
UMKM	Micro, Small, and Medium Enterprise	WPP	Fishery Management Area
		WTO	World Trade Organization
		ZEE	Exclusive Economic Zone



CHAPTER I

THE 2020-2024

NATIONAL MEDIUM-TERM

DEVELOPMENT PLAN (RPJMN)

Directives of the 2005–2025 National Long-Term Development Plan (RPJPN)

The 2020-2024 National Medium-Term Development Plan (RPJMN) is an important stage of the 2005-2025 National Long-Term Development Plan (RPJPN), as the former will affect the development targets stipulated in the RPJPN, during which Indonesia’s per capita income will have crossed the upper-middle-income threshold. Countries belonging to this group have better infrastructure, better quality of human resources, better public services, and better welfare.

In accordance with the directives of the 2005-2025 RPJPN, the medium-term development goals of 2020-2024 seek to realize an independent, developed,

just, and prosperous society through accelerated development in various fields by emphasizing the establishment of a solid economic structure based on competitive advantage in various regions of Indonesia, supported by qualified and competitive human resources.

The 2020-2024 RPJMN has mainstreamed the Sustainable Development Goals (SDGs). Several of the 17 SDGs along with their indicators have become an inseparable part of the seven current development agendas of the Government of Indonesia.



The President’s Vision and Mission for 2020-2024






The President’s vision and mission for 2020-2024 are based on the directives of the 2005-2025 RPJPN. The 2020-2024 RPJMN is implemented under the leadership of President Joko Widodo and Vice President K.H. Ma’ruf Amin with the vision: to create a

developed Indonesia that is sovereign, independent, and with characteristics based on *gotong royong* or mutual cooperation. This vision is embodied in nine “missions” known as the Second *Nawacita*, or the nine-point development program.

VISION

To create a developed Indonesia that is sovereign, independent, and with characteristics based on gotong royong [mutual cooperation]

MISSION

-  Improving Human Development
-  Productive, Independent, and Competitive Economic Structure
-  Equitable and Just Development
-  Achieve Environmental Sustainability
-  Cultural Progress that Reflects National Characteristics

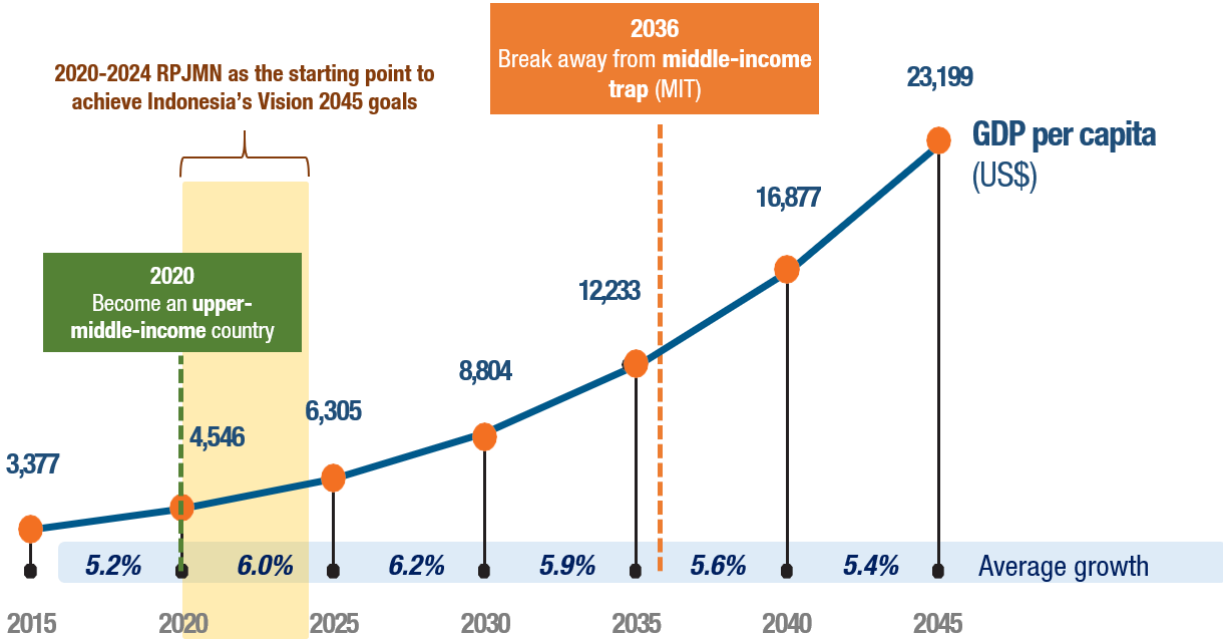
-  Dignified and Trusted Judiciary Free from Corruption
-  Providing Protection and Security for All Citizens
-  Managing a Clean, Effective, and Reliable Government
-  Synergy of Regional Governments in the Framework of a Unitary State

Indonesia's Vision 2045

The 2020-2024 RPJMN is the starting point for achieving the objectives of Indonesia's Vision 2045, also under the name Indonesia Maju [Indonesia Onward]. To that end, strengthening the process of economic

transformation to achieve the development goals of 2045 has become the focus in the context of achieving sustainable infrastructure, high human development, and better public services and welfare standards.

Figure 1.1
Economic Growth Targets Toward *Indonesia Maju*



ECONOMIC TRANSFORMATION begins in the **2020-2024** period to provide a solid economic foundation toward *Indonesia Maju*

AVERAGE GROWTH RATE IN 2015-2045		YEAR 2045:	
REAL GDP	REAL GDP PER CAPITA	DEVELOPED COUNTRY STATUS	CONTRIBUTION FROM EASTERN INDONESIA
5.7%	5.0%	GDP RANK	
		5th	25%
		(US\$ 7.4 trillion)	

President's Directives

The President established five main directives as a strategy in carrying out the nine-point development program and in achieving the objectives of Indonesia's Vision 2045. The five

directives include human resources development, infrastructure development, regulatory simplification, bureaucratic simplification, and economic transformation.



Achieving Vision 2045 through economic transformation, supported by downstream industries by utilizing human resources, regulatory simplification, and bureaucratic reform.

1 | Human Resource Development

Building a hardworking, dynamic, productive, and skilled workforce—supported by industrial cooperation and global talent—that fosters science and technology.

2 | Infrastructure Development

Continue developing infrastructure to connect production areas to distribution areas, facilitating access to tourist sites, boosting employment, and accelerating the increase in value-added of the local economy.

3 | Regulatory Simplification

Comprehensive regulatory reform through the Omnibus Law, especially on two key issues: job creation and empowerment of micro, small, and medium enterprises.

4 | Bureaucratic Simplification

Prioritizing investment for job creation, streamlining administrative procedures and bureaucracy, and reforming departmental organizational structure.

5 | Economic Transformation

Transforming from a natural resource-dependent economy to a modern and competitive manufacturing- and service-based economy that has high value-added to ensure prosperity and social justice for all Indonesians.



HUMAN RESOURCE DEVELOPMENT

STRATEGIES



BASIC SERVICES & SOCIAL PROTECTION

1. Population governance
2. Social protection
3. Health
4. Education
5. Poverty alleviation
6. Quality of life for women, children, and youth



PRODUCTIVITY

1. Vocational education and training
2. Higher education
3. Science, technology, and innovation
4. Sports achievements



CHARACTER DEVELOPMENT

1. "Mental Revolution" and fostering Pancasila
2. Promotion and preservation of culture
3. Religious moderation
4. Culture of literacy, innovation, and creativity



TARGET HIGHLIGHTS FOR 2024

- 100% of the population has a national identity number, birth certificate, divorce certificate, and death certificate
- 98% of the population has access to social protection
- Maternal mortality ratio of 183 per 100,000 live births
- Average of 9.18 years of schooling for people aged 15 years and over
- 40% of poor and vulnerable households have productive assets
- Child Protection Index: 73.49
- Youth Development Index: 57.67

- Gender Development Index (IPG): 91.39
- Gender Empowerment Index (IDG): 74.18
- 49.8% of the workforce has a secondary education and higher
- 66.7% of college graduates work within 1 year after graduation
- 40% is the result of innovation from National Research Priorities
- 3 gold medals in both the 2024 Olympic Games and Paralympic Games
- 50% of workers in medium- and high-skill fields

- Mental Revolution Outcome Index: 74.3
- Cultural Development Index: 62.7
- Community Development Index: 0.65
- Religious Harmony Index: 75.8
- Literacy Index: 71.0
- Family Development Index: 61.0
- Median age at first marriage for women: 22.1



INFRASTRUCTURE DEVELOPMENT

STRATEGIES



BASIC SERVICES INFRASTRUCTURE

- Access to decent, safe, and affordable housing and settlements
- Safe and sustainable groundwater and raw water
- Proper and safe access to drinking water and sanitation
- Transportation safety and security
- Disaster-resilient infrastructure
- Multipurpose reservoirs and irrigation modernization



ECONOMIC INFRASTRUCTURE

CONNECTIVITY



Land

Tollways, new roads, trans-roads on frontier, outermost, and least developed islands (or 3T), new ferry ports



Railway

High-speed rail and freight trains



Water

Integrated (main) port network



Air

New airports and air bridges

ECONOMIC SECTOR



Manufacturing



Services and Tourism



Agriculture and Plantation Areas/Clusters of Marine-Fishery



URBAN INFRASTRUCTURE

- Urban transportation
- Urban sustainable energy
- Urban ICT infrastructure and ecosystem
- Proper and safe access to piped water and urban sanitation
- Access to decent, safe, and affordable housing and settlements in cities



ENERGY AND ELECTRICITY

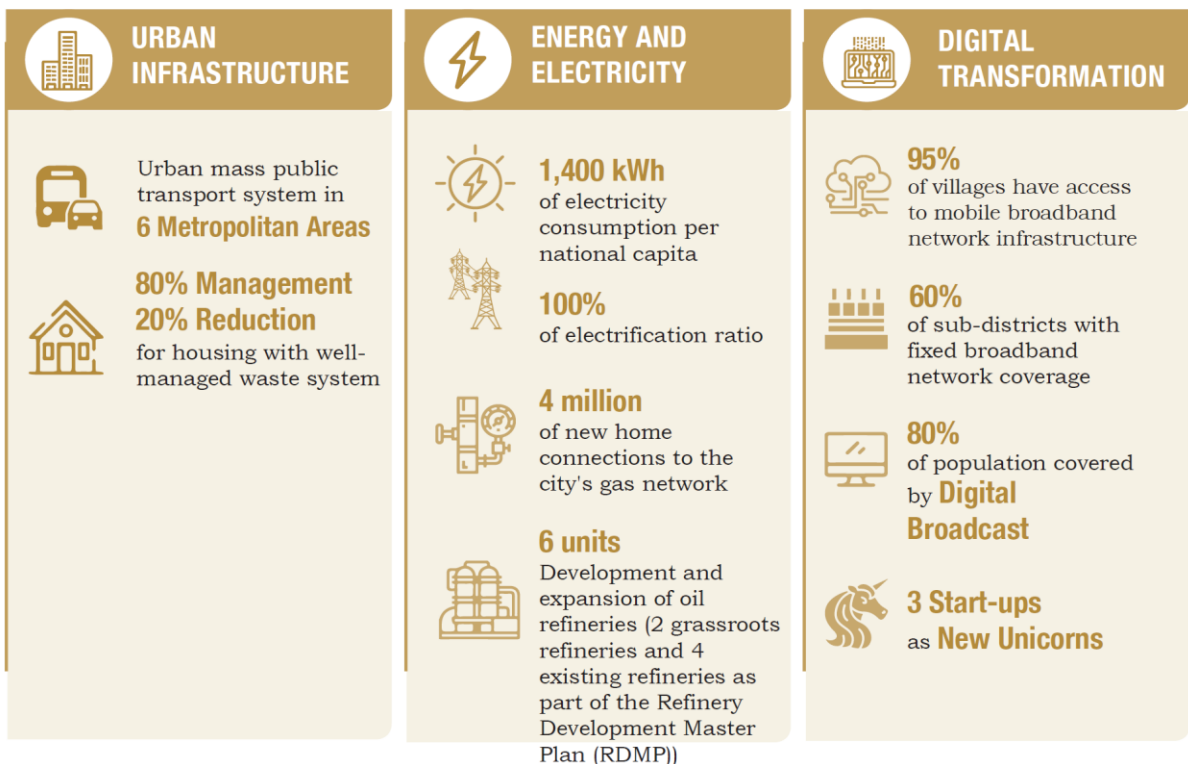
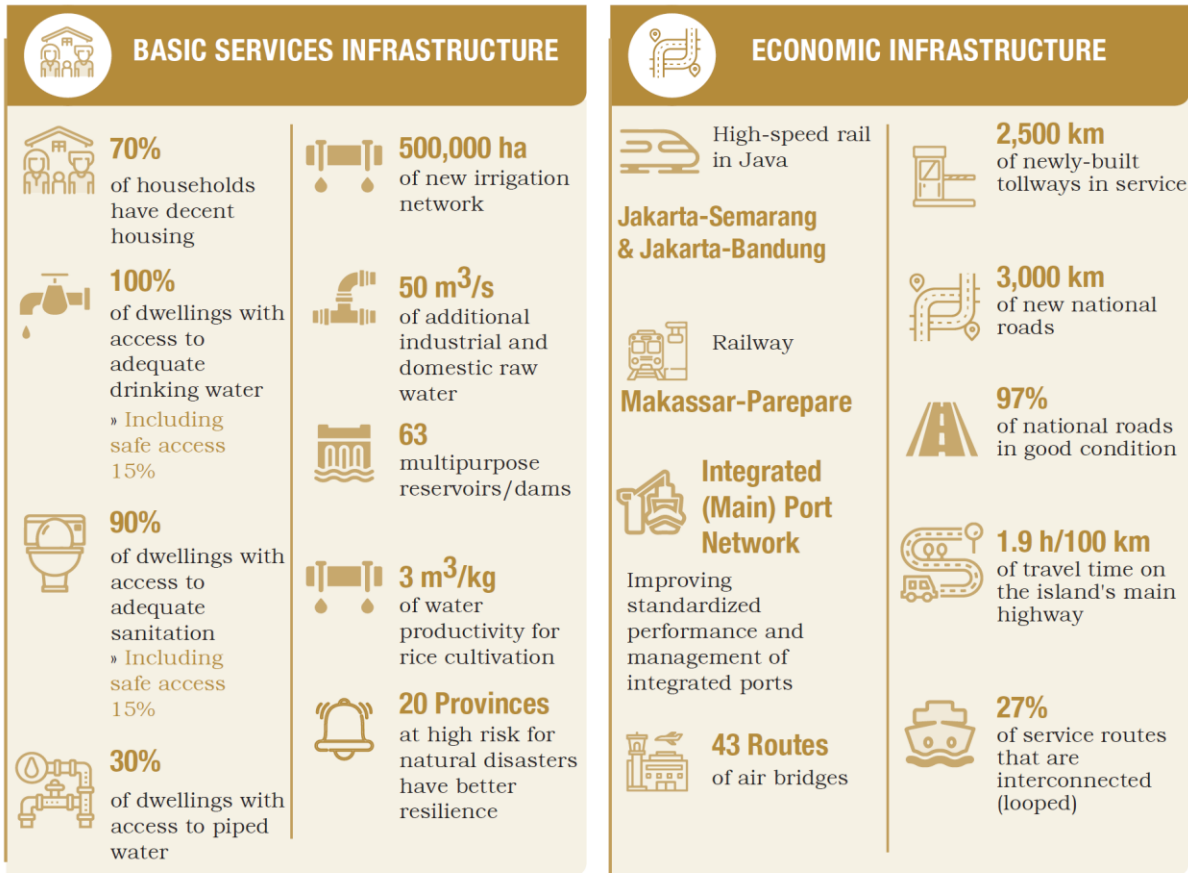
- Sustainable energy and electricity
- Adequate energy and electricity
- Accessible and affordable energy and electricity



INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) FOR DIGITAL TRANSFORMATION

- Completion of ICT infrastructure
- Utilization of ICT infrastructure
- Supporting infrastructure for digital transformation

TARGET HIGHLIGHTS FOR 2024



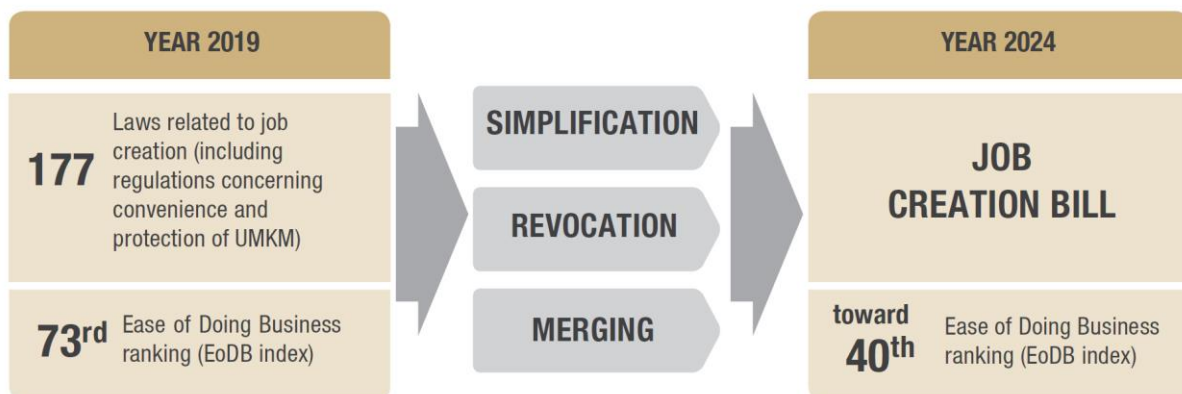


REGULATORY SIMPLIFICATION

STRATEGIES

OMNIBUS LAW APPROACH

Application of the **Omnibus Law** approach:
(Merging several provisions of law into one law by revoking previous laws)



APPROACH TO REGULATIONS THAT WILL BE FORMULATED

Regulatory Impact Analysis (RIA)
Cost and Benefit Analysis (CBA)



Reducing overlap of regulations

(Forming 1 new regulation by revoking 2 existing rules whose substance governs the same subject matter)



Goal-oriented regulations



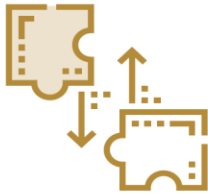
Regulations that prioritize quality over quantity



BUREAUCRATIC SIMPLIFICATION

STRATEGIES

PROCEDURAL SIMPLIFICATION



E-GOVERNMENT IMPLEMENTATION



BUREAUCRATIC REFORM OF PUBLIC SERVICES FOR EXPORTS/IMPORTS, CUSTOMS, AND PORT ACTIVITIES



TARGET HIGHLIGHTS FOR 2024

Four days to start a business (EoDB)



Maturity Index of electronic-based government systems: $\geq 2,6$ (assessment: good)



*the Maturity Index measures the efficiency and effectiveness of government services and public services

2.9-3.2 days the average time spent on releasing goods at ports/dwelling time





ECONOMIC TRANSFORMATION

STRATEGIES



INDUSTRIALIZATION

Natural resource-based **industrialization** and global production chains.



LEADING DESTINATION DEVELOPMENT

Developing leading destinations, by improving accessibility, attractions, and amenities at priority tourism destinations.

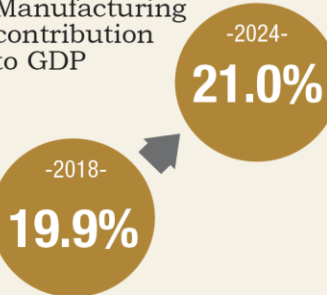


STRENGTHENING CREATIVE AND DIGITAL ECONOMY

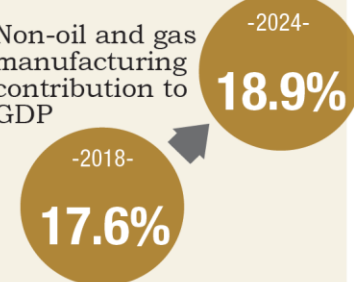
Strengthening the creative and digital economy in the following sectors: culinary, fashion, crafts, digital apps and content, games, films, and music.

TARGET HIGHLIGHTS FOR 2024

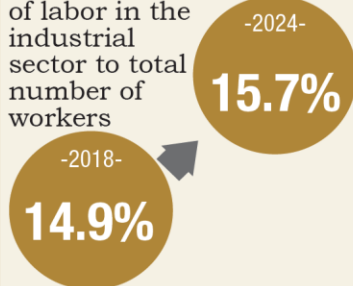
Manufacturing contribution to GDP



Non-oil and gas manufacturing contribution to GDP



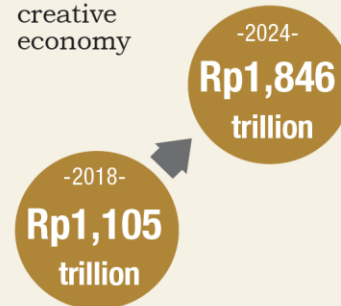
Contribution of labor in the industrial sector to total number of workers



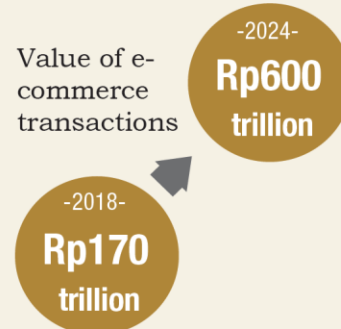
Foreign exchange earnings from tourism



Value-added creative economy



Value of e-commerce transactions



The 2005-2025 RPJPN, Indonesia's Vision 2045, and the vision and mission of the President became the main foundation for the formulation of the 2020-2024 RPJMN, which then

transpired in the form of the seven development agendas in accordance with the thinking framework in Figure 1.2.

PRESIDENT'S VISION



To create a developed Indonesia that is sovereign, independent, and with characteristics based on gotong royong [mutual cooperation]



PRESIDENT'S MISSION	PRESIDENT'S DIRECTIVES	7 DEVELOPMENT AGENDAS
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Strengthening Economic Resilience for Quality and Equitable Growth

Increasing innovation and quality of investment are the main tools to achieve higher, sustainable, and prosperous economic growth in a fair and equitable manner.

Faster economic growth that is both inclusive and competitive can be encouraged by:

- 1) Managing economic resources to fulfill agricultural needs and to feed the population, among others; and managing important economic resources such as the maritime sector, marine sector, fishery, water, energy, and forestry; and
- 2) Accelerating the growth of value-added agro-fishery, maritime services, energy, industry, tourism, as well as creative and digital economy.



Developing Regions to Reduce Inequality and to Ensure Equality

Regional development is intended to boost economic growth and fulfill the needs for basic services by integrating development with spatial data.

Sustainable and inclusive regional development can be achieved by:

- 1) Developing leading regional sectors/ commodities/activities;
- 2) Distributing growth centers to underdeveloped regions;
- 3) Strengthening competence of the regional workforce in science and technology;
- 4) Equally improving both infrastructure and basic services; and
- 5) Increasing the carrying capacity of the environment and improving resilience against disasters and climate change.



Increasing the Quality and Competitiveness of Human Resources

The people are the main capital for national development, and are needed to achieve inclusive and equitable development in all regions.

Improving the quality and competitiveness of human resources that focus on a healthy, smart, adaptive, skilled, and innovative workforce through:

- 1) Population control and good governance in the population administration system;
- 2) Strengthening the implementation of social protection;
- 3) Increasing access and quality of health services to achieve universal health coverage;
- 4) Improving the distribution of high-quality education services;
- 5) Improving the quality of life for women, children, and youth;
- 6) Poverty alleviation; and
- 7) Increasing productivity and competitiveness.



Mental Revolution and Cultural Development

Mental Revolution as a cultural movement is of great importance in development and takes a central role in changing the outlook, attitude, and behavior to orient more toward progress and modernity.

Embodying the spirit of Mental Revolution and cultural development by:

- 1) Fostering the ideology of the Pancasila;
- 2) Enhancing the promotion and preservation of culture;
- 3) Promoting religious moderation; and
- 4) Building a culture of literacy, innovation, and creativity.



Strengthening Infrastructure to Support Economic and Basic Services Development

Strengthening infrastructure to support economic activities and encourage equitable national development.

This can be achieved by:

- 1) Developing basic services infrastructure;
- 2) Developing multi-modal connectivity to support economic growth;
- 3) Developing urban infrastructure;
- 4) Developing energy and electricity; and
- 5) Developing and utilizing ICT-based infrastructure for digital transformation.



Improving the Environment and Increasing Disaster and Climate Resilience

National development needs to attend to the carrying capacity of the environment and natural resources, to the vulnerability of various regions to disasters and climate change.

This can be achieved by:

- 1) Improving the quality of the environment;
- 2) Increasing disaster and climate resilience; and
- 3) Promoting low-carbon development.



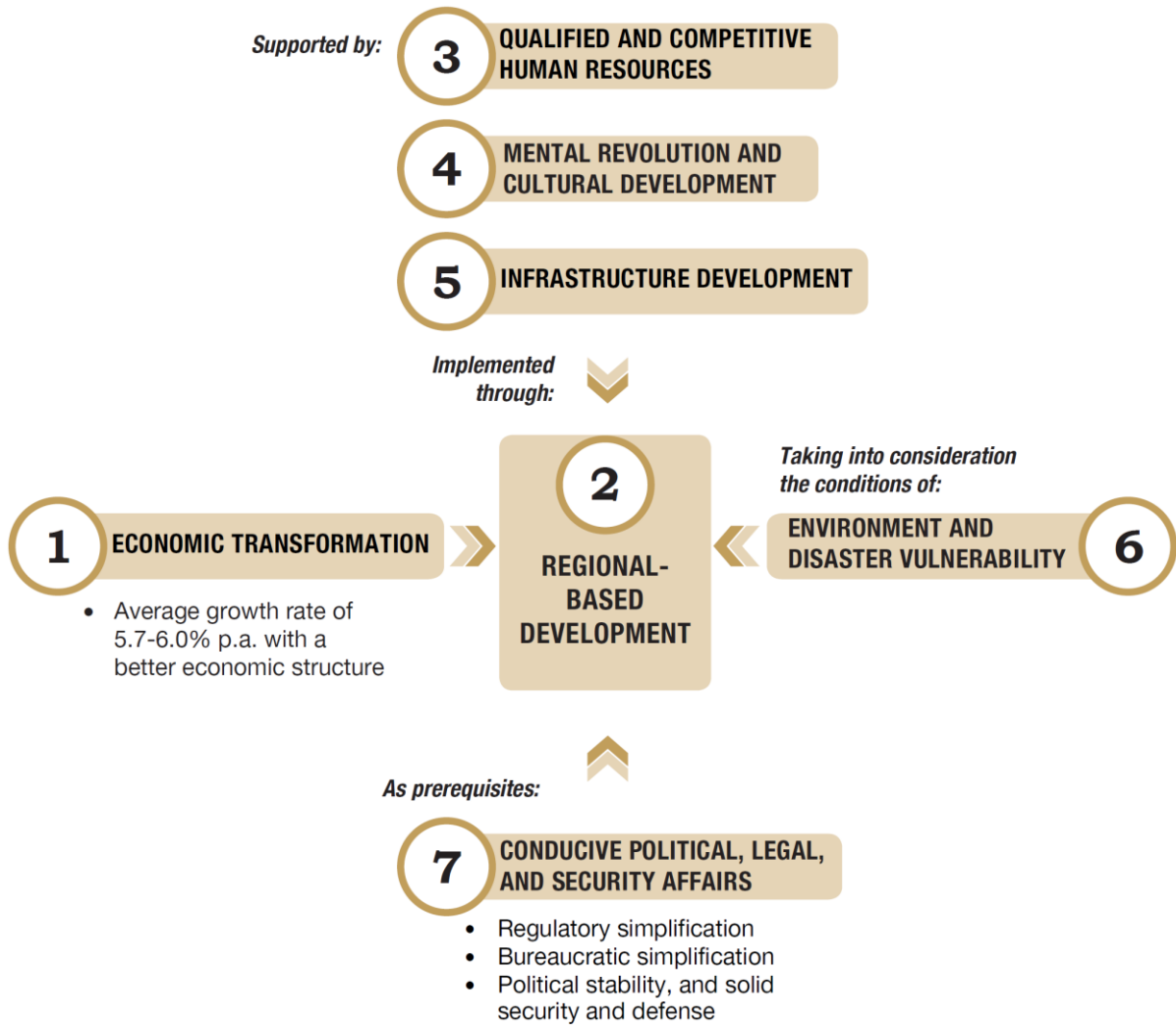
Strengthening the Stability of Political, Legal, and Security Affairs; and Transforming Public Services

The country is obliged to be present in serving and protecting its citizens, and to uphold its sovereignty.

This can be achieved through:

- 1) Reforming the bureaucracy to ensure high-quality public services;
- 2) Structuring the capacity of democratic institutions, and strengthening the tenets equality and freedom;
- 3) Improving the justice system, and structuring regulations and governance over cyber security;
- 4) Improving access to the justice system and anti-corruption system;
- 5) Improving services and protection for Indonesian citizens abroad; and
- 6) Increasing security and defense, and supporting the defense industry.

Figure 1.2
Thinking Framework of the
Seven Development Agendas



Macroeconomic Framework for 2020-2024

Looking Back at the Macroeconomic Performance of 2015-2019

The implementation of the Medium-Term Development Plan (RPJMN) of 2015-2019 faced various global economic events and movements, such as Brexit, uncertainty over U.S. policies regarding trade protectionism and normalization of its monetary policies, the process of rebalancing the Chinese economy, and the end of the "commodity boom" era. These events led to a slow recovery of economic growth and world trade after the global financial crisis of 2008.

Nevertheless, the domestic economy continued to grow at an average of 5.0% p.a. during the implementation of the 2015-2019 RPJMN. The economic growth rate of 4.4% p.a. was higher than the average economic growth rate of other developing countries.¹ This was achieved owing mainly to the implementation of various policies that focused on structural reform through infrastructure development, among others; to improvements in the investment climate, industrial competitiveness, and logistical efficiency; to the stimulation of exports; to the promotion of tourism; and to the strengthening of people's purchasing power.

The relatively high economic growth was driven by an increase in the performance of various sectors, including: (1) manufacturing that grew an average of 4.2% p.a.; (2) the agricultural sector that grew an average of 3.7% p.a., which was

supported by improvements to the agricultural infrastructure to spur productivity; (3) the service sector—including information and communications services—that is capable of driving economic growth; and (4) the transportation and warehousing sector that grew by 8.9% and 7.1% p.a. respectively.

On the expenditure side, investment grew by an average of 5.4% p.a and was a major driver for economic growth. Support for investment growth primarily came from improvements in the investment climate, investment services, and infrastructure development. Furthermore, household consumption grew by an average of 5.0% p.a. In a similar vein, government consumption grew by an average of 3.4% p.a. Real exports and imports of goods and services grew by 2.1% and 0.6% p.a, respectively.

Efforts to maintain macroeconomic stability were aided by low and controlled inflation, stable exchange rate, increased foreign exchange reserves, and current account deficit that was within a safe limit. During the 2015-2019 period, inflation reached an average of 3.2% p.a., within the specified target. Meanwhile, in the midst of efforts to control the exchange rate and the current account deficit, Indonesia's balance of payments was relatively strong as reflected in the increase in Indonesia's foreign exchange

¹ International Monetary Fund, *World Economic Outlook Database* (October 2019).

reserves from US\$111.9 billion in 2014 to US\$129.2 billion in 2019.

On the fiscal side, policies are still directed to support growth and maintain economic stability, while paying attention to the medium-term fiscal sustainability. This is reflected in the debt-to-GDP ratio of under 30% and in the budget deficit that is maintained below 3.0% of GDP.

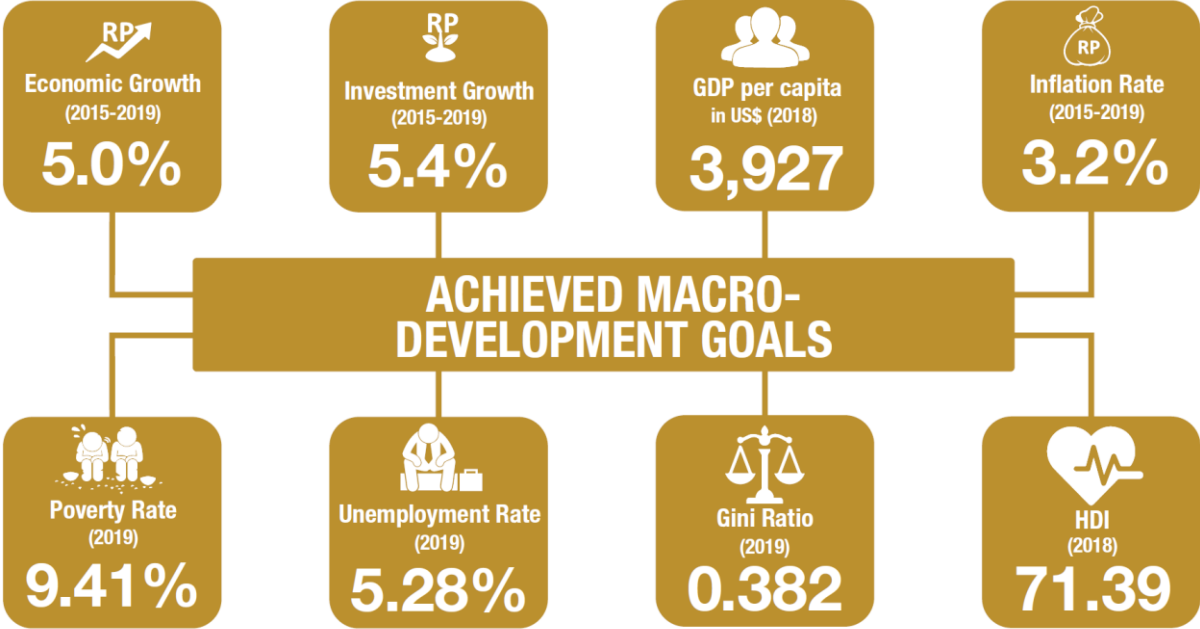
Through a strong and stable economic performance, the welfare of citizens grows. The expansion of the domestic economy was able to create more than 11 million additional jobs in the 2015-2019 period, exceeding the target of 10 million jobs. The open unemployment rate fell from 6.18% in 2015 to 5.28% in 2019. The GDP per capita continued to increase

from US\$3,531 in 2014 to US\$3,927 in 2018, equivalent to the GNI per capita (Atlas Method) of US\$3,840, nearing the threshold of upper-middle-income countries.²

The poverty rate was reduced to single digit levels at 9.41% by March 2019, thanks to the effective implementation of poverty reduction programs. The Gini coefficient decreased from 0.414 in 2014 to 0.382 in 2019, showing a reduction in income inequality. Meanwhile, the Human Development Index (HDI) score increased from 68.90 in 2014 to 71.39 in 2018.

Economic growth and other development targets are a part of macro-development goals.

Figure 1.3
Achieved Macro-Development Targets in 2015-2019



Remarks:
Figures for economic and investment growth in 2019 are based on estimates by Bappenas.
Source: BPS.

² The threshold of GNI per capita (Atlas Method) for upper-middle-income countries

according to the World Bank per July 2019 is US\$3,996.

Economic Challenges in 2020-2024

Global Uncertainty

In the nearfuture, the risk of uncertainty will continue to loom over the development of the world economy. Economic growth and world trade are expected to stagnate and experience slower growth, each projected at 3.5% and 3.7% p.a. respectively in 2020-2024.³ Prices of Indonesia's main export

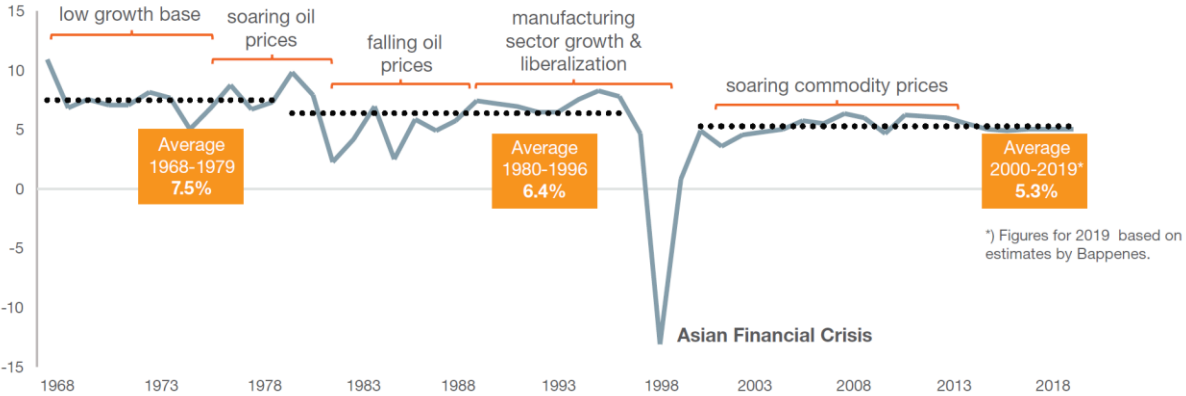
commodities, including coal and palm oil, are also estimated to be relatively low. In addition, other risks of uncertainty that need to be anticipated include trade wars, slowdown in the Chinese economy, and the geopolitical situation in the Middle East.

Relatively Stagnant Economic Growth

Following the 1998 financial crisis, Indonesia's rate of economic growth averaged at 5.3% p.a. Even in the last four years Indonesia's economic growth has

been stagnating at around 5.0%. With this level of growth, it is difficult for Indonesia to achieve high-income status in a timely manner.

Figure 1.4
Indonesian Economic Growth in 1968-2019 (in %)



Source: BPS.

Stagnant economic growth is mainly caused by low productivity due to underperforming structural transformations. Investigations into the Indonesian economy have revealed that the most binding constraints to

Indonesia's economic growth are low-performing institutions and regulations that do not support—and even have the tendency to limit—business creation and development.⁴ In addition, the quality of human resources also becomes a binding

³ International Monetary Fund, *World Economic Outlook Database* (October 2019).

⁴ National Development Planning Agency, *Growth Diagnostic* (2018).

constraint to medium- and long-term economic growth. If it is not immediately resolved, underperforming human resources will prevent Indonesia from competing in the digital age, and it will be harder for Indonesia to switch to a more manufacturing-based economy with ever-

increasing technological advancement. Other obstacles that need to be overcome are low tax revenues, low quality of state spending, and underperforming infrastructure, especially that related to connectivity.

Rising Current Account Deficit

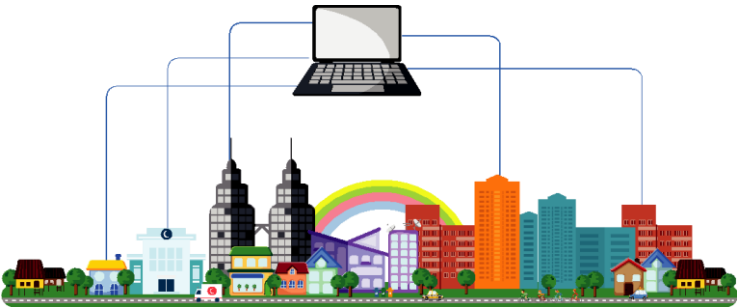
The underdevelopment of the manufacturing sector has an impact on Indonesia's international trade performance. As of now, Indonesia's exports are still dominated by commodities, not different from the conditions 40 years ago. The ratio of exports to GDP declined from 41.0% in

2000 to 21.0% in 2018. As a result, Indonesia still has a current account deficit of close to 3.0% of GDP, whereas some peer countries have recorded a surplus. The increase in the current account deficit is an obstacle to accelerating economic growth amid a slowdown in the world economy.

Industrial Revolution 4.0 dan Digital Economy

Currently, the world is entering the era of the fourth industrial revolution, known as Industry 4.0. The revolution offers challenges and opportunities for future economic development. On the one hand, digitization, automation, and the use of artificial intelligence in economic activities will increase productivity and efficiency in modern production, as well as provide convenience and comfort for consumers. Digital technology also helps with the development process in various fields, including education through distance learning, governance through e-government, financial inclusion through financial technology (fin-tech); and also

helps with the development of micro, small, and medium enterprises (or UMKM) as e-commerce is booming. On the other hand, the development of Industry 4.0 has the potential to cause job loss around the world. It is estimated that 60% of global jobs will be replaced by automation. Even in Indonesia, it is estimated that 51.8% of potential jobs will be lost. In addition, the growth of various online-based businesses and online marketplaces has not been accompanied by the optimization of state revenue and tax compliance around these online transactions.

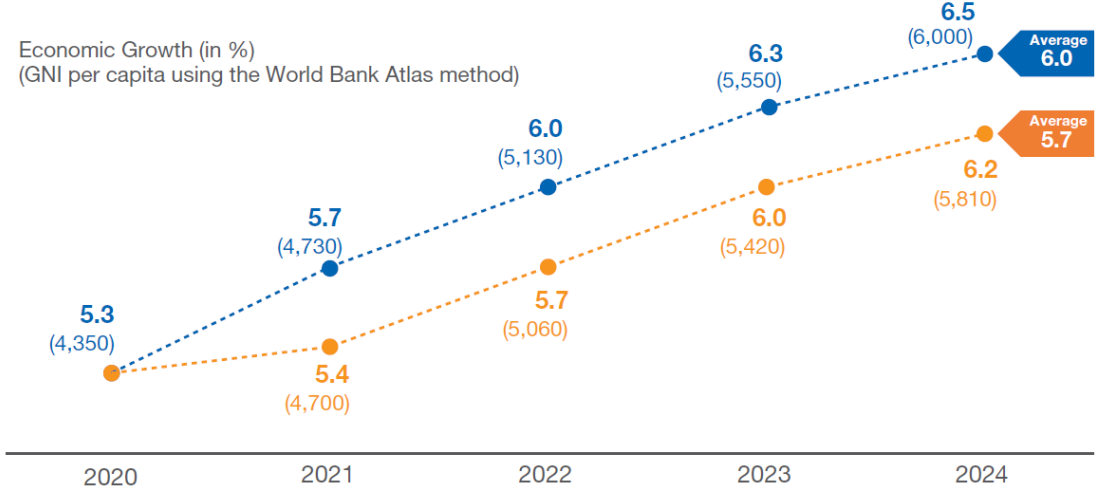


Macroeconomic Targets for 2020-2024

While pursuing medium-term development targets, Indonesia’s economic growth is expected to increase by an average of 5.7-6.0% p.a. through increased productivity, sustainable investment, and improvements in the labor market and in the quality of human resources. During this time, the gross national income (GNI) per capita (Atlas Method) is expected to increase to

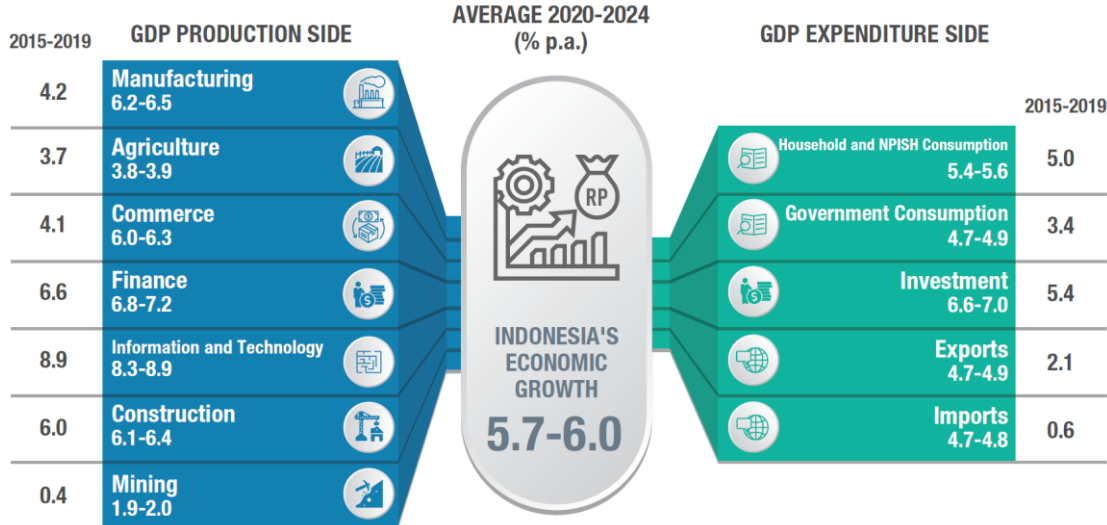
US\$5,810-6,000 per capita by 2024. Besides maintaining economic growth, price stability is also set as a priority. The inflation target is gradually reduced at a stable rate to around 2.7% by 2024. Efforts to achieve this target are made by resolving structural problems, managing expectations, and strengthening coordination among key players

Figure 1.5
Economic Growth Scenarios for 2020-2024



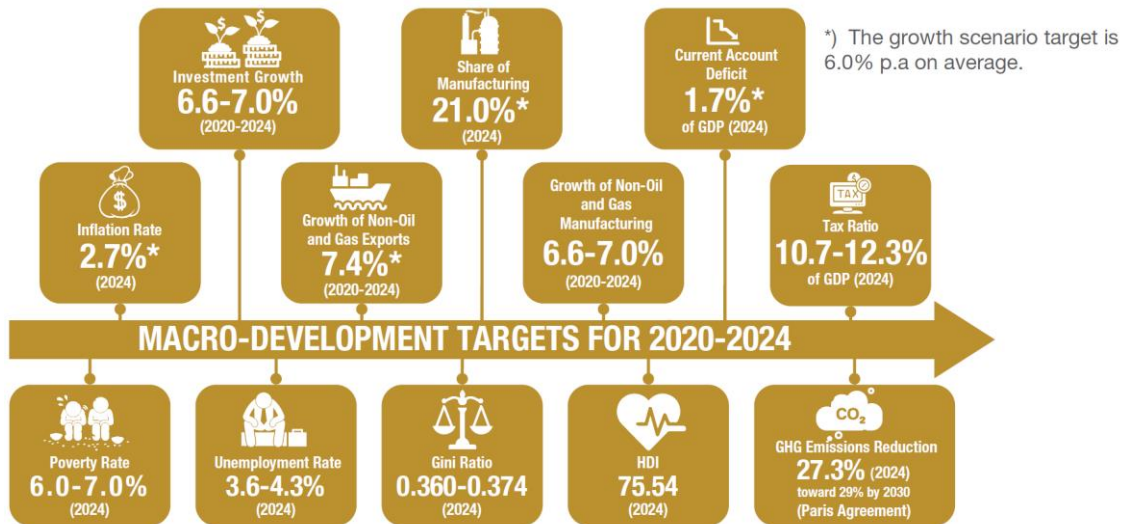
Source: Bappenas.

Figure 1.6
Details of Economic Growth for 2020-2024



Source: Bappenas

Figure 1.7
Macro-Development Targets for 2020-2024

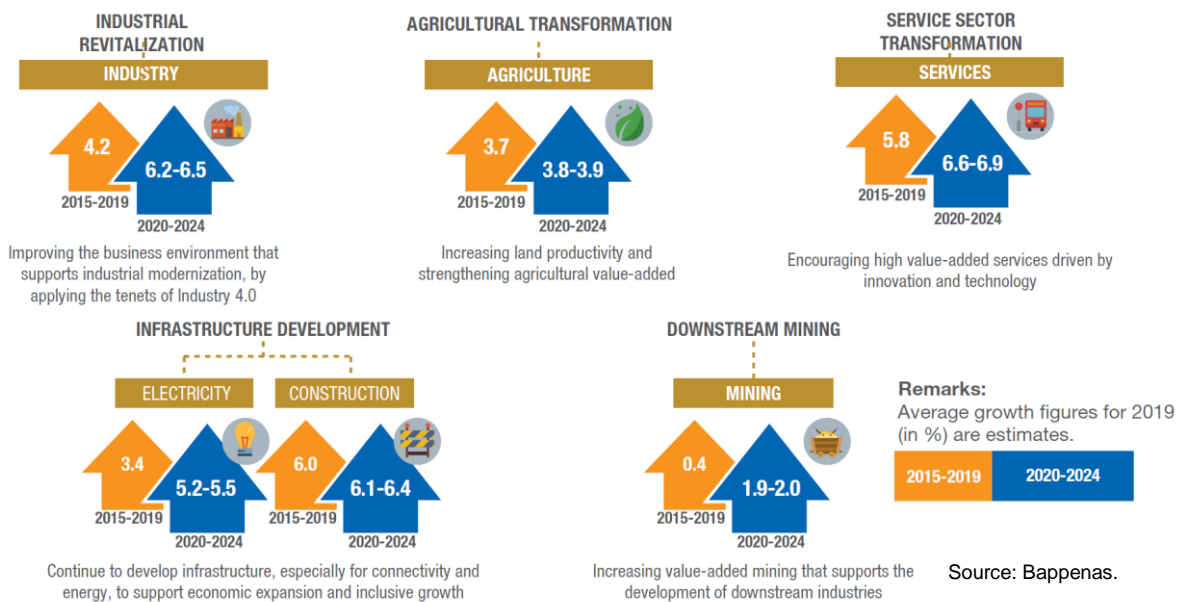


Source: Bappenas.

Better macro-conditions have a positive impact on the quality of growth. By 2024, poverty and open unemployment rates are expected to decrease to 6.0-7.0% and 3.6-4.3% respectively; the Gini coefficient is expected to decrease to 0.360-0.374; and the HDI score, which indicates an improvement in the quality of human resources, is expected to increase to 75.54.

One key to achieving economic growth in the next five years is structural reform. The reform is mainly driven by the revitalization of manufacturing, and also by the continuing efforts to boost the development of other sectors, including agriculture, downstream mining, sustainable infrastructure, and services.

Figure 1.8
Production-Side GDP Targets: Structural Transformation to Enhance Welfare



Source: Bappenas.

Strengthening Domestic Demand

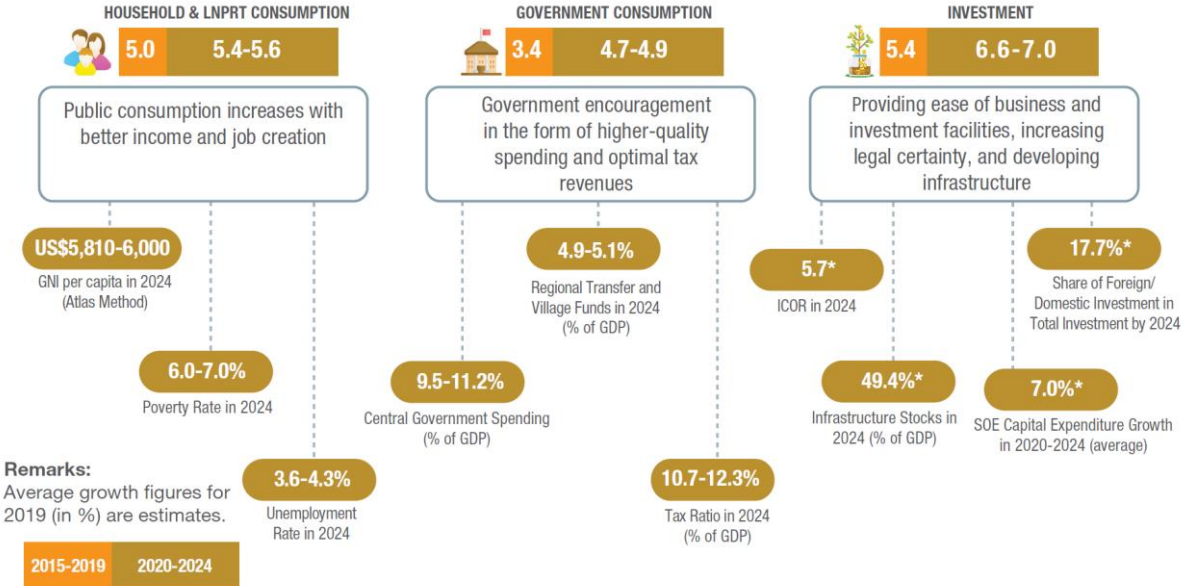
On the domestic demand side, public consumption, in both households and non-profit institutions serving household (or LNPR), is expected to grow by an average of 5.4-5.6% p.a. Increased public consumption is driven by increased income, the creation of more and better jobs, price stability, and well-targeted government social programs.

Government consumption grows by an average of 4.7-4.9% p.a., which is supported by increased government spending, both central and regional, and increased state revenue, especially from taxes.

The economic expansion of 2020-2024 is mainly driven by increased investment

(gross fixed capital formation), which grows by an average of 6.6-7.0% p.a. To achieve this target, private investment, both foreign and domestic, is encouraged by deregulating investment procedures, integrating licensing regulations, and increasing Indonesia's rank for ease of doing business (EoDB) from 73rd in 2019 to 40th by 2024. Increased investment is also driven by increased government investment, among others from state owned enterprises (BUMN), especially for infrastructure development. This will be indicated, in part, by an increase in the value of the country's infrastructure assets to 49.4% of GDP by 2024. Increasing investment is also realized by increasing productivity, which boosts investment efficiency.

Figure 1.9
Expenditure-Side GDP Targets: Strengthening Domestic Demand



Source: Bappenas.

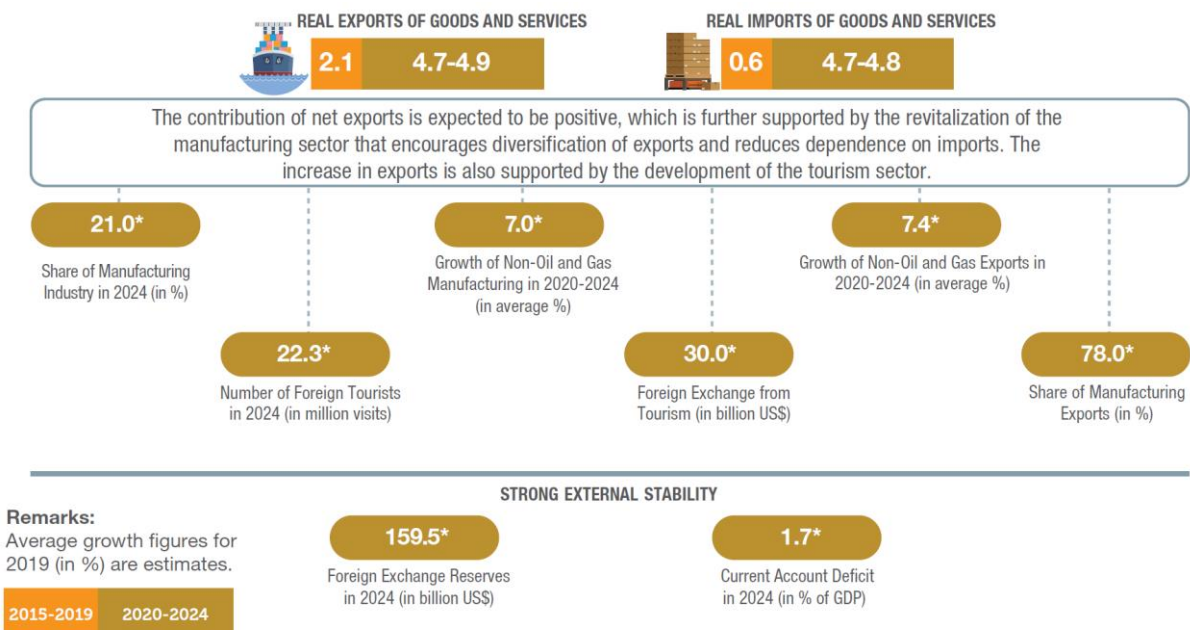
Diversification of Exports and External Stability

Overall, real exports of goods and services grow by an average of 4.7-4.9% p.a. The increase in exports of goods in 2020-2024 will be supported by the revitalization of manufacturing that encourages diversification of non-commodity exports—especially exports of high-tech manufactured products—while reducing import dependence. This increase is also driven by an increase in service exports, particularly travel, through the development of the tourism sector. Diversification of exports is not only achieved in terms of goods, but also in terms of the number of export

destinations. The expansion of the export market is mainly focused on Africa, Latin America, and Eastern Europe. Nonetheless, real imports of goods and services grow by an average of 4.7-4.8% p.a., which are driven by increased domestic demand, especially investment.

The improved performance of international trade will strengthen external stability, which is characterized by a reduction in the current account deficit to 1.7% of GDP and an increase in foreign exchange reserves to US\$159.5 billion by 2024.

Figure 1.10
Expenditure-Side GDP Targets: Diversification and External Stability



*) The growth scenario target is 6.0% p.a. on average.

Source: Bappenas.

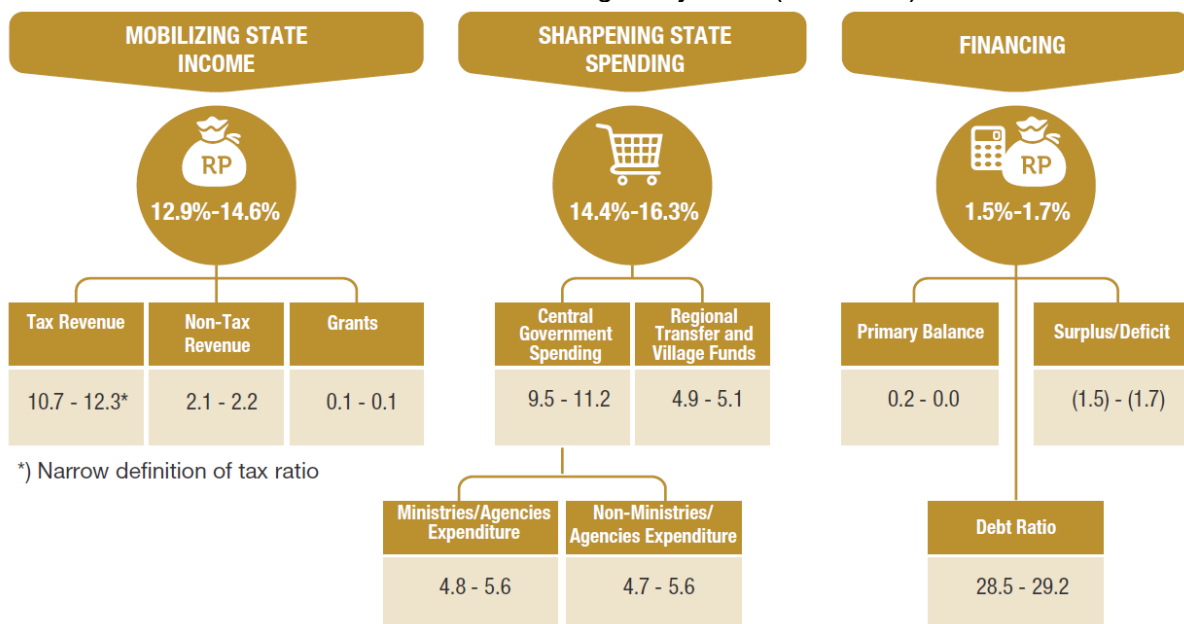
Maintaining Fiscal Continuity

The Government of Indonesia is committed to maintaining a healthy state budget while continuing to provide stimulus for the economy. State revenue is targeted to increase to 12.9-14.6% of GDP by 2024, with the tax-to-GDP ratio reaching 10.7-12.3% by 2024. This is achieved through continuous improvements to the tax administration system and tax policies. On the administration side, the tax administration system continues to undergo updates in order to improve the tax database and increase compliance. On the policy side, the government continues to explore other potential sources of revenue, including: increasing revenue from international digital services, reforming tax policies by simplifying the structure of the excise tax rates for tobacco products, increasing excise the tax rates for tobacco products, and extensifying the

list of excisable goods. These plans are also balanced with the role of taxation policymaking as an instrument to encourage investment by providing fiscal incentives that support activities that add value, especially in manufacturing, tourism, and the creative and digital economy.

Stimulus for key sectors is also carried out by sharpening state spending. Total state expenditure is estimated to increase to 14.4-16.3% of GDP, with an increase in central government spending and in regional transfer/village funds (or TKDD) to 9.5-11.2% and 4.9-5.1% of GDP respectively by 2024. The deficit will be maintained at 1.5-1.7% of GDP by 2024, below the limit mandated by law; moreover, primary balance is set to turn positive. With these figures, the debt ratio will be maintained below 30% of GDP.

Figure 1.11
Indonesia's Financial Targets by 2024 (% of GDP)



Source: Ministry of Finance.

Maintaining Stability of Inflation and Exchange Rates

It is expected that a low and stable inflation rate can build purchasing power and encourage public consumption in order to support the acceleration of quality economic growth. The Government of Indonesia and Bank Indonesia are committed to maintaining a low and stable inflation rate in the medium term.

In the 2020-2024 period, inflation control policies are directed toward: (i) increasing the availability of strategic food commodities; (ii) strengthening the governance of the national logistics systems and interregional connectivity; (iii) increasing cooperation among regions; (iv) anchoring inflationary

expectations within the stated target; and (iv) improving the quality of data and/or statistics.

For the 2020-2024 period, a stable exchange rate at its fundamental level helps maintain export competitiveness. This can be achieved by: (i) controlling the inflation rate; (ii) optimizing Bank Indonesia's interest rates; (iii) sufficient liquidity; (iv) deepening the financial market; (v) decreasing the current account deficit; and (vi) synergistic policies directed toward structural reforms that can improve the competitiveness of the domestic economy.

Reducing Regional Inequality

Economic growth in each region is expected to go hand in hand with national economic growth. Policies in each region are anticipated to align with policies at the national level. Nonetheless, the government will still consider the regional advantages and their respective characteristics to reduce disparities.

The national economy in the next five years is directed toward faster growth outside Java and Sumatra. The changing economy is marked by a shift in the share of the economy by as much as 1.1% in regions outside Java and Sumatra. This number reflects the ability of these regions to achieve faster growth than Java and Sumatra.

The momentum of growth in Sumatra is maintained and expected to exceed that in Java. The downstream policy for

leading commodities, the development of the tourism potential, and stronger interregional connectivity are key to accelerating Sumatra's economic growth

Java and Bali are regions that occupy the largest share of the national economy, supported by a shift in the structure of the economy toward the service sector, while maintaining growth in manufacturing. This shift is expected to sustain the already stable economic growth in the regions of Java and Bali, the backbone of the national economy.

The economic growth in Nusa Tenggara relies on the downstream of natural resources, trade, and tourism. Nusa Tenggara is directed toward diversifying its manufacturing sector—based on agriculture, livestock production, and

plantations—and reducing its economic dependence on the mining sector.

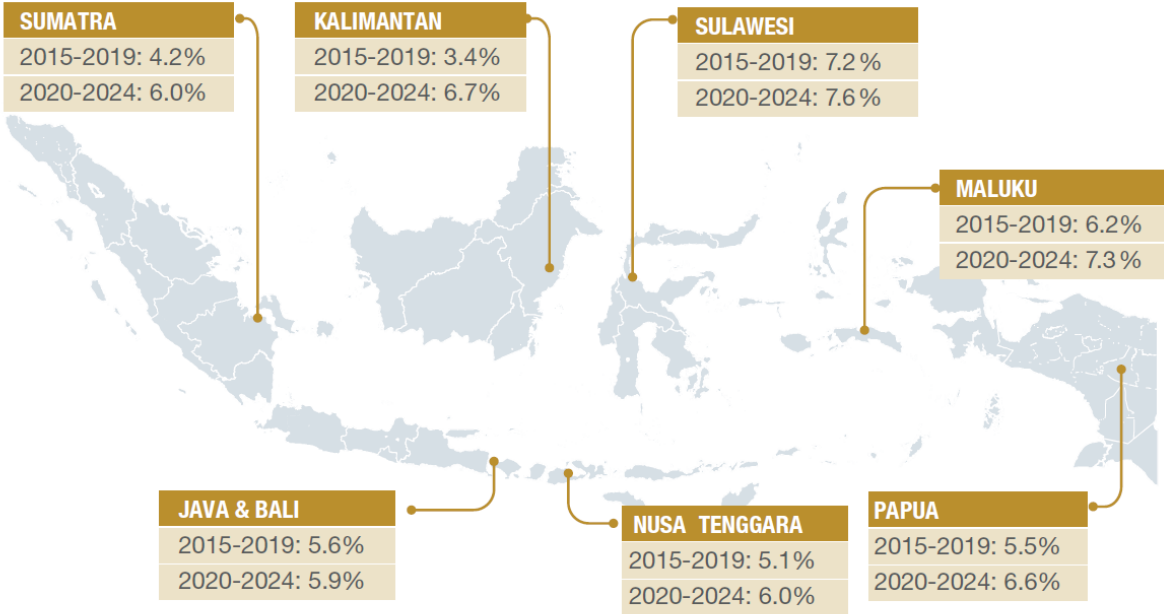
The increase in Kalimantan's economic growth will be a result of, among others, investment in the development of the new national capital, which will create a large multiplier effect on the economy and on the downstream of natural resources for energy production.

Sulawesi remains the mainstay of growth in Eastern Indonesia, driven by investment in the downstream of natural resources, increased connectivity to industrial centers, and Sulawesi's role as a trading center in Eastern Indonesia.

The economy of the Maluku Islands is expected to experience fast growth, driven by the development of Maluku's fishing industry, tourism, and the downstream of natural resources.

Papua's fast growth is anticipated to increase the economies of scale in Eastern Indonesia. Its growth is driven by the downstream of natural resources and the diversification of its plantation-, food-, and fishery-based manufacturing. Strengthening connectivity will also reduce commodity price disparities and logistics costs. With high economic growth, the Maluku Islands and Papua are expected to catch up with other regions.

Figure 1.12
Projected Economic Growth in Each Region in 2020-2024



Remarks:
Average growth figures for 2019 (in %) are estimates.

Source: Bappenas

Investment and Financing Needs

To achieve the target economic growth rate of 5.7-6.0%, an investment of Rp 35,212.4-35,455.6 trillion is needed for the 2020-2024 period. To meet these needs, the government and BUMN will contribute 8.4-10.1% and 8.5-8.8% respectively, whereas the rest will be covered by the public and/or private sector.

Efforts to finance investment needs for 2020-2024 are made by deepening the financial sector—both banks and non-banks—by increasing financial inclusion, expanding financial product innovation, developing financial services infrastructure, and optimizing financing alternatives, among others.

Table 1.1
Economic Growth and Structure for 2020-2024 (in %)

Indicators	2019 Estimates*	Medium-Term Projections				
		2020	2021	2022	2023	2024
GDP Growth		5.3	5.4-5.7	5.7-6.0	6.0-6.3	6.2-6.5
Expenditure						
Public consumption	5.2	5.0	5.2-5.4	5.4-5.6	5.7-5.9	5.9-6.1
Government consumption	2.8	4.3	4.5-4.6	4.6-4.9	4.8-5.1	5.1-5.3
Investment (GFCF)	4.8	5.6	5.8-6.2	6.3-6.9	7.2-7.8	8.0-8.4
Exports of goods & services	-1.2	3.9	3.9-4.2	4.6-4.8	5.3-5.6	5.8-6.2
Imports of goods & services	-8.2	4.3	4.4-4.6	4.7-4.8	5.0-5.1	5.1-5.2
Production						
Agriculture, forestry, and fishery	3.5	3.7	3.7-3.8	3.8-3.9	3.9-4.0	4.0-4.1
Mining and excavation	1.4	1.9	1.9-1.9	1.9-2.0	2.0-2.1	2.0-2.2
Manufacturing	4.1	5.0	5.2-5.5	6.2-6.5	7.1-7.5	7.7-8.1
Electricity and gas supply; and ice production	3.9	4.2	5.2-5.2	5.2-5.6	5.5-6.0	5.7-6.1
Water supply	7.4	4.0	4.3-4.4	4.5-4.6	4.7-4.8	4.9-5.0
Construction	5.7	5.7	5.8-6.1	6.1-6.4	6.4-6.7	6.6-6.9
Wholesale and retail trade, and automobile/motorbike repair	4.8	5.5	5.5-6.0	5.9-6.5	6.2-6.7	6.4-6.8
Transportation and warehousing	5.8	7.0	7.1-7.4	7.3-7.7	7.5-7.9	7.5-8.9
Provision of room and board	5.6	6.0	6.1-6.3	6.3-6.5	6.5-6.7	6.7-6.8

Indicators	2019 Estimates*	Medium-Term Projections				
		2020	2021	2022	2023	2024
Information & communications	9.3	7.3	7.7-8.8	8.4-9.2	8.9-9.4	9.1-9.8
Financial services	6.0	6.3	6.4-6.9	6.7-7.1	7.1-7.7	7.3-7.8
Real estate	5.5	4.9	5.0-5.0	5.0-5.2	5.3-5.3	5.3-5.4
Company Services	9.8	8.3	8.4-8.4	8.5-8.5	8.5-8.7	8.7-8.8
Government administration & mandatory social security	6.0	4.5	4.8-5.1	5.1-5.4	5.2-5.5	5.4-5.6
Education services	6.1	5.1	5.2-5.2	5.2-5.3	5.5-5.6	5.7-5.8
Health services and social activities	8.6	7.5	7.6-8.0	8.1-8.2	8.4-8.5	8.5-8.6
Other services	10.1	8.9	9.3-9.5	9.5-9.6	9.6-9.6	9.7-9.7
GDP Distribution (in %)						
Agriculture, forestry and fishery	12.5	12.3	12.6-10.0	11.9-1.9	11.7-11.6	11.5-11.4
Mining and excavation	7.4	7.1	6.8-6.7	6.5-6.4	6.2-6.2	5.9-5.9
Manufacturing	19.7	19.7	19.7-19.8	19.9-20.0	20.2-20.4	20.5-21.0
Electricity and gas supply; and ice production	1.1	1.1	1.1-1.1	1.1-1.1	1.1-1.1	1.1-1.1
Water supply	0.1	0.1	0.1-0.1	0.1-0.1	0.1-0.1	0.1-0.1
Construction	10.6	10.6	10.7-10.7	10.7-10.7	10.8-10.8	10.8-10.8
Wholesale and retail trade, and automobile/motorbike repairation	13.0	13.0	13.0-13.1	13.1-13.2	13.1-13.1	13.2-13.3
Transportation and warehousing	5.5	5.6	5.7-5.7	5.7-5.8	5.8-5.8	5.9-5.9
Provision of room and board	2.7	2.7	2.7-2.7	2.6-2.6	2.6-2.6	2.6-2.6
Information & communications	3.9	3.9	3.9-3.9	4.0-4.0	4.0-4.1	4.1-4.2
Financial services	4.2	4.2	4.3-4.3	4.3-4.3	4.4-4.4	4.4-4.4
Real estate	2.7	2.7	2.7-2.7	2.7-2.7	2.7-2.7	2.6-2.6
Company services	1.9	1.9	2.0-2.0	2.0-2.0	2.1-2.1	2.1-2.1
Government administration & mandatory social security	3.6	3.6	3.6-3.6	3.5-3.5	3.5-3.5	3.5-3.5
Education services	3.3	3.2	3.2-3.2	3.2-3.2	3.2-3.2	3.2-3.2

Indicators	2019 Estimates*	Medium-Term Projections				
		2020	2021	2022	2023	2024
Health services and social activities	1.1	1.1	1.1-1.1	1.1-1.1	1.1-1.1	1.1-1.1
Other services	1.9	2.0	2.0-2.0	2.1-2.1	2.2-2.2	2.2-2.3

Source: Bappenas and Bank Indonesia.

Table 1.2
Indonesia's Balance of Payments for 2020-2024 (in billion US\$)

Indicators	2019 Estimates*	Medium-Term Projections				
		2020	2021	2022	2023	2024
Current Account	-30.7	-30.4	-30.3	-30.2	-30.0	-29.3
Goods	-0.4	0.3	1.0	3.0	7.5	15.0
• Exports	167.2	175.9	185.9	198.5	214.8	235.1
• Imports	-167.6	-175.6	-184.8	-195.5	-207.3	-220.1
Services	-7.0	-6.8	-6.3	-5.3	-4.9	-4.4
• Exports	31.7	33.9	37.0	41.8	47.3	53.8
• Imports	-38.6	-40.7	-43.3	-47.1	-52.3	-58.2
Primary income	-30.6	-31.5	-32.8	-35.9	-40.6	-48.1
Secondary income	7.3	7.6	7.8	7.9	8.0	8.2
Capital and Financial Transactions	39.3	31.2	33.4	35.8	38.0	42.0
Capital transaction	0.1	0.1	0.1	0.1	0.2	0.2
Financial transactions	39.2	31.1	33.3	35.7	37.8	41.9
• Direct investment	17.5	18.6	21.5	24.3	27.3	32.0
• Portfolio investment	24.3	18.5	18.9	19.7	20.0	20.5
• Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0
• Other investment	-2.5	-6.0	-7.1	-8.3	-9.5	-10.7
Total (Current Account + Capital & Financial Transactions)	8.6	0.8	3.1	5.6	8.0	12.7
Memorandum:						
Foreign exchange reserves	129.2	130.1	133.2	138.8	146.8	159.5
• In months of imports	7.6	7.2	7.0	6.9	6.8	6.9
Current Account (% of GDP)	-2.7	-2.5	-2.3	-2.1	-1.9	-1.7

Table 1.3
State Budget and Expenditure for 2020-2024 (% of GDP)

Indicators	2019 Estimates*	Medium-Term Projections				
		2020	2021	2022	2023	2024
State Revenue and Grants	12.2	11.9-13.1	12.5-13.4	12.6-13.8	12.8-14.1	12.9-14.6
Tax revenue	9.6	9.7-10.5	10.1-10.7	10.3-11.2	10.5-11.7	10.7-12.3
Non-tax revenue	2.5	2.2-2.5	2.3-2.6	2.3-2.5	2.2-2.3	2.1-2.2
Grants	0.0	0.1-0.1	0.1-0.1	0.1-0.1	0.1-0.1	0.1-0.1
State Expenditure	14.4	13.7-15.1	14.2-15.1	14.2-15.5	14.3-15.8	14.4-16.3
Central government spending	9.3	8.9-10.0	9.2-10.0	9.3-10.4	9.4-10.7	9.5-11.1
• Ministries/institutions						
• Non-ministries/institutions	5.5	4.4-5.5	4.9-5.2	4.8-5.4	4.6-5.4	4.8-5.6
	3.9	4.5-4.5	4.3-4.8	4.5-5.1	4.8-5.3	4.7-5.6
Regional transfer and village funds	5.0	4.8-5.1	5.0-5.2	4.9-5.1	4.9-5.1	4.9-5.1
• Regional transfer	4.6	4.4-4.7	4.6-4.8	4.5-4.7	4.5-4.7	4.5-4.7
• Village funds	0.4	0.4-0.4	0.4-0.4	0.4-0.4	0.4-0.4	0.4-0.4
Primary Balance	(0.5)	0.0-(0.3)	0.1-0.0	0.1-0.0	0.2-0.0	0.2-0.0
Budget Surplus/Deficit	(2.2)	(1.8)-(2.0)	(1.6)-(1.7)	(1.6)-(1.7)	(1.6)-(1.7)	(1.5)-(1.7)
Financing	2.5	1.8-2.0	1.6-1.7	1.6-1.7	1.6-1.7	1.5-1.7
Debt financing	2.7	2.0-2.3	1.8-2.1	1.8-2.1	1.8-2.1	1.7-2.1
Investment financing	(0.3)	(0.3)-(0.5)	(0.3)-(0.5)	(0.3)-(0.5)	(0.3)-(0.5)	(0.3)-(0.5)
Other financing	0.1	0.1-0.2	0.1-0.1	0.1-0.1	0.1-0.1	0.1-0.1
Debt Ratio	29.8	29.6-30.4	29.4-30.0	29.1-29.8	28.9-29.6	28.5-29.3

*) Based on the realization of the 2019 Provisional State Budget until December 31, 2019.
Source: Ministry of Finance.

Economic Growth with Environmental Insights

Another aspect of economic development is the environment. Climate change and decreasing environmental carrying capacity may have a negative impact on achieving economic growth targets. Therefore, future development is

directed toward maintaining a balance in economic growth, emission reduction, emission intensity, and the carrying capacity of the environment and natural resources.

Development Constraints

Conditions of the Carrying Capacity of the Environment and Natural Resources

The limited carrying capacity of the environment and natural resources to support development is defined as a limitation on the ability of natural resources to provide support for human lives, other life forms, and the balance between the two; and a limitation on the ability of the ecosystem to absorb substances, energy, and other components that are discharged into it. The carrying capacity of the environment and natural resources must be considered in any development planning

process as it determines the sustainability of that particular development.

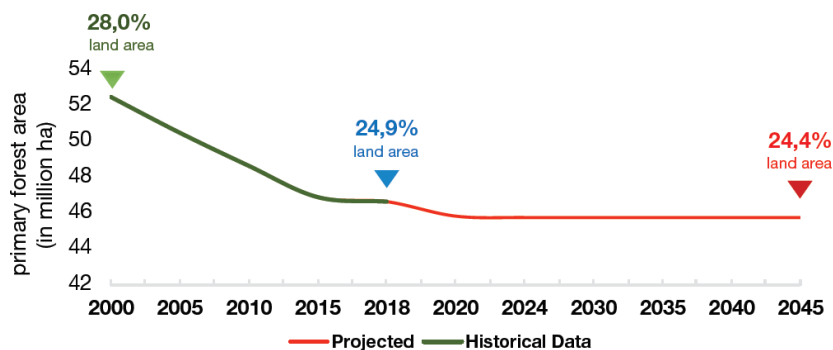
Some factors related to the carrying capacity of the environment and natural resources that need attention include: (a) primary forest cover; (b) forest cover on peatlands; (c) habitat of key species; (d) settlements in coastal regions affected by climate change; (e) disaster-prone areas; (f) water availability; and (g) energy availability.

A. Primary Forest Cover

Forests provide invaluable environmental resources for the survival of life. The most important resources that provide optimal benefits are found in primary forests, namely natural forest cover that has not been disturbed by human exploitation.

Although the rate of deforestation of primary forests has been reduced significantly through a moratorium on forest clearance since 2011, the reduction in the primary forest cover still occurs in certain locations.

Figure 1.13
Projected Decline in Primary Forest Cover



Source: Bappenas, 2019

In 2045, it is projected that the area of the remaining primary forest cover is 45.8 million ha or 24% of the total national land

area of 188 million ha (see Figure 1.13). In order to maintain its function, an area of 45-46 million ha according to the

forest-clearance moratorium map, or around 24-25% of the total national land

area, is the minimum area that must be preserved in development planning.

B. Forest Cover on Peatlands

Besides being rich in biodiversity and having an important hydrological function, which is especially important when regulating the water system in their surrounding areas, the peat ecosystem also contains remarkably high carbon reserves. Hence, integrated efforts are needed to conserve and restore peatlands.

Peatlands currently continue to experience disturbances, especially from peatland drainage, deforestation, and wildfires that potentially increase greenhouse gas (GHG) emissions and disrupt the functions within the ecosystem. The forest cover area, which includes both primary and secondary forests located on peatlands, tends to decrease, indicating the extent of damage to peatlands from year to year (see Table 1.4).

The total area of peatlands that has been restored in licensed cultivation areas

and/or concessions (Cultivation Rights and Business Permits for the Utilization of Forest Products) has only reached 143,448 ha from the target of 1,784,353 ha for 2020 (8%); while the area of peatlands that has been successfully restored in non-permit areas has only reached 682,694 ha from the target of 892,248 ha for 2020 (77%). If there is no improvement to these policies, then it is feared that peatland recovery and restoration targets cannot be achieved optimally.

For future development plans, the total area of forest cover on peatlands needs to be maintained at a minimum of 9.2 million ha, as was the case in 2000. Hence, during the 2020-2024 RPJMN period, at least an additional 1.5-2 million ha of restored peatlands will be required. For this reason, peatland restoration efforts that have been carried out intensively since 2015 need to remain a priority in the 2020-2024 RPJMN.

Table 1.4
Changes in Area of Forest Cover on Peatlands

Island Regions	Peatland Area (in ha)	Extent of Forest Cover on Peatlands			
		2000		2015	
		in ha	%	in ha	%
Sumatra	4,120,325	1,789,500	43.43	837,675	20.33
Kalimantan	4,694,625	2,545,300	54.22	1,891,800	39.87
Papua	6,376,975	4,896,300	76.78	4,817,275	75.54
Total National	15,191,925	9,231,100	60.76	7,526,750	49.54

Source: Bappenas, 2019.

C. Habitat of Key Species

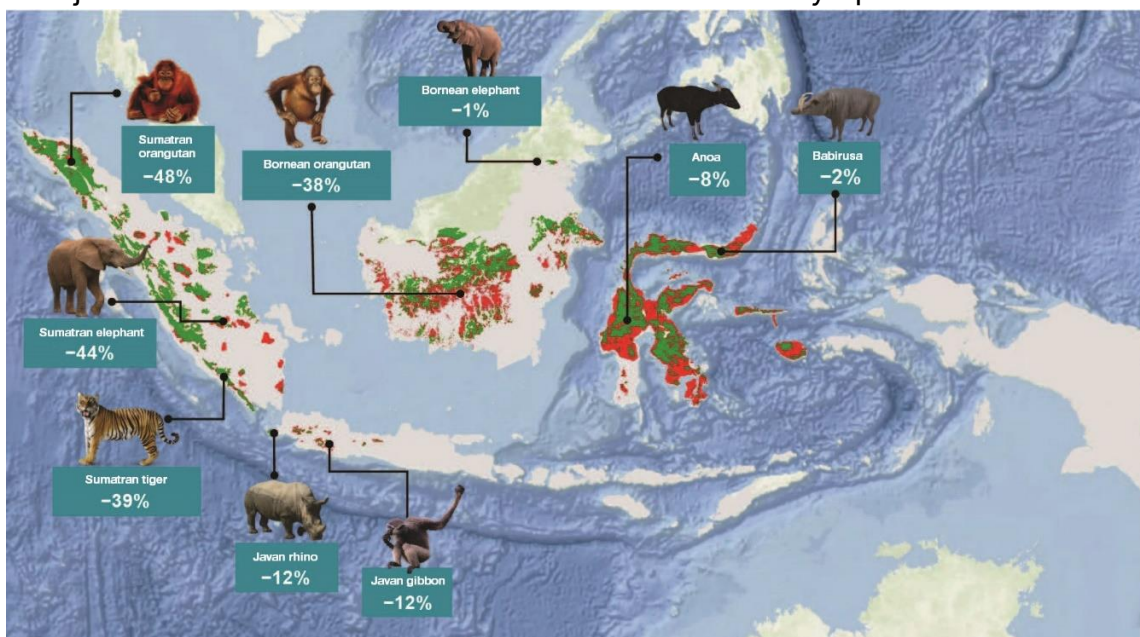
Indonesia has a rich biodiversity and specific ecosystem characteristics with a high level of species endemism in each island region. Some endemic species found in Indonesia include the Komodo dragon (*Varanus komodoensis*), orangutan (*Pongo* spp.), bird-of-paradise (*Paradisaea* spp.), Javan rhinoceros (*Rhinoceros sondaicus*), maleo (*Macrocephalon maleo*), and anoa (*Bubalus* spp.).

A limiting factor that must be considered as a major concern when planning for development in Indonesia is the habitat of key species. These key species are plants or animals that are prioritized for protection as they represent the overall biodiversity in their ecosystem. The loss of these key species will result in the disruption to the sustainability of the structure, function, and productivity of the habitat and/or ecosystem.

There are nine key species that have become limiting factors in the analysis of the environmental carrying capacity, namely the babirusa, anoa, Javan rhinoceros, Javan gibbon, Bornean elephant, Bornean orangutan, Sumatran orangutan, Sumatran elephant, and Sumatran tiger. The habitats of these key species are projected to significantly decline due to the reduction in forest cover, thus making the species more vulnerable (Figure 1.14).

Analysis shows that forest cover in key habitat areas to the west of the Wallace Line will shrink from 80.3% in 2000 to 49.7% in 2045, especially in Sumatra and Kalimantan. Meanwhile, key biodiversity areas to the east of the Weber Line, especially in the island regions of Maluku and Papua, are also expected to decrease significantly due to massive development.

Figure 1.14
Projected Decline in Forest Cover Within the Habitat of Key Species in 2000-2045



Source: Bappenas, 2019

As the islands of Sumatra and Kalimantan experience the largest decline in the habitat area of these vulnerable and endangered key species, any form of development in those regions must consider the sustainability of these habitats.

According to a number of analyses, the minimum area of key species' habitat—

especially to the west of the Weber Line—that must be maintained at the national level is 43.2 million ha. If the habitat area of these key species cannot be maintained, it is feared that the ecological will be severely disrupted, which can present a major challenge in the field of sustainable development in Indonesia.

D. Area of Settlements in Coastal Regions Affected by Climate Change

The coastal slope is a major parameter in determining the level of vulnerability in coastal areas. Highly vulnerable coastal areas are areas prone to abrasion, especially low sloping beaches; whereas coastal areas with a low level of vulnerability are areas that are safe from the dangers of abrasion, for example steep sloping beaches.

Compared with the sea level in 2000, the sea level in 2040 is projected to rise up to 50 cm due to climate change. The resulting rise in wave heights will precipitate changes to the coastal slope, to the coastal environment due to flooding, and to the coastal sediment supply. Hence, the area of coastal settlements that are prone to abrasion and/or accretion due to changes in the

sea level is expected to increase to over 18,480 km² by 2045.

Based on the analytical results obtained from the Strategic Environmental Assessment (or KLHS), it is known that: settlements along the 11 km coastline are currently affected by abrasion, settlements along the 253 km coastline are potentially affected by abrasion, and settlements along the 155 km coastline need to prepare for the impact of abrasion. The sea level has become a limiting factor for development because rising sea levels will continue to threaten existing settlements and other infrastructure and/or facilities until they cannot be utilized optimally. In addition, climate change has an impact on wave heights that affect fishing patterns and the fishermen themselves (Bappenas, 2018).

E. Disaster-Prone Areas

Geographically, Indonesia is a country that is prone to natural disasters. Most of Indonesia's territory is located above major earthquake-producing stresses, along the subduction-zone megathrust fault and other active faults that not only have the potential to cause damage to

infrastructure and basic connectivity, but also cause a huge loss of life.

Disaster-prone areas must be considered as a limitation when planning for development. Therefore, zones with a high disaster risk need to be prioritized as protected areas during spatial planning,

rather than used as utilization areas. If their use as utilization areas cannot be avoided, then these zones need to be

F. Water Availability

Damage to forest cover is expected to trigger raw water scarcity, especially in island regions that have exceptionally low forest cover such as Java, Bali, and Nusa Tenggara. Raw water scarcity has also begun to occur in several other regions due to the impact of global climate change, which is currently affecting most of Indonesia.

Currently, the availability of water has been classified as scarce to critical in most areas of Java and Bali. It is estimated that areas with critical levels of water supply have increased from 6% in 2000 to 9.6% by 2045, covering the

G. Energy Availability

The challenge in meeting future energy needs is expected to be even greater. Reserves of fossil energy sources (non-renewable) such as oil and natural gas are running low, while the development of renewable energy sources is still not significant enough to be able to meet domestic energy demand.

Domestic energy supply in 2018 was only able to meet around 75% of the national energy demand and is expected to decline to 28% by 2045. The reduced capacity of domestic energy production is expected to affect the balance between national energy supply and demand in the future.

In order to meet the national energy needs, by 2024, the portion of new and

supported by adaptation efforts and disaster risk mitigation in order to reduce potential losses.

regions of southern Sumatra, West Nusa Tenggara, and southern Sulawesi.

For water scarcity to not hamper development, the minimum area with safe water supply that needs to be maintained at the national level is 175.5 million ha (93% of the total area of Indonesia); meanwhile, the availability of water in each island region must be maintained above 1,000 m³/capita/year. For the island of Java specifically, given that the threat of the water crisis is very worrying, the proportion of areas with safe water supply needs to be significantly increased.

renewable energy must be increased to 23% of the national energy mix. In addition, efforts to find new energy sources are needed to anticipate the decline in fossil energy resources in the future.

The limited carrying capacity of natural resources and the degradation of the environment are real challenges that can hinder the achievement of development targets. Holistic and integrated efforts from various sectors are needed to overcome these challenges. Development planning needs to consider the balance between the use of natural resources and the achievement of development targets, while also paying attention to the spatial function and spatial structure in regional development.

Fiscal Capacity and Development Funding

In accordance with the 2005-2025 RPJPN, the medium-term development objective for 2020-2024 is to realize an independent, developed, just, and prosperous society through accelerated development in various fields by emphasizing the establishment of a solid economic structure based on competitive advantage in various regions of Indonesia, supported by quality and competitive human resources.

These targets can be achieved through high-quality public investment, particularly investment that: 1) is well-targeted and on schedule; 2) has a positive impact that is both significant and sustainable; 3) consistent with the direction of policies, programs, and development plans; and 4) makes efficient use of resources and funding.

In the last five years, Indonesia's tax revenue to GDP (or tax ratio) has been low, even lower than the tax ratio of countries with similar income. The main underlying problem with the low tax ratio is the country's ineffective tax policy that has not realized a system that is able to optimally mobilize tax revenue. In addition, the current state of the tax administration, individual compliance with tax obligations, and the role of tax organizations also have an effect on the already inefficient tax system. These various tax problems lead to limited fiscal space to fund development needs.

With limited fiscal capacity to finance large and increasingly diverse

development needs, a funding strategy is needed to optimize the utilization of all available funding capacities to achieve development goals.

Funding for development is prioritized for meeting the basic needs of citizens by implementing minimum service standards and boosting investment that provides high leverage for national development. The participation of various stakeholders is encouraged and synergized to strengthen the utilization of development funding. The central and regional governments are directed toward providing basic services to citizens, while business entities, both BUMN and private, are focused on strengthening economic growth and achieving development targets.

To optimize the utilization of funding, it is necessary to integrate development funding from government sources that include ministries/institutions, non-ministries/institutions, regional transfers and village funds; from BUMN; from the collaboration between the government and business entities; and from the collaboration with the public sector in which the collaboration is in line with the "Money Follows" principle. In addition, the government needs to encourage more funding from sources that come from both the public and private sector through innovative financing schemes, including government-to-business cooperation schemes, among others.

BASIC PRINCIPLES OF NATIONAL DEVELOPMENT



BUILDING INDEPENDENCE

Carrying out development based on domestic capabilities in accordance with the conditions of citizens and existing social institutions, and taking advantage of the strength and greatness of Indonesian citizens.



Having human resources that excel, exercise responsibility, have the creativity and characteristics to become a development capital for the nation itself.



Having mastery of science and technology for natural resource management, governance, and decision-making in order to realize an independent nation.



Able to manage natural resources through value-added processes for the welfare of the citizens.



Becoming a country that is always active and open in cooperation for the advancement of the nation.



ENSURING JUSTICE

Justice is a facet of development carried out to provide benefits in accordance with the rights of citizens, is proportional, and does not violate the rule of law while building a just and prosperous society.



Ensuring equal access and opportunity for all citizens without discrimination to participate as much as possible in development and reap its benefits.



Law enforcement that guarantees equality, justice, legal certainty, and the principle of benefits to society.



Fostering trust and responsibility among development actors in order to create quality and inclusive economic development.



MAINTAINING SUSTAINABILITY

Sustainability is ensuring that development efforts meet current needs by considering the ability of future generations to meet their own needs in due course.



Intergenerational justice, where every generation of people in the world has the right to use the Earth in a condition no worse than that in which it was received due to actions of the previous generation.



Intragenerational justice, the justice within a generation where the burden of environmental problems must be shared by the people.



Early prevention, where if there is a significant threat that may cause irreversible environmental damage, the lack of conclusive and definite scientific findings or evidence cannot be used as a reason to delay efforts to prevent environmental damage.



Protection of biodiversity is a prerequisite for the successful implementation of the principle of intergenerational justice. Protection of biodiversity also means preventing the loss of biodiversity.



Internalization of environmental costs, where environmental damages can be seen as external costs of an economic activity and must be borne by the economic actors. Therefore, the costs of environmental damage must be integrated in the decision-making process related to the use of natural resources.

Mainstreaming in the 2020-2024 RPJMN

The 2020-2024 RPJMN has identified four mainstreaming components that serve as innovative and adaptive forms of development, which can act as a catalyst for development toward a prosperous and just society. The four components will give nuances and become an inseparable part in sectoral and regional development, while still paying attention

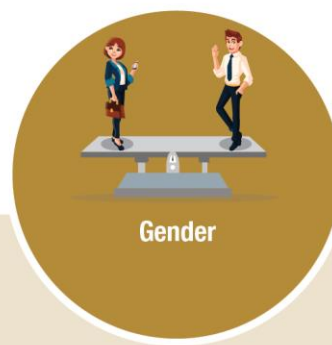
to environmental sustainability and ensuring inclusivity in its implementation. In addition to accelerating the achievement of focused development targets, this mainstreaming also aims to provide equal and equitable development access by improving governance efficiency and also adaptability to external environmental factors.



Sustainable development is development that can meet present needs without compromising future generations, by promoting the three dimensions of welfare: social, economic, and environmental.

Sustainable development is essentially a tool and means to achieve the national development agendas that requires the participation and collaboration of all parties. Sustainable development includes 17 interconnected objectives, including: resilience to disasters and climate change and good governance.

The 2020-2024 RPJMN has mainstreamed 118 targets from the Sustainable Development Goals.



Gender mainstreaming is a strategy to integrate gender perspectives into development, starting from the formulation of policies, planning, budgeting, implementation, monitoring, and evaluation.

Gender mainstreaming aims to realize gender equality so that it can create a more equal and equitable development for the entire population of Indonesia.

Gender equality can be achieved by reducing the gap between men and women in accessing and controlling resources, participating in the development and decision-making process, and reaping its benefits.

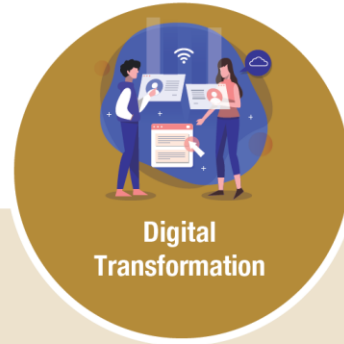


Social and Cultural Capital

Mainstreaming socio-cultural capital is the internalization of values and utilization of cultural wealth to support the entire development processes.

Local knowledge, local wisdom, and public social institutions as the embodiment of communal socio-cultural values must be considered in the process of planning and formulating national development policies and programs.

The socio-cultural mainstreaming has an aim that is oriented toward the appreciation of cultural treasures of the people, as well as efforts to preserve and promote cultures of the nation.



Digital Transformation

Mainstreaming digital transformation is an effort to optimize the role of digital technology in enhancing the nation's competitiveness and serving as one of the sources for Indonesia's future economic growth

Mainstreaming strategies for digital transformation consist of aspects of stabilizing the ecosystem (supply), utilization (demand), and managing big data.

Strategic Priority Projects (or Major Projects) in the 2020-2024 RPJMN

To implement the development agendas (national priorities) of the 2020-2024 RPJMN, the *Strategic Priority Projects* (or *Major Projects*) were formulated. These projects are structured to make medium-term development more concrete, more measurable, and more directly understood when solving development issues; and its benefits can be felt by the public. These projects have high strategic value and leverage to achieve priority development goals.

In the 2020-2024 RPJMN, there are 41 planned *Major Projects* with clear and detailed information containing all the targets, locations, and the implementing agencies. During the preparation process and implementation, these *Major Projects* involve the participation of ministries/institutions, regional governments, BUMN, and the public and private sector.

The *Major Projects* serve as references for policy emphasis and policy funding in the annual RPJM, government work plans (or RKP), and state budget. In the funding process, steps are taken to integrate sources of funding from the ministry's/agency's budget with others,

including government subsidies, regional transfers, funding from the public sector, and funding from BUMN, among others. In addition, efforts are also made to encourage innovative financing schemes, such as government-to-business schemes (or KPBU), blended finance, green finance, and output-based regional transfers and/or grants.

The progress of the *Major Projects* and their funding data can be updated through the government work plans (RKP) by first studying the readiness of their implementation, and later updating the amount and sources of funding while considering the President's directives. This is to ensure that the *Major Projects* can be carried out more effectively and efficiently in accordance with development needs.

In addition, the *Major Projects* also serve as a tool for development control so that the development targets of the 2020-2024 RPJMN can be continuously monitored and controlled.

The *Major Project* indicators meet the "SMART" criteria: Specific, Measurable, Achievable, Realistic, and Timely.



List of Strategic Priority Projects (or Major Projects) in the 2020-2024 RPJMN

(Trans: APBN is *Anggaran dan Pendapatan Belanja Negara* or the State Budget)

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
1	Industry 4.0 in 5 Priority Sub-Sectors: Food and beverages, textile, apparel, automotive, electronics, chemicals, and pharmaceuticals	<ul style="list-style-type: none"> Increase industry's share in total GDP to 21% 	245.8 APBN: 13.0 BUMN: 125.9 Private: 106.9	Among others: Ministry of Industry, Ministry of Trade, business entities (BUMN/private)
2	10 Priority Tourist Destinations: Lake Toba, Borobudur, Lombok-Mandalika, Labuan Bajo, Manado-Likupang, Wakatobi, Raja Ampat, Bromo-Tengger-Semeru, Bangka Belitung, and Morotai	<ul style="list-style-type: none"> Increase foreign exchange earnings in the tourism sector to US\$30 billion by 2024 Increase the number of tourist trips to 350-400 million, and foreign tourists to 22.3 million arrivals 	161 (APBN, KPBU, BUMN, and private sector)	Among others: Ministry of Tourism and Creative Economy, Ministry of Public Works and Housing, local governments, business entities (BUMN/private)
3	9 Industrial Estates outside Java and 31 smelters	<ul style="list-style-type: none"> Industrialization outside Java; able to achieve economic growth targets outside Java 	317.4 APBN: 15.7 BUMN: 111.4 Private: 176.0 KPBU: 14.3	Among others: Ministry of Energy and Mineral Resources, Ministry of Industry, local governments, business entities (BUMN/private)
4	Increasing ease of doing business and establish 350 farming and fishing cooperatives	<ul style="list-style-type: none"> Increase farmer's income by an average of 5% p.a. and fisher's income 10% p.a. (SDG targets) Increase commodity productivity by 5% p.a. 	226.4 APBN: 200.9 Private: 25.5	Among others: Ministry of Agriculture, Ministry of Marine Affairs and Fisheries, Ministry of Cooperatives and SMEs, Ministry of industry, business entities (BUMN/private)
5	Developing palm oil-based renewable energy (green fuel)	<ul style="list-style-type: none"> Increase share of new and renewable energy in the national energy mix to 23% 	32.0 APBN: 1.1 BUMN: 11.9 Private: 19.0	Among others: Ministry of Agriculture, Ministry of Energy and Mineral Resources, The Palm Oil Plantation Fund Management Agency, business entities (BUMN/private)

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
6	Revitalizing ponds at shrimp and milkfish production centers	<ul style="list-style-type: none"> Increase aquaculture production (of fish to 10.32 million tons) Increase shrimp exports to 8% p.a. 	25 APBN: 3.3 Private: 21.7	Among others: Ministry of Marine Affairs and Fisheries, Ministry of Public Works and Housing, Ministry of Energy and Mineral Resources, local governments, business entities (BUMN/private)
7	Integrating fishery ports and fish markets with international standards	<ul style="list-style-type: none"> Increase capture fishery production of high economic value to 10.10 million tons by 2024 Increase the value of exports of fishery products to US\$8.0 billion by 2024 	30 APBN: 7.2 KPBU and Private: 22.8	Among others: Ministry of Marine Affairs and Fisheries, Ministry of Public Works and Housing, Ministry of Industry, local governments, business entities (BUMN/private)
8	Batam-Bintan region development	<ul style="list-style-type: none"> Increase Batam-Bintan tourism and industrial growth 	69.9 APBN: 6.4 KPBU: 9.5 Business entities: 54.0	Among others: Free Zone Authority of Batam, Ministry of Public Works and Housing, local governments, business entities (BUMN/private)
9	Metropolitan area development: Palembang, Banjarmasin, Makassar, and Denpasar	<ul style="list-style-type: none"> Increase the national share of gross regional domestic product of metropolitan areas outside Java Increase the Sustainable Cities Index score of districts/cities in the metropolitan areas 	222.9 (APBN, KPBU, and private sector)	Among others: Ministry of Public Works and Housing, Ministry of Transportation, Ministry of Communication and Information Technology, Ministry of Energy and Mineral Resources, Ministry of Home Affairs, Statistics Indonesia, business entities (BUMN/private)
10	New Capital City (or IKN)	<ul style="list-style-type: none"> Increase development in Eastern Indonesia for regional equity 	466.04 APBN: 90.35 KPBU: 252.46 Business entities: 123.23	Among others: Ministry of National Development Planning/Bappenas, Ministry of Land and Spatial Planning/National Land Office, Ministry of Public Works and Housing, business entities (BUMN/private)
11	Developing new towns: Maja, Tanjung Selor, Sofifi, and Sorong	<ul style="list-style-type: none"> Increase the Sustainable Cities Index score of Lebak (Maja), Bulungan (Tanjung Selor), Tidore (Sofifi) and Sorong (Sorong) 	134.6 (APBN, business entities, and private sector)	Among others: Ministry of Public Works and Housing, Ministry of Transportation, business entities (BUMN/private)

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
12	Papua indigenous territories: Laa Pago and Domberay	<ul style="list-style-type: none"> Increase economic growth, equitable development, and welfare in 10 regencies in Laa Pago and 11 regencies in Domberay Increase accessibility of transportation and distribution of leading commodities 	27.4 (APBN)	Among others: Ministry of Public Works and Housing, Ministry of Energy and Mineral Resources, Ministry of Agriculture, Ministry of Villages, Development of Disadvantaged Regions, and Transmigration, Ministry of Transportation, local governments
13	Post-disaster recovery: City of Palu and its surroundings, Lombok and its surroundings, and the Sunda Strait coastal area	<ul style="list-style-type: none"> Improve quality of life of people affected by disasters through post-disaster rehabilitation and reconstruction Accelerate the recovery of supporting infrastructure for the economy, improve economic conditions, and boost the improvement of the local economy of the people in the affected areas 	15.2 APBN: 14.8 Regional budget: 0.4	Among others: National Board for Disaster Management, Ministry of Social Affairs, Ministry of Public Works and Housing, the public, business entities (BUMN/private)
14	National strategic activity centers (PKSN): PKSN Paloh-Aruk, PKSN Nunukan, PKSN Atambua, PKSN Kefamenanu, PKSN Jayapura, and PKSN Merauke	<ul style="list-style-type: none"> As urban centers that have the potential to serve as cross-border checkpoints with neighboring countries; as international gateways that connect with neighboring countries; as main transportation nodes that connect the surrounding areas; as centers of economic growth that can boost development of the surrounding areas 	3.4 APBN: 3.0 KPBU: 0.4	Among others: Ministry of Public Works and Housing, Ministry of Transportation, Ministry of Marine Affairs and Fisheries
15	Accelerating reduction in stunting and maternal mortality	<ul style="list-style-type: none"> Reduce maternal mortality rate to 183 per 100,000 live births Reduce prevalence of stunting by up to 14% 	87.1 (APBN)	Among others: Ministry of Health, National Population and Family Planning Board, Ministry of Public Works and Housing, Ministry of Home Affairs, Ministry of Education and Culture, local governments

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
16	Developing Science Technoparks: Optimizing Triple Helix in 4 major universities	<ul style="list-style-type: none"> Increase capability to create innovation and national innovation products 	0.8 (APBN)	Among others: Ministry of Research and Technology/National Research and Innovation Agency, Ministry of Education and Culture, state universities (UGM, IPB, ITB, and UI), private sector
17	Vocational education and training for Industry 4.0	<ul style="list-style-type: none"> Increase skilled workforce to support development of Industry 4.0 	29.1 (APBN)	Among others: Ministry of Manpower, Ministry of Industry, Ministry of Education and Culture, Statistics Indonesia
18	Integrating social assistance toward a comprehensive social protection program	<ul style="list-style-type: none"> Improve targeting accuracy and effectiveness of social assistance programs Increase coverage of cashless and formal financial services, especially for the poor and vulnerable 	206.5 (APBN)	Among others: Ministry of Social Affairs, Ministry of Communication and Information Technology, Ministry of Education and Culture, Ministry of Research and Technology/National Research and Innovation Agency, Ministry of Commerce, Ministry of Energy and Mineral Resources, Ministry of Home Affairs, Statistics Indonesia
19	Aceh-Lampung Trans-Sumatra toll road	<ul style="list-style-type: none"> Reduce travel time between Lampung and Aceh from 48 hours to 30 hours 	308.5 APBN: 105.5 KPBU: 203.0	Among others: Ministry of Public Works and Housing, business entities (BUMN/private)
20	High-speed rail in Java: (Jakarta-Semarang and Jakarta-Bandung)	<ul style="list-style-type: none"> Reduce travel time between Jakarta-Semarang from 5 hours to 3.5 hours, and Jakarta-Bandung from 3 hours to 40 minutes 	63.6 APBN: 21.6 KPBU: 42.0	Among others: Ministry of Transportation, Ministry of Public Works and Housing, Agency for the Assessment and Application of Technology, business entities (BUMN/private)
21	Makassar-Pare-Pare railway	<ul style="list-style-type: none"> Connect industrial zones with Garongkong Port and Makassar New Port Reduce freight loads on the Sulawesi Westbound National Road by 20-30% by 2045 (target of 1.5 million tons p.a.) 	6.4 APBN: 3.8 Business entities: 2.6	Among others: Ministry of Transportation, Ministry of State Owned Enterprises, business entities (BUMN/private)

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
22	Integrating (main) port network	<ul style="list-style-type: none"> Increase port performance by standardizing major ports; increase efficiency of domestic shipping routes by forming loops regularly to 27%; and increase port integration with hinterland regions 	113.0 (BUMN/private sector)	Among others: Ministry of Transportation, business entities (BUMN/private)
23	Urban mass public transport systems in 6 metropolitan areas: Jakarta, Surabaya, Bandung, Medan, Semarang, and Makassar	<ul style="list-style-type: none"> Reduce potential economic losses due to congestion in the metropolitan areas 	118.8 (APBN, regional budget, business entities)	Among others: Ministry of Transportation, Ministry of Public Works and Housing, local governments, business entities (BUMN/private)
24	Developing and expanding oil refineries	<ul style="list-style-type: none"> Increase oil production capacity to 1.9 million barrels a day by 2026 Improve trade balance in the oil and gas sector 	637.0 (Business entities)	Among others: Pertamina, business entities, Ministry of Energy and Mineral Resources, Ministry of Finance, BUMN
25	27,000 MW power plants, 19,000 km transmission lines, and 38,000 MVA substations	<ul style="list-style-type: none"> Completing the 35,000 MW program target Support new and renewable energy target of 19.5% of the primary energy mix by the end of 2024 Availability of electric supply to meet the target of 1,400 kWh per capita by 2024 Reduce CO₂ emissions by 3.5 million tons by 2024 Reduce the average outage duration to 1 hour per customer by 2024 Fulfill electricity demand in national priority areas 	1,121.0 (Business entities)	Among others: Ministry of Public Works and Housing, Ministry of Agriculture, Ministry of Energy and Mineral Resources, business entities (BUMN/private)
26	ICT infrastructure to support digital transformation	<ul style="list-style-type: none"> Reduce the digital gap Provide fast internet services to support the digitization of the economic, social, and government sectors 	435.2 APBN: 7.2 Business entities: 428.0	Among others: Ministry of Communication and Information Technology, Ministry of Health, business entities (BUMN/private), related Ministries/Institutions

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
27	Coastal security in 5 urban centers along the northern coast of Java	<ul style="list-style-type: none"> Overcome tidal floods in Jakarta, Semarang, Pekalongan, Demak, and Cirebon Reduce travel time between Semarang and Demak from 1 hour to 25 minutes 	54.9 APBN: 31.4 KPBU: 18.7 Regional budget: 4.8	Among others: Ministry of Public Works and Housing, Ministry of Energy and Mineral Resources, Ministry of Environment and Forestry, local governments, business entities (BUMN/private)
28	18 multipurpose dams	<ul style="list-style-type: none"> Availability of raw water supply from dams at 23.5 m³/s and electricity supply of 2,438 MW Increasing water supply in 51 premium irrigation areas by as much as 20% to support food security Increase efficiency and performance of the irrigation systems to above 70%, supported by technology in 9 irrigation areas 	92.9 APBN: 12.9 KPBU: 24.0 Private sector: 60.0	Among others: Ministry of Public Works and Housing, private sector
29	37 air routes in Papua	<ul style="list-style-type: none"> Decrease prices of basic commodities in Papua by 50% 	7.7 (APBN)	Among others: Ministry of Transportation
30	Trans-roads on 18 disadvantaged, outermost, and frontier islands.	<ul style="list-style-type: none"> Increase connectivity and mobility of goods and passengers to reduce commodity prices 	12.4 (APBN)	Among others: Ministry of Public Works and Housing, local governments
31	Trans-Papua road (Merauke-Sorong)	<ul style="list-style-type: none"> Increase connectivity and accessibility to inland areas, especially in the central mountains of Papua Reduce logistics costs for transportation of basic commodities by 50% 	15.4 (APBN)	Among others: Ministry of Public Works and Housing
32	Proper and safe access to sanitation for 90% of households	<ul style="list-style-type: none"> Increase the number of households that have access to proper sanitation to 90% 	140.9 APBN: 73.5 Regional budget: 1.7 Public/private sectors: 65.7	Among others: Ministry of Public Works and Housing, Ministry of Health, Ministry of Home Affairs, local governments, business entities (BUMN/private), and the public

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
33	Piped water access with connections to 10 million homes	<ul style="list-style-type: none"> Increase access to potable water to 100% by 2024 	123.5 APBN: 77.9 Regional budget: 15.6 KPBU: 29.9	Among others: Ministry of Public Works and Housing, local governments, and business entities
34	Urban flats (1 million)	<ul style="list-style-type: none"> Increase public access to affordable, proper, and safe housing for 1 million households Manage slum areas 	397.9 APBN: 18.0 Regional budget: 109.2 BUMN: 28.0 Private: 237.5 Public: 5.0	Among others: Ministry of Public Works and Housing, local governments, BUMN, private sector, and the public
35	City gas network for 4 million homes	<ul style="list-style-type: none"> LPG subsidy savings of Rp 297.6 billion p.a. Reduce LPG imports by 603,720 thousand tons p.a. 	38.4 APBN: 4.1 BUMN: 6.9 KPBU: 27.4	Among others: Ministry of Energy and Mineral Resources, business entities (BUMN/private)
36	Restoring 4 critical watersheds	<ul style="list-style-type: none"> Reduce erosion in critical watershed areas by greening 150,000 ha of land Reduce the impact of floods in the provinces of Banten, Jakarta, West Java, and North Sumatra 	30.9 (APBN)	Among others: Ministry of Public Works and Housing, Ministry of Environment and Forestry
37	Trans-Kalimantan natural gas pipeline (2,219 km)	<ul style="list-style-type: none"> Connect the national gas pipelines in Kalimantan (Trans-Kalimantan) Fulfill needs for natural gas in the industrial sector; for electricity generation; and fulfill the needs of the domestic and commercial gas network in Kalimantan Provide energy for the new capital city Increase the use of natural gas in the Natuna region 	36.4 (Business entities)	Among others: Ministry of Energy and Mineral Resources, business entities (BUMN/private)
38	Constructing processing facilities for toxic and hazardous waste	<ul style="list-style-type: none"> Increase capacity to treat hazardous and toxic waste to 26,880 tons p.a. 	4.6 APBN: 0.6 KPBU: 3.0 Private sector: 1.0	Among others: Ministry of Environment and Forestry, Ministry of Health, business entities (BUMN/private)

No.	Major Projects	Project Benefits	Funding Indications (in trillion Rp)	Implementing Agencies
39	Strengthening early disaster warning systems	<ul style="list-style-type: none"> Increase speed of delivery or early warning information from 5 minutes to 3 minutes 	13.0 (APBN)	Among others: Meteorology, Climatology, and Geophysical Agency, National Board for Disaster Management, Ministry of Environment and Forestry, Ministry of Energy and Mineral Resources, Geospatial Information Agency, Agency for the Assessment and Application of Technology
40	Strengthening NSOC-SOC and establishing 121 CSIRT	<ul style="list-style-type: none"> Reduce incidence of cyber-attacks Increase integration and sharing of information data between relevant stakeholders (government, private sector, and other cyber communities) 	8.0 (APBN)	Among others: National Cyber and Encryption Agency, the National Police, Ministry of Defense/The Indonesian Army
41	Strengthening security within territorial waters in Natuna	<ul style="list-style-type: none"> Increase deterrent effect and enforce sovereignty in Natuna waters Reduce piracy, violence, and crime at sea; transnational crimes; and strengthen the navigation/security management systems 	12.2 (APBN)	Among others: Ministry of Defense and The Indonesian Army



CHAPTER II

STRENGTHENING ECONOMIC RESILIENCE
FOR QUALITY AND EQUITABLE GROWTH

Preface

Economic development in the next five years is directed toward increasing economic resilience as demonstrated by the ability to manage and use economic resources to produce high value-added goods and services for domestic market sales and exports. This particular development is expected to boost inclusive and high-quality growth, which should sustain the carrying capacity of economic resources to improve the welfare of citizens in an equal and equitable manner.

Such economic development is carried out by applying two approaches

altogether, namely: (1) managing economic resources, and (2) increasing economic value-added. These two approaches form the foundation for integration of cross-sectoral policies that cover food, agriculture, fishery, maritime affairs, marine affairs, manufacturing, tourism, and the creative economy and digital economy. The implementation of these two approaches is supported by improved quality of data, which will serve as a reference for monitoring and evaluating the achievements of the present development agenda, as well as improving policymaking.

Development Achievements in 2015-2019



There had been an increase in the production of food and agriculture. The sector achieved a rice surplus of ~2.8 million tons in 2018 and an average growth of 5.5% p.a. in meat production.



Food insecurity rate fell to 7.9% in 2018.



Fish production and consumption increased to 14.1 million tons and 50.7 kg/capita/year respectively in 2018.



Electrification ratio for households reached 98.3% in 2018.



8 industrial estates/ special economic zones are currently in operation



Foreign tourist arrivals increased from 9.4 million visitors in 2014 to 15.8 million, with foreign exchange earnings of US\$19.3 billion in 2018.



Contribution of creative economy exports reached US\$19.8 billion or 11.8% of Indonesia's total exports in 2017.



A cumulative 11.88 million new jobs created in 2015-2019 and a reduction in the open unemployment rate to 5.28% in 2019.



Increased real investment from Rp 545.4 trillion in 2015 to Rp 721.3 trillion in 2018.

In the 2015-2019 period, the food management sector achieved an increase in food and agricultural production, including a rice surplus of around 2.8 million tons in 2018 and an average growth of 5.5% p.a. in meat production. Capture fishery production also increased, reaching 7.3 million tons in 2018 of which 6.7 million tons was captured in the 11 fishery management areas (or WPP), and 0.6 million tons came from inland waters. Moreover, aquaculture production increased to 17.3 million tons, which included 6.9 million tons of farmed fish and shrimp, and 10.4 million tons of seaweed. In addition, salt production in 2018 was 2.7 million tons.

Improvements to food production have been supported by the completion of water storage infrastructure that included 16 dams and 788.6 thousand hectares of rehabilitated critical land. The conservation of marine areas to sustain fishery management has also increased to 20.8 million hectares, or around 6.4% of the total extent of Indonesia's territorial sea, covering 172 conservation areas in 2018.

Improved management and production of these food sources have a positive impact on the quality of consumption and nutrition of the public, as reflected in the desirable dietary pattern score of 91.3 out of 100 (where the average minimum energy requirement is 2000 kcal/capita/day), and in the reduction in the food insecurity rate to 7.9%. Nonetheless, fish consumption continued to increase from 41.1 kg/capita/year in 2015 to 50.7 kg/capita/year in 2018. Public access to a potable water source also increased to 87.8% in 2018.

Quality of life also improved with better access to energy. This is reflected in the electrification ratio of 98.3% in 2018. This achievement has been supported by the expanding electricity distribution network; and by the development and utilization of new and renewable energy, through the development of small-scale renewable energy production, application of smart grids, and use of biofuels, among others.

Access to other energy sources such as natural gas has been continually expanded. As of 2018, a cumulative total of 463,643 gas networks had been built for households, in addition to a cumulative distance of 10,942.5 km for transmission and distribution pipelines. Domestic demand for gas could be covered via the domestic market obligation (DMO) of 60% in 2018 for natural gas production.

Despite several performance indicators showing positive achievements, the current management of various economic resources needs to be improved. In the food production sector, for example: (1) there must be stronger connections between food production centers and regions with high food demand; (2) there must be adequate supply and quality of food in areas prone to starvation, stunting, and poverty; and (3) there must be integration between the production data for strategic food commodities and data for imports.

Water reserve management is also yet to see improvement. Although water reserves at the national level are classified in the "safe" category, special attention needs to be directed to the endangered water reserves in Java and

to the already water-stressed regions of Bali and Nusa Tenggara. Furthermore, improvements to the water quality are also necessary, as it has been showing signs of deterioration since 2015.

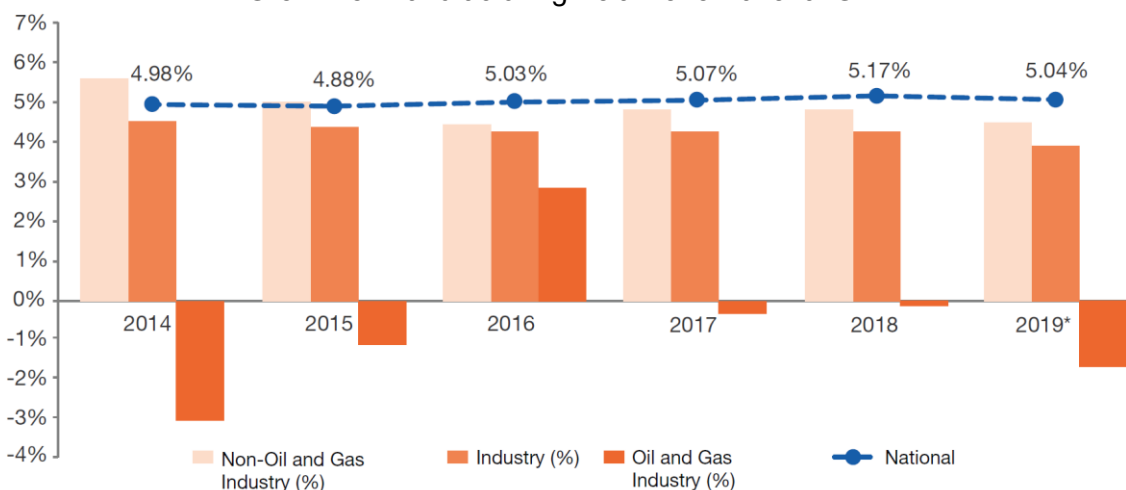
On the energy side, improvements are needed to meet growing national energy demand. National electricity consumption only reached 1,064 kWh per capita in 2018, far lower than the average electricity consumption in Europe which reached 5,000 kWh per capita. Indonesia is also resolved to increasing its new and renewable energy mix to 23% by 2025. As of 2018, the energy mix had only reached 8.6%, or around 2.5% (9.8 GW) of the total existing potential (441.7 GW).

Management of economic resources—such as food, agriculture, forestry, maritime affairs, marine affairs, fishery, water, and energy—is expected to facilitate the supply of high-quality raw materials, which are then processed into

high value-added products. However, the management has been ineffective due to weak forward and backward linkages in agriculture and fishery, slow modernization of agriculture, and low access of farmers and fishers to productive resources such as high-quality inputs and financing.

The national industry has also not been able to utilize existing resources in the best possible manner, leading to import dependency. About 71.0% of total imports are raw materials and intermediate or supporting materials for manufacturing. Various attempts have been made to reduce import dependency, but progress has not been significant. One solution is to attract investment for downstream activities in industrial estates (or KI) and special economic zones (or KEK)—especially economic zones built outside Java—that facilitate industrial activities.

Figure 2.1
Growth of Manufacturing Relative to National GDP



Remarks: 3Q 2019.
Source: BPS, 2019 (compiled).

Of the 21 priority KI/KEK outside Java, as of 2018, only 8 KI/KEK had been operational, namely KI/KEK Sei Mangkei, KI Dumai, KI Galang Batang, KI Ketapang, KI Bantaeng, KI Konawe, KI/KEK Palu, and KI Morowali. Investment in the priority KI/KEK reached Rp 179.9 trillion from 58 foreign and domestic investment companies. The development of other KI/KEK is currently faced with challenges in land acquisition, management, connectivity, competitive energy access, and low investment.

The capacity of the national industry to process and export high value-added products also remains limited. This caused the growth rate of the industrial value-added in the 2015-2019 period to be lower than the average national growth rate. The contribution of manufacturing to GDP has been stagnating at around 20% in the last four years. In the future, the performance of the national industry will be continually improved.

The performance of the tourism and creative economy sector has been growing. The contribution of tourism in terms of foreign exchange earnings increased from US\$11.2 billion in 2014 to US\$19.3 billion in 2018. This increase resulted from the rise in the number of foreign tourists who visit the natural and cultural attractions and who consume tourism characteristic products of Indonesia, from 9.4 million tourists in 2014 to 15.8 million in 2018. The number of domestic tourists also rose from 251 million tourists in 2014 to 303 million in 2018. In total, the estimated contribution of the tourism sector to GDP increased from 4.2% in 2015 to 4.8% in 2018.

Creativity in using and integrating economic and cultural resources encourages the development of the creative economy sector. Several indicators showed growth of the value-added in the creative industry, which reached 5.1% in 2017, with export earnings reaching US\$19.8 billion or 11.8% of total exports. The number of workers absorbed in the creative economy sector increased from 15.5 million workers in 2014 to 17.7 million in 2017. The volume of exports and number of creative workers exceeded targets set by the 2015-2019 RPJMN.

In line with the development of the digital economy, various economic resources are currently being utilized better and distributed more rapidly. The fast and dynamic penetration of the digital world has shaped Indonesia's digital economic landscape that not only covers on-demand services, e-commerce, and financial technology (fintech), among others, but also service providers in the Internet of things (IoT). Projection of the development of the digital economy in Indonesia is reflected, among others, in the growth of the value of e-commerce transactions by 1,625% to US\$130 billion in the 2013-2020 period. Fintech services based on peer-to-peer lending (P2P) are also anticipated to expand, reaching 145 million smartphone users, or 53.0% of the total population by 2020. The use of IoT also has the potential to boost integration and management efficiency in the government, and in both the private and public sector. The future development of the digital economy continues to be confronted with challenges related to the regulatory framework and the rate of application of telecommunications technologies and systems such as 5G.

Economic growth has managed to create a fairly high number of jobs. During the 2015-2019 period, for every 1% of economic growth, an average of 470,000 jobs were created. Research also showed that the total number of new jobs created was around 11.9 million, and the open unemployment rate declined from 6.2% in 2015 to 5.3% in 2019. The service sector was able to generate the highest employment for around 12.6 million workers, whereas the manufacturing sector was only able to absorb around 3.7 million people. On the other hand, employment in the agricultural sector declined by around 4.4 million people. Nonetheless, the proportion of formal workers increased from 42.3% in 2015 to 44.3% in 2019.

In addition to exploring employment opportunities within the country, Indonesian workers also fill the labor market abroad. The value of remittance from 3.7 million Indonesian migrant workers reached US\$8.6 billion by the third quarter of 2019.

During the 2015-2019 period, the National Agency for the Placement and Protection of Indonesian Workers (or BNP2TKI) facilitated the placement of 1.3 million Indonesian migrant workers, of which 50.4% or 648 thousand were in the formal sector, and 49.6% or 638 thousand were in the informal sector. Despite their formal employment, the majority of migrant workers entered as low-skilled workers.

The competitiveness of micro, small, and medium enterprises (or UMKM) will need to be continually improved through policies that encourage growth. The reason for this is that UMKM absorb the

largest share of workforce, which is around 97%. Increasing the capacity and value-added of UMKM is accomplished through ease of doing business initiatives, expanding market access, accelerating financing, increasing human resource capacity, and strengthening cross-sectoral coordination.

Various development achievements were also backed by better governance. One of these achievements was the improvement in the ease of doing business ranking (EoDB) from 106th place in 2015 to 72nd in 2017. The EoDB ranking however dropped to 73rd in 2018 and stayed in the same position in 2019, even though the distance-to-frontier score—the proximity of Indonesia to the country with the best performance in terms of ease of doing business—increased from 61.2 in 2015 to 67.9 in 2018, and later to 69.6 in 2019. This illustrates the challenge that, although Indonesia is improving its EoDB ranking, other countries progress much faster. Accelerating improvement in the EoDB score is anticipated to be accompanied by an increasingly conducive business climate.

Improvement in the EoDB score during the 2015-2018 period resulted in the rise in real investment from Rp 545.4 trillion in 2015 to Rp 721.3 trillion in 2018. The share of domestic investment only amounted to 45.6%, which requires continuous attention. The distribution of investment also remains an aspect that requires improvement, given that its realization continues to be focused in Java, at 56.2%. Accelerating infrastructure development, preparing a skilled workforce, ensuring land tenure security, and harmonizing regulations are key to distributing investment outside

Java. These facets are also key to successfully accelerating the development of industrial estates and tourism zones as new growth centers outside Java.

Ways to increase investment in these growth centers are by easing permits and facilitating investment. During the 2014-2019 period, 34 projects in special economic zones worth Rp 10.8 trillion received their corresponding permits. The government also launched an accelerated construction program (or KLIK) for 318 projects worth Rp 334.4 trillion in various industrial estates.

Improvements to governance are also related to an improvement in the quality

of statistical data and information. The 2016 economic census serves as the foundation for business and economic analysis for future development. Further, the improved 2018 rice production data serves as the basis for improving food policies. Improving and providing data for tourism, the creative economy, and investment are also necessary in order to set more accurate development targets and provide a solid foundation for policymaking.

Along with its projected path to attain upper-middle-income status, Indonesia can take a more active role as a key partner for China, Brazil, India and South Africa in the Organization for Economic Cooperation and Development (OECD).

Environmental and Strategic Issues

Sustainability of Natural Resources

The availability of natural resources, which is one of the pillars for development, is unfortunately diminishing. This occurs due to an increase in the consumption of natural resources as sources of foreign exchange earnings, and as sources of raw materials for domestic industrial needs.

Regarding energy, one of the challenges encountered is the depletion of oil and gas reserves. Results from hydrocarbon explorations have not been encouraging. In the last five years, the oil and gas reserve replacement ratio averaged only 70.4%. Moreover, the use of new and renewable energy sources and efficiency in energy use will have to be improved.

The sustainability of maritime and marine resources, including fishery, is also facing various challenges, one of which is the need to optimize capture fishery by paying attention to the maximum sustainable yield and the need to optimize sustainable aquaculture development.

Sustainable development is also facing numerous challenges relating to environmental degradation and depletion of natural resources, such as forests, water, and biodiversity. Although the deforestation rate has decreased significantly compared to before 2000, forest cover is expected to decline from 50% of Indonesia's total land area (188 million ha) in 2017 to around 38% by 2045. This decline will exacerbate water scarcity, particularly on islands with low

forest cover, such as Java, Bali, and Nusa Tenggara. The risk of water scarcity is also rising in other regions as a result of climate change. The percentage of area suffering from critical water shortages is expected to increase from 6% in 2000 to 9.6% by 2045.

Indonesia has a great opportunity to develop products derived from its

biodiversity if its sustainability is continually improved. The development is carried out through bioprospecting initiatives to meet the demand for raw materials to manufacture medicines, clothing, food, cosmetics, spices, animal feed, resins, and dyes, among others. In addition, diversifying primary medicinal plant products into high value-added secondary products is equally important.

Figure 2.2
Projected Forest and Water Sustainability in 2045



Forest Cover

will be reduced from 50% (93.4 million ha) in 2017 to 38% (71.4 million ha) of Indonesia's total land area (188 million ha) by 2045

Source: Estimates by Bappenas.



Water Scarcity

in Java, Bali, and Nusa Tenggara will be exacerbated through 2030. The proportion of areas facing a water crisis will also expand from 6.0% in 2000 to 9.6% by 2045. Water quality is also expected to deteriorate significantly.

Effectiveness of Governance over Economic Resources

The management of economic resources is facing challenges related to the carrying capacity of the environment, availability of land, infrastructure, spatial planning, and welfare of farmers, fishers, and citizens who depend on natural resources for their livelihoods.

The management of food and agriculture is facing the issue of increasing demand for land and water as a result of increased economic activities. This condition has led to heightened competition in the use of land and water, particularly in agriculture, manufacturing, and housing.

Another challenge that is no less important is the rising demand for food, along with an increase in the total population by 1.2% p.a. Food production is affected by seasonal factors, and by the availability and reliability of production infrastructure, including irrigation. Uncertainty causes fluctuations in food prices, for example, price fluctuation of rice averaged 0.6% per month. On the producer side, low productivity and fluctuations in food prices lead to low bargaining power of farmers, where the average farmer exchange rate was 101.3 in 2017.

Management of fishery and marine resources are also facing several challenges, including: (1) the dominance of small-scale fishery and the use of simple technology, (2) high cost of production inputs, (3) low access to capital to improve businesses, (4) inadequate marine and fishery infrastructure, including fishing ports, hatchery and broodstock systems, cold chain systems, and salt ponds, among others, (5) ineffective and inefficient permit programs, (6) low integration of end-to-end fishery and issues with the product value chain, and (7) ecosystem degradation and the effect of climate change on the marine environment.

In the fishery and marine sector, the issues encountered are: (1) the need to strengthen the management and institution of fishery management areas; (2) unproductive fishery; and (3) the need to enhance the harmonization of land and ocean spatial planning, by aligning them with spatial zoning plans (or RTRW), with zoning plans for coastal areas and small islands (or RZWP3K), and with the national strategic zoning plans (or RZKSN/KSNT).

Other issues are inefficient management and inefficient use of energy. For

Sluggish Structural Transformation

Because of sluggish structural transformation, Indonesia has not been able to resume the socio-economic transformation that had stopped due to the monetary crisis in 1997-1998. Indonesia's average economic growth declined from 6.0% in the 1990-2000 period to an average of 5.0% in the 2000-2015 period. The contribution of manufacturing to GDP also declined to

example, the use of coal to meet domestic energy needs has not been optimal. The application of coal domestic market obligation (DMO) with market-based prices serves as an opportunity to increase the ratio of coal production reserves and development of new and renewable energy plants. Coal DMO only achieved 23.5% of the total coal production (548 million tons) in 2018.

Other issues in relation to energy management and energy use that need to be addressed are: (1) adequate energy supply—especially natural gas—and electricity to meet the emerging needs of the real sector; (2) maximum use of energy resources for industrial raw materials; (3) quality and reliability of energy distribution, especially outside Java; (4) ineffective use of energy for broader economic development; (5) inefficient energy consumption which is remedied by improvements to energy savings in manufacturing, transportation, construction, and commercial facilities, with the potential savings of around 30% of current energy use; and (6) lack of national energy buffer reserves to anticipate energy crisis and emergency conditions.

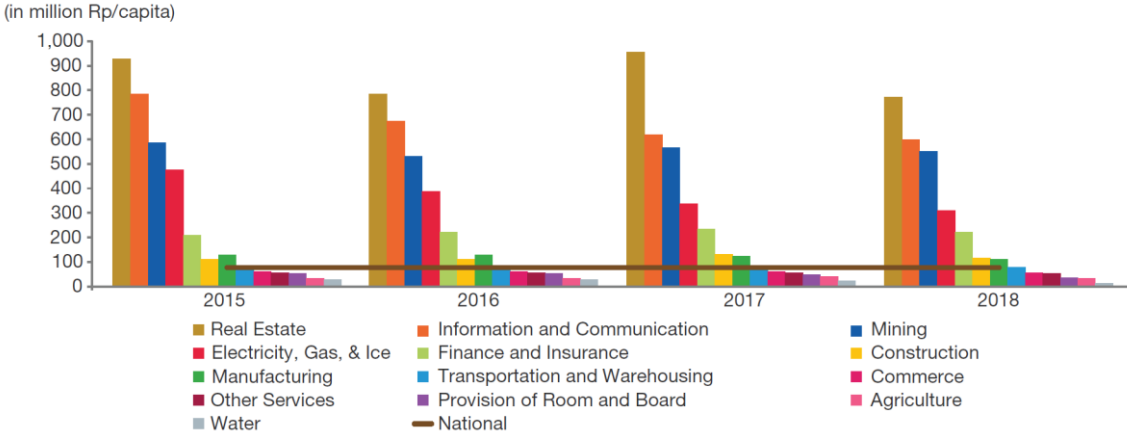
19.9% in 2018. On the other hand, in the same year, the contribution of the service sector increased to around 59.2% and that of the primary sector increased by 20.9%.

The rising contribution of the service sector to GDP shows a transition of sources of growth from the primary sector to tertiary, even though the

transition has not been able to achieve higher growth. This is due to the low growth contribution from the informal service subsector, which happens to absorb the most labor migration from the primary sector. The manufacturing

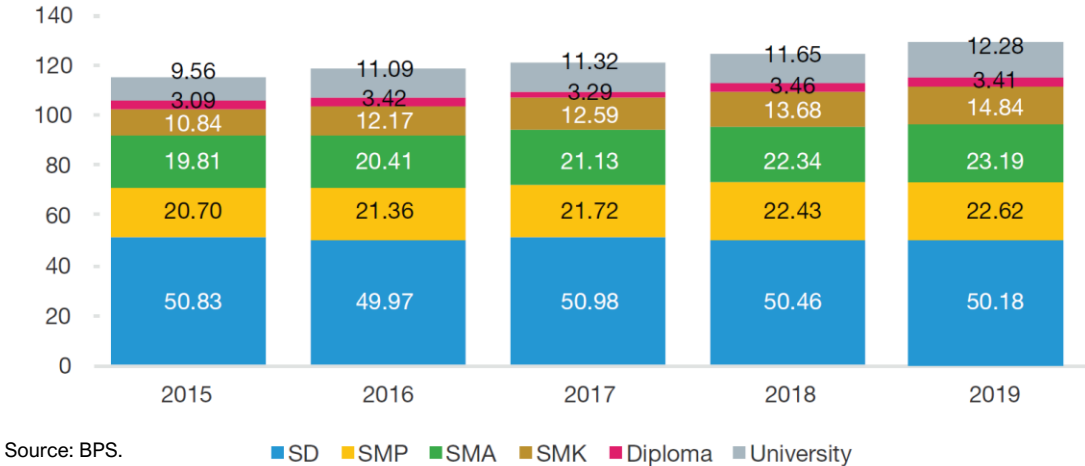
sector, which has the greatest potential to drive growth and create formal employment, continues to face challenges that include wage growth that has not been complemented by equal productivity.

Figure 2.3
Comparison of Productivity in Various Sectors



Source: BPS, 2018 (compiled).

Figure 2.4
Level of Education of Workers in Indonesia in 2015-2019



Source: BPS.

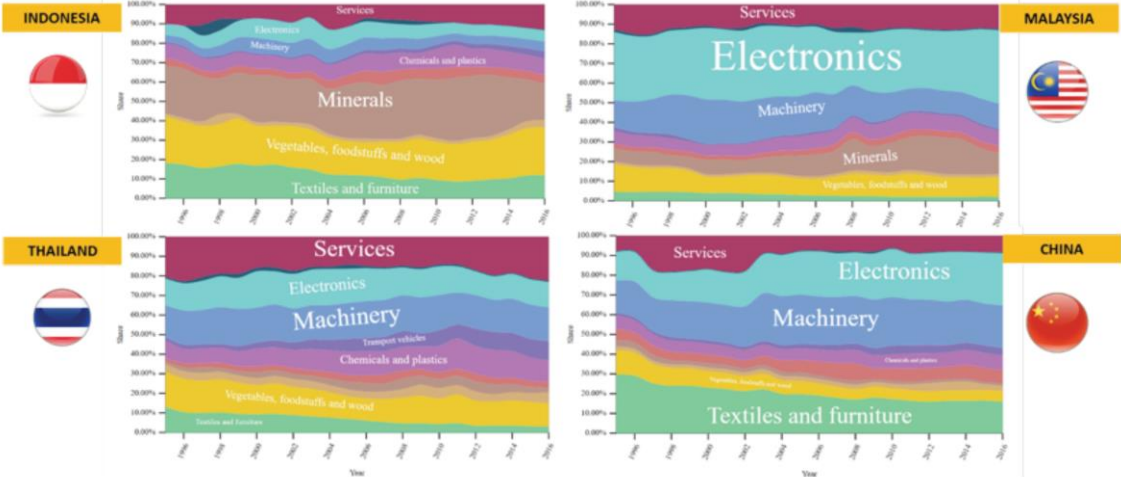
The issue of low productivity is related to low-quality human capital. The workforce is currently dominated by as many as 50.2 million (or 39.7%) elementary school graduates and below. Meanwhile, not all workers with higher education have the readiness and capacity according to the

needs of the workforce. Mismatched skills, gaps in the quality of education among regions, and limited pool of talent ready to be tapped have become challenges associated with labor productivity.

The sluggish structural transformation in Indonesia is also linked to low exports. The ratio of Indonesia's export value to GDP only reached 19.0%, far below Thailand (69.0%), Vietnam (93.0%) and Singapore (172.0%). Further, Indonesia's leading natural resources have not been optimally processed into high value-added products, as shown by Indonesia's exports that are currently dominated by commodities (more than 50%) that include processed crude palm oil, base metals, rubber, and food.

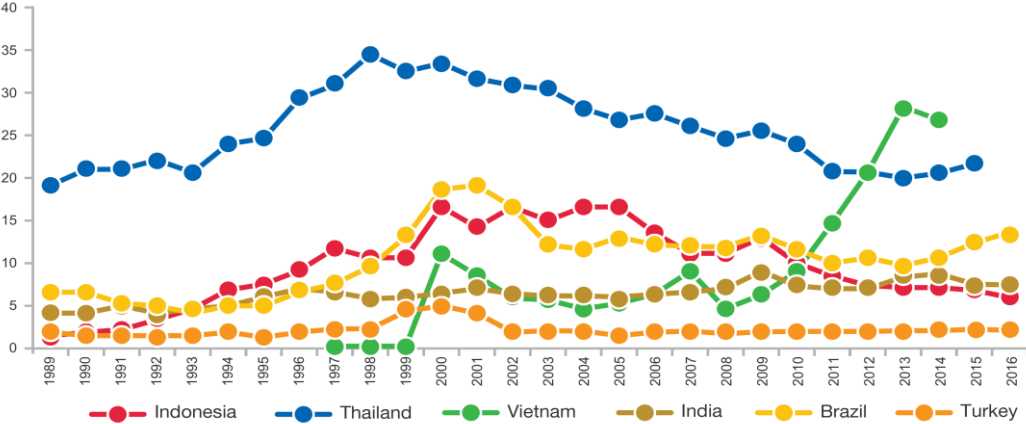
The low export-to-GDP ratio and dominance of commodity exports highlight three key issues in the national industrial structure that require attention, which are: (1) the lack of coordination among upstream and downstream sectors that leads to vulnerable national industrial supply or value chain, which then causes low industrial competitiveness; (2) the low capacity for innovation in Indonesia due to lower exports of high-technology products in comparison to other similar countries;

Figure 2.5
Indonesia's Exports in Comparison to Other Similar Countries



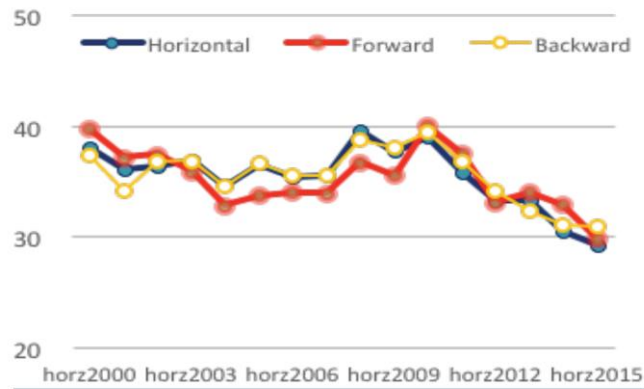
Source: The Atlas of Economic Complexity, World Development Indicators (2016), and World Bank (2018).

Figure 2.6
Percentage of High-Technology Exports



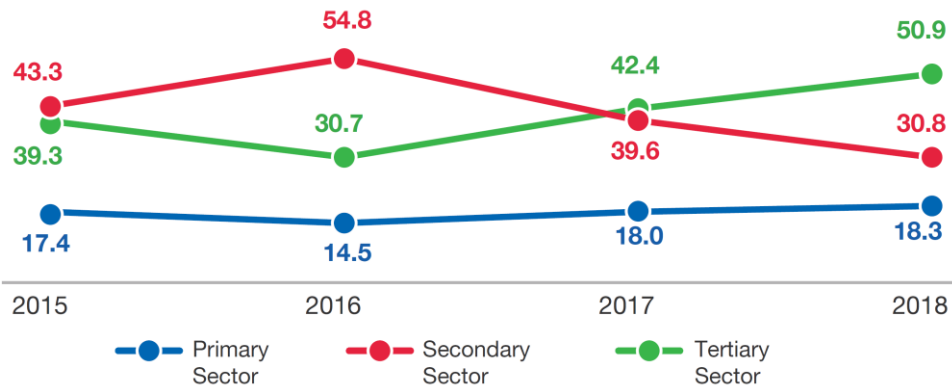
Source: World Bank (compiled)

Figure 2.7
Declining Upstream-Downstream Linkages in the Past 15 Years



Source: Bappenas.

Figure 2.8
Shifting Investment to Tertiary Sector



Source: BKPM (compiled).

(3) low-quality investment due to limited investment, including foreign direct investment, into export-oriented production. The transfer of technology and knowledge from foreign direct investment—which encourages innovation and diversification of exports—has not been completely implemented. Most investment targets the domestic market where most production is not export-oriented. Nonetheless, investment has also shifted from the secondary sector to tertiary in the past two years.

Improving the quality of investment also carries its own challenges, especially in relation to business competition. The

Global Competitiveness Index report from 2019 shows a high level of industrial concentration in Indonesia (with a score of 4.0), which is measured by the value of market dominance. This demonstrates that the industry is only dominated by a few business actors. The expansion of new industry through investment, and the acceleration of ease of doing business are expected to foster fairer business competition, efficiency, and inclusive growth.

Efforts to increase investment, bolster exports, and promote tourism are also conducted through economic diplomacy. However, its implementation has not been optimal due to the following

obstacles: (1) the lack of integration of policies and coordination among stakeholders—including the government, BUMN, and both the private and public sector) in conducting economic diplomacy; (2) lack of mechanisms to coordinate investment abroad; (3) lack of integration of domestic regulations to support the implementation of trade agreement negotiations; and (4) weak penetration of the Indonesian market into non-traditional countries.

Sluggish structural transformation is also manifested by the dominance of micro businesses in the national business system (at 99.0%). This dominance reveals a "hollow middle", which limits the capacity of businesses to develop upstream-downstream linkages.

Efforts to increase the scale of micro, small, and medium enterprises (UMKM) have also not been optimal. The facilitation for various UMKM to form cooperatives is conducted to improve efficiency and economies of scale. However, these efforts are faced with the challenge of transforming cooperatives into modern and professional businesses.

Increasing business linkages among UMKM, expanding business partnerships among UMKM and large businesses, and fostering entrepreneurship have always been supported and encouraged. However, only around 7.0% of micro and

small enterprises (or UMK) have formed a partnership with other companies.

Meanwhile, there has been a continuous improvement in entrepreneurship as reflected in the entrepreneurial ratio in Indonesia, which reached 3.3% in 2019. This improvement is supported by the rising number of entrepreneurs in recent years. Data from the Global Entrepreneurship Monitor (2017) shows a rise in confidence, capacity, and participation of Indonesians in entrepreneurship in comparison with the economic landscape in 2014. The data is backed by the following indicators: (1) rising confidence in entrepreneurship, (2) ownership of businesses, (3) the view that entrepreneurship is a beneficial career choice and boosts social status, and (4) rising women's participation in entrepreneurship. This trend is in line with the development of the digital economy, which opens up many business opportunities.

On the other hand, there are significant challenges that need to be addressed to ensure the sustainability of entrepreneurship. For example, interest in entrepreneurship is often not accompanied by sufficient capacity for entrepreneurs to run the business. Most models of entrepreneurship are based on imitation and not on understanding of business models, markets, and innovation.

Industrial Revolution 4.0 and the Digital Economy

In 2018, the government launched the "Making Indonesia 4.0" movement. This movement conforms with the era of digitalization, which facilitates the integration of information for the purpose

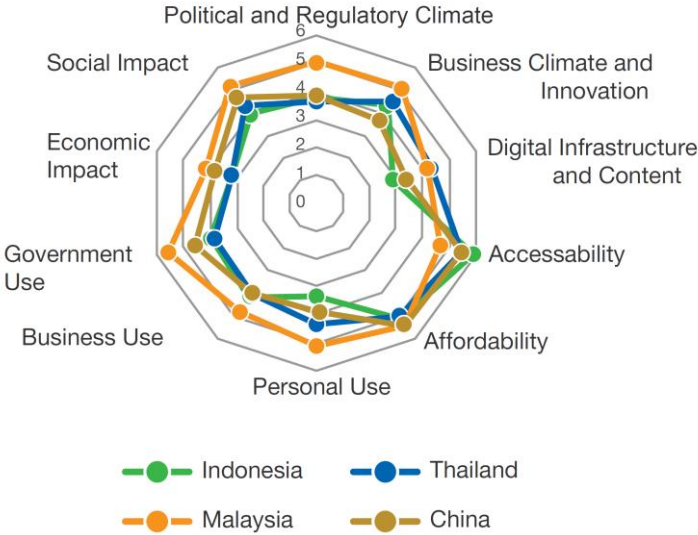
of increasing productivity, efficiency, and service quality.

The process of digitalization confers great potential as a tool to increase economic

value-added. For example, the benefits of Industry 4.0 on the value chain include improvements to the efficiency of

upstream-downstream linkages and rise in the aggregate economic contribution of value-added to manufacturing.

Figure 2.9
The Network Readiness Index of ASEAN Countries



Source: Global Information Technology Report, World Economic Forum (2016).

However, there are significant challenges facing Indonesia in the era of digitalization. In terms of innovation readiness, Indonesia ranked 73rd out of 139 countries in the Network Readiness Index, whereas similar countries scored better, like Malaysia (ranked 31st), Turkey (48th), China (59th), Thailand (62nd). Indonesia has the advantage of price but lags behind in terms of infrastructure and public use.

that need to be addressed in order for Indonesia to take advantage of digital technology advancements for economic growth and improvement in the quality of life.

Indonesia also lacks readiness to explore and adopt digital technology that can drive transformation in the government, business models, and public lives. This is reflected in the data from the World Digital Competitiveness Ranking (2019), where Indonesia ranked 56th out of 63 countries. Adaptation, education, training, technology ecosystem, and integration of information technology are key factors

Other challenges facing Indonesia pertain to the development of human resources and business competition. The era of digitalization has an impact on the work pattern and potentially eliminate low-skilled jobs. On the other hand, the changing trading pattern, the provision of online-based services, and the use of cashless payments have rendered many conventional business models obsolete. These changes necessitate a comprehensive adaptation policy to ensure sustainable and equitable economic growth, and to improve the quality of life and the environment.

Objectives, Indicators, and Targets

In the next five years, the following objectives are to be achieved in order to strengthen economic resilience for high-quality growth:

1. Increasing the carrying capacity and quality of economic resources as

means for sustainable economic development; and

2. Increasing the economic value-added, employment, investment, exports, and economic competitiveness.

Table 2.1
Objectives, Indicators, and Targets for 2024

No	Objectives	Indicators	Baseline (2019)	Target (2024)
A. Increasing the carrying capacity and quality of economic resources as means for sustainable economic development.				
1	Meeting energy needs by prioritizing new and renewable energy (or EBT)	1. % of EBT in the national energy mix (7.2.1*)	8.6	up to 23
		2. Primary energy intensity; constant price (2010=100) (7.3.1*) (in BOE/billion Rp)	141	133.8
		3. Reduced final energy intensity; constant price (2010=100) (in BOE/billion Rp)	0.9	0.8
		4. Increased capacity of new and renewable energy generators (in GW)	10.2	19.2
		5. Natural gas production (in million BOE/day)	1.1	1.2
		6. Use of biofuels for domestic use (in million kl)	6.9	17.4
		7. Coal domestic market obligation (in million ton)	120	187
		8. % of natural gas for domestic use	64	68
		9. Local component requirement in the EBT sector: a. Solar (%) b. Bioenergy (%) c. Geothermal (%)	40 40 30	40 40 35
2	Increasing water security for economic growth	1. Minimum protected area (in million ha)	55	65
		2. Production forest area (in million ha)	33.7	36.0
		3. % of premium irrigation	12.3	16.4
		4. Irrigation network (ha)	1,000,000	500,000
		5. Availability of domestic and industrial raw water (cumulative) (in m ³ /s)	81.4	131.4
		6. Number of multipurpose dams (cumulative)	45	63
3	Increasing availability, access, and	1. Desirable Dietary Pattern Index score (2.2.2(c))	86.4	95.2
		2. Recommended energy intake (2.1.2(a)) (in kkal/capita/day)	2,121	2,100

No	Objectives	Indicators	Baseline (2019)	Target (2024)		
	quality of food consumption	3. Recommended protein intake (in gram/capita/day)	62.9	57		
		4. Prevalence of undernourishment	6.7	5		
		5. Food insecurity experience scale	5.8	4		
		6. Fish consumption (2.2.2(c)) (in kg/capita/year)	50.7	62		
		7. Meat consumption (kg/capita/year)	13.2	14.6		
		8. Protein consumption from livestock (in gram/capita/day)	10.9	11		
		9. Vegetable and fruit consumption (in gram/capita/day)	244.3	316.3		
		10. % of fresh produce that meets food safety requirements	94	85-95		
		11. Land area of biofortified rice (in ha)	195	200,000		
		12. Access to biofortified rice for the underprivileged and malnourished	480 tons	100% coverage of cashless food aid		
		13. % of organic food share	2	20		
		14. % of use of certified seeds	53	80		
		15. Availability of rice** (in million ton)	38.4	46.8		
		16. Availability of animal protein (in million ton)	2.4	2.9		
		17. Corn production (in million ton)	24.8	35.3		
		18. Meat production (in million ton)	3.8	4.9		
		19. Tuber production (in million ton)	23.3	25.5		
		20. % of technology applied by farmers	65	80-95		
		21. Value-added per agricultural worker (2.3.1*) (in million Rp/worker)	46.9	59.9		
		22. Farmer exchange rate	100	105		
		23. % of paddy fields defined as sustainable (or LP2B)	50	100		
		24. Number of leading breeds of plants and animals for food production (2.5.1*)	30 leading varieties of plants and eight breeds of livestock	30 leading varieties of plants and eight breeds of livestock		
		25. Number of protected plant and animal genetic resources for food production (2.5.2*)	4,250	4,250		
		26. Global Food Security Index score	62.6	69.8		
		4	Improving management of marine affairs, maritime	1. Guarantee of accuracy of data for fish stocks and fishery management areas (WPP)	11 WPP	11 WPP
				2. Pilot assessment of better governance in selected fishery management areas	3 WPP	11 WPP

No	Objectives	Indicators	Baseline (2019)	Target (2024)		
	affairs, and fishery	3. Marine/aquatic conservation area (14.5.1*) (in million ha)				
		4. Number of completed coastal and ocean Zoning Plans (RZ)	24 RZ	102 RZ (cumulative)		
		5. Priority bathymetry mapping at 1:50,000 (in km ²)	5,689	50,000		
		6. Fish production (in million ton)	14.8	20.4		
		7. % ratio of fish captured within safe ecological limit (14.4.1*)	53.6	≤80		
		8. Seaweed production (in million ton)	9.9	12.3		
		9. Salt production (in million ton)	2.8	3.4		
		10. Amount of funding for small-scale marine and fishery business (in trillion Rp)	2.8	4.2		
		11. Total number of research products adopted in the marine and fishery sector	5	15		
		12. Number of clusters of leading aquaculture production centers	10	50		
		13. Fisherman exchange rate	100	107		
		14. Fish cultivator exchange rate	100	105		
		15. % of compliance from marine and fishery business actors	93.5	98		
		B. Increasing the economic value-added, employment, investment, exports, and economic competitiveness.				
		1	Strengthening entrepreneurship; micro, small, and medium enterprises (UMKM); and cooperatives	1. % of national entrepreneurship	3.3	3.9
2. % of contribution of UMKM to GDP	57.2			65		
3. % of contribution of cooperatives to GDP	5.1			5.5		
4. % of micro and small industries currently in partnership	8.1			11		
5. % of UMKM that have access to credit in formal financial institutions (8.10.1(b))	24.7			30.8		
6. % of UMKM loans to total bank loans	19.7			22		
7. % of bank lending value to micro and small industries	2.4			5		
8. % of microcredit (or KUR) in the production sector	50.4			80		
9. Value of distribution of KUR (in trillion Rp)	140			325		
10. Number of modern and developed cooperatives	0			500		
11. % of entrepreneurial growth	1.7			4		
12. Number of operating micro and small industries outside Java	22			30		
13. % ratio of value-added micro and small industries to value-added non-oil manufacturing (9.3.1*)	18.5			20		
14. % of contribution of social enterprises to GDP	1.9			2.5		

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		15. Number of startups formed and developed	748	3,500 (cumulative)
2	Increasing value added employment, investment in the real sector, and expanding industrial-ization	1. % of GDP growth in manufacturing (9.2.1(a))	3.9	8.1
		2. % of GDP growth in non-oil and gas manufacturing	4.5	8.4
		3. % of contribution of manufacturing to GDP	19.9	21.0
		4. % of contribution of non-oil and gas manufacturing to GDP	17.6	18.9
		5. % of GDP growth in agriculture	3.5	4.1
		6. % of growth in wholesale and retail trade excluding cars and motorcycles	5.2	6.8
		7. % of GDP growth in plantation	4.9	5.0
		8. % of increase in cocoa production	1.7	2.7
		9. % of increase in coffee production	1.4	1.5
		10. % of increase in palm oil production	5.7	6.0
		11. % of GDP growth in horticulture	5.8	6.0
		12. % of increase in fruit production	3.5	5.7
		13. % of increase in vegetable production	2.5	3.1
		14. % of increase in floriculture production	5.0	5.5
		15. % of contribution of the maritime sector to GDP	6.0	7.8
		16. % of GDP growth in fishery	5.2	8.7
		17. Timber production, including from production forests (in million m ³ /year)	45	60
		18. % of contribution of tourism to GDP	4.8	5.5
		19. Number of priority tourism destinations undergoing accelerated development	4 (cumulative)	10 (cumulative)
		20. Number of sustainable ecotourism destinations in priority forests	9	25 (cumulative)
		21. Number of geoparks	4	12 (cumulative)
		22. Number of marine tourism destinations	6	6 (cumulative)
		23. Value-added creative economy (in trillion Rp)	989	1,846
		24. Number of developed creative regencies/cities	20	20 (cumulative)
		25. Number of developed creative regions and clusters	N/A	11
		26. Number of revitalized creative spaces	39	154 (cumulative)
		27. % of contribution of digital economy to GDP	2.5	4.7
		28. % of GDP growth in information and telecommunications sector	9.3	11.2

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		29. Value of e-commerce transactions (in trillion Rp)	170	600
		30. Number of jobs created per year	2.5	2.6-3.0
		31. % of GDP growth rate per worker (8.2.1*)	3.0-4.0	3.7-4.5
		32. Number of workers in manufacturing (in million)	18.9	22.5
		33. % of contribution of workers in manufacturing to total number of workers (9.2.2*)	14.9	15.7
		34. Number of tourism workers (8.9.2*) (in million)	13	15
		35. Number of creative economy workers (in million)	19	21
		36. % ratio of Indonesian migrant workers employed with legal status to total number of migrant workers (10.7.2(b))	57	70
		37. % of investment growth (or PMTB)	4.7	8.4
		38. Higher ranking in the Ease of Doing Business Index by improving the following indicators when starting a business:	73 rd	up to 40 th
		a. Number of procedures	11	5
		b. Time required (in day)	13	4
		39. Real value of both domestic and foreign investment (in trillion Rp)	792.0	1,500
		40. % ratio of domestic investment to total investment	47.1	49.5
		41. Real value of both domestic and foreign investment in manufacturing (in trillion Rp)	198.0	782.0
		42. % or real investment outside Java	45.1	49.7
		43. Application of electronically integrated business licenses	Gradual	Complete
		44. Capital expenditure of BUMN (in trillion Rp)	488	680
		45. Profitability of BUMN (in trillion Rp)	171	325
		46. Number of state-owned holding companies	1	3
		47. Number of countries in which BUMN are expanding their market share	30	54
		48. Number of operating priority industrial estates outside Java	8 (cumulative)	9 (cumulative)
		49. Number of developed industrial estates	15 (cumulative)	18 (cumulative)
		50. Number of smelters outside Java	2	31 (cumulative)
		51. Number of halal industrial zones	N/A	3 (cumulative)

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		52. Number of regions with orderly measurement (or DTU)	N/A	10
		53. Competition Business Perception Index score	4.7	5.0
		54. % of the application of the Indonesian National Standard (or SNI) in the industry	3	20
3	Increasing high value-added exports and strengthening local content requirement (or TKDN)	1. Trade balance (in billion US\$)	-3.1	15.0
		2. % of increase in real exports of goods and services	-1.2	6.2
		3. % of increase in non-oil and gas exports	-5.7	9.8
		4. Exports of agricultural products (in billion US\$)	3.2	5.5
		5. Exports of fishery products (in billion US\$)	4.4	8.0
		6. % increase in exports of manufactured goods	-3.6	10.1
		7. Exports of manufactured goods (in billion US\$)	115.7	183.4
		8. % of contribution of exports of high-tech products (9B.1)	10.7	13.0
		9. % ratio of service exports to GDP	2.6	3.0
		10. Foreign exchange earnings from tourism (8.9.1(c)) (in billion US\$)	19.3	30
		11. Number of foreign tourists (8.9.1(a))	16.3	22.3
		12. Number of regenerated cultural heritage sites	N/A	20 (cumulative)
		13. Exports from the creative economy (in billion US\$)	19.8	24.5
		14. % of local content requirement (TKDN) (weighted average)	43.3	50
		15. Number of TKDN-certified products	6,097	8,400
		16. Number of domestic tourist trips (8.9.1(b)) (in million)	303.4	350-400
		17. Number of promotions for tourism, trade, and investment	6	8
		18. Number of countries that reached their respective trade target with Indonesia	71	98
		19. Number of countries that reached their respective tourism target	84	94
		20. Number of ratified international economic cooperation agreements	4	4
		21. % of growth of domestic products in government procurement	5	5
		22. Number of sealed PTA/FTA/CEPTA	14 (cumulative)	40 (cumulative)
4	Strengthening the pillars of	1. % of contribution of financial sector to GDP	4.2	4.4
		2. % ratio of M2/GDP	38.9	43.2

No	Objectives	Indicators	Baseline (2019)	Target (2024)
	growth and of economic competitive-ness	3. Number of ATMs per 100,000 people (8.10.1*)	54.0	57.5
		4. Number of bank branches per 100,000 people (8.10.12*)	15.6	15.3
		5. Number of IPR-based creative economy financing schemes	N/A	1
		6. % of logistics cost to GDP	23.2	20
		7. Logistics Performance Index score	3.1	3.5
		8. % of inflation rate	2.7	2.7
		9. % of volatile food inflation rate	4.3	3.1
		10. Number of creative actors facilitated by ICT-based infrastructure	8,500	43,000 (cumulative)
		11. Number of companies that achieved a Readiness Index score of ≥ 3.0	24	60 (cumulative)
		12. Number of companies that are certified green (or SIH)	28	71
		13. Number of destinations implementing sustainable tourism development	12	22
		14. Travel and Tourism Competitiveness Index ranking	40	29-34
		15. % ratio of tax to GDP	9.6	10.7-12.3
		16. % of government securities yield	7.3***	Falling
		17. % ratio of performance-based regional transfer dan village funds (or TKDD) to rising TKDD	10.4	20.6
		18. % of completed updates to the core tax administration system	0	Complete
		19. Number of statistical databases for tourism and the creative economy	3	3
		20. Number of statistical databases for e-commerce	1	1
		21. Number of databases for the food sector and the 2023 Agricultural Census	2	2

Remarks:

Numbers in brackets show their respective SDG indicator.

*) National indicator in line with SDG indicator.

**) Includes national production and rice stocks in the government and non-government sector.

***) 10Y government bond (data from IBPA as of December 31, 2019)

Sources: Various ministries/institutions.

Policy Directions and Strategies

Management of Economic Resources

Policy directions in the context of economic resource management for the 2020-2024 period include:

- (i) **Meeting energy demand by prioritizing new and renewable energy**, which will be carried out using the following strategies: (1) accelerating the development of new and renewable energy plants; (2) increasing the supply of biofuels; (3) improving the implementation of energy conservation and efficiency programs; (4) fulfilling industrial demand for energy; and (5) developing industries that support new and renewable energy.

Natural gas and coal production will be focused on: (1) domestic use where natural gas and coal are used as an energy source and as raw materials for various industries to increase economic value-added; and (2) the coal gasification industry to meet domestic industrial demand for raw materials.

Biofuel development will be carried out in stages that cover the production of biodiesel and green fuel. Capacity for palm oil-based biofuel production is expanded by empowering palm oil smallholders.

Energy supply for the industry and electricity generation will be delivered by developing renewable energy potential in industrial estates through integration with other sectors. Integrated energy supply is focused

on the industrial estates in northern Sumatra, southern Sumatra, Java, northern Kalimantan, both northern and southern Sulawesi, North Maluku, and West Papua. Improvements to the electricity supply are also pursued through the construction of a nuclear power plant in Kalimantan.

The development of renewable energy potential is supported by fiscal incentives for the new and renewable energy sector.

- (ii) **Increasing water security to support economic growth**, which will be carried out using the following strategies: 1) safeguarding protected forests; (2) managing sustainable forests; (3) providing water for agriculture and inland fishery; (4) providing raw water to priority areas; (5) maintaining, restoring, and conserving water resources and their respective ecosystem, including revitalizing existing lakes and green infrastructure; and (6) developing multipurpose dams.

To increase water security, raw water is provided to: priority areas, with a focus on frontier, outermost, and least developed areas; small outermost islands; urban areas; strategic areas (i.e. KI and KEK); national tourism strategic areas (or KSPN); the northern coast of Java; and water-stressed regions. The value of water productivity can be increased through an efficient use of water, especially in agriculture.

Infrastructure with high economic value, including dams, is expected to provide maximum services. In addition to meeting the demand for raw water, dams can also be used for irrigation, flood reduction, and as hydroelectric power plants.

Maintenance, recovery, and conservation for lake revitalization are focused on 15 national priority lakes, namely: Danau Toba, Danau Maninjau, Danau Singkarak, Danau Kerinci, Danau Rawa Danau, Danau Rawa Pening, Danau Batur, Danau Sentarum, Danau Kaskade Mahakam (Semayang-Melintang-Jeumpang), Danau Tondano, Danau Limboto, Danau Poso, Danau Tempe, Danau Matano, and Danau Sentani.

- (iii) **Increasing availability, access, and quality of food consumption**, which will be carried out using the following strategies: (1) improving the quality of consumption, safety, food enrichment, and seed biofortification; (2) increasing the availability of agricultural, fishery, and seafood products, mainly by increasing productivity and sustainable production techniques to maintain the stability of supply and the price of basic goods; (3) increasing productivity and the welfare of workers in agriculture and fishery, and ensuring market certainty; (4) maintaining sustainable productivity of agricultural resources that are adaptive to climate change, developing precision farming systems, improving land management, and strengthening irrigation; and (5) improving governance of food systems.

The implementation of the first strategy incorporates the development of biofortified rice seeds, genetically engineered products, enriched rice, food nanotechnology, local produce, food diversification at the household level, and improvements to food quality for school children.

The second strategy is to facilitate the cultivation of rice, corn, livestock, fish, and other strategic food commodities; provide production inputs through, among others, the national seed system; provide targeted and subsidized fertilizer; provide seaweed-based organic fertilizer; and develop agricultural corridors based on cooperative farming in South Kalimantan, which will provide food and agricultural support for the new capital city.

The third strategy is to consolidate a database of farmers and fishermen; form cooperatives for farmers and fishermen; provide agricultural insurance, fishery insurance, and aquaculture insurance; and provide inclusive financing, training, and counseling.

The fourth strategy includes effective management of various lands, including substandard lands, lowlands, uplands, and dry lands; building water efficiency; management of 9,500 km of production roads and 3,500 km of farming roads; and development of aquaculture areas that are supported by a sufficient irrigation system, development of digital agriculture,

and of unmanned aircraft technology (or drones).

The fifth strategy is to strengthen the food logistics system at the national level; integrate data for food production with data for strategic exports and imports that include fish; develop a platform for food production and agriculture based on data-driven methods; develop a warehouse receipt system; and manage a sustainable food system, urban food system, and food waste program.

In addition, food resource management is focused on: (1) production centers and regions with high demand, namely in Sumatra, Java and Sulawesi; and (2) areas prone to food insecurity, vulnerable to starvation, and vulnerable to stunting, including poorer regions and border areas in Maluku and Papua.

(iv) Improving the management of maritime affairs, marine affairs, and fishery using the following strategies: (1) using fishery management areas (WPP) as a basis for sustainable fishery; transforming the institutional and functional framework of WPP; improving governance of WPP; and structuring coastal and sea spatial plans (2) managing marine ecosystems and using marine resources in a sustainable manner; (3) increasing production, productivity, quality assurance, and safety of marine and fishery products; (4) facilitating business, financing, technology, and the marketplace; empowering and improving the welfare of fishermen in an integrated

manner; protecting small-scale marine and fishery businesses; and (5) improving the quality and competency of human resources; boosting technological innovation and research in the collective maritime, marine, and fishery sector; and strengthening the maritime and fishery database. In addition, efforts to strengthen the implementation and governance of maritime activities will continue in order to achieve the 14th goal of sustainable development, namely “Life Below Water”.

The first strategy is to strengthen data for fish stocks and develop the institutional framework of WPP, manage fishery activities in public waters, finalize ocean zoning plans, and control the use of ocean space and small islands by considering marine spatial planning (or RZWP3K) and provincial spatial planning (RTRW).

The second strategy is to strengthen the management of marine conservation areas in a sustainable manner and increase the use of marine bioproducts and biotechnology.

The third strategy is to accelerate aquaculture production, develop modern and sustainable aquaculture clusters, revitalize shrimp and milkfish ponds, and expand cultivated lands; develop a system for leading hatcheries; develop capture fishery that is economical and sustainable, promote fishery exploration in KEK and open seas, strengthen cooperation between small and large fishery, develop eco-friendly fishing

ports, develop digital-based fishery, expand and intensify salt flats, improve salt quality, develop marine and fishery centers, and strengthen the fish quarantine system.

The fourth strategy is to facilitate business growth and investment in the form of insurance for fishermen and fish cultivators, provide land certification for fishermen and fish cultivators, develop advanced fishing settlements, develop financing schemes or microfinance products that are both affordable and accessible, strengthen fishermen's organizations, regulate fishermen's access to resource management, arrange and simplify business licensing, increase investment in fishery that is supported by conducive regulations, and increase compliance from marine and fishery business actors.

The fifth strategy is to provide training and digital-based counseling, strengthen vocational education, strengthen maritime literacy, develop fishery entrepreneurship, develop

competency certification, expand the fishery workforce to include younger generation of fishermen, develop research and innovation, disseminate sustainable and productive fishery/marine technology, establish leadings centers for marine and maritime research, and strengthen the database for the maritime and fishery sector.

Main fishery products include tuna, skipjack, cob, small crab, shrimp, tilapia, catfish, milkfish, seaweed, and other commodities of high economic value that are to be developed in support of export targets and food security. In addition, salt production continues to be developed to meet domestic consumption needs.

Shrimp-based products will be developed in Sumatra, West Nusa Tenggara, Java, and Sulawesi; tilapia-based products in Sumatra, Java, and Sulawesi; seaweed-based products in Nusa Tenggara, Sulawesi, Maluku and Kalimantan; and lastly salt production centers in Java, Sumatra, Sulawesi, and Nusa Tenggara.

Increasing Economic Value-Added

Policy directions in the context of increasing economic value-added for the 2020-2024 period include:

- (i) **Strengthening entrepreneurship; micro, small, and medium enterprises (UMKM); and cooperatives**, which will be carried out using the following strategies: (1) improving business partnerships among UMKM; (2) increasing

business capacity and access to financial products for entrepreneurs; (3) increasing the capacity, reach, and innovation among cooperatives; (4) increasing the creation of business opportunities and startups; and (5) increasing the value-added of social enterprises.

The implementation of the first strategy includes the development of

business capacity and product quality, expansion of institutional capacity, and growth of business partnerships. In addition, the development of entrepreneurial capacity and UMKM is supported by the provision of export-oriented financial incentives. The second strategy is to increase financing for entrepreneurs is carried by providing financing schemes for entrepreneurs and UMKM, including startup capital and assistance in accessing credit and financing. The third strategy is to increase the capacity of cooperatives and their respective manager, increase group assistance for cooperatives, develop the reach and scope of cooperatives, and build innovation in cooperatives.

Strategies for creating business opportunities and startups include: (1) entrepreneurship training for young entrepreneurs, including youth, women, victims of abuse and human trafficking, students, and the differently-abled; (2) business incubation; (3) strengthening business service capacity; (4) developing small and medium industrial centers, and (5) providing fiscal incentives. The value-added of social enterprises is increased by facilitating access to capital, developing impact investment structures, building capacity, and facilitating access to government procurement of goods and services. The implementation of these strategies is supported by structuring databases and simplifying regulations to empower UMKM.

The development of entrepreneurship, UMKM, and cooperatives is directed: (1) according to the economic potential of various regions, and to support the development of special economic zones, industrial estates, tourism zones, national priority rural areas (or KPPN), and increase productive economic activities in frontier, outermost, and least developed regions, and (2) to be integrated with infrastructure development.

- (ii) **Increasing value-added employment, investment in the real sector, and boosting industrialization**, which are carried out using the following strategies: (1) boosting industrialization based on the manufacture of various commodities—through the integration of upstream and downstream operations—derived from agriculture, forestry, fishery, and non-agricultural sources; (2) boosting industrialization through the development of smelters and industrial areas, especially outside Java; (3) increasing the competitiveness of tourism destinations and the tourism industry, which are supported by a strong supply chain and tourism ecosystem; (4) increasing the value-added and competitiveness of creative and digital businesses and products; (5) improving business climate and increasing investment, including through labor reform; and (6) developing a halal industry.

Industrialization is commonly supported by: (1) increasing productivity; (2) strengthening supply

chains by harmonizing policies that affect the efficiency of the input-processing-output-distribution flow, and of suppliers; (3) diversifying and improving the quality of upstream, intermediate, and downstream industrial products for the supply of raw materials, intermediate or auxiliary goods, and finished goods; (4) expanding machinery development to maintain industrial machinery and expand industrial activities in rural areas; (5) strengthening the process of standardization and certification for industries; (6) strengthening industrial services; (7) strengthening the application of modern industrial management; (8) strengthening circular economy as a source of efficiency and value-added; and (9) providing incentives for the growth and scaling-up of industries through industrial financing.

The process of industrialization will be focused on: (1) upstream manufacturing of agricultural, chemical, and metal commodities; and (2) manufacturing that contributes to value-added and high competitiveness that include food and beverages, pharmaceuticals, medical devices, electric vehicles, electronics, machineries, textiles, and footwear. Its implementation is supported by the harmonization of policies among the primary, secondary, and tertiary sectors.

The development of downstream manufacturing of agricultural and forestry commodities is focused on the manufacturing of main derivatives including livestock, palm oil, coconut,

rubber, wood, rattan, sago, cocoa, coffee, medicinal plants, fruits, flowers, and spices; mapping the geographical locations of medicinal plants; and standardizing herbal processes and products at the national level. Their development is supported by a sustainable jurisdictional approach, sustainable farming practices, and agroforestry. Specifically for fishery manufacturing, the increase in its value-added is carried out by improving the quality, capacity, and productivity of the manufacturing process; downstreaming the seaweed industry and adding value to marine natural resources; strengthening the competitiveness of fishery processing units; implementing quality control, certification, and traceability; providing facilities and infrastructure for cold chain systems; strengthening the efficiency of fish logistics systems, expanding access to the domestic and foreign market; developing marketing for fishery on an international scale; stronger branding of Indonesian fishery products; and developing digitally-based marketing systems for fishery products.

Investment-based industrialization is integrated with policies and strategies for developing entrepreneurship, cooperatives, and UMKM. This type of integration is manifested in the upstream and downstream business partnerships with local businesses to form small and medium industrial centers, including rural agro-industries, which are managed by cooperatives, rural enterprises, and other community-based socio-economic institutions.

Developing industrial estates (or KI) in regions outside Java remains a priority, including nine priority KI that are focused on the acceleration of infrastructure development, licensing facilitation, increased investment, post-disaster revitalization, and government-to-business cooperation. The nine priority KI are: KI Sei Mangkei, KI Bintan Aerospace, KI Galang Batang, KI Sadai, KI Ketapang, KI Surya Borneo, KI Palu, KI Teluk Weda, and KI Teluk Bintuni. In addition, there are 18 KI that will be developed in line with the framework of industrialization by using existing infrastructure, improving regional cooperation, and diversifying the regional economy. The 18 KI are KI Ladang, KI Kuala Tanjung, KI Tanjung Buton, KI Tenayan, KI Kemingking, KI Tanjung Enim, KI Tanggamus, KI Pesawaran, KI Way Pisang, KI Katibung, KI Brebes, KI Madura, KI Sumbawa Barat, KI Batanjung, KI Jorong, KI Batuluciu, KI Tanah Kuning, and KI Takalar.

To support the development of KI, it is important to prepare a skilled workforce through vocational cooperation among the ministry/institution, training institution, industry, and regional government. Some industrial zones will also be facilitated by the preparation of detailed spatial plans (or RRTR/RDTR).

Industrial estates specifically on the northern coast of Java, including KI Brebes and KI Madura, will be supported by integrated connectivity, adequate energy supply, and human resources. These supporting factors are expected to reduce cost and

increase manufacturing productivity and competitiveness.

The downstreaming process of natural resources will be supported by the construction of smelters that focus on the following metal commodities: nickel (22 smelters), bauxite (5 smelters), iron (2 smelters), lead (1 smelters), and copper (1 smelter).

In the next five years, the tourism sector will focus on increasing the length of stay and tourism spending by improving accessibility, attractions, and amenities. The main focus of development in the tourism sector is to accelerate the development of the ten priority tourism destinations, namely Lake Toba, Borobudur, Lombok-Mandalika, Labuan Bajo, Manado-Likupang, Wakatobi, Raja Ampat, Bangka Belitung, Bromo-Tengger-Semeru, and Morotai. These destinations will increase the contribution of value-added and foreign exchange earnings according to their potential. Further, the revitalization of the tourism infrastructure in Bali serves to increase the island's carrying capacity.

The tourism sector will also focus on developing 8 tourism destinations and increasing their readiness to accommodate a growing number of tourist arrivals. The 8 development destinations include: Batam-Bintan, Bukittinggi-Padang, Bandung-Halimun-Ciletuh, Banyuwangi, Sambas-Singkawang, Derawan-Berau, Toraja-Makassar-Selayar, and Biak-Teluk Cendrawasih.

The types of tourism that will be diversified include: (1) nature tourism (ecotourism, marine tourism, and adventure tourism); (2) cultural tourism (heritage tourism, historical tourism, culinary tourism, city tourism that focuses on cultural heritage regeneration, and village tourism); and (3) artificial tourism (meeting-incentive-convention-exhibition/MICE, yacht and cruise tourism, wellness tourism, health tourism, and sports tourism). The development of these three types of tourism will open opportunities for tourists to engage in integrated activities related to knowledge, education, and volunteerism.

The development of amenities and tourist attractions also involves participation from various industries and the public sector. Such development includes cooperation in financing, improving destination management, applying service standards, strengthening tourism supply chains, structuring cities as tourism service hubs, structuring rural areas to support tourism, and developing tourist villages.

The future development of tourism destinations will cover 25 ecotourism destinations that function as priority forests, 16 geoparks, and 6 marine tourism destinations that function as aquatic parks and aquatic nature reserves.

Increasing the value-added of the creative economy will be carried out by: (1) providing assistance and incubation; (2) developing centers of excellence; (3) facilitating innovation

and brand strengthening, (4) developing and revitalizing creative spaces, creative clusters or cities, and "Be Creative" districts (BCD); (5) applying and commercializing intellectual property rights; and (6) strengthening supply chains and scale of creative businesses. Increasing the number of digital business actors will also be facilitated by developing digital clusters, including village-based clusters; ensuring ease of business; and providing access to financial services and market.

To strengthen the creative and digital economy in the future, attention will be directed to eight creative clusters in Java, Bali, Medan, and Makassar. The strengthened disciplines include culinary, fashion, crafts, digital apps, digital content, e-sports, e-games, science, and music. The creative economy along with its activities will be expanded in stages in regions that have great potential for adding value.

Improving business climate and increasing investment are carried out through: (1) harmonization and synchronization of regulations and policies among various sectors and regions; (2) facilitation of business and investment, including facilitation of customs and taxation; preparation of regulations to improve business climate and investment through the Omnibus Law, and of tax policies that will regulate income tax, VAT, and regional taxes and levies; improvement in the ease of doing business score; and application of an integrated business licensing system; (3) labor reform through efforts to

create a conducive labor climate supported by harmonizing industrial relations, strengthening collective bargaining, improving labor regulations, increasing labor expertise and productivity, increasing the role of the regional government, and increasing labor protection both here and abroad. Workers' protection will be realized through the application of a universal social protection system for workers, improvements to the service system for the placement and protection of migrant workers, and effective application of a labor inspection system; (4) better policies in relation to business and institutional competition; and (5) enhancement of capacity, capability, and competitiveness of BUMN, by establishing state-owned holding companies and exploring the international market, among others.

Improvements to business climate and investment will be prioritized to support national priority sectors such as energy, export-oriented manufacturing, tourism, creative and digital economy, and vocational education and training.

Development of the halal industry is carried out as part of the Islamic economic and financial development in Indonesia, which covers: (1) policy coordination and synchronization; (2) development of the halal industry; (3) establishment of a sharia economic development body (i.e. national sharia economic and finance committees); (4) implementation of sharia economic and financial master plans;

and (5) application of consumer protection tools and orderly policies.

(iii) **Increasing high value-added exports and strengthening the domestic content requirement (or TKDN)**, which will be carried out using the following strategies: (1) increasing diversification, value-added, and competitiveness of exportable products and services; (2) increasing access and deepening the export market; (3) managing imports; (4) increasing the number and use of domestic products through effective government procurement; (5) increasing participation in global production networks; (6) enhancing image and diversifying tourism marketing, including creative and digital products; and (7) increasing the effectiveness of PTA/FTA/CEPA and strengthening economic diplomacy.

The strategy for increasing and expanding exports includes: (1) increasing exports of complex industrial products, including medium and high-technology products; (2) increasing service exports by increasing the capacity of domestic service players based on competency, harmonizing service regulations, and providing data for trade services; (3) strengthening the information platform for exports and imports that includes market information, regulations, procedures, and incentives and advocacy in relation to bilateral and multilateral cooperation; (4) developing export-oriented marketplaces, including those that can be used by UMKM and technology startups to supply

products and services to the international market; and (5) facilitating the increase in competitiveness of Indonesian goods and service brands.

Increasing access and deepening the export market by financing exports and imports and strengthening business-to-business cooperation schemes, among others. The expansion of the export market covers the regions of Africa, Latin America, and Eastern Europe.

The implementation of the import management strategy is integrated with another strategy that aims to increase the domestic content requirement (TKDN) and use of domestic products. The integration of these two strategies is supported by the development of component suppliers, as well as improvement in the quality of domestic goods and services for industrial and government procurement. Promotion of tourism through various events and ease of travel within the country are expected to push domestic tourists to travel domestically so that service imports can be managed better.

The strategy for increasing and expanding exports, and for managing imports is also implemented in synergy with the strategy for increasing participation in the global production chain, among others by providing fiscal incentives for access to raw materials through easing import on exporters. The synergy is manifested in the form of domestic investment cooperation (inbound), and of economic diplomacy and

international investment cooperation with export destination countries (outbound). Its implementation requires an active role and cooperation with non-government actors. In addition, increasing exports is also carried out by facilitating the importation of raw materials for export purposes.

The tourism sector also focuses on building image and diversifying tourism marketing methods through innovation, marketing integration, and development of national branding. Various tourism promotion events will be used as a vehicle to increase appreciation and celebration of the natural, cultural, and social diversity of Indonesia; and to strengthen its regeneration and image in the eyes of the world. Marketing integration will also involve the Indonesian diaspora in celebrating Indonesia's cultural wealth, including Indonesian culinary treasures through gastronomic diplomacy.

These various strategies are supported by the optimization of economic cooperation and economic diplomacy at the bilateral, multilateral, and regional level. To achieve this, it is imperative to strengthen representatives of tourism, trade, and investment abroad; integrate promotion events, and expand Indonesia's active participation in international organizations and initiatives, including ASEAN, the World Trade Organization (WTO), Asia-Pacific Economic Cooperation (APEC), Belt Road Initiatives (BRI), Organization for Economic Co-operation and Development (OECD),

and other regional and sub-regional forms of cooperation. Such implementation requires reforms in governance and government policies in order to achieve applicable standards and support the implementation of policies that have been agreed upon and recommended.

(iv) **Strengthening the pillars of growth and economic competitiveness**, which will be carried out using the following strategies: (1) deepening the financial sectors; (2) optimizing the use of digital technology and aspects of Industry 4.0; (3) improving the logistics system and price stability; (4) increasing the application of sustainable practices in manufacturing and tourism; (5) fiscal reforms; and (6) increasing the availability and quality of data on economic development, especially on food, agriculture, maritime affairs, tourism, and the creative and digital economy.

The deepening of the financial sector, both conventional and sharia, is carried out by: (1) increasing public access to financing (financial inclusion); (2) expanding financial product innovation by incorporating technology; (3) developing infrastructure for the financial sector; (4) placing export proceeds in the domestic financial system; and (5) integrating and strengthening fiscal policies based on sovereignty, stability, and integrity of the financial system; the principle of prudence; and the prevention and eradication of money laundering.

The application of technological advancement in the next five years, especially in the context of Industry 4.0, will be carried out in stages in five sub-sectors, namely food and beverages, apparel, automotive, electronics, and chemical, which also covers pharmaceuticals. Its application is expanded to improve efficiency, productivity, and competitiveness in agriculture, fishery, maritime affairs, forestry, energy, tourism, creative economy, transportation, trade, and finance.

The management of the logistics system is focused on increasing the efficiency of national distribution for the smooth flow of goods and services among regions. The implementation is complemented by the construction of facilities and infrastructure to support efficiency of distribution and logistics, including: bonded logistics centers, development of a national logistics ecosystem, and improvement in the quality of local markets through improved governance, application of the Indonesian National Standard (SNI) in markets, and use of digital technology. The logistics system is also directed to improve the efficiency of international trade by accelerating the flow of imports and exports through the integration of business processes in all related ministries/institutions via the Indonesia National Single Window (INSW) system.

The government's strategy to implement sustainable practices in the industrial sector and tourism is a form of commitment to the implementation of the 12th goal of

sustainable development, namely ensuring sustainable consumption and production pattern. The focus of its implementation includes the application of Green Industry Standard/SNI/ISO 14001 in manufacturing to mitigate environmental risks, and certification of sustainable tourism practices. Sustainable tourism certification includes management of sustainable tourism destinations, increased economic activity in the surrounding communities, cultural preservation for the benefit of the people and visitors, and environmental preservation.

The strategy for fiscal reform is focused on optimizing the contribution of state revenue, increasing the quality of state spending, and financing productive and efficient debts. Optimization of state revenue is directed to support competitiveness with more realistic and optimal targets, which are accompanied by fiscal incentives that support the economy and businesses.

Tax optimization includes updating the core tax administration system, customs, and excise administration; intensifying and extending both taxable objects and taxation subjects, as well as expanding taxable goods; simplifying the structure of tobacco excise tax rates; increasing tobacco excise tax rates; and strengthening institutions that provide revenue to the state.

Optimizing non-tax revenue (or PNBP) is carried out by improving PNBP regulations, increasing compliance and intensifying PNBP

supervision, increasing PNBP from the management of state property (or BMN) and the performance of public service agencies (or BLU), developing digital-based services to increase PNBP, and developing PNBP-earmarks to meet the needs of funding for the construction of the new capital city.

Increasing the quality of state spending is carried out by improving spending of goods and strengthening capital expenditure for productive programs and to encourage economic growth.

Management of subsidies is aimed at increasing the effectiveness and efficiency of subsidies through efforts to improve targeting. Fiscal reforms are also directed at strengthening the quality of fiscal decentralization through the management of performance-based regional transfer and village funds (TKDD), as well as improvements to regional financial management, which will be more efficient, effective, and accountable.

In terms of financing management, fiscal reform is pursued through the development of innovative and inclusive financing schemes by deepening the domestic financial markets.

Improvement in the availability of data and quality of information will be focused on: (1) improving coordination, integration, and synchronization of statistical activities that are organized by the central government, regional government, and private sector; (2) improving

relations with respondents and data users; (3) increasing the number and competence of human resources; (4) improving facilities and infrastructure for statistical activities, including those based on information and telecommunications technologies; (5)

increasing the use of international statistical standards and methodologies in Indonesia; and (6) increasing the availability of statistics by applying quality assurance standards.



CHAPTER III

DEVELOPING REGIONS TO REDUCE
INEQUALITY AND TO ENSURE EQUITY

Preface

The 2005-2025 RPJPN emphasizes the development of a solid economic structure based on competitive advantage in various regions supported by high-quality and competitive human resources. Regional-based development is one of the national priorities in the 2020-2024 RPJPN, which aim to resolve key strategic issues, namely inequality among regions, with the following objectives: (i) increasing interregional equity (between Western and Eastern Indonesia, and between Java and outside Java); (ii) increasing the competitive advantage of regional growth centers; (iii) increasing the quality and access to basic services, competitiveness and regional

independence; (iv) increasing the synergy in regional spatial use.

To realize the competitive advantage in the region, it is beneficial to use the regional development approach, which not only concerns itself with economic growth, but also with the distribution of development across all region. In 2020-2024, regional development will be carried out using two main approaches, namely the growth approach and the equity approach, which mirror the growth corridor approach and island-based equal distribution approach. The spatial corridors of growth and equity are as follows:

Figure 3.1
Map of Corridors for Growth and Regional Equity



The growth corridor is oriented to spur national economic growth by accelerating the development of growth areas, including national activity centers (PKN), regional activity centers (PKW), special economic zones, industrial estates (KI), national tourism strategic areas (KSPN), as well as cities and urban agglomeration areas in regencies/cities located along the growth corridors. Whereas the equity

corridor is oriented to the fulfillment of needs for equitable basic services through the development of PKW and local activity centers (PKL), so that new basic services centers are formed to reach wider service areas in districts/cities along the equity corridor. Details of the growth and equity corridor areas can be read in Appendix 4.

Development Achievements in 2015-2019

At present, economic contributions from Java and Sumatra remain the most dominant. In 2018, the economic contribution from Java reached 60.1%, whereas Sumatra reached 21.6% to the national GDP. Inequality among island regions is still remarkably high, whereas

inequality among provinces within the island region varies in which the highest is in Java-Bali and Kalimantan. Likewise, the imbalance between villages/cities in an island region is the highest in Java-Bali, Nusa Tenggara, and Sulawesi.

Table 3.1
Average Contribution of Each Region to National GDP (%)*

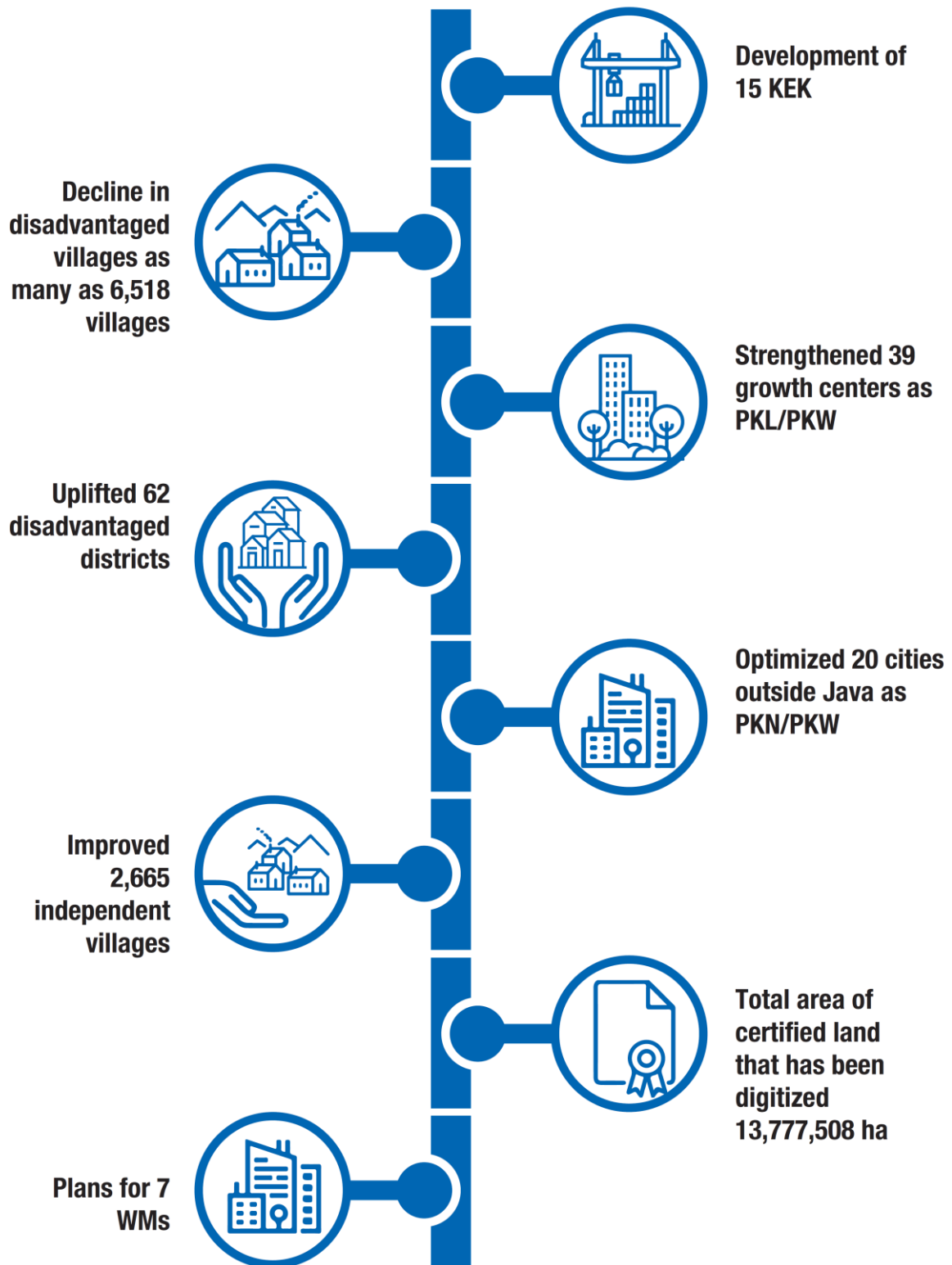
No	Indicators	Baseline 2018	Target 2019
1	Papua	1.9	1.7
2	Maluku	0.5	0.5
3	Nusa Tenggara	1.5	1.5
4	Sulawesi	6.2	6.3
5	Kalimantan	8.2	8.1
6	Sumatra	21.6	21.3
7	Java-Bali	60.1	60.6

Remarks:
*) Realization up to 3Q of 2019.
Source: BPS (compiled).

The development of growth centers in 2015-2019 began with the planning stage for ten metropolitan areas (or WM), 11 new cities, and 15 special economic zones (or KEK). As of the end of 2018, two WM had already been in the legalization stage (Surabaya, Jakarta), two WM in the drafting stage (Manado and Banjar), and one WM in the technical preparation stage (Palembang). Investment in urban

infrastructure is directed at the ten WM. For KEK, as of the end of 2018, 11 KEK have been operational and equipped with supporting infrastructure within and the surrounding area. However, anchor industries are still needed to ensure the operation of downstream industries and that the investment in the region increases.

Achievements in 2015-2019



Environmental and Strategic Issues

The main strategic issue of regional development is that there are still regional disparities marked by: (a) a high poverty rate of 18.0% in the eastern region of Indonesia (KTI), almost double that in the western region of Indonesia (KBI) at 10.3%; and high rural poverty (12.9%), almost double that in urban areas (6.7%) (BPS, 2019); (b) there is still income inequality marked by a Gini coefficient of

0.317 in rural areas, and 0.392 in urban areas; (c) the concentration of economic activities in KBI, especially in Java; (d) limited infrastructure and accessibility in disadvantaged areas, villages/rural areas, transmigration areas, and border areas; and (e) suboptimal local economic development in disadvantaged areas, villages/rural areas, transmigration areas, and border areas.

Table 3.2
Regional Strategic Issues

No	Development Areas	Poverty*		Unemployment Rate** (%)	Inequality Among Provinces Within Regions*** (Williamson Index)
		Number (in 1,000s)	%		
1	Papua	1,137.3	26.34	4.2	0.15
2	Maluku	402.2	13.21	7.6	0.08
3	Nusa Tenggara	1,882.3	17.94	3.3	0.19
4	Sulawesi	2,009.9	10.23	4.9	0.17
5	Kalimantan	974.2	5.93	5.0	0.69
6	Sumatra	5,851.1	10.03	5.2	0.48
7	Java-Bali	12,886.9	8.31	5.8	0.73

Remarks:

*) Susenas, 2019, compiled by Bappenas.

***) BPS, 2018, compiled by Bappenas.

****) BPS, 2017, compiled by Bappenas.

Factors causing inequality between regions include regional growth centers that have not been developed. This is indicated by: (1) the low operational progress of the Regional Growth Centers (11 out of 15 KEK have been operational, 5 out of 14 KI operational, 2 out of 4 Free Trade Areas and Free Ports (KPBPB), and 10 Priority Tourism Destinations); (2) weak connectivity to and from Growth Centers; and (3) strategic areas in districts that have not been developed.

Management of urbanization has also not been optimal, marked by a 1% increase in the population of urban population that only yielded a 1.4% increase in GDP. This contrasts with China and other East Asian and Pacific countries that achieved on average 2.7% of GDP. In 2010-2018, Indonesia's urban population increased by 27 million with a growth rate of 2.5%.

This increase in urban population puts pressure on urban areas, decreases welfare, and makes parts of urban areas unfit for habitation. This can be seen, for example, in Jakarta, which has experienced an increase in the number of floods, land subsidence, rising sea level, decreased river water quality (96% heavily polluted), and losses due to congestion (Rp 65 trillion p.a.). In addition, the Jakarta metropolitan area still has to accommodate a population of 32.8 million (BPS, 2017), the highest in Indonesia. On the other hand, it contributed 20.9% to the country's GDP (BPS, 2018), showing the dominance of the Jakarta metropolitan area in the national economy and the high inequality with other regions.

Reducing disparities between regions and urban conditions can be overcome through spatial use in accordance with spatial planning. However, the current target has not been achieved, because: (1) only about 3% of the targeted 1,838 Detailed Spatial Plans (RDTR) has been established as a reference for licensing and controlling spatial use; (2) the unavailability of a 1:5000 scale base map as the foundation for the preparation of RDTR; (3) inconsistency in controlling the use of space; and (4) there are still overlapping spatial use permits that will be resolved through the implementation of the One Map policy, which is integrated in the implementation of One Data Indonesia.

Other contributing factors are the low legal certainty of land rights and the high inequality of ownership, control, and utilization of land, which are indicated by: (1) coverage of the basic land map, which is only at 49.05%; (2) the coverage of

certified land parcels that have been digitized is only at 20.91%; (3) of a total of 27.2 million households, 15.8 million farm households (58%) only control less than 0.5 hectares of land per family (2018 Inter-Census Agriculture Survey); (4) the number of disputes, conflicts, and land-related cases that have been resolved has only reached 4,031 out of a total of 10,802 cases handled.

In connection with the implementation of decentralization and the implementation of regional autonomy, the enactment of Law No. 23/2014 concerning regional governments raises various issues, including the large number of laws and regulations derived from Law No. 23/2014 that have not been established; implementation regulations that have not been harmonized with other sectoral laws and regulations; the high dependence of regional governments on regional transfer funds in development financing; the limited capacity of the regional government apparatus and institutions in governance and development to support national priorities; and the prevailing local political dynamics that stymie governance and development.

Meanwhile, issues surrounding island development that are causing inequality and need to be addressed in the next five years are as follows:

1. The development of Papua still faces the following issues: (a) suboptimal implementation of Papua's special autonomy, (b) limited basic services and lack of strong regional government capacity, (c) lack of development of customary territories in supporting regional economies; (d) suboptimal development of leading

- natural resource-based potentials; (e) suboptimal infrastructure development and connectivity; and (f) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion; and vulnerability to social inequality and urban poverty.
2. The development of Maluku still faces the following issues: (a) suboptimal basic services, (b) suboptimal development of leading natural resource-based potentials and development of small and medium industries; (c) inadequate connectivity, especially intra-islands and inter-islands in the Maluku Islands; (d) suboptimal infrastructure development; and (e) weak local governance.
 3. The development of the Nusa Tenggara still faces the following issues: (a) suboptimal basic services, (b) suboptimal development of leading natural resource-based potentials; (c) inadequate connectivity, especially intra-islands and inter-islands in the Nusa Tenggara Islands; (d) suboptimal infrastructure development and basic urban services; (e) weak local governance; and (e) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion; and vulnerability to social inequality and urban poverty.
 4. The development of Sulawesi still faces the following issues: (a) suboptimal downstreaming of leading natural resource-based potentials; (b) lack of development of an international hub for the eastern region of Indonesia (KTI); (c) weak disaster preparedness, mitigation, and adaptation efforts; (d) limited access and quality of basic services; (d) suboptimal improvement in productivity of the food crop sector to support Sulawesi's role as a national food bowl; (e) suboptimal governance and institutional management of metropolitan areas; and (f) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion; and vulnerability to social inequality and urban poverty.
 5. The development of Kalimantan still faces the following issues: (a) suboptimal downstreaming of leading natural resource-based potentials; (b) weak disaster preparedness, mitigation, and adaptation efforts, especially with forest fires, land fires, and floods; (c) high threat of deforestation resulting in the threat to the role of Kalimantan as the world's lungs; (d) suboptimal role of border areas; (e) declining regional income due to high dependence on raw commodities that has caused Kalimantan economy's to be vulnerable to commodity price movements in the global market; and (f) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion; and vulnerability to social inequality and urban poverty.
 6. The development of Sumatra still faces the following issues: (a) suboptimal development of leading natural resource-based potentials; (b) suboptimal integration of intra-

regional and inter-regional connectivity; and suboptimal development of an international hub as a gateway for trade of goods and services; suboptimal management and quality of regional expenditure and Aceh special autonomy funds; (d) high level of development inequality, especially in the western part of Sumatra, and the high level of poverty, especially in the northern part of Sumatra; (e) absence of an integrated commodity trading center (trading house), and low development of cooperatives and small/medium enterprises as a basis for strengthening the structure of the local economy; (f) unstable prices of rubber and palm commodities, which are followed by declining product quality, as well as lack of competitive gas prices for industrial activities that hamper the pace of industrial productivity; (g) there are still illegal fishing practices, as well as illegal planting, trading, and consumption of cannabis; (h) high potential for conflict in the Natuna border region, especially in the Exclusive Economic

Zones; and (i) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion especially in islands on the national borders; and vulnerability to social inequality and urban poverty.

7. The development of Java-Bali still faces the following issues: (a) high rate of exploitation of economic activities in cultivated and protected areas, such as rubber zones, which causes environmental damage and biodiversity loss; (b) reduced availability and supply of water that is not proportional to demand; (c) large changes in the conversion of mechanically irrigated agricultural land that threatens the role of Java-Bali as a national food bowl; (d) high levels of population density and great potential for disaster threats; and (e) vulnerability of physical and social resilience to climate change, disasters, pollution, and coastal abrasion; and vulnerability to social inequality and urban poverty.

Objectives, Indicators, and Targets

In the next five years (2020-2024), the regional development objective that will be achieved is to "reduce regional disparity by encouraging transformation and acceleration of the development of the eastern region of Indonesia that includes Kalimantan, Nusa Tenggara, Sulawesi, Maluku, and Papua, while still maintaining growth momentum in Java,

Bali, and Sumatra." By paying attention to the regional development targets that take into account the national economic growth target of an average of 6.0% p.a., the economic growth target, estimated value of investment requirements, poverty rate, and unemployment rate in each island region by 2024 are as follows:

Table 3.3
Regional Development Targets for 2024

Development Regions	Average Economic Growth (%) 2020-2024	Regional Economic Contribution (% per GRDP) 2024	Investment Needs (in trillion Rp) 2024	Poverty Rate (%) 2024	Open Unemployment Rate (%) 2024
Papua	6.6	2.1	41.1	18.2	2.5
Maluku	7.3	0.6	18.8	9.0	4.6
Nusa Tenggara	6.0	1.5	19.9	12.1	2.1
Sulawesi	7.6	7.0	110.7	7.2	3.5
Kalimantan	6.7	8.8	143.1	3.7	3.4
Sumatra	6.0	20.9	251.1	7.1	3.6
Java-Bali	5.9	59.2	742.4	6.2	4.1

*) Realization up to Q3 2019.

The regional development target for 2020-2024 will be achieved through five (5) priorities, namely: developing strategic areas; leading sector development; urban development;

development of disadvantaged areas, border areas, rural areas, and transmigration; and regional institutional management and financial management (see Table 3.4).

Table 3.4
Priority Objectives, Indicators, and Targets for Regional Development

No	Development Indicators	Baseline (2019)	Target (2024)
Reducing disparities between regions by boosting the transformation and acceleration of development in the eastern region of Indonesia that includes Kalimantan, Nusa Tenggara, Sulawesi, Maluku, and Papua, while maintaining the momentum of growth in the regions of Java, Bali, and Sumatra.			
1. Strategic Regional Development			
1	Ratio of regional investment growth (KEK/KI/KSPN) to regional investment growth (per island/province)	N/A	>1
2	Number of facilitated and developed growth center areas		
	a. Special Economic Zones (KEK)	14 zones	18 zones
	b. Industrial Estates (KI)	8 KI (cumulative)	27 KI (cumulative)
	c. Priority Tourism Destinations (DPP)	3 destinations	10 destinations
2. Development of Leading Sectors			
1	Percentage of increase in production of leading commodities per year		
	a. Palm oil (%)	8.6	6.0
	b. Coconut (%)	0.0	0.5
	c. Cocoa (%)	0.4	2.7
	d. Coffee (%)	3.4	1.5
	e. Rubber (%)	3.1	1.9
	f. Sugarcane (%)	7.6	8.0
	g. Pepper, nutmeg, and cloves (%)	0.0	1.0
	h. Aquaculture (fish and seaweed) (%)	0.4	5.3
	i. Capture fishery (%)	5.0	5.9
3. Urban Area Development			
1	Planned metropolitan areas (WM) outside Java	3 WM	3 WM ^f
2	Developed metropolitan areas (WM) outside Java	N/A	6 WM ^f
3	Number of upgraded metropolitan areas in Java	N/A	4 WM ^f
4	Development area of the National Capital (in ha)	0	5,600 ^f
5	Number of big, medium, and small cities developed as PKN/PKW	N/A	52 ^g
6	New city development	N/A	4 new cities ^f
4. Development of Underdeveloped Regions, Border Areas, Rural Areas, and Transmigration			
1	Village development status: ^a		
	a. Independent village	1,444	10,559
	b. Developing village	54,291	59,879
	c. Underdeveloped village	19,152	3,232

No	Development Indicators	Baseline (2019)	Target (2024)
2	Decline in rural poverty rate (%)	12.9	9.9
3	Total revitalization of village owned enterprises (BUMDes) based on status:	187	222
	a. Developing BUMDes	5,000	10,000
	b. Developed BUMDes	600	1,800
4	Total revitalization of BUMDes Bersama based on status:		
	a. Developing BUMDes Bersama	200	300
	b. Developed BUMDes Bersama	120	200
5	Number of improved sub-districts in priority border areas in terms of welfare and governance (sub-districts)	187	222
6	Average Border Area Management Index (IPKP) value in 18 National Strategic Area Centers	0.42	0.52
7	Number of disadvantaged areas (districts)	62	37 (improved 25 districts)
8	Percentage of poor people in disadvantaged areas (%)	26.1 (2018) 25.5 (2019) ^b	23.5-24
9	Average HDI in disadvantaged areas	58.11 (2018) 58.82 (2019) ^b	62.2-62.7
10	Average Development Index value in 60 National Priority Rural Areas (KPPN) ^c	51.10	58.70
11	Average Development Index value in 52 revitalized transmigration areas	48.74	57.50
5. Regional Institutions and Financial Sector			
1	Number of regions with increasing regional revenue (Regency/City)	313	542
2	Number of regions with qualified regional spending (Regency/City)	102	542
3	Number of regions implementing effective and efficient financial governance (Regency/City)	102	542
4	Percentage of regions that have a high Innovation Index score (%)	12	36
5	Regions that have electronic-based One-Stop Integrated Services (PTSP) (Regency/City)	200	542
6	Regions implementing regional cooperation agreements (Regency/City)	10	58
7	Regional implementation of Minimum Service Standards (SPM) (%)	N/A ^d	100
8	Evaluation of Local Government Administration (EPPD) score	2.8	3.2
9	Regions with good Governor's Performance Index score (Province)	N/A ^e	34

No	Development Indicators	Baseline (2019)	Target (2024)
10	Number of policies (regulations) on the special autonomous regions and special regions	1 regulation	2 regulations
11	Number of 1:5,000 scale base maps (number of maps)	5,013	125,810 (all non-forest areas)
12	Spatial planning for National Strategic Areas (KSN) (Draft)	10	18
13	Detailed Spatial Planning (RDTR) for national borders	10 technical materials	10 presidential regulation drafts
14	Regions that have detailed regency/city spatial planning for resilience to disaster and climate change (Regency/City)	37 ^h	250
15	Area of certified land parcels that have been digitized and of good quality (million ha)	13.78	52.12
16	Regional offices and land offices of the Ministry of Agrarian Affairs and Spatial Planning (ATR/BPN) that implement modern digital-based land services	0	34 ATR/BPN regional offices and 467 land offices
17	Formation and operationalization of a land bank	0	1 land bank

Remarks:

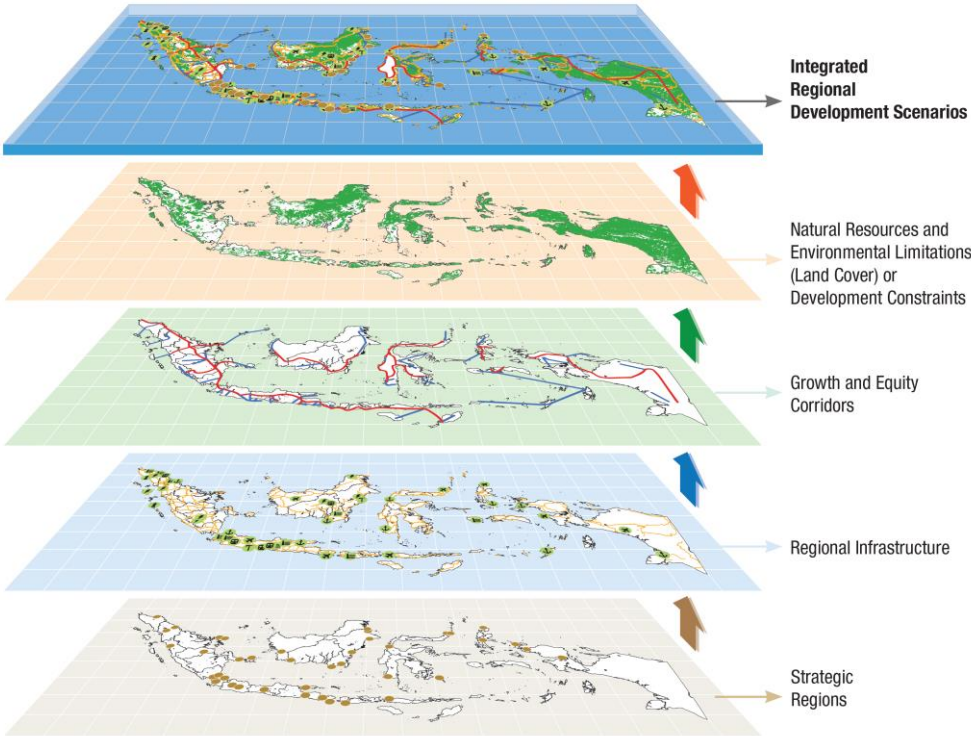
- a) Number of villages based on Permendagri No. 72/2019. There has been a switch in the method of determining village status from using the Village Development Index (2014 and 2018) to the Village Index. There are 66 villages that have not been assigned a Village Index value.
- b) Estimated achievements in 2019.
- c) Annual achievements will be calculated based on the average Rural Area Development Index; Klungkung KPPN is calculated based on Village Development Index (IPD).
- d) Data on Minimum Service Standards (SPM) based on PP No. 2/2018 is not yet available. The available data is the coverage of SPM based on PP No. 65/2005, which reached 52%.
- e) New indicators for 2020-2024.
- f) Ministerial/institutional projects and indicators can be viewed in the PN2 KP3 Matrix.
- g) In accordance with Tables 1.3, 2.3, 3.3, 4.3, 5.3, 6.3, and 7.3 in the Appendix, Chapter 3; ministerial/institutional projects and indicators can be viewed in the PN2 KP3 Matrix.
- h) Cumulative achievements in 2015-2019.

Policy Directions and Strategies

Regional development in 2020-2024 emphasizes the integration of development by considering spatial approaches based on good, accurate and complete evidence of data; information and knowledge; national development scenarios; and clear location sites according to spatial planning and environmental carrying capacity. In addition, regional development also prioritizes a holistic and thematic approach that is based on comprehensive management and focuses on development priorities and on

the most relevant locations in accordance with the growth and equity corridor approach. Regional development is carried out in an integrated manner by prioritizing cooperation and integration of programs and activities between ministries and institutions, between ministries/institutions and regional governments, between regional governments themselves, and between the government and business entities in planning, funding, financing, implementing, controlling, and evaluating development.

Figure 3.2
Integrated Regional Development



In an effort to achieve these development objectives and targets, future regional development will be translated through two main approaches, namely the growth corridor approach and the island-based equity corridor approach (see Figure 3.1).

These approaches have been prepared by considering the results of the calculation of regional comparative and competitive advantage based on the 2017 GRDP, as well as considering the archipelago manufacturing pathway, the

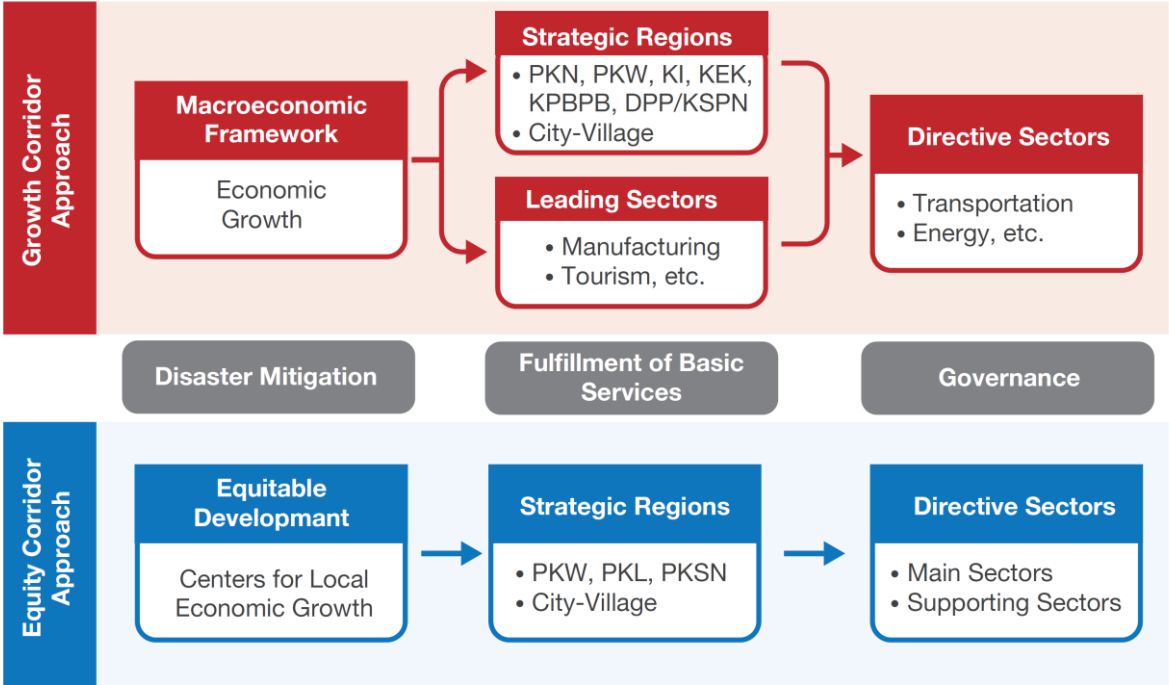
archipelago mineral pathway, the archipelago tourism pathway, and the distribution of activity centers such as the National Activity Centers (PKN) and Regional Activity Centers (PKW).

The growth corridor approach prioritizes the development of growth centers--on the basis of regional excellence--that can encourage value-added, increase, and/or save foreign exchange earnings, expand employment opportunities and real economic growth in the next five years. Regional growth centers include agriculture, fishery, plantations, and mining as production centers; priority strategic areas such as industrial estates (KI) and special economic zones (KEK) as centers for natural resource manufacturing; the free trade areas and ports (KBPB) as centers of port trade

and industry; national tourism strategic areas (KSPN) and priority tourism destinations (DPP) as centers for developing tourism services; and urban areas including metropolitan areas, new cities, medium and small cities as centers of services and trade.

The equity corridor approach prioritizes the development of buffer zones (hinterland) around centers of growth, as well as disadvantaged areas and regions to ensure equality and justice in the fulfillment of people's basic rights in accordance with the principles of sustainable development goals, i.e. not leaving any group behind. Buffer zones include villages; rural areas; transmigration areas; border areas including small, frontier, and outermost islands; and disadvantaged areas.

Figure 3.3
Flow Chart of Approaches to Regional Growth and Equity



The regional development policies and strategies for 2020-2024 are as follows:

1. Increasing equity—between the eastern and western regions of Indonesia, and between Java and other islands—through development strategies, namely:

- a. Developing policies and implementing affirmative development to accelerate the growth of disadvantaged areas, priority border locations, frontier and outermost islands, and transmigration areas, through: (i) expanding access to basic education and health services; (ii) providing basic infrastructure and facilities for housing, clean water, sanitation, and electricity; (iii) improving land, river, sea, and air transportation connectivity; (iv) developing telecommunications and information networks as a basis for digital economy; (v) expanding cooperation and partnerships in investment, promotion, marketing, and trade; (vi) increasing supervision and safeguarding Exclusive Economic Zones (ZEE); and (vii) protecting and fulfilling the rights of transmigrants in accordance with applicable regulatory mandates.
- b. Accelerating integrated village development to encourage social, cultural and economic transformation of villages, which is supported by: (i) good governance through increasing the capacity of village apparatuses, assistance, roles, and inclusive village participation; (ii) determining village borders, (iii) developing tourist villages, digital villages, leading products of villages and rural areas, and developing BUMDesa/BUMDes Bersama; (iv) improving basic services in villages; (v) optimizing the use of village funds to encourage productive activities, empowering village communities including funding local village assistants; and (vi) strengthening the role of sub-districts as centers of change and growth, as well as village development and supervision.
- c. Strengthening rural-urban linkages that support centers of excellence based on village territories, National Priority Rural Areas (KPPN), transmigration areas, and National Border Strategic Activity Centers (PKSN) through: (i) improving accessibility and connectivity including logistics networks from villages to trade centers, both local, regional and international markets; and (ii) developing cooperation and partnerships in investment, promotion, marketing and trade with multiple stakeholders.

2. Increasing the competitive advantage of regional growth centers through development strategies, namely:

- a. Optimizing the development of priority strategic areas as centers of regional growth, namely Special Economic Zones (KEK), Industrial Estates (KI), Free Trade Areas and Ports (KPBPB), Priority Tourism Destinations, and other zones that have been assigned to encourage downstreaming and create value-added leading commodities, expand employment opportunities, increase and save foreign exchange earnings from import substitution, particularly, among others, estate crops, mining

and fishery products, by: (i) strengthening the production base and processing of regional leading commodities that are spread throughout centers of downstream agriculture and fishery in the National Priority Rural Areas (KPPN), transmigration areas, National Strategic Activity Centers (PKSN), and Integrated Marine Fishery Centers (SKPT)/Fishery Management Areas (WPP); (ii) constructing smelters in potential areas to support the downstreaming of natural resources; (iii) providing integrated infrastructure networks that include transportation networks (roads, ports, airports, and others), energy systems (electricity, gas, solar, coal, and others), raw water and clean water facilities, and sewage treatment systems; (iv) fast licensing and investment services; (v) strengthening connectivity with raw material production centers in rural areas, transmigration areas, small and medium cities in the procurement of raw and supporting materials; (vi) developing cooperation and partnerships in financing government and business entities; (vii) strengthening cooperation between regional governments, management bodies, communities, universities. and the

media in the promotion and development of strategic areas; and (viii) expanding cooperation and partnerships in global production chain cooperation.

- b. Optimizing Metropolitan Areas (WM) and big cities outside Java, including spatial planning, urban infrastructure development, investment planning, and development financing while maintaining growth and increasing environmental carrying capacity for WM and major cities in Java;
- c. Developing new cities as an example for the planned development of inclusive public cities; and
- d. Developing the National Capital outside Java in a more spatially and economically balanced position; (i) as a stimulus for economic growth through increased aggregate demand; (ii) encourages the diversification of the economy of Kalimantan; (iii) as a new source of long-term economic growth especially for Kalimantan and Eastern Indonesia, and (iv) reduce inequality between regions, supported by the management of the state civil apparatus (ASN) based on smart governance.

3. **Improving the quality of governance of basic services, competitiveness, and regional independence**, through the following development strategies:

- a. Implementing decentralization and special autonomy (Aceh, Papua, and West Papua) through increasing the capacity of autonomous regions and special regions to fulfill minimum service standards, managing regional finances, and fulfilling more effective and efficient public services:
 - i. Implementing decentralization and regional autonomy by increasing the capacity of local governments, among others through: (a) applying Minimum

Service Standards (SPM) in the regions in a full and consistent manner, including improving complaints mechanisms that are integrated with performance management; (b) arranging institutions and organizations of regional governments that are more efficient and effective; (c) optimizing the use of Electronic-Based Government Systems (SPBE) to create faster, cheaper and efficient services; (d) increasing regional research and innovation to improve the quality of public services and accelerate development; (e) increasing the capacity of the regional apparatus in the management of regional government administration and the capacity of other special expertise in accordance with regional needs, including regional development planning and budgeting; (f) optimizing regional funds that are more productive and affirmative for regional progress; (g) increasing regional revenues from both taxes and levies, as well as other sources of revenue through structuring and developing data and information; (h) effective and efficient regional financial management, (i) improving the quality of regional spending that has an impact on accelerating the achievements of SPM, improving people's welfare, and regional progress.

- ii. Implementing special autonomy in Aceh as directed by the implementation of Law No. 11/2006 concerning the

Government of Aceh in a serious, consistent, real, and responsible manner, among others through: (a) strengthening and empowering the Acehnese people based on Islamic culture and sharia, which prioritize human values; (b) strengthening participatory, transparent, accountable, and fair governance by prioritizing excellent services; (c) optimizing the management of the Aceh Special Autonomy Fund for public services and economic development to improve people's welfare; and (d) increasing the capacity of the apparatus and developing performance-based management;

- iii. Implementing special autonomy in Papua and West Papua as directed by the implementation of Law No. 21/2001 concerning the Special Autonomy for the provinces of Papua and West Papua in a serious, consistent, real, and responsible manner, among others through: (a) strengthening and empowering Papuans based on culture and customs that prioritize human values; (b) developing indigenous territories of Tabi, Saereri, La Pago, Me Pago, Anim Ha, Bomberai and Domberai in supporting the regional economy; (c) strengthening participatory, transparent, accountable, and fair governance by prioritizing excellent services; (d) optimizing the management of the Papua Special Autonomy Fund for

- public services and economic development to improve people's welfare and regional progress; (e) increasing the capacity of the apparatus and developing performance-based management; and (f) strengthening districts as centers of change and growth, as well as village development and supervision; and
- iv. The implementation of special regions as directed by the implementation of Law No. 13/2012 concerning the Special Region of Yogyakarta (DIY) in a serious, consistent, real, and responsible manner, among others through: (a) empowering the people of the Special Region of Yogyakarta based on culture, customs, and privileges of the Special Region of Yogyakarta; (b) strengthening participatory, transparent, accountable, and fair governance by prioritizing excellent services; (c) optimizing the management of the Privileged Funds to strengthen social and cultural resilience, and develop the people's economy to improve people's welfare and regional progress; and (d) increasing the capacity of the apparatus and developing performance-based management.
- b. Developing cooperation between autonomous regions in increasing regional competitiveness and building new economic centers, through:
 - i. Strengthening the role of One-Stop Integrated Services (PTSP) to accelerate services and licensing to the people and the business world;
 - ii. Structuring regional regulations to support ease of doing business;
 - iii. Developing government and business entity cooperation schemes; and
 - iv. Expanding cooperation, partnerships, and collaboration between local governments and development partners in public services, natural resource and environmental management, financing and investment development, problem-solving pertaining to public issues, and developing regional competitiveness and innovation.
 - c. A more synergistic arrangement of central and regional relations, through:
 - i. Strengthening the role of the governor as a representative of the central government in the coordination and control of regional development;
 - ii. Harmonizing and synchronizing regulations regarding planning, budgeting, procurement of goods and services, control and evaluation, and audits between the central government and other regions; and
 - iii. Strengthening the relationship between the central and regional finances through the acceleration of the completion of the revision of Law No. 33/2004 concerning the Relationship of Central and Regional Finances, and other laws and regulations

concerning regional financial management.

4. Increasing the synergy of regional spatial use, through the following development strategies:

- a. Enforcing spatial plans based on climate change mitigation and disaster risk reduction to ensure the protection of spatial functions and prevention of negative impacts on the environment due to spatial use, among others through: (i) increasing the effectiveness of spatial planning instruments, especially the comprehensiveness of Detailed Spatial Plans (RDTR); (ii) providing large-scale basic maps (1: 5,000) nationally; and (iii) applying incentives and disincentives, and also sanctions for violations of spatial use;
- b. Improving the legal certainty of land rights through: (i) certification of land rights especially in areas directed as corridors of economic growth and equity, and also in the surrounding areas including transmigration areas; (ii) arrangement and publication of forest and non-forest area boundaries on a cadastral scale; and (iii) delineation of customary territorial boundaries;
- c. Providing land for development in the public interest through the establishment of a land bank, and improvement of land services through modern, digital-based services and recruitment of civil servants as land measurement officers; and
- d. Strengthening climate change mitigation and disaster management to reduce the risks of climate change and disasters; and increasing resilience, especially in regional growth centers, urban areas and metropolitan cities, among others through: (i) mainstreaming disaster management and climate change adaptation; (ii) regulating and controlling regional spatial use; (iii) building a culture of disaster awareness and of preparedness from local governments and the people; (iv) fulfilling basic service standards in the event of a disaster through enhancing the capacity of regional governments, communities, and disaster logistics, especially in national strategic areas that have high disaster risks; (v) developing multi-hazard early warning system; (vi) adapting communities to climate change in disaster-prone areas; (vii) increasing capacity of disaster management in pre-disaster, emergency response, and post-disaster phases; (viii) increasing investment to mitigate and reduce disaster risks; (ix) expanding and strengthening multi-sector partnerships in climate change mitigation and disaster risk reduction; (x) increasing efforts to stymie coastal abrasion that can threaten borders.

In addition, the regional development policies for 2020-2024 are focused on seven (7) development areas, namely the regions of Papua, Maluku, Nusa Tenggara, Sulawesi, Kalimantan, Java-Bali, and Sumatra, in accordance with the Island Region Spatial Planning (RTRW) to guarantee policies, programs, and

activities that are consistent, integrated, and cross-sectoral in nature by taking into account the geographical characteristics; regional potential; social, cultural and traditional values; carrying capacity of the environment; and disaster risks in each region.

Figure 3.4
Distribution of Agricultural Downstream Centers

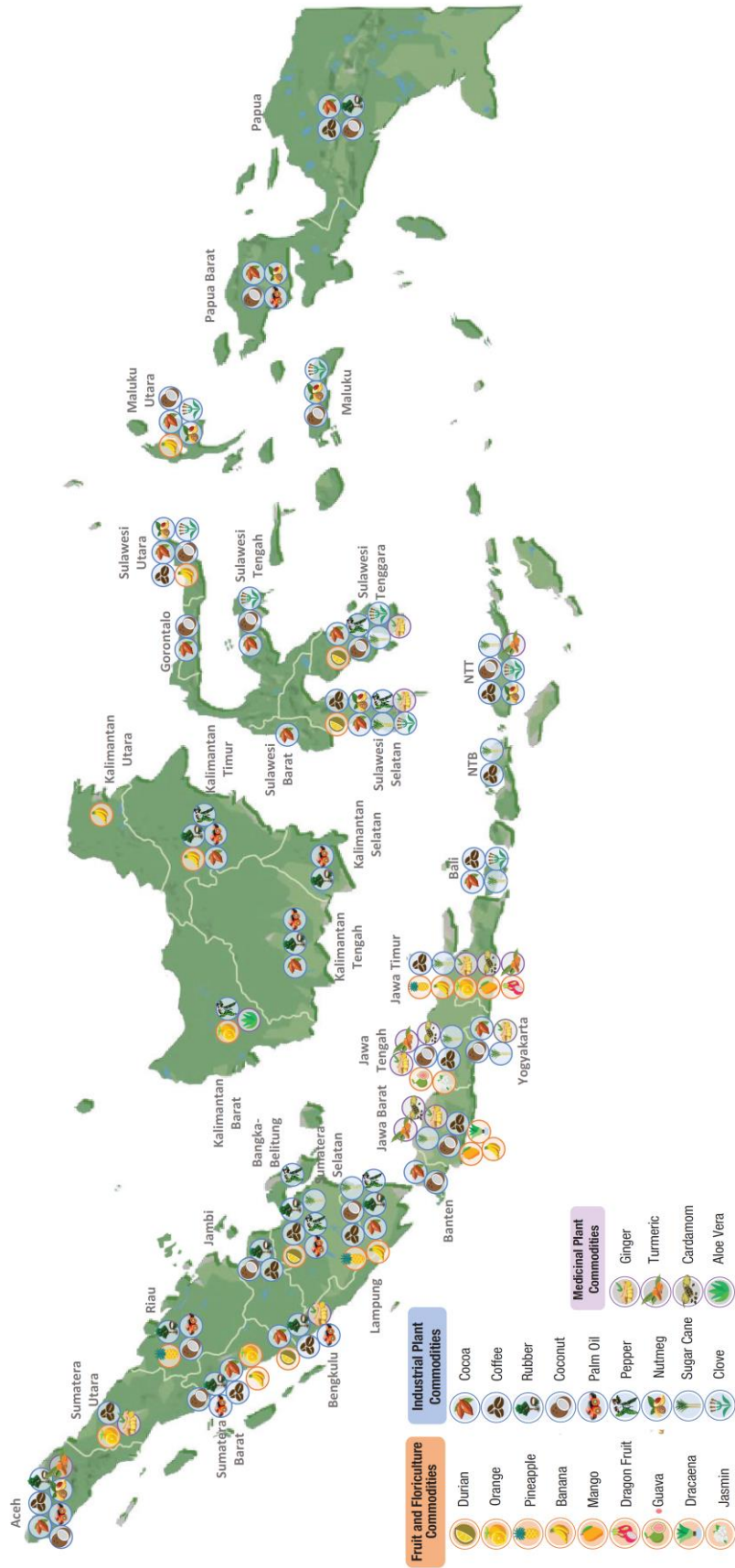


Figure 3.5
Distribution of Aquaculture and Salt Production Centers

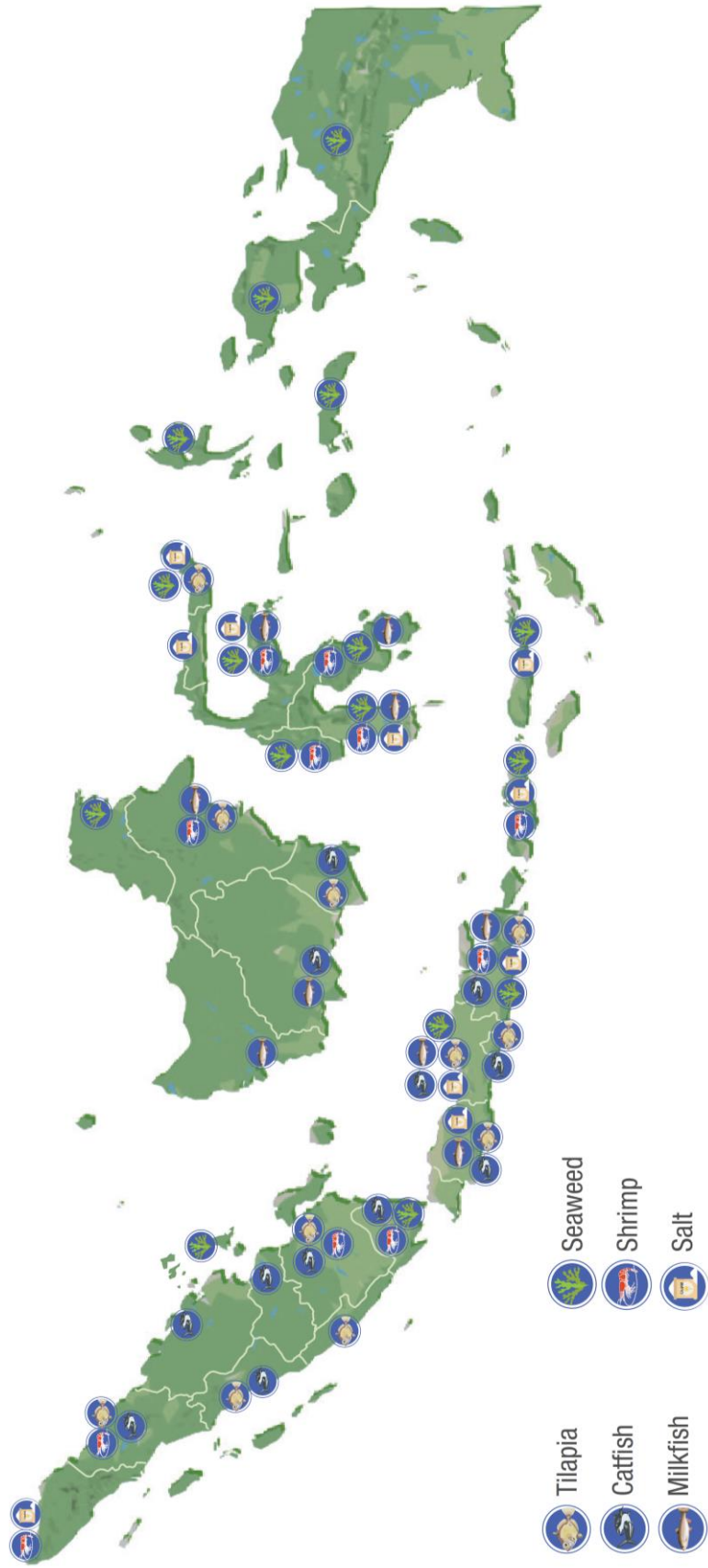


Figure 3.6
Distribution of Food Production Centers

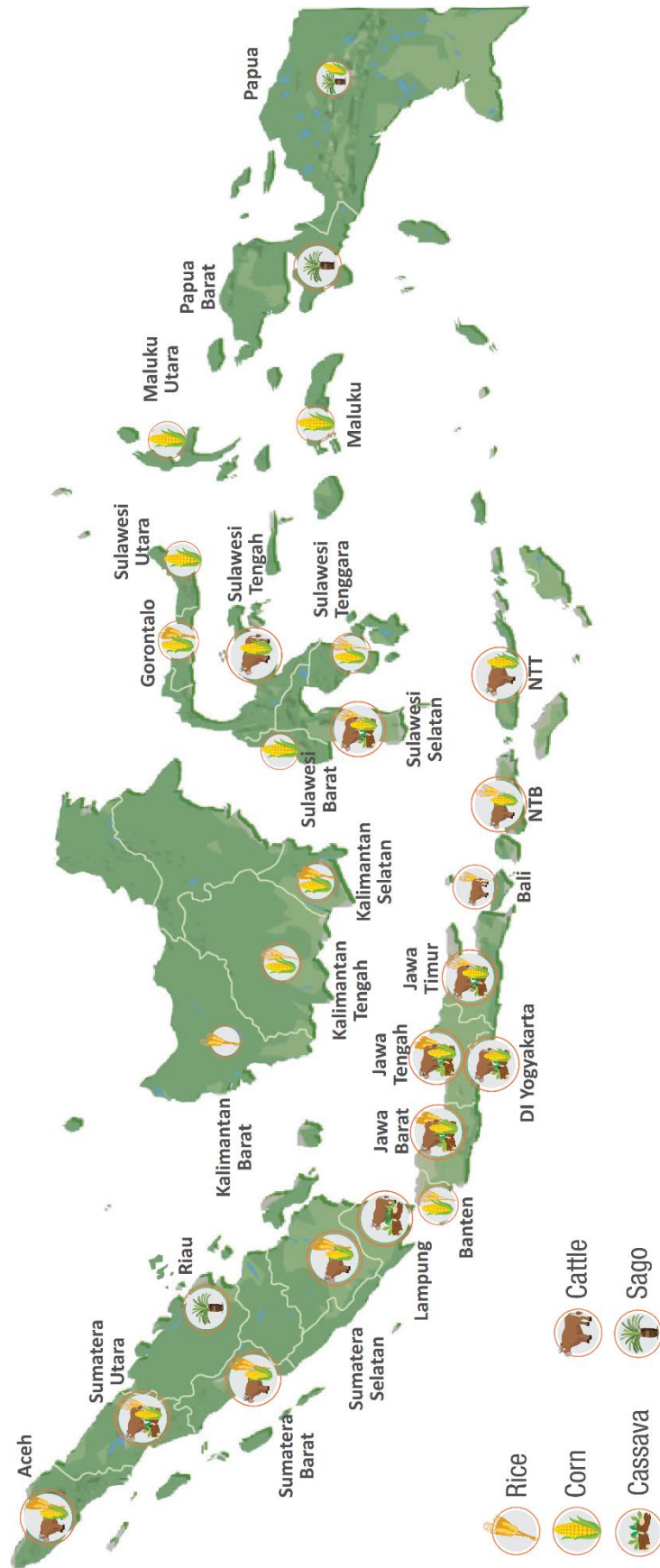
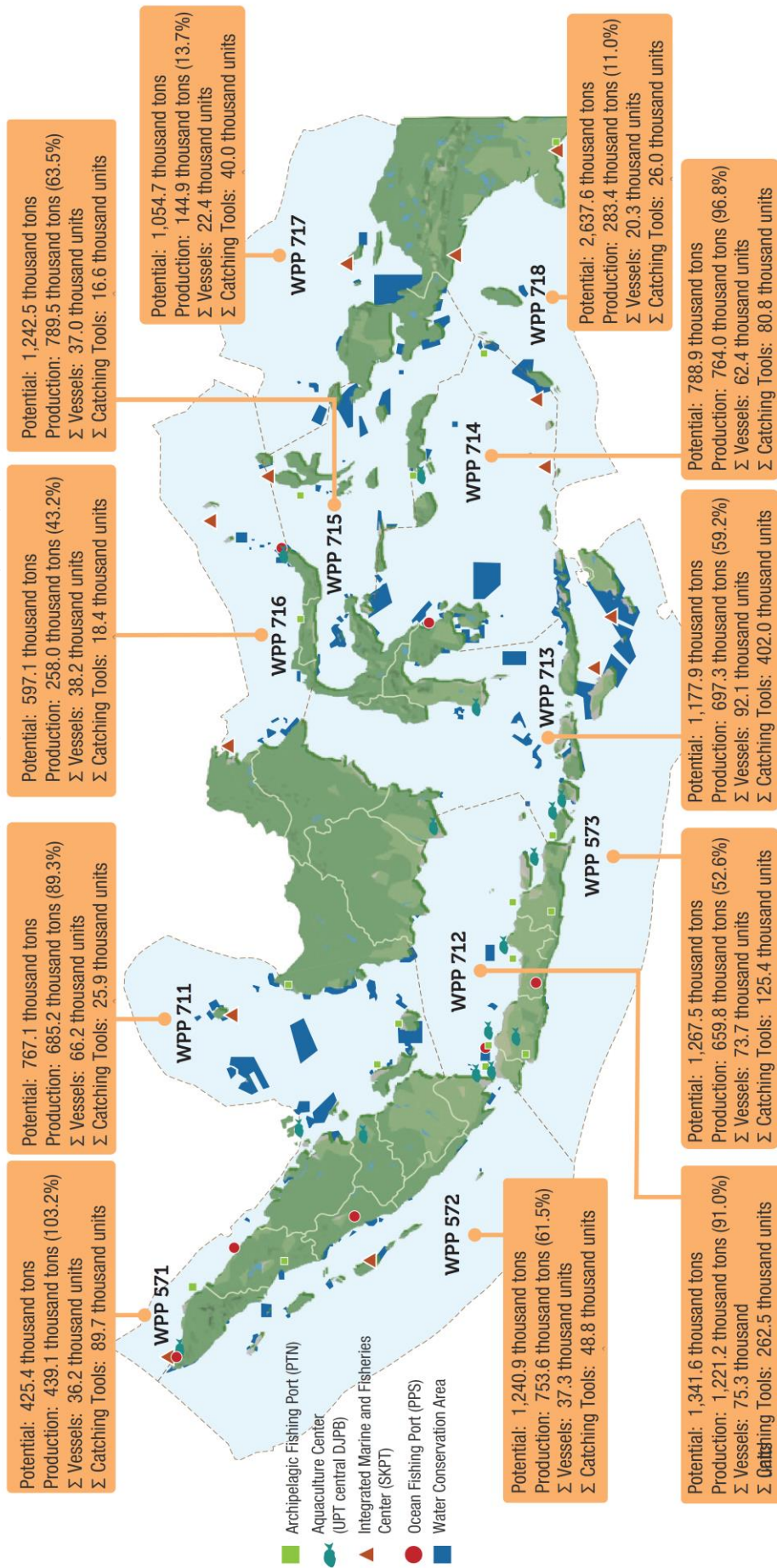


Figure 3.7
Distribution of Fishery Management Areas (WPP)



Remarks: 1. Potential data based on Ministerial Decree KP No. 50/2017 concerning potential estimates, number of captures allowed, and the level of utilization of fish resources in the fisheries management areas (WPP)
 2. Data on capture fisheries production in 2018 (KKP, 2019)
 3. Number of fishing vessels and catching tools in 2018 (KKP, 2019)

Figure 3.8
Distribution of Natural Gas and Coal Resources for Industrial and Electricity Needs

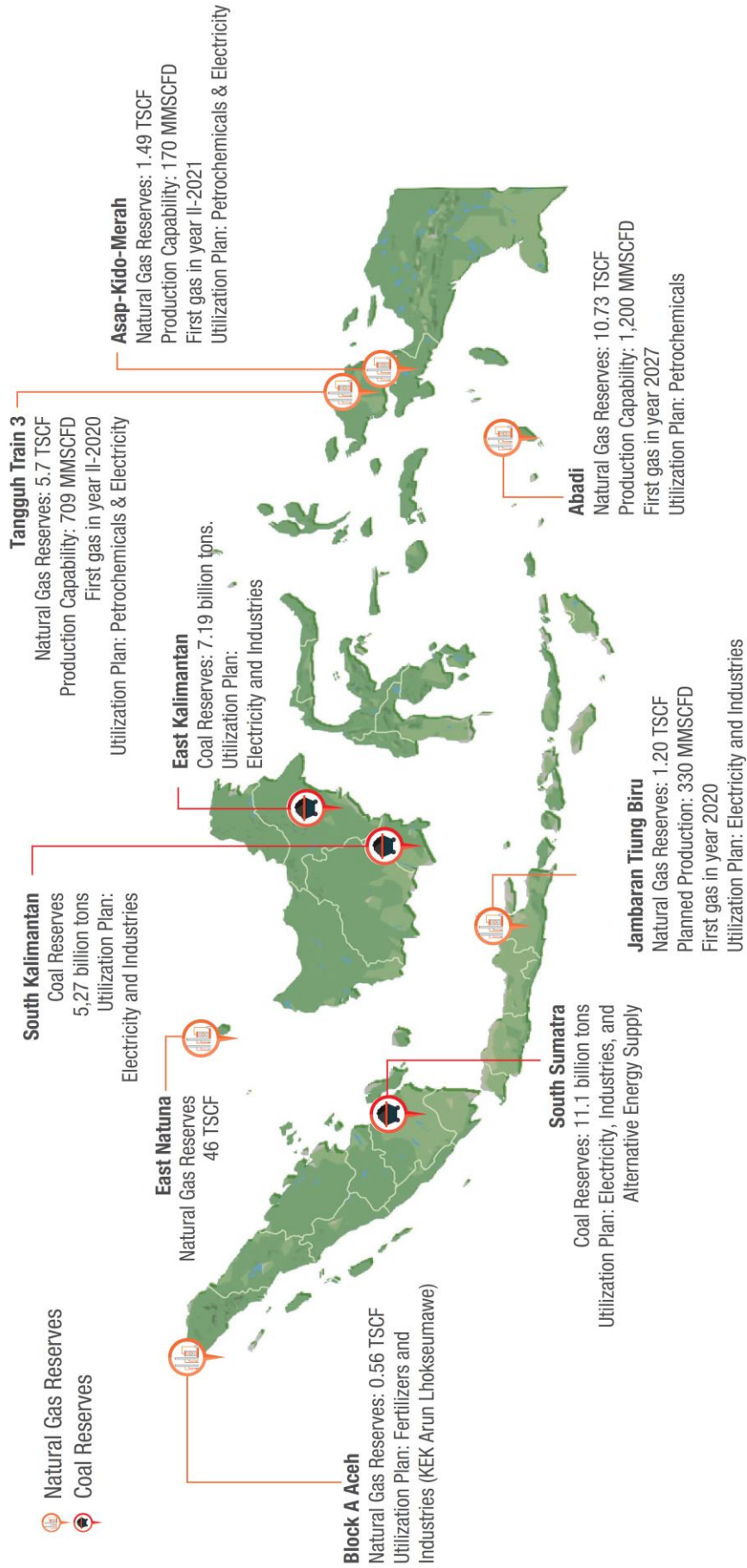
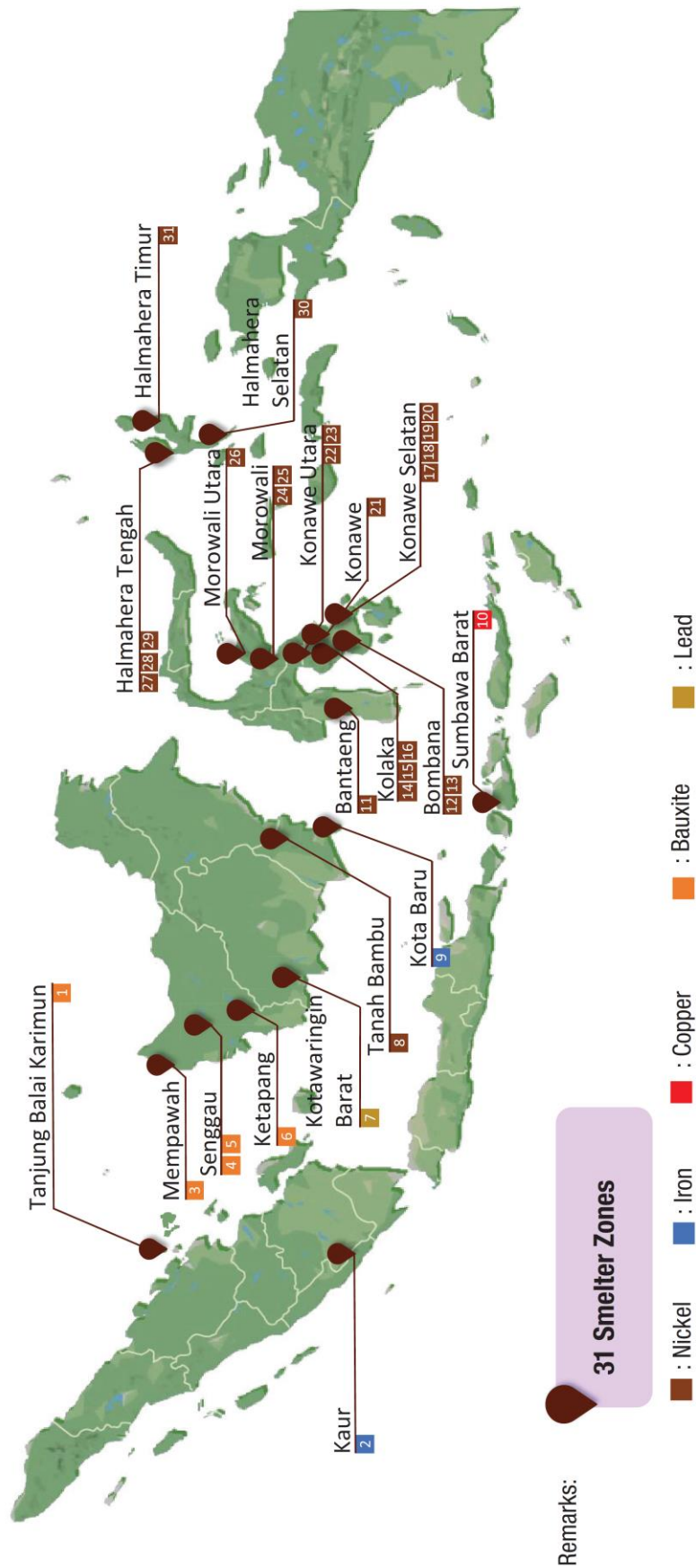


Figure 3.9
Downstreaming of Natural Resources Through Development of Smelters

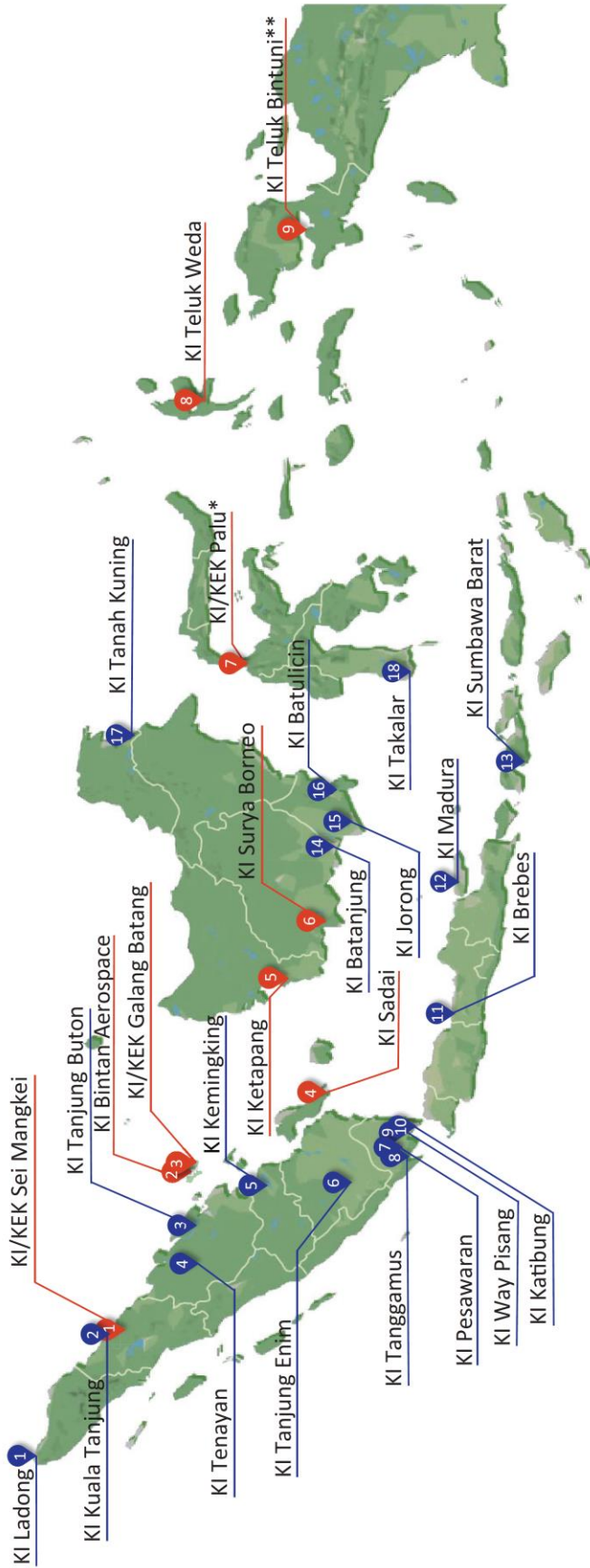


Remarks:

31 Smelter Zones

- : Nickel
- : Iron
- : Copper
- : Bauxite
- : Lead

Figure 3.10
Downstreaming of Natural Resources Through Development of Industrial Estates (KI)



Remarks:

9 National Priority Industrial Estates

18 Industrial Estates in Development

* KI Palu facilitated by the Post-Earthquake Rehabilitation and Reconstruction program
 **KI Teluk Bintuni facilitated by government-to-business cooperations (KPBU)

Figure 3.11
Distribution of Special Economic Zones (KEK) and Free Trade Areas and Ports (KPBPB)

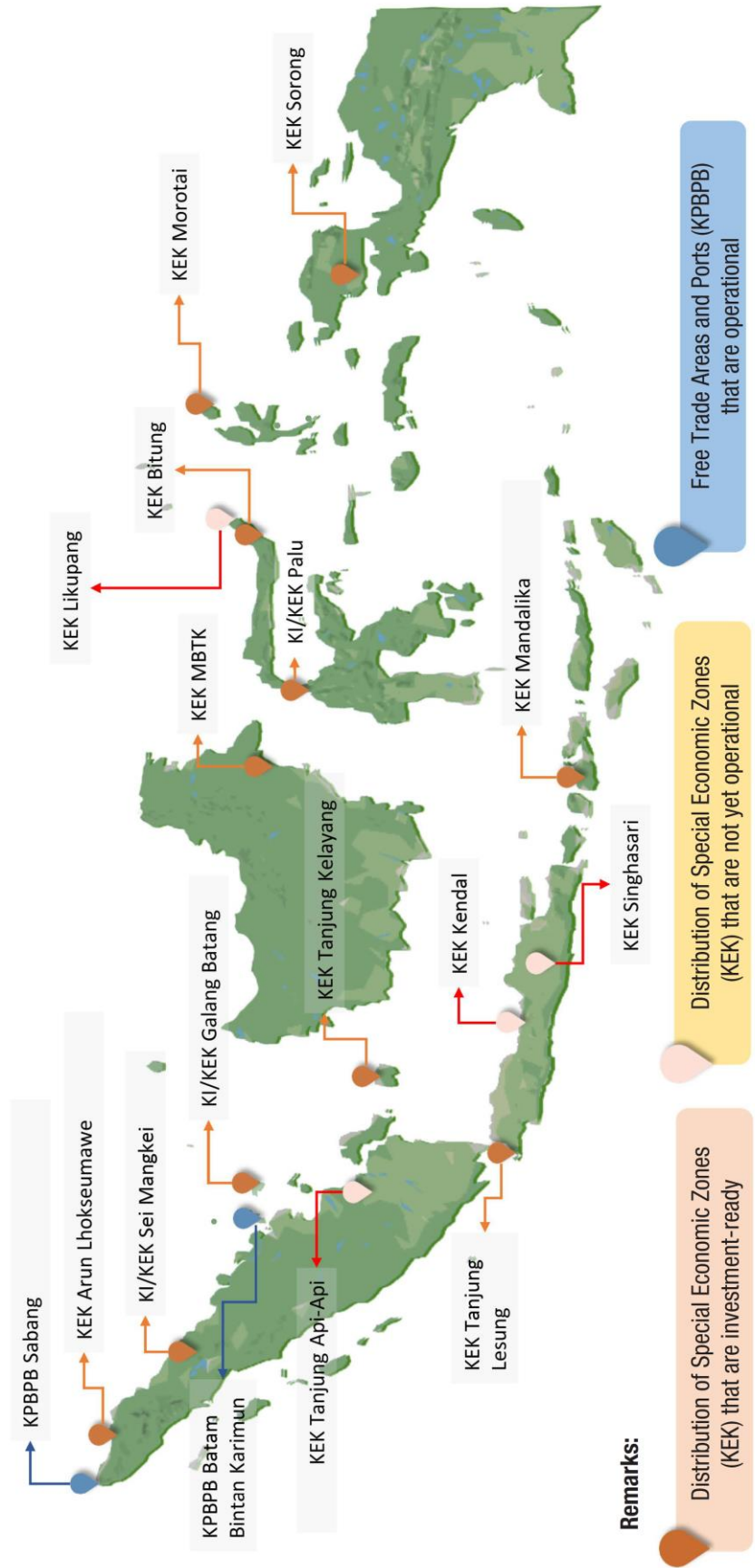
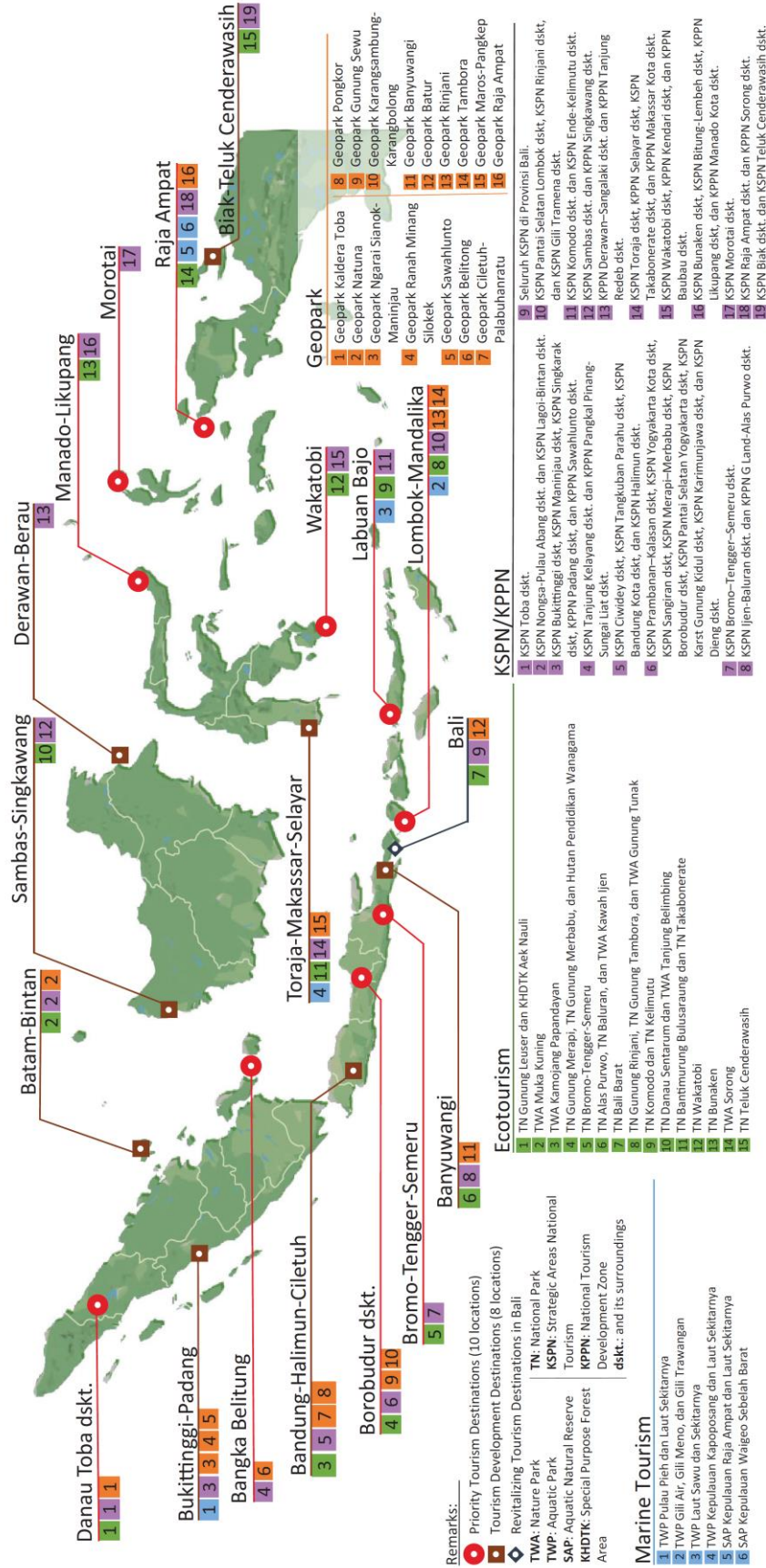


Figure 3.12
Distribution of Tourism Destinations



Direction of Regional Development

The development of the island regions is carried out in an integrated manner, namely by taking into account (1) the sustainability of the overall development carrying capacity; (2) regional economic development--both on a local, national, and international scale--through the development of commodities, commodity downstreaming through the development of strategic areas based on natural and non-natural resources, development of urban and rural areas, revitalization of

transmigration areas, and development of border areas and disadvantaged areas; (4) human resource development through the fulfillment of basic services as well as increasing productivity and competitiveness; (5) developing the implementation of decentralization and special autonomy (for the Provinces of Aceh, Papua, and West Papua); and (6) development of infrastructure to support economic and social activities.

A. Direction of Development in Papua

The development policy for Papua in 2020-2024 is directed at accelerating development to catch up with other regions of Indonesia and implementing special autonomy laws for Papua and West Papua based on Papua's cultural and contextual approaches and based on ecological and indigenous territories. The accelerated development of Papua is also directed to encourage economic transformation from being natural resource-dependent to becoming a more advanced regional economy by encouraging the development of local commodity-based industries in agriculture, plantations, animal husbandry, and forestry; the development of the maritime economy through the development of the fishing industry and marine tourism; the development of cultural and natural tourism through developing the socio-cultural potential and biodiversity; the development of downstream industries that include mining, oil, natural gas, and copper; and increasing conservation areas and environmental carrying capacity for low carbon development.

The development strategy for Papua in 2020-2024 prioritizes equity, growth, the implementation of special autonomy laws for Papua and West Papua, strengthening connectivity, and mitigation and reduction of disaster risks. All are detailed as follows: *)

- 1) Improving basic services, including: (a) improving the quality of human resources; (b) accelerating development of hilly and mountainous areas to reduce regional disparity between coastal and mountainous areas, and to take into account the region of Papua contextually; (c) accelerating development of disadvantaged areas with a focus on meeting basic services, improving connectivity, and developing infrastructure including service networks/internet access; (d) guiding and aligning ministries/institutions and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); (e) fulfilling basic services and improving governance in

border districts; (f) accelerating village development in an integrated manner to encourage social, cultural and economic transformation of villages, and (g) implementing affirmative development.

- 2) Strengthening regional growth centers, among others through: (a) developing leading commodities in Papua, namely sago, nutmeg, pepper, cloves, cocoa, coffee, gold, copper, coal, oil, natural gas, and capture fishery; (b) developing fishery centers in Integrated Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing agricultural and plantation production centers that are scattered in several National Priority Rural Areas (KPPN); (d) revitalizing transmigration areas; (e) economic development of leading commodity-based border

regions; (f) processing natural resources, which include plantations, mining, fishery, as well as fertilizer and petrochemical plants in Industrial Estates (KI) and Special Economic Zones; (g) local economic development and empowerment of local entrepreneurs; (h) developing natural, cultural, and historical tourism destinations; (i) developing urban areas and new cities, and (j) developing Economic Potential Areas (KPE) in 7 customary areas (Laa Pago, Saireri, Tabi, Mee Pago, Anim Ha, Bomberay, and Domberay) with due regard to ecological zones and to the preparation of human resources in the context of Industrial Revolution 4.0 through the downstreaming of Papua's economic potentials; and (k) strengthening rural-urban linkages that support regional growth centers

Table 3.5
Scope of Customary Areas and Development Strategies

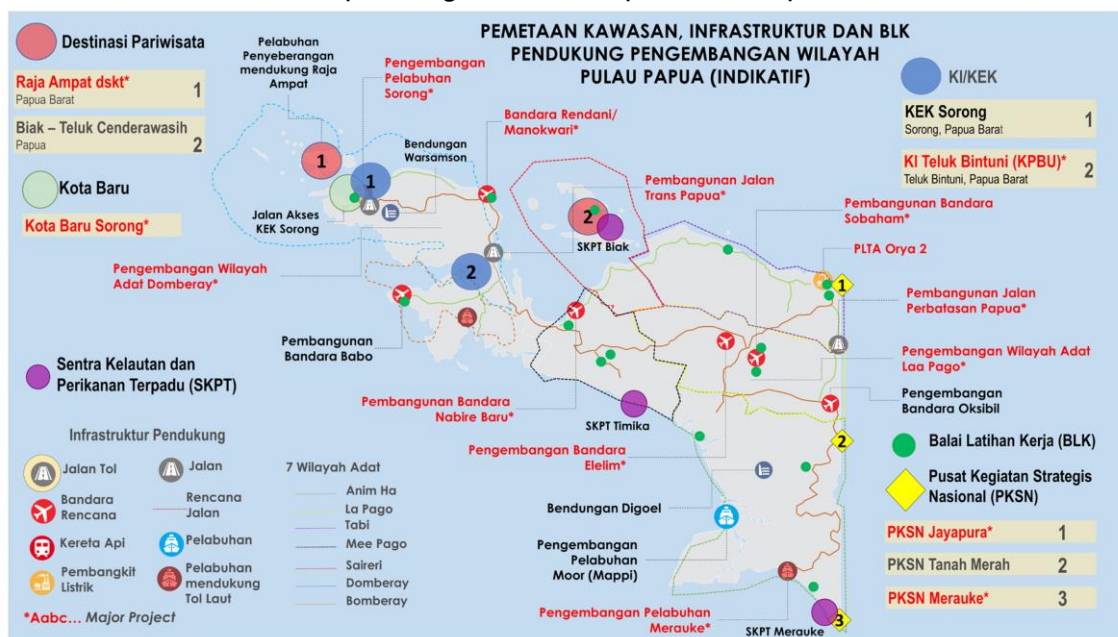
Customary Area	Regency/City	Development Strategies
Laa Pago	Regencies of Puncak, Puncak Jaya, Tolikara, Mamberamo Tengah, Lanny Jaya, Nduga, Jayawijaya, Yalimo, Yahukimo, and Pegunungan Bintang.	The economic development strategy is part of the Laa Pago Indigenous Territory Major Project.
Saireri	Regencies of Supiori, Biak Numfor, Island Region of Yapen, and Waropen.	Downstream fishing industry, fish canning industry, and cultural and marine tourism industries in Padaido Islands and Ambai Islands.
Mamta	City of Jayapura, Regencies of Mamberamo Raya, Sarmi, Jayapura, and Keerom.	Downstream sago, coconut, and cocoa industries, and the development of Lake Sentani tourism and marine tourism.
Mee Pago	Regencies of Nabire, Intan Jaya, Paniai, Dogiyai, Deiyai, and Mimika.	Downstream sago, coconut, and cocoa industries, and the development of Lake Sentani tourism and marine tourism.
Anim Ha	Regencies of Asmat, Merauke, Mappi, and Boven Digoel	Downstream sugar cane, sago, and fishing industries, food industry, and livestock industry.
Bomberay	Regencies of Fak-Fak dan Kaimana	Downstream nutmeg, livestock, and cultural and marine tourism in Teluk Triton.

Customary Area	Regency/City	Development Strategies
Domberay	City of Sorong, Regencies of Sorong, Raja Ampat, Tambrau, Maybrat, Sorong Selatan, Arfak, Manokwari, Manokwari Selatan, Teluk Bintuni, and Teluk Wondama	The economic development strategy is part of the Domberay Indigenous Territory Major Project.

3) The structuring of the implementation of special autonomy laws is carried out, among others through: (a) human resource development, empowerment, and socio-cultural capital of the village communities; (b) strengthening traditional institutions and customary villages, protecting the rights of indigenous people in accordance with applicable laws including customary/communal land rights; (c) increasing the capacity of regional governments; (d) developing and strengthening the district's role as a center for data, information and knowledge; center for basic services; center for community empowerment; center for innovation and

entrepreneurship development; center for natural resource management and the environment; and center for economic growth in the district; (e) developing 7 customary territories; (f) optimizing leading native Papuan human resources in BUMN and ministries/institutions; (g) developing innovation and creativity of young Papuans (Papua Youth Creative Hub); (h) empowering local entrepreneurs; (i) constructing a presidential palace in Jayapura; and (j) regional restructuring in the context of increasing the efficiency and effectiveness of regional governments and accelerating development in Papua.

Figure 3.13
Map of Regional Development in Papua



- 4) Strengthening connectivity is carried out through: (a) constructing roads, seaports, and airports; and (b) developing and strengthening integrated intermodal connectivity via sea, river, land, and air, particularly hubs that serve raw commodities and processed goods.
- 5) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) increasing the resilience in the northern coast of Papua; (c) adapting the people to climate change in disaster-prone areas based on local wisdom, with a primary focus on improving the resilience of watersheds; (d) increasing investment in climate change mitigation and disaster risk reduction, and (e) improving management of coastal abrasion in island areas, and of forest conservation.
- 6) Strengthening the coordination of ministries/institutions in planning, implementing, controlling, and evaluating development in Papua.

B. Direction of Development in Maluku

The development policy for the Maluku Islands in 2020-2024 is directed at optimizing the region's superiority as the nation's fish production center and tourism area that prioritize the island cluster approach. The development policy for Maluku is directed at encouraging economic transformation to become a region that is more advanced with high value-added through accelerating maritime-based economic development, developing industrial processing of plantation products, nickel, and copper; natural gas, and tourism.

The development strategy for Maluku will prioritize equity, growth, implementation of regional autonomy, strengthening connectivity, and mitigating and reducing disaster risks. All are detailed as follows: *)

- 1) Enhancing basic services that include: (a) enhancing the quality of human resources, especially increasing access to education and health services, (b) accelerating the development of disadvantaged areas by focusing on meeting basic services, increasing human resource capacity, and developing the local economy based on leading commodities by utilizing digital technology; (c) guiding and aligning ministries and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); (d) fulfilling basic services and improving governance in border districts; (e) accelerating village development in an integrated manner to encourage social, cultural, and economic transformation of villages; and (f) implementing affirmative development.
- 2) Strengthening regional growth centers through: (a) developing leading commodities in Maluku, namely coconut, pepper, nutmeg, cloves, gold, coal, oil and gas, nickel, and capture fishery; (b) developing fishery centers and fishery processing industries in Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing agricultural and plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (d) revitalizing transmigration areas; (e) economic development of leading

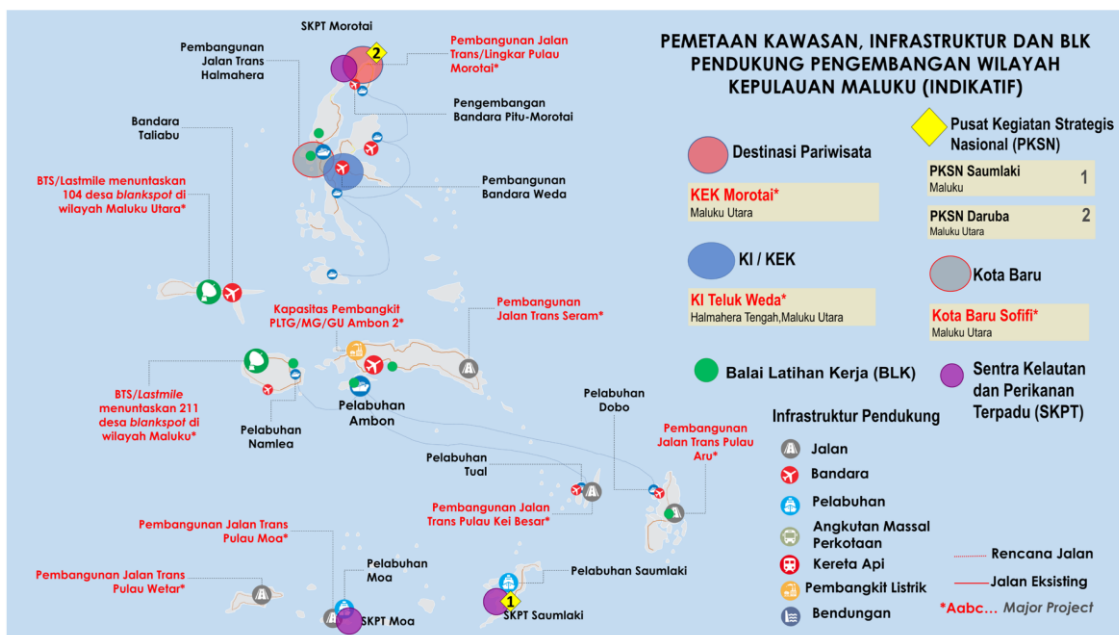
commodity-based border regions; (f) developing strategic areas and natural resource manufacturing in the form of mining; (g) developing natural, cultural, and historical tourism destinations to drive local economic development through the service sector, which is focused on Priority Tourism Destinations (DPP)/Special Economic Zones (KEK); (h) developing urban areas and new cities; and (i) strengthening rural-urban linkages that support regional growth centers; (f) implementing affirmative development.

3) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional governments (institutional, apparatus, and regional finance); (b) developing and

strengthening the role of the sub-district as a center for data, information and knowledge, center for basic services, center for community empowerment, center for innovation and entrepreneurship development, center for natural resource management and the environment, and center for economic growth of the district; and (c) accelerating the application of Minimum Service Standards (SPM), increasing investment licensing services, and expanding cooperation between regions.

4) Strengthening connectivity is carried out through: (a) developing and strengthening integrated intermodal connectivity via sea, river, land, and air; and (b) developing telecommunications and information network.

Figure 3.14
Map of Regional Development in Maluku



5) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) increasing the resilience in the northern and southern regions of the Maluku Islands; (c) adapting the people to climate change

in disaster-prone areas based on local wisdom; (d) increasing investment in climate change mitigation and disaster risk reduction; and (e) improving management of coastal abrasion in coastal and archipelago areas, and of forest conservation.

C. Direction of Development in the Nusa Tenggara Islands

The development policy for Nusa Tenggara in 2020-2024 is directed at optimizing the region's superiority in fishery, plantations, animal husbandry, mining, and tourism, which prioritize the island cluster approach. The development policy for Nusa Tenggara is directed at encouraging economic transformation by strengthening its role as a gateway to ecological tourism through developing the Meeting, Incentive, Convention, Exhibition (MICE) industry; culture-based creative industry; accelerating maritime-based economic development through the development of the fishery, salt, and seaweed industries; developing cattle-based industry and corn plantations; and developing the manganese and copper industries.

The development strategy for Nusa Tenggara will predict equity, growth, implementation of regional autonomy, strengthening connectivity, and mitigating and reducing disaster risks. All are detailed as follows: *)

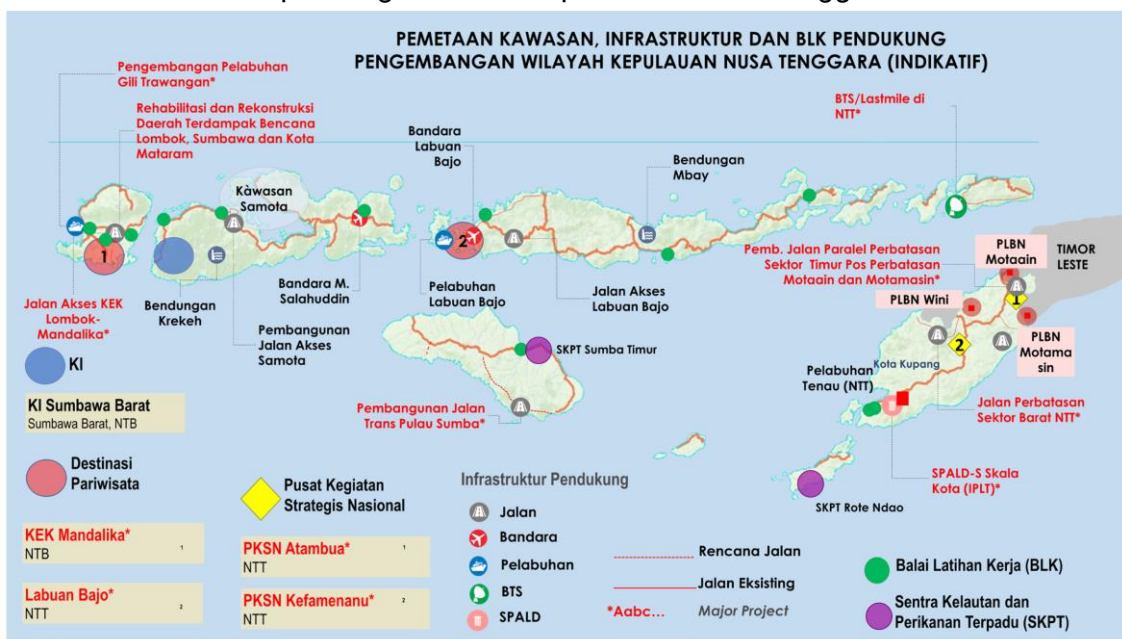
- 1) Enhancing basic services include: (a) enhancing the quality of human resources, especially improving access to education and health services, vocational education in agriculture, mining, fishery, and tourism; and revitalizing vocational training centers; (b) accelerating the development of disadvantaged areas by focusing on meeting basic services, developing a commodity-based local economy using digital technology, and developing infrastructure; (c) guiding and aligning ministries/institutions and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022);
- (d) fulfilling basic services and improving governance in the border districts; (e) accelerating village development in an integrated manner to encourage social, cultural, and economic transformation of villages; and (f) implementing affirmative development.
- 2) Strengthening regional growth centers, among others through: (a) developing leading commodities in Nusa Tenggara, namely pepper, nutmeg, cloves, coffee, coconut, sugar cane, salt, copper, gold, aquaculture, and capture fishery; (b) developing fishery centers and fishery processing industries in Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing livestock and plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (d) revitalizing transmigration areas; (e) economic development of leading commodity-based border regions; (f) developing strategic areas, and natural resource manufacturing in the form of plantations and mining; (g) developing natural, cultural, and historical tourism destinations to drive local economic development through the service sector, which is focused on Priority Tourism Destinations (DPP)/Special Economic Zones (KEK); (h) urban area development; (i) developing new growth centers with a focus on private investment schemes; (j) increasing the role and efficiency of large, medium, and small city services to increase the synergy of urban and rural development; and (k) strengthening rural-urban linkages that support regional growth centers.

- 3) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional government (institutional, apparatus and regional finance); (b) developing and strengthening the role of the sub-district as a center for data, information and knowledge, center for basic services, center for community empowerment, center for innovation and entrepreneurship development, center for natural resource management and the environment, and center for economic growth of the district; and (c) accelerating the application of Minimum Service Standards (SPM), increasing investment licensing services, and expanding cooperation between regions.
- 4) Strengthening connectivity is carried out, among others through: (a) developing and strengthening integrated intermodal connectivity via

sea, river, land, and air; (b) providing trade centers for raw commodities and manufactured goods in Nusa Tenggara; and (c) developing telecommunications and information network.

- 5) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) enhancing the resilience in the northern and southern regions of the Nusa Tenggara Islands and strengthening post-disaster recovery on the island of Lombok and its surroundings; (c) adapting the people to climate change in disaster-prone areas based on local wisdom; (d) increasing investment in climate change mitigation and disaster risk reduction; and (e) improving management of coastal abrasion in coastal and archipelago areas, and of forest conservation.

Figure 3.15
Map of Regional Development in Nusa Tenggara



D. Direction of Development in Sulawesi

The development policy for Sulawesi in 2020-2024 is directed to strengthen Sulawesi's role as one of Indonesia's gateways in international trade and in the region of Eastern Indonesia; develop logistics-based industries; as a national food bowl with the development of cocoa, rice, and maize-based industries; develop rattan, asphalt, nickel, iron ore, and natural gas-based industries; accelerate maritime-based economic development through the development of the fishing industry and marine tourism. The economic transformation in Sulawesi is directed at realizing the downstreaming of agriculture, plantation, fishery, and mining-based industries to create value-added through processing raw materials into semi-finished or finished materials. Sulawesi has a potential of natural disasters, therefore, development plans in Sulawesi need to consider approaches to disaster mitigation and adaptation.

The development strategy for Sulawesi will predict equity, growth, implementation of regional autonomy, strengthening connectivity, and mitigating and reducing disaster risks. All are detailed as follows: *)

- 1) Enhancing basic services include: (a) enhancing the quality of human resources, especially improving access to education and health services, vocational education in agriculture, fishery and tourism; and revitalizing vocational training centers; (b) accelerating the development of underdeveloped regions with a focus on developing local commodity-based economy by utilizing digital technology, fulfilling basic services that pay attention to aspects of disaster mitigation and preparedness; (c) guiding and aligning ministries/institutions and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); (d) fulfilling basic services and improving governance in the border districts; (e) accelerating village development in an integrated manner to encourage social, cultural, and economic transformation of villages; and (f) implementing affirmative development.
- 2) Strengthening growth centers, among others through: (a) developing leading commodities in Sulawesi, namely coconut, palm oil, pepper, cloves, nutmeg, cocoa, coffee, sugar cane, gold, nickel, iron ore, coal, oil and natural gas, capture fishery, and aquaculture; (b) developing fishery production centers in Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing agricultural and plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (d) revitalizing transmigration areas; (e) economic development of leading commodity-based border regions; (f) developing leading commodities and manufacturing (downstreaming) of natural resources (agriculture, plantations, basic metals, and maritime) through the utilization an integration of infrastructure development in special economic zones (KEK) and industrial estates (KI); and (g) developing tourism based priority areas in priority tourism destinations (DPP); (h) developing urban areas including metropolitan areas to drive economic

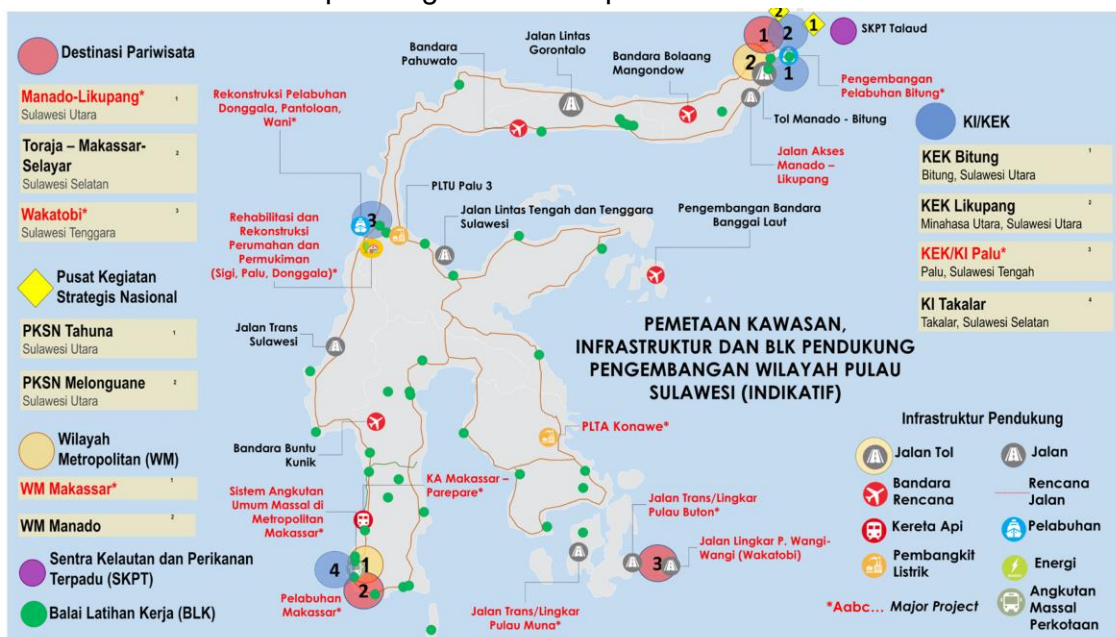
growth in Sulawesi and developing new cities and others; and (i) and strengthening rural-urban linkages that support regional growth centers.

- 3) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional government (institutional, apparatus, and regional finance); (b) developing and strengthening the role of the sub-district as a center for data, information and knowledge, center for basic services, center for community empowerment, center for innovation and entrepreneurship development, center for natural resource management and the environment, and

center for economic growth of the district; (c) accelerating the application of Minimum Service Standards (SPM), increasing investment licensing services, and expanding regional cooperation; and (d) increasing cooperation between autonomous regions in metropolitan areas, including tourism, industrial, and island development areas.

- 4) Strengthening connectivity is carried out, among others through: (a) developing and strengthening integrated intermodal connectivity via sea, river, land, and air; and (b) developing telecommunications and information network;

Figure 3.16
Map of Regional Development in Sulawesi



- 5) Increasing the availability of water through securing ground water and sustainable raw water;
- 6) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the

capacity of the people and officials; (b) increasing the resilience in the Central Sulawesi region and strengthening post-disaster recovery in the City of Palu and its surrounding areas; (c) adapting the people to climate change in disaster-prone areas based on local wisdom; (d)

increasing investment in climate change mitigation and disaster risk reduction; and (e) improving the management of coastal abrasion in coastal areas and on islands, and the management of forest conservation;

- 7) Integrated village development that includes increasing the capacity of village officials to improve good governance, including the utilization of village funds and village asset management; strengthening village facilitators that focus on disadvantaged villages and inclusive

village community participation; determining village boundaries, developing tourist villages, digital villages, and leading products of villages and rural areas; village economic transformation and increasing the role of Village-Owned Enterprises (BUMDes); improving basic services for drinking water, sanitation, and electricity in villages; and utilizing village funds to encourage productive sectors and empower village communities through local village facilitators.

E. Direction of Development in Kalimantan

Kalimantan is known as a national energy source and the lungs of the world, and therefore, the development of Kalimantan in the next five years is directed to maintain the function of the island as the world's lungs (Heart of Borneo) by preserving the area's environmental and ecological assets; improving the conservation and rehabilitation of watersheds, critical lands, protected forests, and production forests; developing a mitigation plan for natural disasters, floods, and forest fires; maintaining its role as a national energy source through the development of coal commodity downstreaming, including the development of renewable energy based on biomass, water, solar power, or in accordance with regional conditions; developing commodity-based industries including palm oil, rubber, bauxite, ores, liquefied natural gas, zircon sand, and quartz sand.

The relocation of the State Capital (IKN) from Java to Kalimantan is expected to help encourage economic diversification

and increase output of non-traditional economic sectors such as services, government, transportation, trade, and manufacturing to sustain the economic growth of Kalimantan. Trade between regions is also expected to rise, which increases employment opportunities and reduces income inequality, as well as creates new investment opportunities and increases the contribution of Kalimantan to the nation.

The development strategy for Kalimantan will predict equity, growth, implementation of regional autonomy, strengthening connectivity, and mitigating and reducing disaster risks. All are detailed as follows: *)

- 1) Enhancing basic services include: (a) enhancing the quality of human resources, especially improving access to education and health services, vocational education in agriculture, fishery and tourism; and revitalizing vocational training centers; (b) guiding and aligning ministries/institutions and other development actors in

disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); (c) fulfilling basic services and improving governance in the border districts; (e) accelerating village development in an integrated manner to encourage social, cultural, and economic transformation of villages; and (f) implementing affirmative development.

- 2) Strengthening regional growth centers, among others through: (a) developing leading commodities in Kalimantan including rubber, palm oil, coconut, pepper, nutmeg, cloves, cocoa, bauxite, gold, petroleum, natural gas, coal, aquaculture, and capture fishery; (b) developing fishery production centers in Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing agricultural and

plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (d) revitalizing transmigration areas; (e) economic development of leading commodity-based border regions; (f) developing leading commodities and manufacturing of (downstreaming) natural resources (plantations and mining) in Industrial Estates (KI) and/or Special Economic Zones (KEK); (g) developing natural, cultural, and historical tourism destinations in Priority Tourism Destinations (DPP); (h) developing urban areas including metropolitan areas to drive economic growth in Kalimantan and developing new cities and others; (i) State Capital development in East Kalimantan; and (j) strengthening rural-urban linkages that support regional growth centers.

Figure 3.17
Map of Regional Development in Kalimantan



- 3) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional government (institutional, apparatus,

and regional finance); (b) developing and strengthening the role of the sub-district as a center for data, information and knowledge, center for basic

services, center for community empowerment, center for innovation and entrepreneurship development, center for natural resource management and the environment, and center for economic growth of the district; and (c) accelerating the application of Minimum Service Standards (SPM), increasing investment licensing services, and expanding cooperation between regions.

- 4) Strengthening connectivity is carried out, among others through: (a) developing and strengthening integrated intermodal connectivity via sea, river, land, and air; and (b)

developing telecommunications and information network;

- 5) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) increasing the resilience in the eastern region of Kalimantan; (c) adapting the people to climate change in disaster-prone areas based on local wisdom; (d) increasing investment in climate change mitigation and disaster risk reduction; and (e) improving management of coastal abrasion in coastal and archipelago areas, and of forest conservation.

F. Direction of Development in Sumatra

Sumatra, which is close to other countries, especially to Asia, is one of Indonesia's gateways in international trade; and plays a role as a national energy source and a national food bowl. Various international cooperation initiatives covering the Sumatra region such as the Indonesia-Malaysia-Thailand Growth Triangle, regional integration (Belt and Road Initiatives), and the ASEAN Economic Community will expand investment, trade, and diversify regional and global markets.

In the next five years, the economic transformation in Sumatra will be directed towards realizing downstreaming of agriculture, fishery, and mining-based industries to create value-added through processing raw materials into semi-finished and finished materials by optimizing the benefits of the construction of the Trans-Sumatra toll road, airports and seaports. In addition, the

development of economic zones along the east coast corridor of Sumatra is directed at the downstreaming of leading commodities and export-oriented growth centers supported by the development of an international hub in Kuala Tanjung as a trading center in the region of Western Indonesia.

The development strategy for Sumatra will prioritize equity, growth, implementation of regional autonomy, strengthening connectivity, and mitigation and disaster risk reduction. All are detailed as follows: *)

- 1) Enhancing basic services include: (a) improving the quality of human resources, especially improving access to education and health services, vocational education in agriculture, fishery and tourism; and revitalizing vocational training centers; (b) accelerating development in disadvantaged areas with a focus on

increasing the capacity of human resources, and fulfilling basic services that pay attention to aspects of disaster mitigation and preparedness; (c) guiding and aligning ministries/institutions and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); (d) fulfilling basic services and improving governance in the border districts; (e) accelerating village development in an integrated manner to encourage social, cultural, and economic transformation of villages; (f) community empowerment and local economic development to encourage the transformation from marijuana-dependent areas into local economic zones as an integrated part of Aceh's development; and (g) implementing affirmative development.

- 2) Strengthening regional growth centers is carried out, among others through: (a) development leading commodities in Sumatra, which include cocoa, coconut, palm oil, rubber, coffee, pepper, nutmeg, sugar cane, gold, tin, petroleum, natural gas, coal, capture fishery, and aquaculture; (b) developing fishery production centers in Marine and Fishery Centers (SKPT)/Fishery Management Areas (WPP); (c) developing agricultural and plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (d) developing strategic areas and the manufacturing of natural resources such as plantations, fishery and mining; and developing the aerospace industry in several Special Economic Zones (KEK) and Industrial Zones (KI), as well as the Free Trade Zones and Ports (KPBPB); (e)

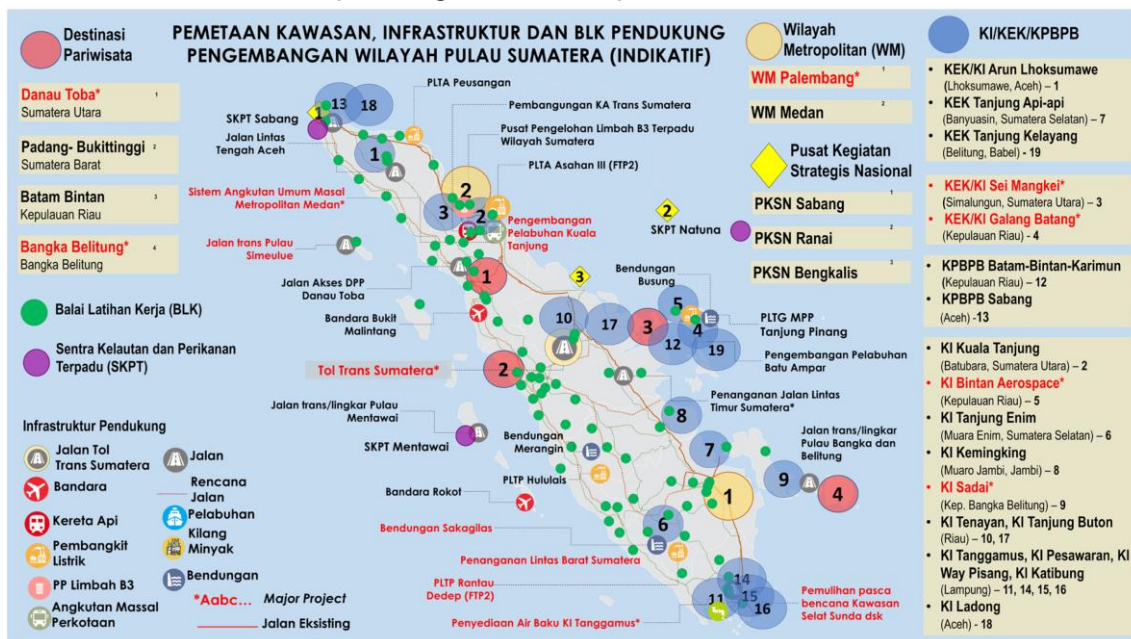
revitalizing transmigration areas; (f) economic development of leading commodity-based border regions; (g) alternative development in Aceh to transform marijuana-dependent areas into local economic zones as an integrated part of regional development; (h) developing regional tourism to drive local economic development in Priority Tourism Destinations (DPP); (i) developing the aerospace industry; (j) developing urban areas including metropolitan areas to drive economic growth in Sumatra and developing new cities and others; and (k) strengthening rural-urban linkages that support regional growth centers.

- 3) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional government (institutional, apparatus, and regional finance); (b) developing and strengthening the role of the sub-district as a data, information and knowledge center, center for basic services; center for community empowerment, center for innovation and entrepreneurship development, center for natural resource and environmental management, and center for economic growth of the district; (c) accelerating the application of Minimum Service Standards (SPM), including sanitation and clean water, as well as waste management; improving investment licensing services, and expanding cooperation between regions; and (d) the management and quality of regional budget funds for specific regions and of the Aceh's Special Autonomy funds can continue to be improved.

4) Strengthening connectivity and quality of urban transportation services integrated with multi-modal network of ports, airports and non-toll road networks, which are carried out, among others through: (a) developing and strengthening integrated intermodal connectivity via sea, river, land, and air; and (b) developing telecommunications and information network; and (c) strengthening the regional logistics system in supporting industrialization, especially in the east coast corridor of Sumatra;

5) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) enhancing the resilience in the west coast of Sumatra and strengthening post-disaster recovery in the Sunda Strait and its surrounding areas; (c) adapting the people to climate change in disaster-prone areas based on local wisdom; (d) increasing investment in climate change mitigation and disaster risk reduction; and (e) improving management of coastal abrasion in coastal areas and on islands, and of forest conservation.

Figure 3.18
Map of Regional Development in Sumatra



G. Direction of Development in Java-Bali

The Java-Bali region is a national center of industry and services, plays a role as a national food bowl, and as one of the gateways to the world's best tourist destinations. In the next five years, the development of the relatively advanced and growing region of Java will be

directed to strengthen its role as a modern economic center and compete at the global level by taking advantage of the manufacturing industry, creative economy and tourism services, producers of end products and export-oriented intermediate products using

advanced technology towards Industry 4.0, and the development of natural, cultural, and MICE-based tourism destinations. The development of Java will rely on the growing role of the private sector with the support of selected government facilitation to ensure an open and efficient investment climate.

In an effort to encourage equitable growth of the region, the transfer of the National Capital (IKN) to Kalimantan will be carried out in stages, supported by the development of metropolitan areas and new cities outside Java. Simultaneously, economic development in Java-Bali will be directed at service-based activities and high-tech industries by considering the carrying capacity of natural resources and the environment to ensure sustainable development.

The development strategy for Java-Bali will predict equity, growth, implementation of regional autonomy, strengthening connectivity, and disaster risk mitigation and reduction. All are detailed as follows: *)

- 1) Moving the central government and the National Capital outside of Java.
- 2) Enhancing basic services include: (a) enhancing the quality of human resources, especially improving access to education and health services, vocational education in agriculture, fishery and tourism; and revitalizing vocational training centers; (b) guiding and aligning ministries/institutions and other development actors in disadvantaged areas that have been uplifted in 2019, for a maximum of 3 years (2020-2022); and (c) accelerating village development in an integrated manner to encourage social, cultural,

and economic transformation of villages.

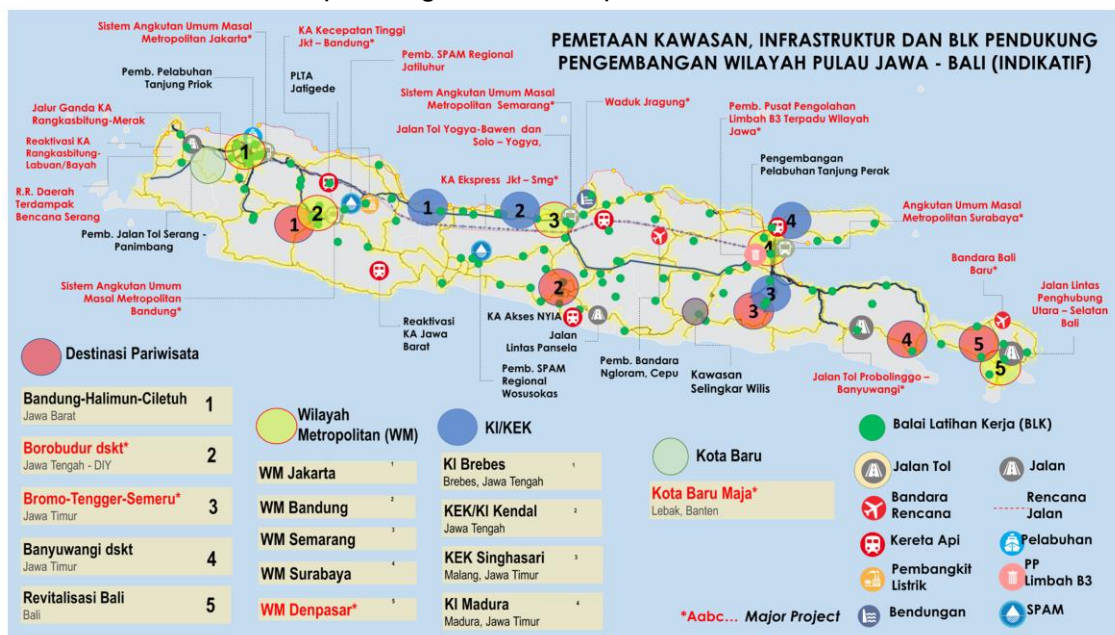
- 3) Maintaining growth in Java-Bali is carried out by: (a) developing leading commodities in Java-Bali, including cloves, pepper, nutmeg, coconut, coffee, sugarcane, cocoa, gold, salt, capture fishery, and aquaculture; (b) developing high-tech industrial sector, creative industries, services, and manufacturing industrial centers in several Special Economic Zones (KEK) and Industrial Estates (KI); (c) developing strategic areas based on natural, cultural, and MICE in several Priority Tourism Destinations (DPP); (d) developing urban areas, through enhancing the quality of metropolitan areas, constructing new cities and others; (e) developing agricultural and plantation production centers, which are scattered in several National Priority Rural Areas (KPPN); (f) developing agropolitan areas; and (g) developing fishery production centers in Fishery Management Areas (WPP).
- 4) The implementation of regional autonomy is carried out through: (a) increasing the capacity of regional government (institutional, apparatus, and regional finance); (b) developing and strengthening the role of the sub-district as a center for data, information and knowledge, center for basic services, center for community empowerment, center for innovation and entrepreneurship development, center for natural resource management and the environment, and center for economic growth of the district; and (c) accelerating the application of Minimum Service Standards (SPM) including sanitation,

clean water, waste management, improving investment licensing services, and expanding cooperation between regions.

- 5) Strengthening connectivity is carried out, among others through: (a) developing and strengthening integrated intermodal connectivity via sea, river, land, and air; (b) developing outlets for raw commodities and processed goods at hub ports; (c) improving the quality of multimodal mass urban transportation services; and (d) developing telecommunications and information network.

- 6) Mainstreaming of disaster management and climate change adaptation is carried out, among others through: (a) increasing the capacity of the people and officials; (b) increasing the resilience in the southern coast of Java-Bali and stabilizing post-disaster recovery in the Sunda Strait and its surrounding areas; (c) adapting the people to climate change in disaster-prone areas based on local wisdom; (d) increasing investment in climate change mitigation and disaster risk reduction; and (e) improving management of coastal abrasion.

Figure 3.19
Map of Regional Development in Java-Bali





CHAPTER IV

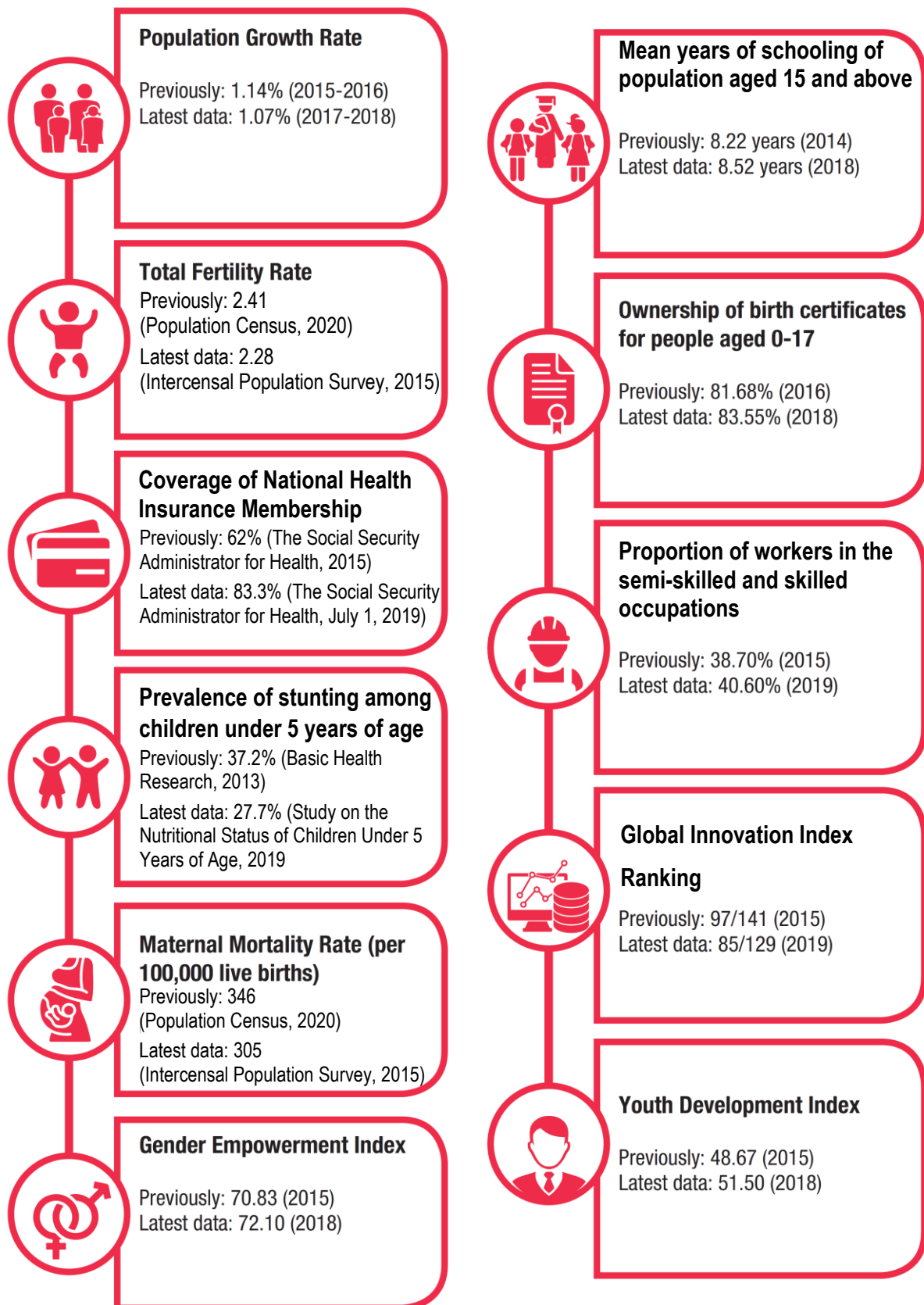
IMPROVING THE QUALITY AND
COMPETITIVENESS OF HUMAN
RESOURCES

Preface

Indonesia's population structure is characterized by a high proportion of population in the productive age group. In 2018, Indonesia's productive age population reached 68.6% or 181.3 million people, with a low dependency ratio of 45.7. This change in the population structure will open up opportunities for Indonesia to get demographic dividend bonuses, which in the medium and long term will encourage high economic growth and elevate Indonesia to become an upper middle-income country. This demographic bonus will be achieved with the main prerequisites being the availability of high-quality and competitive human resources.

Indonesia's development in 2020-2024 is aimed at forming high-quality and competitive human resources, namely human resources that are healthy, intelligent, adaptive, innovative, skilled, and with character. To achieve these objectives, human development policies are directed at population control and strengthening population governance; fulfillment of basic services and social protection; improving the quality of life for children, women, and youth; alleviating poverty; and increasing labor force productivity and competitiveness. The human development policy is carried out based on a life-cycle approach, and inclusively considers the needs of the elderly and residents with disabilities, and the management of talented human resources

Development Achievements in 2015-2019



Environment and Strategic Issues

Population Control and Strengthening Population Governance

Balanced population growth is one of the prerequisites to improve the quality of life for the people of Indonesia. This can be realized through controlling the quantity, increasing the quality, and coordinating population mobility. With balanced population growth, the carrying capacity of the environment can be maintained. This can be achieved by reducing the national average total fertility rate (TFR) to the replacement rate level of 2.1. The population growth rate has declined from 1.49% (Population Census, 2010) to 1.43 (Intercensal Population Survey (SUPAS), 2015). However, the total population increased from 237.6 million in 2010 to 255.2 million in 2015, of which more than 60% of the population were in the productive age group (aged 15-64 years).

The large productive age group must be utilized so that Indonesia can maximize the demographic bonus. If not effectively managed, it can cause high levels of unemployment, social conflict, and pressure on food availability and on the environment. In addition, rapid changes in the age structure of the population may also have implications for the aging population that is no longer productive. Changes in the age structure of the population can contribute to Indonesia's economic growth by taking into consideration human development based on the life-cycle approach. The life-cycle approach includes the first 1,000 days of life, early education, parenting, and character building of children in the family, adolescents, the transition from

school to the working world, newly married adults, and middle-aged to retired adults.

Inequality in economic resources causes uneven population distribution. In 2018, almost 56% of Indonesia's population lives on Java, an island with an area of only about 6% of Indonesia's land mass. Along with the gap in economic opportunities between regions, population mobility in Indonesia is estimated to continue to increase and the flow of migration not evenly distributed. A small number of provinces such as Jakarta and Yogyakarta have positive migration flow, with many settled newcomers. Whereas the many others have negative net migration where many people moved away from their birthplaces, especially in some provinces in Eastern Indonesia.

The rapidly developing telecommunications technology has influenced the pattern of population mobility and enabled long-distance communication and long-distance cooperation (including outsourcing). This not only has an influence on population mobility policies, but also on other related policies. Therefore, the handling of population mobility must ensure equitable distribution of welfare between regions and across many sectors with an accurate and balanced population-mobility approach that considers population patterns per region (both provincial and regency/city).

This can be achieved, among others, by accelerating the expansion of population administration and the use of mobile positioning data (MPD) towards a single population data set that is then used for the formulation of policies related to population and regional planning, and development planning based on population conditions through the Grand Design of Population Development (GPDK).

In the implementation of expanding the scope of basic services and social protection, there are still many issues pertaining to population data collection. Targeting data for both basic services and social protection have been based on the Population Registration Number (NIK). However, there are still many

Social Protection for Every Citizen

Social protection is intended to protect the entire population of Indonesia from economic shocks, social shocks, even shocks due to natural disasters and climate change. Although the welfare of the population has increased, the number of people vulnerable to falling into poverty during these shocks is still quite high. Social protection for poor and vulnerable people is provided through social assistance to reduce their expenditure burden. In addition to social assistance programs, there are also subsidy programs, such as LPG and electricity subsidies aimed at the poor and vulnerable groups. The implementation of social assistance and subsidies will continue to be improved through an integrated and targeted implementation, so that it is more effective and efficient in reducing poverty. Various obstacles, such as

residents who have not reported, updated, or recorded their NIKs, or even do not have a NIK. As a consequence, complete and valid vital statistics as a basis for policymaking have not yet been made available. Coverage of population registration and civil registration still faces challenges in reaching difficult areas, as well as residents of special groups. Population administration services have not yet fully covered the disadvantaged, frontier, and outermost regions (3T). In addition, the population administration has not been fully integrated across sectors. In addition to expanding the scope of basic services and social protection, comprehensive population administration coverage will produce useful vital statistics.

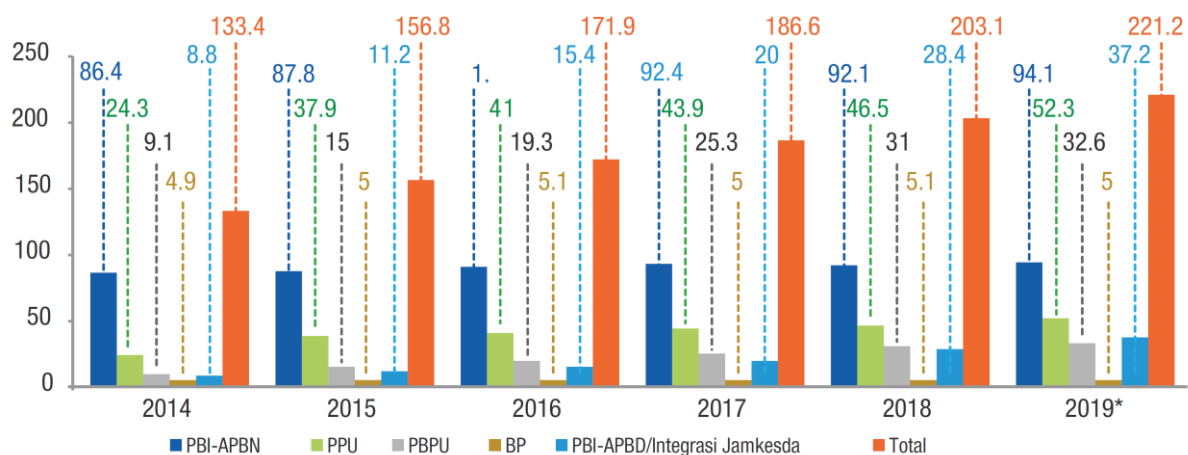
problems in the accuracy and completeness of data and outdated administrative procedures, cause social assistance programs to not be optimally integrated. More comprehensive handling and support by improving data and extending cashless payment distribution to accelerate the integration of social assistance are needed.

In addition to social assistance programs, social protection for residents is run in the form of social security. Social security consists of health insurance and employment-based social security. Employment-based social security includes work accident insurance, life insurance, pension insurance, and old age insurance. Social security programs face various challenges, including: (a) expanding social security participation, especially as the increase in participation

of informal workers or non-wage workers (PBPU) is slowing down; (b) a large number of inactive participants who have stopped paying dues and the low compliance among employers as well as PBPU; (c) regulations on National Health Insurance (JKN) and Employment-Based Social Security lack harmony; (d) the institutional National Social Security System (SJSN) has not been optimal, especially in terms of coordination

between institutions and enforcement of the functions of the National Social Security Board (DJSN); (e) the oversight body's response to violations has not been as strong as expected; (f) actuarial institutions that are needed to estimate and enforce program fiscal sustainability have not been well coordinated and lack of independent institutions; and (g) the monitoring and evaluation system is still partial and lacks integration.

Figure 4.1
JKN Coverage Based on Participant Groups (in million people)



Remarks: PBI: Recipient of contribution assistance; PPU: Wage earner; PBPU: Non-wage earner; BP: Non-worker
Source: BPJS Health.

Apart from the increasingly frequent occurrence of natural disasters and climate change in some places, adaptive social protection has not yet fully developed. The current system has not been able to respond to the needs of residents who are victims of disasters. Therefore, residents in disaster-prone areas are vulnerable to poverty. In addition, people who experience the inevitable effects of climate change lack the ability to adapt to changing livelihoods or production adjustment as a response. Social protection has not yet fully covered certain special groups, including persons with disabilities and the elderly who are vulnerable to poverty.

The welfare of these population groups is still quite vulnerable and has not been fully addressed. The increasing age of the population is closely related to the decrease in intrinsic capacity and functional capabilities. The percentage of elderly people who are unable to carry out daily activities reaches 7.9%, whereas 11.4% do not have the ability to speak, see and hear (Intercensal Population Survey, 2015). In addition, the level of welfare for the elderly remains low, and their poverty level is relatively higher than other age groups. Older people are also vulnerable to violence, crime, fraud, discrimination, and exclusion.

The conditions experienced by the elderly group have also been experienced by persons with disabilities. Based on data from Inter-Census Population Survey (SUPAS) in 2015, 8.56% of the population or around 21.84 million people were people with disabilities, of which 48.5% were people with multiple

Fulfilling Basic Services

Health and education levels have improved, but their effects have not been felt by the entire population. Maternal and infant mortality remains high. The capacity of health workers, maternal referral systems, management of maternal and child health services, as well as reproductive health services have not been running optimally. The use of modern contraception (Contraceptive Prevalence Rate/CPR) decreased from 57.9% (IDHS, 2012) to 57.2 (IDHS, 2017). The adolescent birth rate (Age Specific Fertility Rate/ASFR) aged 15-19 years also remains high due to the low understanding of adolescents about reproductive health, high rate of child marriages, lack of preparation for family life. Parental understanding regarding good parenting, environmental health, and the ability to provide adequate nutrition is also still low, which has led to a high prevalence of stunting.

The prevalence of major communicable diseases (HIV/AIDS, tuberculosis, and malaria) remains high, and is accompanied by the threat of emerging diseases due to high population mobility. Unhealthy lifestyles increase risk factors for diseases such as obesity, high-blood pressure, high rate of smoking, and lack of physical activities, which lead to an increase in non-communicable diseases

disabilities. Persons with disabilities have low levels of participation in various fields such as education and employment, and they also lack access to public facilities and services that put themselves at higher risk of living below the poverty line.

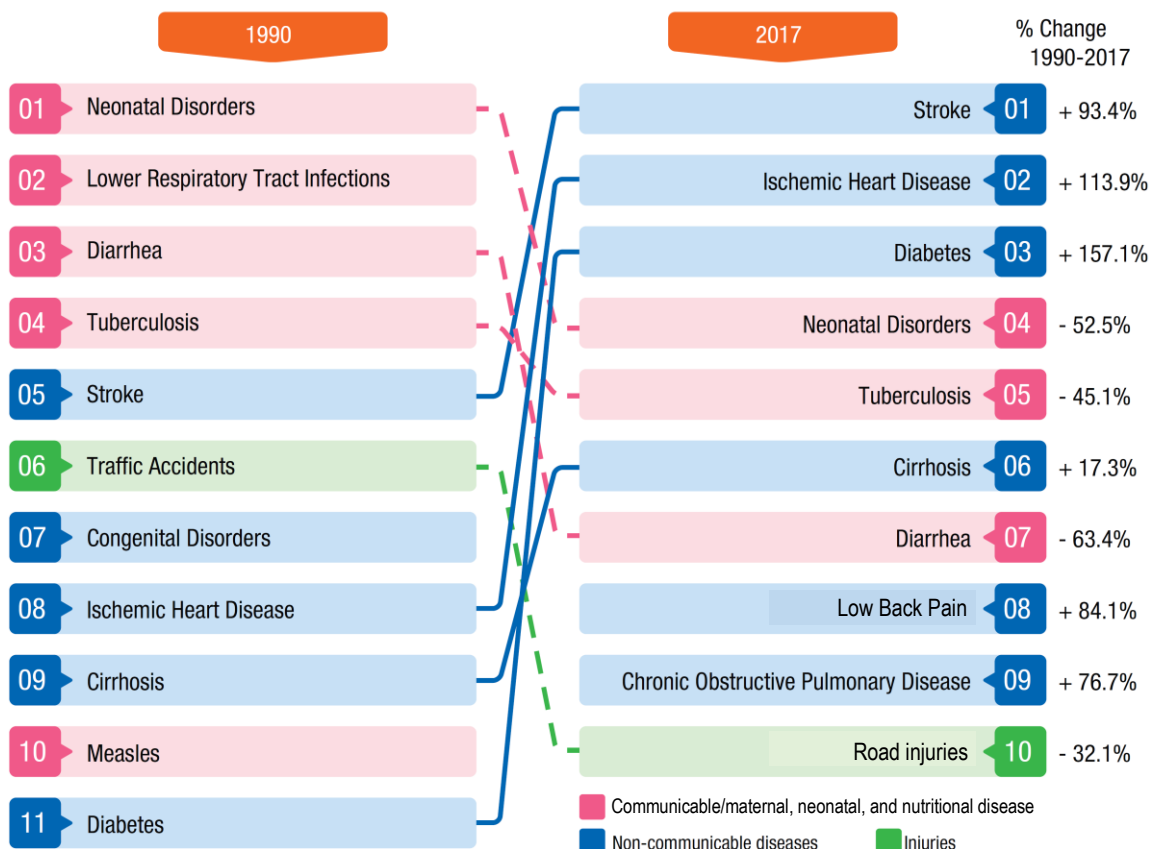
such as stroke, heart disease, and diabetes. Environmental conditions are exacerbated by air pollution, water pollution, bad sanitation, and hazardous and toxic waste (B3) that have not been managed properly. The proportion of households that have access to livable housing is 54.1%, with access to safe drinking water at 87.8%, and proper sanitation at 74.6% (BPS, 2018, compiled by Bappenas in 2019).

The health service referral system is not optimal due to long waiting times for patients. Community health centers (Puskesmas) and private Primary-Level Health Facilities (FKTP) have not been able to optimally function as gate keepers. The issues include: lack of medication and vaccines, and irrational use of drugs still occur; high dependence on imports of raw materials for pharmaceutical preparations and of medical devices; and food and drug control systems that are not optimal. Inequalities in health system performance between regions also remain high, for example, there is low complete basic immunization coverage in the eastern region of Indonesia. Accredited health service facilities and health workers are still focused in Java-Bali and in urban areas.

In education, in 2018, there were 4.4 million children aged 7-18 years who were out of school. Out of school children (OOSC) is due to lack of cross-sectoral efforts in minimizing social, economic, cultural, and geographical barriers, as well as inadequate learning models that are suitable for children with disabilities, street children, neglected children, children facing criminal charges, children in marriage/teenage mothers, and working children/child labor. Education participation at the level of Early Childhood Education (PAUD) and higher

education/university also remains remarkably low at 36.06% and 30.19% respectively (National Socio-Economics Survey (Susenas), 2018). Education disparity between economic groups also remains a problem and is becoming wider as the level of education increases. The gross enrollment ratio (GER) of the poorest 20% of the population compared to the richest 20% at secondary and tertiary levels in 2018 was 0.67 and 0.16, respectively. The education inequality among regions is also still high.

Figure 4.2
Top 10 Disability-Adjusted Life Years/DALYs
in 1990 and 2017 in Indonesia



Source: *Global Burden of Disease*, 2017.

Quality learning has also not been running optimally and evenly between regions. The efforts made have not been

able to improve the quality of learning that fosters higher order thinking skills. The results of the Program for

International Student Assessment (PISA) showed that the proportion of students who were above the minimum standards

of competence in mathematics, science, and literacy, in the 2006-2018 period, still showed low development.

Figure 4.3
Disparities in Education Levels Among Regions by the Average Years of Schooling of Persons 15 Years and Above by Province in 2018



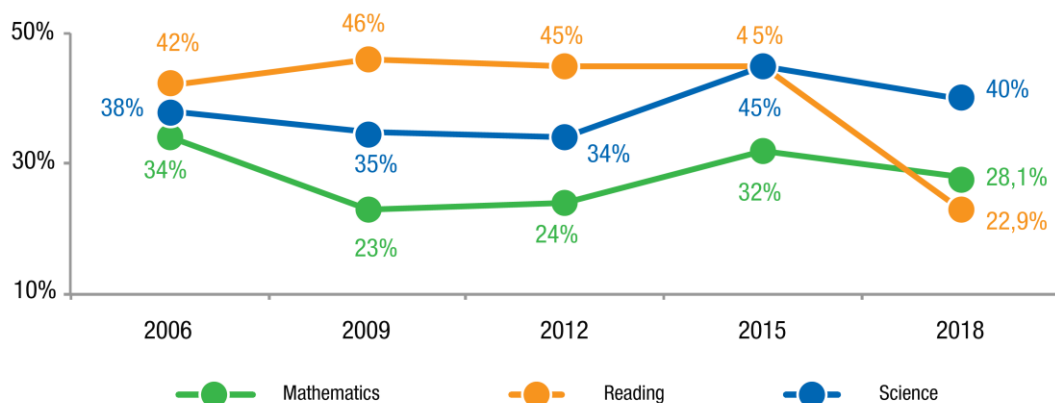
Source: Susenas BPS.

Source: National Socio-Economics Survey, BPS.

The PISA 2018 results also showed that the proportion of students who were above the minimum standard of

competence in mathematics was far lower than other countries in the ASEAN region.

Figure 4.4
Proportion of 9th Grade Children Above Minimum Standards of Competence in Mathematics, Science, and Reading on the PISA Test

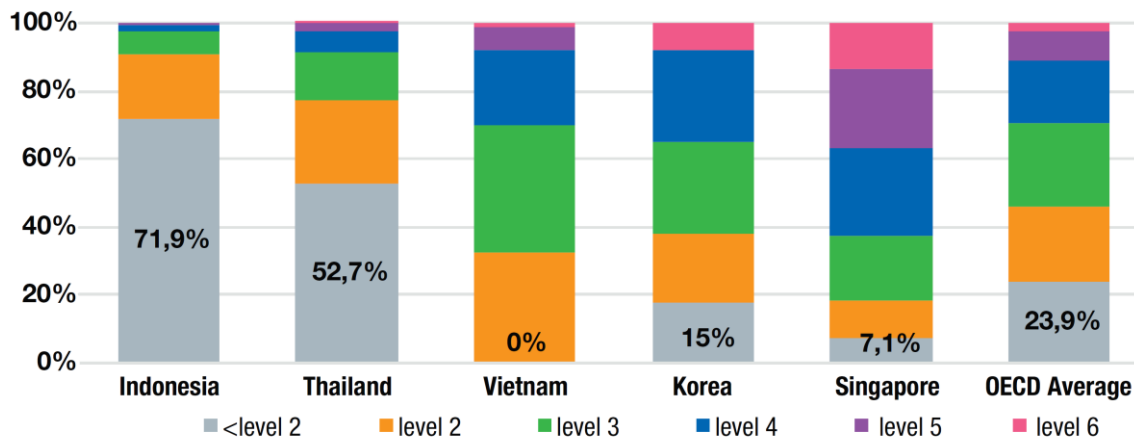


Source: PISA, 2018

In addition, the results of the Competency Assessment for Indonesian Students (AKSI) showed that student competencies in various regions were still far behind. This was indicated by the low number of students who reach the

minimum competency limit, such as in West Sulawesi for reading (20.92%), Maluku for mathematics (12.19%), and Gorontalo for science (13.52%). The quality of educators was a major factor that influences the quality of learning.

Figure 4.5
Comparison Among Several Countries Regarding the Proportion of Children Below Minimum Standards of Competence in Mathematics on the PISA Test



Source: PISA, 2018.

The results of the Teacher Competency Test (UKG) in 2015 showed an average score of 53.02, lower than the minimum competency standard of 60.0. Meanwhile, at the tertiary level, only 14.1% of 290,687 lecturers had doctoral degrees (Ministry of Research and Technology, 2018).

The quality gap among higher education institutions is a crucial problem in Indonesia. The large number of tertiary institutions, namely 4,650 institutions, has caused governance efforts in tertiary education to not run optimally. The issue of quality is also closely related to the

unrealized differentiation of the mission of tertiary institutions in carrying out the three pillars of higher education, which are teaching, research, and community service. At this time, universities have not been focused on carrying out these three functions, whether as a research university that emphasizes aspects of knowledge production through multi-disciplinary and cross-disciplinary research; as a teaching university that focuses on learning and community service, or as a vocational university that emphasizes partnership with industries and preparation of skilled graduates.

Improving the Quality of Children, Women, and Youth

Interventions based on needs that are appropriate to the stage of life and individual characteristics are needed in realizing qualified and competitive human resources. Children, women, and youth are the group of population with specific characteristics, so different approaches are needed to ensure their quality of lives. Right fulfillment and special protection for children are important to guarantee that

they get optimal development and are protected from abuse, discrimination, and exploitation. Gender equality, empowerment, and protection of women are important factors to ensure the meaningful involvement of women in development. Meanwhile, youth development carries importance for the sustainability of a nation because the youth are the recipients of the national

leadership baton and one of the determinants of optimizing demographic bonuses.

Right fulfillment and special protection of children, gender equality improvement and women protection, as well as youth development have not been optimal. The Child Protection Index, which measures the fulfillment of rights and special protection of children, only reached 62.7 in 2018. The fulfillment of children's rights under certain conditions still requires considerable effort. There were still around 59.2% of children in prison who did not have access to education (Ministry of Law and Human Rights, 2019) and 16.4% of children did not have birth certificates (National Socio-Economics Survey (Susenas), 2018). In addition, acts of violence against children still occur. In 2018, there were around 61.7% of boys and 62% of girls aged 13-17 who had experienced violence throughout their lives (SNPHAR, 2018), and around 7.05% of children aged 10-17

years who had been engaged in child labor (National Labour Force Survey (Sakernas), 2018). In addition, around 23% of students had been involved in fights (SNKBS, 2015), 11.21% of women aged 20-24 years married before the age of 18 (National Socio-Economics Survey (Susenas), 2018), and increasing report of children involvement in cybercrime from 608 cases in in 2017 to 679 cases in 2018 (KPAI). Meanwhile, childcare has also not been optimal, it reflected from around 3.73% of infants received inadequate care, and around 4.84% of children did not live with their parents (National Socio-Economics Survey, 2018). Furthermore, risk behaviors need to be addressed as early as possible to prevent long-term impacts on children. Recent data showed that there were around 4.71% of children aged 5-17 years who had smoked cigarettes (National Socio-Economics Survey and Basic Health Survey, 2018) and around 1.9% of students under the age of 15 who had used narcotics in the past year (SPPGN, 2016).



**4.71 % of children aged
5-17 years smoked**

National Socio-Economics Survey
& Basic Health Research, 2018



**1.9% of students under the age
15 years**

used narcotics
(SPPGN, 2016)

Gender disparities in various fields of development are still relatively high and institutional gender mainstreaming has not been effective. The Gender Development Index (IPG) and Gender

Empowerment Index (IDG) in 2018 only reached 90.99 and 72.10, respectively. Indonesia ranked 104th out of 162 countries in the Gender Inequality Index and is the third lowest country in ASEAN.

The female labor force participation rate (FLPR) has only reached 51.89% compared to that of men at 83.13% (National Labour Force Survey, August 2019). The participation of women in formal employment is also still remarkably low at 34.22% compared to that of men, which reached 65.78% (National Labour Force Survey, August 2018). Furthermore, the implementation of the gender mainstreaming strategy faces various challenges, including the implementation of policies; analytical

tools; political commitment and support for gender equality; low and varied understanding of gender concepts, issues, and benefits of gender mainstreaming in development, especially in provinces, regency/cities, and villages; and institutional capacity in implementing gender mainstreaming, especially inadequate human resources, as well as the provision and utilization of gender-disaggregated data in each stage of development.



Violence against women continues to rise with an increasingly diverse spectrum. The results of the 2016 National Women's Life Experience Survey (SPHPN) showed that 1 in 3 women aged 15-64 years had experienced physical violence during their lives. The number of cases of violence against women, reported in 2018, increased by 14% compared to 2019, from 348,466 cases to 406,178 cases. Of this number, 71% is domestic violence, whereas 28% is communal violence such as rape, sexual abuse, and sexual violence. Within the scope of domestic violence, incest is the most common form of sexual violence, and girls are particularly vulnerable to

becoming victims. Incest is often not revealed and difficult to report because the perpetrator is often the person closest to the victim. Women are also increasingly vulnerable to violence in emergency and disaster situations. In addition, violence against women migrant workers also continues from departure to transit and repatriation (National Commission for Women, 2019). The number of cases of trafficking in persons remains high with an increasingly complex modus operandi. The number of trafficking victims in 2018 reached 297 people of which 70% were women and girls (Criminal Investigation Board, The Indonesian National Police, 2019).

Furthermore, technological developments also open up opportunities for the occurrence of cases of online gender-based violence where most of the victims are women. Throughout 2017, there were 65 cases of online gender-based violence in various forms, including cyber grooming, cyber harassment, hacking, distribution of illegal content, infringement of privacy, malicious distribution of personal photos/videos, online defamation, and online recruitment.

The role and participation of youth in development has also not been optimal. Only 6.7% of youth gave advice/opinions

Alleviating Poverty

In the past decade, Indonesia's economy has achieved positive growth. However, the growth elasticity of poverty has fallen, hence the rate of poverty reduction tends to slow down. This happens partly because the economic sector that experiences quite high growth, such as the financial and service sectors, is not the mainstay for the livelihoods of the poor and vulnerable. For example, the agricultural sector, which is the basis of the livelihood of the majority of the workforce, especially the poor, has low productivity, and the contribution to the GRDP tends to decline. As many as 49.8% of heads of the family from poor and vulnerable groups worked in the agricultural sector, and 13.4% worked in the trade and accommodation sectors (National Socio-Economics Survey, 2018). On the other hand, the average income in these sectors was among the lowest. The average income in the agricultural sector was IDR 743,399 per month, whereas that in trade and

in meetings and only 6.4% actively involved in organizational activities (National Socio-Economics Survey, 2018). Some youths tend to have risky behaviors that result in injury, illness, and lack of productivity. As many as 26.3% of youth have smoked (National Socio-Economics Survey, 2017). Drug abuse involving youth under the age of 30 was higher than that over 30, which was 3.0% compared to 2.8% (National Narcotics Board, 2017). A total of 63.8% of new HIV infections occurred in the age range of 15-19 years and around 56.5% occurred in youth with an age range of 20-24 years (Ministry of Health, 2018).

accommodation was IDR 1,218,955 per month (National Labour Force Survey, 2017). The low productivity in these sectors was due to the lack of ownership of productive assets, lack of access to finance, and lack of knowledge and skills. Only 25.6% of poor and vulnerable households had access to financial services (National Socio-Economics Survey, 2018). In addition to the lack of funding in accordance with the business profile of the poor and vulnerable groups, it is also necessary to develop a funding scheme for businesses with activities that have social impacts. In terms of economic independence, the poor and vulnerable groups still find it difficult to compete in productive businesses because of low competitiveness, limited access to markets to sell products, limited business collaboration, and unsatisfactory collaboration between business intermediaries.

At present, there are two policy frameworks for poverty alleviation, namely the macro and micro policy frameworks. Within the framework of macro policies, the government needs to continue to maintain inflation stability, create inclusive economic growth, create productive employment, maintain the investment climate and trade regulations, increase the productivity of the agricultural sector, and develop infrastructure in disadvantaged regions. Whereas in the micro framework, efforts to reduce poverty are grouped into two main strategies, namely the improvement of social assistance policies that aim to reduce the burden of spending and

increase the income of the poor and vulnerable groups through productive economic programs. This second strategy needs to be developed by the government in an effort to make the poor and vulnerable groups more productive and economically empowered, so that they do not continue to depend on government assistance. In addition, the government is seeking funding for community initiatives that have been proven to have socio-economic impacts. In the medium term, the combination of these various schemes is expected to encourage upward mobility from the vulnerable group to middle income category.

Increasing Productivity and Competitiveness

Indonesia's human productivity and competitiveness still need to be improved. Based on the World Economic Forum (WEF) Global Human Capital Index in 2017, Indonesia ranked 65th out of 130 countries, lagging behind Malaysia (ranked 33rd), Thailand (ranked 40th), and Vietnam (ranked 64th). Although Indonesian labor productivity has increased, from 81.9 million rupiah/person in 2017 to 84.07 million rupiah/person in 2018, it was still lagging behind compared to Singapore and Malaysia. In addition, only 0.6% of Indonesia's GDP growth of 4.9% in 2017 came from Total Factor Productivity (TFP). The remaining of economic growth came from capital resources (2.8%) and human capital (1.5%).

The needs of skilled, creative, innovative, and adaptive workforce is still prominent. The low quality of labor that has not responded to the development of labor market needs is one of the reasons why

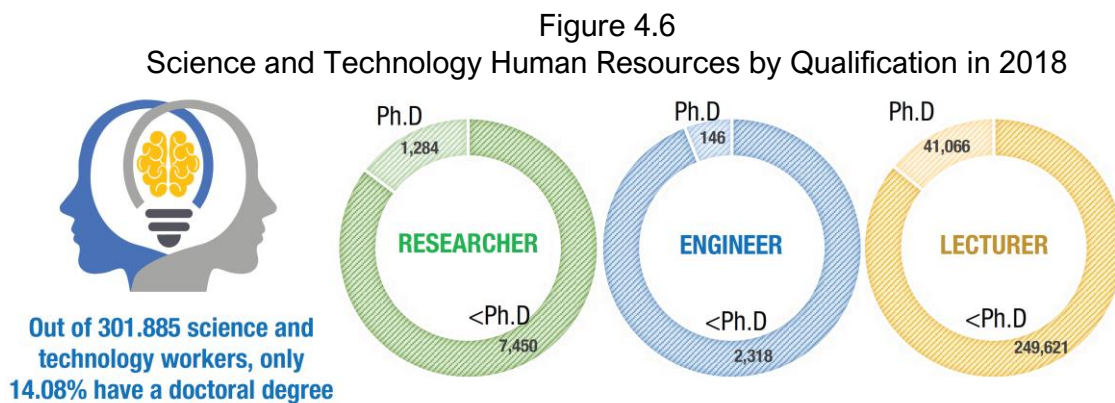
Indonesia's productivity and competitiveness are still lagging behind. Recent data indicated that, the proportion of workers in semi-skilled and skilled occupations in Indonesia was only around 40.60% (National Labour Force Survey, August 2019), lower than other ASEAN countries. Meanwhile, the workforce was still dominated by junior high school graduates and under (57.54% or 72.79 million people), whereas the open unemployment rate of secondary and tertiary education graduates reached 8.01%. Unreliable job market information and low industry engagement cause discord between the provision of education services, including vocational education and training, and the needs of the labor market.

Study programs offered by universities have not responded to the needs of market(s) and industry(ies). Currently, the vast majority of university students and graduates study social sciences and

humanities, while those majoring science and engineering remain limited.. Efforts to improve the quality of vocational education and training have not yet been fully supported by adequate and quality learning facilities, productive educators, apprenticeships, and work practices. Moreover, the capacity of competency certification is still limited, and students in their learning practices have not been equipped with soft skills in support of employability, such as critical thinking and analytical skills, innovation, leadership, negotiation, teamwork, and foreign languages.

The capability for science and technology adoption and innovation in Indonesia is still low. Indonesia was ranked 85th out of 129 countries with a Global Innovation

Index (GII) having score of 29.72 on a scale of 0-100 (2019). This is due to the low research and development (R&D) expenditure against the GDP, low number of patents, and low number of scientific and technical publications at the global level. In addition, R&D infrastructure is still limited. The number of science and technology human resources is still limited, and only 14.08% of them hold a doctoral degree. The innovation ecosystem does not fully exist, so the downstream process and the commercialization of R&D results are hampered. The triple-helix collaboration has not been supported by adequate capacity of universities as sources of technological innovation or centers of excellence.



Higher education institutions have not been focused on developing distinct fields of excellence, and still partly connect to research collaboration network, between universities and research centers in the country and abroad. In terms of research productivity, the number publications by lecturers in international journals has increased, but the quality still needs to be improved. The number of international publications that is citable in 2018 has only reached

31,708 (ranked 22nd out of 233 countries).

Although the number of patents granted continues to increase and reached 991 patents in 2019, the number of patent registration applications from Indonesian citizens is still low and fluctuates every year. To encourage economic productivity through technological innovation, it is necessary to build an innovation ecosystem that is supported

by a commitment to increase national research and department spending.

Sports achievements are also an indicator of Indonesia's human resource competitiveness. However, the sports achievements in Indonesia are still lagging behind and are not yet supported by a good sports culture. Indonesia was a successful host at the 2018 Asian Games and managed to take 4th place compared to 17th place at the 2014 Asian Games. However, at the world level, Indonesia was only able to win one gold medal at

the 2016 Olympics in Brazil. The stagnating sports culture in Indonesia is reflected by the number of residents aged 10 and above who had done sports during the past week at 31.39% in 2018, a slight increase from 27.61% in 2015 (MSBP-BPS). Development of sports culture needs to be pursued through sports promotion to develop community awareness in improving health, fitness, happiness, and social relations.

Table 4.1
Growth of the Number of Patent Registration and Patents Granted in 2015-2019

Indicator	Year				
	2015	2016	2017	2018	2019*
1 Patent registrations	1244	1391	1777	1362	760
2 Number of granted patents	233	399	568	790	991
3 Granted patents based on year of registration:					
2019					17
2018				27	276
2017			17	169	253
2016		9	66	141	129
2015	0	13	85	138	131
2014	9	34	80	82	65
2013	23	95	87	95	53
2012	28	78	57	66	25
2011	51	71	63	31	21
2010	45	49	51	14	9
2009	26	20	23	9	2
2008	19	15	18	7	3

*) As of October 18, 2019

Source: <https://pdki-indonesia.dgip.go.id> [accessed October 18, 2019].

Having counterparts is an important factor in achieving development goals, especially when it comes to programs that are oriented to improving the quality of human life. Various development programs have placed counterparts in various fields, such as extension workers, facilitators, agricultural consultants, and other counterparts who have been the key to the success of capacity building

and community welfare in various regions to this day. This type of assistance still faces challenges, especially related to competence, both as a process guide and as a tool giver. More systematic efforts are needed to strengthen development assistance so that various programs implemented by the government, business world, and society

become more efficient, effective, and help achieve the expected goals.

In addition to fostering leading domestic talent, the talent management system will harness Indonesia's exceptionally talented diaspora currently working abroad. Based on data from the Ministry

of Foreign Affairs, as of July 2019, there were around 8,828 Indonesian citizens working abroad in high-skilled professions in various fields such as mining and oil, law, manufacturing, aviation, education, information technology, fashion industry, and cultural arts.

Objectives, Indicators, and Targets

No	Indicators	Baseline 2019	Target 2024
1. Controlled population growth and strengthened population management			
1	Total fertility rate	2.28 (Intercensal Population Survey, 2015)	2.10
2	Percentage of the Population Registration Number (NIK) card ownership	96	100
	Percentage of birth certificate ownership aged 0-17 years	83.55	100
	Percentage of death certificate ownership	N/A	100
	Percentage of marriage certificate ownership	N/A	100
	Percentage of divorce certificate ownership	N/A	100
	Cause of death	Not yet implemented	100
3	Percentage of regions that provide integrated poverty reduction services (%)	35	100
4	Percentage of provinces/regencies/cities utilizing an integrated unit planning, budgeting, and monitoring system evaluation in the process of preparing poverty reduction programs (%)	16	100
5	Percentage of regions that are actively updating their poverty alleviation integrated data (%)	15	100
2. Increased social protection for the entire population			
1	Percentage of population covered by social protection programs:		
	a. Proportion of population covered by social security programs (%)	78.7	98
	b. Proportion of poor and vulnerable households receiving government social assistance (%)	65.2 (National Socio-Economics Survey, 2018)	80
2	Coverage of recipients who receive cashless social assistance and targeted subsidies:		
	a. Conditional assistance for families for health and education (million family)	10	10
	b. Food assistance through the Staple Foods Program (million family)	15.6	15.6
	c. 3 kg LPG aid (million household)	31.4	31.4

No	Indicators	Baseline 2019	Target 2024
	d. 450 VA and 900 VA electricity aid (million household)	31.4	31.4
3	Coverage of Premium Assistance Beneficiaries (PBI) from the National Health Insurance from the bottom 40 percent of the population (million)	96.8 (December 2019)	112.9
4	Percentage of elderly residents who have no difficulty in doing activities (%)	92.1 (Intercensal Population Survey, 2015)	94
5	Percentage of elderly residents who have no difficulty seeing, reading, and hearing (%)	88.6 (Intercensal Population Survey, 2015)	90
6	Coverage of National Health Insurance (JKN) membership (%)	84.1 (December 2019)	98
7	Coverage of Social Security Administration for Employment (BPJS-TK) membership		
	a. Formal workers (%)	40	>30
	b. Informal workers (%)	5	>30
8	Total coverage of Premium Assistance Beneficiaries (PBI) from the Workers' Social Security (million workers)	N/A	20
9	Percentage of central and regional agencies that adopt adaptive social protection systems (%)	0	30
10	Social Functioning Index score of persons with disabilities	0.34	0.41
11	Social Functioning Index score of the elderly	0.26	0.34
12	Social Functioning Index score of children	0.34	0.41
13	Social Functioning Index score of victims of drug abuse	0.34	0.41
14	Social Functioning Index score of the socially disadvantaged and victims of trafficking	0.34	0.41
15	Percentage of households with elderly who receive social assistance (%)	18.9	25
16	Percentage of children with school-age disabilities who have access to basic education services (%)	37.5	50
17	Percentage of local governments applying inclusive district/city principles (%)	2.7	20
3. The fulfillment of basic services			
1	Maternal mortality rate (per 100,000 live births)	305 (Intercensal Population Survey, 2015)	183
2	Infant mortality rate (per 1,000 live births)	24 (IDHS, 2017)	16
3	Modern Contraceptive Prevalence Rate (mCPR) (%)	57.2 (IDHS, 2017)	63.4
4	Percentage of unmet need for family planning (%)	10.6 (IDHS, 2017)	7.4

No	Indicators	Baseline 2019	Target 2024
5	Age Specific Fertility Rate/ASFR (ages 15-19 years)	36 (IDHS, 2017)	18
6	Stunting prevalence (short height and very short height) among children under 5 years of age (%)	27.7 (Study on the Nutritional Status of Children Under 5 Years of Age (SSGB), 2019)	14
7	Wasting prevalence (thin and very thin) among children under 5 years of age (%)	10.2 (Basic Health Survey, 2018)	7
8	Incidence of HIV (per 1,000 people not infected with HIV)	0.24 (MoH, 2018)	0.18
9	Incidence of tuberculosis (per 100,000 people)	319 (Global Tuberculosis Report, 2017)	190
10	Malaria elimination (district/city)	285 (MoH, 2018)	405
11	Percentage of smokers aged 10-18 years (%)	9.1 (Basic Health Survey, 2018)	8.7
12	Prevalence of obesity in people aged > 18 years (%)	21.8 (Basic Health Survey, 2018)	21.8
13	Percentage of completed basic immunization in children aged 12-23 months (%)	57.9 (Basic Health Survey, 2018)	90
14	Percentage of first-level accredited health facilities (%)	40 (MoH, 2018)	100
15	Percentage of accredited hospitals (%)	63 (MoH, 2018)	100
16	Percentage of health centers with appropriate types of health workers (%)	23 (MoH, 2018)	83
17	Percentage of health centers without a doctor (%)	12 (MoH, 2019)	0
18	Percentage of health centers providing essential drugs (%)	86 (MoH, 2018)	96
19	Percentage of approved drugs (%)	78.6 (National Agency of Drug and Food Control, 2019)	92.3
20	Percentage of approved food products (%)	76 (National Agency of Drug and Food Control, 2019)	86
21	Mean years of schooling of population aged 15 and above	8.52 years (National Socio-Economics Survey, 2018)	9.18
22	Expected years of schooling	12.92 years (National Socio-	13.89

No	Indicators	Baseline 2019	Target 2024
		Economics Survey, 2018)	
23	Educational completion rate (%)		
	a. Elementary school equivalent	91.80 (National Socio-Economics Survey, 2018)	94.78
	b. Junior high school equivalent	81.70 (National Socio-Economics Survey, 2018)	89.49
	c. High school equivalent	61.52 (National Socio-Economics Survey, 2018)	76.47
24	Gross enrolment rate for tertiary education (%)	30.19 (National Socio-Economics Survey, 2018)	37.63
25	Children in 1st grade of elementary school who have attended early childhood education (%)	63.34 (National Socio-Economics Survey, 2018)	72.77
26	Gross enrolment ratio between the poorest 20% and richest 20%		
	a. High school equivalent	0.67 (National Socio-Economics Survey, 2018)	0.78
	b. Tertiary level education	0.16 (National Socio-Economics Survey, 2018)	0.23
27	PISA score:		
	a. Reading	371	396
	b. Mathematics	379	388
	c. Science	396	402
28	Proportion of children above the minimum competency standards on the PISA test (%):		
	a. Reading	30.1	34.1
	b. Mathematics	28.1	30.9
	c. Science	40.0	44.0
29	Proportion of children above the minimum competency in the competency assessment (%):		
	a. Literacy	53.2	61.2
	b. Numeration	22.9	30.1
4. Improving the quality of life for children, women, and youth			
1	Child Protection Index (IPA)	62.72 (2018)	73.49

No	Indicators	Baseline 2019	Target 2024
2	Proportion of women aged 20-24 years who married before 18 years of age	11.21 (National Socio-Economics Survey, 2018)	8.74
3	Prevalence of children aged 13-17 who have experienced violence throughout their lives (%)	Men: 61.7 Women: 62 (SNPHAR, 2018)	Decreasing
4	Gender Development Index (IPG)	90.99 (2018)	91.39
5	Gender Empowerment Index (IDG)	72.10 (2018)	74.18
6	Female Labor Force Participation Rate (TPAK)	51.89	55.00
7	Prevalence of violence against women aged 15-64 years in the last 12 months (%)	9.40 (SPHPN, 2016)	Decreasing
8	Youth Development Index	51.50 (2018)	57.67
5. Realized poverty alleviation			
1	Percentage of poor and vulnerable households with productive assets (financial services, capital, land, training) (%)	27.9	40
2	Percentage of poor and vulnerable households with access to business funding (%)	25.6	50
3	Total area managed by the people/communities (million ha)	5.5	12.1
4	Total area of redistributed land within the framework of Agrarian Reform (cumulative) (ha)	553,140	3,946,860
5	Total area of legalized land within the framework of Agrarian Reform (cumulative) (ha)	0	4,500,000
6	Total area of forest released for TORA (million ha)	1.5	4.1
7	Forest area managed by the forest communities, and forestry partnership schemes (million ha)	4	8
8	Number of independent forest farmer groups	100	500*
6. Increased Productivity and Competitiveness			
1	Percentage of workforce with a secondary education degree or higher (%)	43.72 (National Labour Force Survey, 2019)	49.8
2	Proportion of workers in the semi-skilled and skilled occupations	40.60 (National Labour Force Survey, 2019)	43.1
3	Percentage of vocational education graduates who obtained a job in the first year after graduation (%)	46.60 (National Labour Force Survey, 2019)	52.6
4	Number of vocational training graduates (million)	0.78 (13 line ministries, 2018)	2.8
5	Percentage of tertiary education graduates who obtained a job in the first year after graduation (%)	64.3 (National Labour Force Survey, 2019)	66.7
6	Number of higher education institutions listed on the World Class University Ranking		
	a. Top 200	N/A	1 (UI)
	b. Top 300	1 (UI)	2 (ITB and UGM)

No	Indicators	Baseline 2019	Target 2024
	c. Top 500	2 (ITB and UGM)	3 (IPB, Unair, and Unpad)
7	Number of scientific publications and citations in international journals		
	a. Number of international publications	14,606 (Ministry of Research, Technology, and Higher Education/MORTHE, 2018)	31,159
	b. Number of citations in international journals	38,586 (MORTHE, 2018)	59,770
8	Number of prototypes from universities	94 (MORTHE, 2017)	304
9	Number of registered intellectual property rights from the university's R&D	762 (MORTHE, 2017)	1,812
10	Number of innovative products from fostered technology-based starter company tenants	143 (MORTHE, 2018)	700
11	The number of innovative products utilized by industry/business entities	52 (MORTHE, 2018)	210
12	Patent application that fulfils administrative requirements with respect to intellectual property (domestic)	1,362 (MORTHE, 2018)	3,000
13	Number of patents granted (domestic)	790 (MORTHE, 2018)	1,000
14	Percentage of science and technology human resources holding a doctoral degree	14.08 (MORTHE, Indonesian Institute of Science/LIPI, Agency of Assessment and Application of Technology/BPPT)	20*
15	Established S&T Centre of Excellence	81 (MORTHE, 2018)	138*
16	Number of accredited R&D institutions (active)	48 (National Committee of Accreditation for R&D Institution/ KNAPP, 2018)	75*
17	Number of strategic STPs developed to full operation:	6	10
18	Number of strategic STPs developed and currently in full operation:	45	8**
	a. Higher education-based	17	5
	b. Non-higher education-based	28	3
19	Innovative products and research products produced through National Priority Research scheme	N/A	40*

No	Indicators	Baseline 2019	Target 2024
20	Application of technology to support sustainable development:		
	a. The application of technology for the sustainable use of natural resources	12	24
	b. Application of technology for disaster prevention and mitigation	35	35
21	Percentage of the R&D budget to GDP	0.25	0.42
22	Sports culture and sports achievements:		
	a. Percentage of population aged 10 years and over who have been exercising during the past week	31.39 (2018)	40
	b. Asian Games Ranking	4 (2018)	5 (2022)
	c. Asian Para Games Ranking	5 (2018)	4-6 (2022)
	d. Number of gold medals win at the Olympic Games	1 (2016)	3
	e. Number of gold medals win at the Paralympic Games	N/A	3
23	Availability of Development Assistance Strengthening System (SP3):	N/A	1
	a. National standards for development assistance (%)	N/A	100
	b. Equalizing levels of development assistance (%)	N/A	100
	c. Development assistance competency certification scheme (%)	N/A	100
24	The availability of policies supporting the strengthening of development assistance		
	Issuance of presidential regulation on strengthening development assistance	N/A	1
	Database and development assistance information system	N/A	1

Remarks:

*) Cumulative figures.

**) Indicated locations: UI, UGM, ITB, IPB, ITS, CSTP LIPI, Puspiptek Serpong Kemristekdikti, NSTP Pasar Jumat BATAN.

Policy Directions and Strategies

A. Control population growth and strengthen population governance, by:

1. Accelerating population administration coverage, including:

- a) Expanding the reach of civil registration and population registration services for all citizens both in the country and abroad, including: (a) Service-based approach at the village and sub-district level, and in all representative offices of the Republic of Indonesia; (b) Faster and more accessible population registration and civil registration services; (c) Developing cross-sectoral population registration and civil registration systems based on information technology; and (d) Connecting information systems in various government institutions.

- b) Increasing awareness and activity of communities in recording demographic and other important events, including: (a) Involving various government sectors and community elements to be active in networking and advocacy; and (b) Developing an appropriate incentive system to encourage local residents and Indonesian citizens abroad to report to the population registration and civil registration offices.
- c) Accelerating ownership of population registration and civil registration documents for special groups.

2. Integrating population administration systems, including:

- a) Increasing the availability and quality of accurate, complete, and timely vital statistics for development planning and implementation, including: (a) Providing accurate vital statistics from cross-sectoral data; and (b) Optimal utilization of vital statistics for development and public services.
- b) Strengthening coordination, collaboration, and synchronization between ministries/institutions, provincial governments, regency/city governments, and stakeholders involved in the population registration and civil registration services, and the development of vital statistics, including: (a) Compiling civil registration policy and procedure frameworks, as well as comprehensive and harmonious population registration between sectors; and (b) Harmonious administration of population registration and civil registration services between the central and regional governments

3. Integrating and synchronizing population control policies, including:

- a) Strengthening the synergy of population control policies in realizing balanced population growth; district, and city institutions in the field of population control; and
- b) Strengthening the capacity and capability of central, provincial, and
- c) Utilizing population data and information and the synergizing family data collection

B. Strengthening the implementation of social protection, by:

1. Strengthening the implementation of social security, including:

- a) Developing a comprehensive and integrated National Social Security System (SJSN), including developing Unemployment Benefit, contribution-based Long-Term Care, and the Return to Work programs; population database; Integrated Social Welfare Data (DTKS) and BPJS's health and labor data; adjusting contribution systems, tariffs and benefit packages; and improving SJSN governance through the development of an integrated monitoring and evaluation system, as well as the development of a system
- b) Sustaining funding and strengthening SJSN governance, including expanding and developing membership systems; synergized

- to prevent and manage fraud while implementing social security;
- c) Increasing the effectiveness of the National Health Insurance (JKN), which is supported by equitable supply of health services (supply side) and by the improvement in the quality of health services; formulating JKN benefit packages explicitly; implementing active purchasing including improving the payment system for health service facilities and developing cost-sharing mechanisms; strengthening health technology assessment (HTA), clinical boards, quality control teams, and cost control teams; developing and applying national health service guidelines; improving health service providers according to standards in all regions, especially through cooperation with the private sector; integrating JKN data with health information systems; and utilizing BPJS Health service data for the development of policies for stakeholders; and
 - d) Strengthening SJSN institutions including improving governance of relations between institutions, harmonizing relevant laws and regulations, and integrating operational implementation of JKN and SJSN Employment

2. Strengthening the implementation of social assistance and subsidies that are integrated and well-targeted, including:

- a) Integrating well-targeted distribution of food assistance and energy subsidies to increase accountability and transparency of assistance through the “Sembako Program”, which will integrate the provision of food and energy assistance (electricity and LPG) into a single card;
- b) Integrating conditional cash transfer for health and education, which provides incentives to encourage educational participation up to the university level for children from families receiving social education and health assistance;
- c) Increasing the synergy of Integrated Social Welfare Data (DTKS) with the population database and other social assistance program databases;
- d) Expanding and strengthening distribution of cashless social assistance that provides a wide selection of interconnected payment channels and instruments, utilizing various digital technologies, supported by education to improve financial literacy and inclusion;
- e) Developing varied food aid, not only limited to rice and eggs but also local foodstuffs that meet nutritional needs and contain plant-based and animal protein such as vegetables, meat, fish, and weaning food, to ensure nutritional intake for pregnant women, children aged two years and under, to improve the nutrition of school-age children from families receiving social assistance, and to ensure that aid is not used for cigarette consumption;
- f) Strengthening assistance to facilitate data collection, and implementation of social assistance programs and beneficiary education to encourage behavior change through Family Development Sessions (P2K2); and
- g) Increasing the role of the regional government in assistance and distribution of aid.

3. **Adaptive social protection**, including:

- a) Developing social protection that is integrated with economic and social risks to climate change and natural disasters;
- b) Strengthening the institutional system of social protection that is responsive to social and economic

risks due to climate change and natural disasters; and

- c) Developing a social protection financing system to address the risks of climate change and natural disasters.

4. **Improving social welfare**, including:

- a) Developing integrated and holistic long-term care systems;
- b) Strengthening the implementation of minimum service standards in the social sector to meet the basic needs of the population;
- c) developing communities, the environment, and infrastructure that is friendly for children, the elderly, and persons with disabilities;
- d) Respecting, protecting, and fulfilling the rights of children, the elderly, and persons with disabilities;
- e) Implementing the Masterplan for Persons with Disabilities (RIPD) in accordance with Government

Regulation No. 70/2019, concerning Planning, Conducting and Evaluating with regard to Respect, Protection, and Fulfillment of the Rights of Persons with Disabilities, to realize inclusive development;

- f) Strengthening the institutional implementation of programs for the elderly,
- g) Empowering the elderly,
- h) Developing lifelong education and skills for the elderly; and
- i) Strengthening social services for vulnerable groups, including indigenous groups, people with HIV/AIDS, and victims of drug abuse.

5. **Strengthening the implementation of assistance and integrated services**, including:

- a) Structuring management of human resources in relation to social welfare management, especially competency standards and incentive mechanisms;
- b) Expanding human resource certification and accreditation of social welfare institutions;
- c) Increasing the role and capacity of community facilitators;

- d) Increasing knowledge, understanding of children's education, health, and nutrition, as well as financial management for families; and
- e) Strengthening mechanisms for complaints, data collection, referrals, and integrated services.

C. **Improving health services towards universal health coverage**, especially strengthening primary health care by encouraging promotive and preventive efforts, supported by innovation and technology utilization, through:

1. **Improving maternal and child health, family planning, and reproductive health**, including:

- a) Continuous improvement of maternal and neonatal services in public and private health service facilities by encouraging all deliveries in health facilities capable of handling comprehensive emergency services supported by guaranteed financing; improving the competency of health workers including strengthening the ability to detect early risk factors in pregnancy; increasing coverage and quality of antenatal, neonatal, childbirth, and postpartum services; improving the maternal referral system that is supported by increasing the capacity of the health system and strengthening regulations; providing infrastructure and pharmaceutical facilities, as well as guaranteeing the availability of blood at any time; and recording maternal deaths in health facilities, especially for strengthening health care management;
- b) Expanding access and quality of family planning services and reproductive health according to regional characteristics through optimizing the role of the private sector and government through advocacy and information, education and communication (IEC) for Population, Family Planning and Family Development (KKBPK) programs; also family planning and reproductive health counseling; improving the family planning instructors (PKB) and family planning field officers (PLKB), field line workers, and health workers competencies in family planning services; strengthening health care facilities, networks of health service facilities, community-based health efforts; and increasing postpartum family planning uptake; and
- c) Increasing knowledge, understanding, and access to cross-sectoral adolescent reproductive health services in a gender-responsive manner.

2. **Improving public health nutrition to prevent and overcome multiple nutritional problems**, including:

- a) Strengthening commitment, campaign, monitoring, and evaluating efforts to improve community nutrition; specific interventions, and expanding and sharpening integrated interventions that are nutrition-sensitive;
- b) Developing a system to ensure enough nutrition supporting child growth and development by providing nutritious foods since pregnancy, improving family parenting, and improving clean water and environmental sanitation facilities;
- c) Accelerating stunting reduction by increasing the effectiveness of
- d) Improving life-saving interventions supported by evidence-based policy including food fortification;
- e) Strengthening advocacy and communication of behavioral change, especially to encourage balanced nutrition based on food consumption (food-based approach);

- f) Strengthening the nutritional surveillance system;
 - g) Increasing commitment and assistance to regions as part of nutrition improvement interventions
 - h) Rapid response to the need for nutrition improvement in emergencies.
3. **Increasing disease control**, with special attention to heart diseases, stroke, hypertension, diabetes, cancer, tuberculosis, malaria, HIV/AIDS, emerging diseases, diseases that have the potential to cause extraordinary event, neglected tropical diseases (leprosy, filariasis, schistosomiasis), mental disorders, injuries, vision problems, dental, and oral diseases, including:
- a) Preventing and controlling risk factors for disease including expanding early detection coverage, strengthening real-time surveillance, vector control, and expanding smoking cessation services;
 - b) Strengthening health security, especially capacity building for prevention, detection, and rapid response to disease threats, including strengthening alert system
 - c) alerts for outbreaks and health quarantine;
 - d) Increasing the coverage of case finding and treatment, as well as strengthening the management of diseases and injuries;
 - e) Controlling antimicrobial resistance;
 - f) Empowering the people for disease control and strengthening community-based total sanitation.
4. **Cultivating healthy living behaviors through the “Healthy Living Community Movement”**, including:
- a) Developing healthy zones, including healthy districts/cities, healthy markets, school health efforts, and healthy work environments;
 - b) Providing an environment that encourages physical activities such as public open spaces, mass transportation and intermodal connectivity, a healthy environment, and reduction of air pollution;
 - c) Regulations that encourage central and regional governments as well as the private sector to implement health-oriented development and encourage healthy living, including the development of standards and guidelines for the non-health sector; gradually increasing tobacco product excise taxes while mitigating the impact on tobacco farmers and tobacco industry workers; total prohibition against cigarette advertising and promotion; formulating warning signs of the dangers of smoking on tobacco products more conspicuous, expanding excise duty on food products that have high health risk and regulating food products containing sugar, salt and fat;
 - d) Promoting innovative healthy behavior and sports, community empowerment, and mobilizing communities to live a healthy lifestyle; and
 - e) Increasing the provision of healthy food choices including food labelling, expanding access to fruits and vegetables, and expanding the

movement to promote fish consumption.

5. Strengthening health systems and drug and food control, including:

- a. Strengthening basic health services and referrals to reinforce the function of community health centers (Puskesmas) and their networks in an effort to improve quality in public health, which is supported by increasing the capacity of health workers, facilities, infrastructure, and financing; optimizing basic health services through a family approach; revitalizing integrated health post (Posyandu) and other community-based health efforts; developing special policies for health services in remote areas and areas with certain geographical characteristics (islands) including policies related to referral systems, financing patterns, regulations, and institutions; developing elderly health services; improving the accreditation system of government and private health services; fulfillment of the equitable provision of facilities, infrastructure, and medical devices that refer to the master plan for the provision of health service facilities; innovating and utilizing technology in health services that covers the expansion of online referral systems, including the integration of private health service facilities in the referral system, expanding coverage and development of types of telemedicine services, digitizing medical records and both hard copies and online; expanding mobile health services, including those on islands; developing and improving the quality of specialized hospitals; and providing medical waste management for health service facilities and controlling hazardous and toxic materials (B3);
- b. Fulfillment and improvement of health workers' competency, which are focused on affirming the pivotal role of strategic health workers, including developing health service packages (health workers, pharmaceuticals and medical devices); learning affirmations (scholarships and study assignments) for health workers in disadvantaged regions, borders, and islands (DTPK) and less desirable areas; affirming utilization and redistribution mechanism for health workers' placement in health service facilities; developing cooperation mechanisms to maximize healthcare delivery through temporary assignments and service contracts; expanding education and training of health workers focusing on basic health services; developing health workforce to strengthen the function of basic health services such as health promotion and community nurses; adjusting study programs and educational institutions in the health sector based on needs and standards; and maximizing the healthcare workforce according to standards and the non-health workforce including information systems and financial administration personnel to support governance in health service facilities;
- c. Increasing the competitiveness of pharmaceutical and medical devices focused on the efficiency of the

- supply of drugs and vaccines by prioritizing product quality; strengthening electronic-based real-time pharmaceutical logistics systems; increasing promotion and supervision of rational drug use; developing halal-certified domestic medicines, biological products, reagents, and vaccines supported by research and development of life sciences; and the developing production and certification of medical devices to encourage the independence of domestic production;
- d. Increasing the effectiveness of food and drug supervision, which is focused on expanding the scope and quality of pre- and post-market surveillance of risky food and drug, which is supported by increasing the competency of supervising human resources and improving laboratories, and food and drug inspection centers; increasing research; accelerating and expanding public service processes including registration; expanding the use of information technology in food and drug control; increasing the compliance and independence of business actors in implementing quality management and product supervision systems; increasing community participation in supervising; and expanding investigations and bringing prosecution against violations of the provisions of law regarding food and drug; and
 - e. Strengthening governance, financing, research, and health development to develop policies which strengthen the capacity of provincial and district/city governments; assistance in improving governance in regions that have health problems to achieve national targets and encourage the fulfillment of minimum service standards (MSS) for health; integrating, synchronizing, and simplifying central and regional health information systems, including the application of a single entry system; regular data reinforcement; innovation and use of digital technology for data collection, including big data, media promotion, communication, and health education; increasing budget utilization to strengthen evidence-based promotion and prevention; developing new financing sources such as applying earmarking; community-sourced financing and collaboration between the government and private sector; increasing the capacity and independence of financing public health service facilities; and strengthening research and development for the effectiveness of innovation interventions, and evaluation of the health system to support the achievement of national priorities.

D. Improving the distribution of high-quality education, through:

1. Improving the quality of teaching and learning, including:
 - a) Applying curriculum by providing mathematics, literacy, and science at reinforcement that focuses on all levels;

- b) Strengthening early literacy instruction and new literacy (digital, data and social literacy) with effective and appropriate teaching strategies;
- c) Increasing the competence and professionalism of educators;
- d) Strengthening the quality of assessment of student learning outcomes, especially through strengthening the role of educators in the assessment of learning in the classroom, as well as increasing the use of evaluation to improve the learning process;
- e) Increasing the use of ICT in learning, especially in synergizing distance learning models and online learning systems;
- f) Integrating soft skills (non-technical skills) in learning,
- g) Improving the quality of character, religious, and civic education;
- h) Improving the quality of religious education, including the quality of education in religious schools; and
- i) Improving the quality of equity and literacy in education.

2. Increasing equitable access to education services at all levels and accelerating the implementation of 12-year compulsory education, including:

- a) Providing adequate educational assistance for underprivileged children, children from underdeveloped areas, and high-achieving children, including assistance for secondary education graduates who are continuing their studies at the college or university level who come from poor families through the Smart Indonesia Program;
- b) Equitable distribution of education services between regions, by providing partiality to regions with low fiscal capacity and educational performance, and applying appropriate service models in 3T regions (frontier, outermost, and disadvantaged), such as integrated education (One Roof School/SATAP), open schools, distance learning, and boarding schools;
- c) Equitable distribution of quality higher education through expansion of capacity, especially for fields that support economic progress and the mastery of science and technology;
- d) Handling dropouts to return to school through appropriate data collection, effective outreach and assistance, revitalizing the Go Back to School movement, and applying the right learning model for children with special needs, working children, children who are in trouble with the law, who are neglected, living on the streets, and in disaster areas;
- e) Increasing knowledge and role of families and communities regarding the importance of education; and
- f) Improvement of 1-year pre-school services.

3. Increasing professionalism, quality, management, and equal placement of educators and education staff, including:

- a) Improving the quality of education of prospective teachers through the revitalization of teacher training institutions (LPTK) and strengthening the Teachers Certification Program (PPG);

- b) Fulfillment of minimum academic qualifications for teachers (bachelor's) and lecturers/researchers (master's/doctorate);
- c) Improvement in management, optimization, and distribution of educators and education personnel based on comprehensive mapping of needs and availability;
- d) Improving the quality of the performance appraisal system as a reference for coaching, awarding, and increasing the competence of educators and education personnel; and
- e) Improving the welfare of educators and performance-based education personnel.

4. Assuring the quality of education and improving the quality of distribution of services among education units and among regions, including:

- a) Better mapping of education quality as a reference for efforts to improve the quality of education services;
- b) Strengthening capacity and accelerating accreditation of education units and study programs;
- c) Strengthening national education standards; and
- d) Strengthening quality culture by increasing the capability of principals and supervisors, the application of school-based management, and developing quality assurance units at the regional level and in each education unit.

5. Improving education development governance, financing strategies, and increasing the effectiveness of the utilization of the education budget, including:

- a) Improving the database's validity of education by increasing the role of regions in implementing validation and verification in each education unit;
- b) Improving the quality of planning in encouraging the fulfillment of minimum service standards (SPM) in education;
- c) Increasing synchronization of planning and implementation of education development between levels of government in maintaining the continuity of education across different levels;
- d) Increasing the effectiveness of the utilization of the education budget to increase access, quality, relevance, and competitiveness of education, and fulfillment of the provisions of the education budget in the regions;
- e) Increasing the effectiveness of operational assistance for education units to improve service quality;
- f) Controlling permission to establish a new education unit that is not in accordance with the needs and quality standards;
- g) Strengthening the management of higher education through efforts to simplify the number and integration of tertiary institutions;
- h) Increasing coordination across sectors and between levels of government in strengthening integrated and holistic early childhood development; and
- i) Increasing regional commitment and capacity in nutrition education for school children.

E. Improving the quality of life for children, women, and youth, through:

1. **Realizing a child-friendly Indonesia**, by strengthening the system for child protection that is responsive to the diversity and characteristics of the regions to ensure that children enjoy their rights, including:

- a) Strengthening regulations and law enforcement in proportion to the best interests of children;
- b) Strengthening institutional effectiveness through increasing the capacity of human resources, service providers, coordination, data, information systems, as well as the guidance and supervision functions;
- c) Increasing understanding of child protection for stakeholders, the communities, families, and children;
- d) Strengthening networks between the government and communities, mass media, the business world, and community institutions;
- e) Increasing children's participation in development according to their age level;
- f) Strengthening efforts to prevent and deal with various acts of violence, exploitation, child labor, and child neglect;
- g) Strengthening coordination and synergy in efforts to prevent child marriages by involving various stakeholders;
- h) Strengthening family care and temporary care in other institutions;
- i) Increasing access to basic services that are integrated, friendly, and inclusive of all children, especially children who are in special situations and conditions, and
- j) Improving services and rehabilitation for children who need special protection.

2. **Increasing gender equality and women's empowerment**, including:

- a) Strengthening policies and regulations, institutions, mass media, and private sectors;
- b) Accelerating the implementation of gender mainstreaming (gm) in the ministries/institutions, provincial/district/city governments, and village governments through strengthening institutionalization of gm and strengthening gender responsive planning and budgeting;
- c) Increasing knowledge and understanding of individuals, families, communities, community
- d) Increasing the role and participation of women in development, especially in education, health, economy, labor, politics, public sectors, and decision-making; and
- e) Enhancing network and coordination among the central government, regional governments, communities, mass media, private sectors, and community institutions.

3. **Strengthening protection of women, including migrant workers, from violence and human trafficking**, including:

- a) Strengthening policies and regulations on prevention, handling, rehabilitation, repatriation, and reintegration;

- b) Increasing the knowledge and understanding of individuals, families, communities, private sectors, and other stakeholders about violence against women and human trafficking;
- c) Increasing the capacity of law enforcement officers and government administrators regarding violence against women and human trafficking;
- d) Strengthening the institutional capacity of protecting women against violence through increasing the capacity of human resource service providers, coordination among service provider units, strengthening data and information, and supervision;
- e) Developing integrated data systems on violence against women and human trafficking;
- f) Developing integrated service systems for handling violence against women and human trafficking;
- g) Strengthening networks and cooperation between governments (central and regional), communities, mass media, private sectors, and legal institutions; and
- h) Developing innovation in the prevention of violence against women and human trafficking.

4. Improving the quality of life for youth, including:

- a) Strengthening institutional capacity, strategic coordination across stakeholders, and developing the role of the business community and the people in providing integrated youth services, including facilitating positive creative spaces for youth;
- b) increasing active social and political participation of youth, including the role of youth in international forums, youth exchanges, and participation in environmental preservation; and
- c) preventing risky behavior in youth, including violence, harassment, drug abuse, alcoholism, the spread of HIV/AIDS, and other sexual transmitted diseases.

F. Reducing poverty, through:

1. Accelerating the strengthening of the family economy, including:

- a) Developing pre- and post-wedding family financial plans, including family investment plans; and
- b) Providing business training and productive business access for poor and vulnerable families;
- c) Facilitating ultra-micro funding for individuals or groups who come from poor and vulnerable families;
- d) Providing productive economic business stimulus for the poor and vulnerable groups to increase family income; and
- e) Implementing social entrepreneurship.

2. Mediating businesses and their social impact, including:

- a) Strengthening business capacity of the poor and vulnerable groups with business development schemes and connecting them with strategic business partners;

- b) Developing funding schemes for small businesses that have social impacts;
- c) Integrated village economic transformation;
- d) Strengthening the corporate social responsibility forum; and
- e) Counseling and/or mentoring for environmental and forestry community groups, including increasing the capacity of extension workers and forming independent forest farmer groups, for the development of productive enterprises.

3. **Agrarian reforms**, including:

- a) Providing resources for Land Object of Agrarian Reform (TORA), including releasing forest areas;
- b) Implementing land redistribution, among others, for the development of transmigration areas;
- c) Granting and legalizing land certificates, among others, for transmigration areas that were implemented before 1998; and
- d) Empowering TORA recipients.

4. **Community forest management through social forestry schemes**, including:

- a) Granting access to community forest management in the Village Forest scheme, Community Forests (HKM) scheme, Community Plantation Forests (HTR) scheme, Permits for the Utilization of Social Forestry (IPHPS) scheme, and forestry partnerships;
- b) Capacity building for community groups (regional, institutional, and business management);
- c) Establishing investment/business partnerships between investors and social forestry business groups;
- d) Developing the industry to process products of social forestry groups in to increase added value; and
- e) Facilitating marketing/promotion of social forestry products to social forestry business groups.

G. **Increasing productivity and competitiveness**, through:

1. **Vocational education and training based on industrial cooperation**, including:

- a) Enhancing the role and cooperation of industry/private sector in vocational education and training, including developing incentives/regulatory systems to encourage the role of industry/private sector in vocational education and training; increasing the role of the region in intensive coordination with industry/private sector for the development of vocational education and training in the region; and mapping the demand for experts including strengthening labor market information;
- b) Reforming the implementation of vocational education and training, including strengthening innovative learning by aligning study programs/areas of expertise to support the development of leading sectors and industry/private needs; aligning curriculum and learning patterns according to industry needs; strengthening learning to build work ethic, soft skills, and foreign

- languages; strengthening the implementation of vocational education and training in a dual system (dual TVET system) that emphasizes the mastery of practice-based skills and internships in the industry; expanding the application of quality teaching factory/teaching industry as one of the industry standard learning systems; revitalizing and improving the quality of learning facilities, infrastructure and vocational education and training work practices according to standards; increasing cooperation in the utilization of work practice facilities in the industry, including production units/teaching factory/teaching industry; strengthening work skills and entrepreneurship training in schools, madrasas, and boarding schools; improving the facilitation and quality of apprenticeship; and preparation of graduate placement strategies;
- c) Increasing the quality and competence of vocational educators/instructors, especially with the improvement of vocational educator/instructor training in accordance with their competencies; increasing involvement of instructors/practitioners from their respective industry to teach in vocational education and training units; and increasing
- teacher/instructor apprenticeship in the industry;
- d) Strengthening the vocational competency certification system, especially by developing competency standards according to industry needs; institutional strengthening and capacity building for the implementation of professional certification; and synchronizing the certification system in various sectors; and
- e) Improving vocational education and training governance, especially by coordinating permits to establish new vocational education units and study programs that are not in accordance with industry/labor market standards and needs; improving the assessment of the quality of education units through accreditation of study programs and vocational education units; arranging financial management flexibility in production units/teaching factory/teaching industry; developing funding schemes to improve expertise; establishing a single oversight institution at the national level that coordinates and controls the implementation of vocational education and training; and increasing access to vocational training through the application of Pre-Employment Cards.

2. Strengthening the quality of higher education, including:

- a) Developing higher education as a producer of science and technological innovations and center of excellence that focuses on the field of science according to the potential of the local area, and enhancing the cooperation of
- research consortia between universities and institutions both domestic and abroad;
- b) Developing cooperation among universities, industries, and the government by providing incentives for universities and industries to

- develop strategic research and development collaboration, and facilitate the mobility of researchers between universities and industries;
- c) Improving the quality and use of research by increasing the interaction between universities and industries;
- d) Improving skills of tertiary education graduates through the development of adaptive study programs and learning curriculum designs that are in line with industry and regional development needs, expanding certification and programs to accelerate work waiting periods, and entrepreneurship training to encourage the growth of young entrepreneurs;
- e) Developing endowment funds in tertiary institutions sourced from public funds, including the private sector, and philanthropy for the development of education and learning in tertiary institutions;
- f) Manifesting mission differentiation by encouraging universities to focus on carrying out the *Tridharma* of higher education, which is being a research university, a teaching university, or a vocational university;
- g) Strengthening the governance of State Universities of Legal Entities (PTN-BH) that is more autonomous and accountable; and
- h) Strengthening the development of private tertiary institutions in the context of improving the quality of higher education.

3. Enhancing the capability for science and technology adoption and innovation, including:

- a) Utilizing science and technology and innovation in the focus areas stipulated in the National Research Masterplan 2017-2045 for sustainable development, which includes integrated research implementation with the National Research Priority flagship scheme to produce research products and strategic innovative products, including industrial-scale nuclear power plants, alternative fuels from palm oil, electric vehicles that use lithium ion batteries and fast charging systems, fast trains, amphibious aircraft, unmanned aircraft, pharmaceutical raw materials, and industrial salt manufacturing; mapping the potential of natural resources and cultural resources of the region with a multidisciplinary approach; innovative production technology for sustainable use of natural resources (appropriate technology in agriculture and fishery, followed by social research and social innovation that contribute to the development of science and public policy); applying technology for disaster prevention and post-disaster mitigation; developing a scientific temper and innovation culture; and mastering frontier technology in strategic fields such as health and pharmacy, digital technology and cyber security, advanced materials, renewable energy, nuclear power, defense and security, and space;
- b) Developing a research powerhouse, which includes increasing the quantity and capability of science and technology human resources, developing and strengthening

- strategic R&D infrastructure, strengthening science and technology center for excellence, managing biological and intellectual property data, and developing a network of domestic and foreign research cooperation;
- c) Creating an innovation ecosystem that includes strengthened triple-helix cooperation, improving patent/IP governance, strengthening major Science Techno Parks (STP), pioneering the function of Technology Commercialization Office within the Innovation Management framework in universities, pioneering the Technology Transfer Office at STPs or in non-ministry government institutions that focus on science and technology, and fostering technology-based startups; and
 - d) Increasing the amount and the quality of research and development spending through the coordination of the National Research and Innovation Agency (BRIN), which is supported by increasing research and developing spending from the development of the Endowment Fund for Research, Development and Application to produce inventions and innovations, strengthening data collection and facilitation of alternative funding from outside the government, and providing fiscal incentives for research and development of science and technology-based innovation.

4. Cultural development and improving sports achievements at regional and international levels, including:

- a) Strengthening and structuring sports regulations;
- b) Developing sports culture through families, educational units, and communities, that focuses on recreational sports, traditional sports, sports-related special services, and educational sports;
- c) Structuring a gradual and continuous system of sports coaching based on Olympic sports and the regional potential, particularly through the synergy of sports coaching in educational units supported by training concentration, and application of sport science, sports statistics, remuneration and reward systems;
- d) Structuring sports institutions to improve sports performance;
- e) Increasing the availability of internationally trained sports personnel;
- f) Improving sports infrastructure and facilities of international standards that are handicapped-friendly; and
- g) Developing the role of the business community in providing assistance, financing, and building the sports industry.

5. Strengthening development assistance, including:

- a) Developing competency standards and national qualifications for development assistance;
- b) Education and training programs that refer to competency standards and qualification levels;

c) Competency certification that refers to the development assistance certification scheme; and

d) Developing supporting components, namely an integrated incentive, recognition, regulation, and assistance database system.

6. **National talent management**, including:

a) Mapping the supply and demand for talents based on areas of expertise and profession;

b) Managing the inventory and talent pool database;

c) Increasing expertise, capacity, performance, as well as career development and talent achievement;

d) Creating a conducive environment to attract talents, and for the development of the talents' potential, interests, expertise, and achievements; and

e) Establishing a talent management institution in Indonesia.



CHAPTER V

MENTAL REVOLUTION AND CULTURAL
DEVELOPMENT

Preface

"Mental Revolution" is a national movement to change the perspective, attitude, and behavior of the people toward progress by internalizing the essential values of Mental Revolution in individuals, communities, families, social institutions, and state institutions. The essence of Mental Revolution includes integrity, strong work ethic, and mutual cooperation, which are the nation's righteous cultural values. Mental Revolution as a cultural movement has an important position and plays a crucial role in national development. Character character and attitude can be determining factors to make progress in development and modernization. Discipline, ethos of progress, strong work ethic, integrity, compliance with the law and regulations, perseverance, and persistence are the characters and mental attitude needed to realize an advanced, modern, leading, and competitive nation, which allows for competition with other countries.

Indonesia has a rich culture that can be developed and utilized to strengthen national character and identity, improve people's welfare, and influence the direction of development of world civilization. In addition, through the Mental Revolution movement, cultural values and local wisdom can strengthen social cohesion, harmony, tolerance, mutual cooperation, and collaboration among citizens as the main conditions for the success of national development.

Mental Revolution as a cultural movement must also strengthen Indonesia as a diverse nation, having a diversity of ethnicities, customs, cultures, languages,

and religions, which form a unity in diversity: *Bhinneka Tunggal Ika*. The strength of Indonesia lies in differences and diversity, rather than in similarity and homogeneity. To strengthen *Bhinneka Tunggal Ika*, awareness as a diverse nation must be instilled early in the family, strengthened in the education system, and nurtured and cared for in the social system.

For this reason, in the RPJMN 2020-2024, the Mental Revolution movement is developed to be more holistic and integrated on the basis of: (1) Mental Revolution in the education system by emphasizing the values of integrity, work ethic, mutual cooperation, and character in learning; (2) Mental Revolution in governance by acculturating the values of transparency and accountability; and (3) Mental Revolution in the social system by promoting positive values of the nation in family and interactions among citizens. In addition, the Mental Revolution is also strengthened through efforts to promote and preserve culture, strengthen religious moderation, and strengthen harmony; and enhancing the culture of literacy, innovation, and creativity for the realization of a knowledgeable, innovative, and creative society.

Development Achievements in 2015-2019



The Community Development Index, which measures social cohesion, social inclusion, and capacity building for civil society, continues to increase from 0.55 in 2015 to 0.61 in 2018.



The Cultural Development Index, which measures socio-cultural resilience, preservation of cultural heritage, cultural expression, and cultural economy, among others, reached 53.7 in 2018



The Religious Harmony Index, which measures the level of tolerance, and equality and cooperation among religious believers, increased from 75.4 in 2015 to 75.5 in 2016, but decreased to 73.8 in 2019.



The Family Development Index, which measures peacebuilding, independence, and happiness as success factors in family development in Indonesia, only reached 53.6 in 2018; and divorce cases increased from 344,237 cases in 2014 to 365,633 cases in 2016 (BPS, 2017). Whereas the median age at first marriage for women continued to increase and almost reached the ideal age of marriage, which is 21.8 years (Indonesia Demographic and Health Survey (IDHS), 2017).

Environmental and Strategic Issues

Weakening Pancasila Ideology and National Culture Resilience

Indonesia as a diverse nation faces a national problem with the weakening of the Pancasila ideology. The motto *Bhinneka Tunggal Ika*, which is the spirit of the country that calls for unity in diversity is being disturbed by the development of aspirations of transnational political ideologies that are contrary to the ideology of Pancasila. Facing this problem, Pancasila as the foundation and ideology of the nation must be strengthened, so that Indonesia stands firm and can carry out the mandate of the 1945 Constitution in order to protect all Indonesians and improve their welfare, provide them with education, and participate in ensuring world peace which emphasize freedom, peace, and social justice.

For this reason, fostering and actualizing the Pancasila in every aspect of the life of the nation is absolutely necessary. Institutionally, the Government formed the Presidential Working Group for the Development of the Pancasila Ideology in 2017, which later was changed to the Pancasila Ideology Development Board in 2018. This institution together with relevant ministries/institutions formulate policy directions and strategies to foster the ideology of Pancasila. This step forward needs to be followed by fostering and actualizing Pancasila for all citizens starting from the family and local communities.

Pancasila is the nation's identity that reflects the values, attitude, and behavior of the Indonesian people. Pancasila becomes a bastion of national culture that filters foreign cultural influences that are not in harmony with Indonesia's cultural values. Various efforts to foster and actualize the Pancasila need to be increased to respond to globalization trends that have an overly broad impact, both social, cultural, economic, and political. Globalization encourages more intensive relationships between nations, as human mobility becomes faster and more convenient, and cultural exchanges between countries become easier. If not well anticipated, cultural exchange through globalization can certainly affect the culture of the Indonesian people.

Global cultural exchange that is not accompanied by strong cultural resilience can erode the righteous cultural values of a nation. The value of exchanging ideas, reciprocity, caring and protecting for one another in social exchange is weakening in some regions, and replaced by malevolence, suspicion, and hatred for one another. If the former values and social capital are preserved and developed properly, they can be used to build harmonious social relations and strengthen the social cohesion of society.

Sluggish Advancement of Indonesian Culture

Indonesia as a diverse nation has rich and abundant cultural treasures originating from values, traditions, customs, local wisdom, arts, and languages that grow and develop in society. This cultural wealth is not enough just to be preserved, but also needs to be developed and utilized. Law No. 5/2017 concerning the Advancement of Culture takes a new direction in cultural development by making culture an investment in building the future and civilization of the country. Through the promotion of culture, it is hoped that cultural wealth can become a driving force and capital for development.

To enhance the role of culture in development, efforts should be made to promote culture by building a sustainable cultural ecosystem, as well as effective and efficient governance for development. Cultural ecosystems

represent cultural networks that thrive through interactions between actors, users, infrastructure, the environment, and other cultural elements. At present, the cultural ecosystem is not running optimally. Communities and cultural practitioners have not yet fully benefited from the cultural wealth of the country. This is reflected in the low interest of communities to develop and utilize cultural wealth. Based on the Socio-Cultural and Educational Module of National Socio-Economics Survey (MSBP Susenas) data in 2018, the percentage of the population involved as performers/supporters of performing arts and making it a source of income is only 0.31% of the total population aged 15 years and over. Traditionally made products as cultural commodity still lack demand in the market as only 59.81% of households still use these products.



Insufficient Character Education

Education is a pillar for nation building that has an important role in fostering a spirit of love for the motherland and duty to defend the country, in building character, and in strengthening national identity. Character education as one of the core processes in forming students' character is indispensable for developing good morals, fostering a strong mentality, encouraging a gentler temperament, and instilling virtuous values that are in harmony with moral and ethical principles that thrive in the society.

However, character education has not been fully realized in the school environment and fostered in the learning

culture, which can grow as a result of good habits. This is reflected in the National Examination Integrity Index, where 30% of regions scored low (Kemdikbud, 2017). Number of drug users remains high, and out of 3.3 million drug users, 24% or 810,267 people are students (BNN, 2017). In addition, physical violence among students is still rife, and around 32.7% of students have been physically attacked at least once (School-Based National Health Survey, 2015). Youth participation in social activities also declined from 82.0 to 81.4 (Socio-Cultural and Educational Module of National Socio-Economics Survey (MSBP Susenas), 2018).

Weak Understanding and Practice of the Values of Religious Teachings

Within the framework of national development, religion can become a spiritual, moral, and ethical foundation in the life of the nation. In accordance with the First Principle of Pancasila, belief in the Almighty God, the founders of the nation placed the value of religion as the foundation of national morality. Religious values can be transformed to form people who have faith, piety, a righteous character, and a righteous personality to benefit themselves and their surroundings. However, due to the lack of understanding and practice of religious values, religious morality has not manifested well in the life of the nation.

Quality religious services can promote understanding and encourage good practice of religious values. Religious services at the sub-district level are conducted through the Office of Religious

Affairs (KUA), although not all districts have KUA. This is one of the challenges that needs to be addressed. Until now, only 5,820 districts out of 7,094 have KUA. The economic development of the people and religious resources also remains less than optimal. Based on the BAZNAS study, it was estimated that Indonesia's zakat potential reached Rp 286 trillion per year (BAZNAS, 2017), but the collection of zakat recorded by BAZNAS in 2017 only reached Rp 6 trillion. The implementation of the Halal Product Guarantee Act is still hampered by limited infrastructure and human resources, as well as the low awareness of business operators to obtain halal certificates. Meanwhile, the quality of Hajj pilgrimage continues to increase, which is marked by higher score in the Pilgrims' Satisfaction Index of 85.9 in 2019, up 0.7 points from 2018.

Promoting Religious Moderation that Fosters Tolerance and Harmony

Religious moderation is a strategic effort in order to strengthen tolerance and harmony within diversity. Indonesians who embrace diverse religions need to develop insights and attitudes toward religious moderation in order to build mutual understanding, maintain diversity, and strengthen unity among different religious communities. The religious moderation perspective refers to the view that religious people must take the middle ground in the practice of religious life.

Indonesia as a country with diverse ethnic groups, religions, and beliefs needs to manage these aspects diversity well to minimize the risk of conflict among the people and religious groups. The symptoms of intolerance that are beginning to emerge need serious attention so as not to damage the spirit of unity in diversity. Meanwhile, developments in technology and

information that are not accompanied by wisdom and sufficient knowledge can trigger disputes that have the potential to disrupt social harmony. The good practice of religious values from all people, accompanied by appreciation and respect for differences, is expected to be the glue and unifier of the nation.

-
Indonesia scored lower in the Religious Harmony Index, from 75.4 in 2015 to 73.8 in 2019. The decline illustrates the weak sense of tolerance, equality, and cooperation between people. To strengthen social harmony, various efforts continue to be carried out, among others by strengthening the role of the Forum for Religious Harmony (FKUB) at the provincial, district/city, and sub-district levels as a place for interfaith communication and dialogue to resolve issues surrounding religious life.

Weak Role of the Family

Family unit has an important role in shaping the character and personality of individuals from an early age to adulthood. The cultivation of children's character is carried out through internalizing values in their upbringing, both within the nuclear family and extended family, and in the local community. The family is the primary caregiver of children; hence it has an important role in shaping character and personality, and especially in internalizing the diversity cultural values of the country and in preventing risky behavior. As parents, men and women have the same roles and responsibilities in educating and caring for children in the family.

Indonesia has around 81,210,230 families (Intercensal Population Survey, 2015). Of this total, 76% (61.75 million) of families have men as the head of the family, and 24% (19.45 million) have women as the head of the family. At present, family development is still faced with a number of problems including: (a) the high rate of child marriage at 11.2% (National Socio-Economics Survey, 2018); (b) higher rate of divorce by an average of 3% per year (Religious Courts, 2017); and (c) the high rates of unintended pregnancies, where 7.1% represents unplanned pregnancies, and 1.3% of married women considered their pregnancy not to be at the right time (Intercensal Population Survey, 2015).

Weak Culture of Literacy, Innovation, and Creativity

Literacy is an essential factor in the effort to build a solid foundation for the realization of a knowledgeable, innovative, and creative society. In the era of Industrial Revolution 4.0, a society with a high culture of literacy is absolutely necessary to face today's challenges. In this era, the face of the world will change greatly due to automation that enable the division of tasks between humans and software. As a result, many jobs will be replaced by machines. On the other hand, new jobs requiring innovation and creativity will emerge which depend on the people's intellect and culture.

Meanwhile, literacy as a cognitive skill enables humans to identify, understand, and interpret the information received, which is then transformed and applied into productive activities that provide social, economic, and welfare benefits. Literacy contributes positively and helps foster creativity and innovation, improves social skills such as communication,

negotiation, group work, and builds social relations that are urgently needed in the era of Industrial Revolution 4.0.

Realizing a literate society is highly urgent as it faces challenges in a constantly changing and evolving era. One of the benchmarks for assessing the literacy level of a nation is through the culture of reading that reflects people's interest and ease of access to information. Nevertheless, the level of literacy still needs to be improved. Based on the Socio-Cultural and Educational Module of National Socio-Economics Survey (MSBP Susenas) data in 2018, the percentage of population aged 10 years and above who read printed and/or electronic materials beside the holy books only reached 45.7%, whereas the percentage of the population who have access to the internet was still at 43.5%. This is certainly a challenge to increase public literacy by expanding access to information and knowledge throughout the country.

Objectives, Indicator, and Targets

No	Objectives or Indicators	Baseline (2019)	Target (2024)
1	Promoting Mental Revolution and fostering the ideology of Pancasila to strengthen cultural resilience		
	Mental Revolution Achievements Index score	67.0 (2018)	74.3
	Pancasila Actualization Index score	N/A	77.0
2	Promoting culture to enhance the role of culture in development		
	Cultural Development Index score	53.7 (2018)	62.7
3	Increasing the quality of people's lives and social cohesion		
	Community Development Index score	0.61 (2018)	0.65
4	Strengthening religious moderation to foster harmony among the people and build social harmony		
	Religious Harmony Index score	73.8	75.8
5	Increasing family resilience to strengthen the nation's character		
	Family Development Index score	53.6 (2018)	61.0
	Median age at first marriage for women	21.8 (2017)	22.1
6	Promoting culture of literacy to create a knowledgeable, innovative, and creative society		
	Cultural Literacy Index score	55.0 (2018)	71.0

Source: Ministry of National Development Planning (Bappenas), Coordinating Ministry for Human Development and Cultural Affairs (Kemenko PMK), Ministry of Education and Culture (Kemendikbud), Ministry of Religious Affairs (Kemenag), National Population and Family Planning Board (BKKBN), Central Bureau of Statistics (BPS), 2019

Policy Directions and Strategies

- A. **Mental Revolution and fostering the ideology of Pancasila to strengthen national cultural resilience and shape the mentality of an advanced and modern nation with character**, through:
- 1. Mental Revolution in the education system to strengthen integrity, work ethic, mutual cooperation, and character**, including: (a) developing a learning culture and a bully-free school environment; (b) strengthening religious education, religious tolerance, and the students' character in the education system; and (c) promoting innovation and volunteerism, and elaborate scout educational values.

the mass media and private sector participation.
 - 2. Mental Revolution in governance to strengthen righteous, attentive, and responsive bureaucratic culture**, including: (a) improving public service work culture that is friendly, fast, effective, efficient, and reliable; and (b) incorporating discipline, rewards, and punishment in the bureaucracy.
 - 3. Mental Revolution in the social system to strengthen the resilience, quality, and the role of family and community in shaping children's character through child rights-based approach according to local characteristics and targets**, including: (a) preparing for family life education and life skills; (b) improving the quality of life of families life cycle while taking into account intergenerational continuity, as an effort to strengthening family functions and values; and (c) embodiment of a conducive environment through strengthening communities, institutions, regulations, provision of facilities and infrastructure, as well as
 - 4. Strengthening the centers of change within the Mental Revolution movement**, including: (a) strengthening the implementation of the five National Mental Revolution Movement programs to realize an Attentive Indonesia, Righteous Indonesia, Orderly Indonesia, Independent Indonesia, and United Indonesia; and (b) strengthening the centers of change within the Mental Revolution movement in various regions.
 - 5. Developing and cultivating an economic system that represents the interests of commoner based on Pancasila**, including: (a) building a national economic culture on a cooperative platform to create productive business activities; (b) strengthening work ethic and entrepreneurship based on mutual cooperation; and (c) fostering a culture of literate consumers and love for domestic products.
 - 6. Fostering the ideology of Pancasila, civic education, the concept of being a nation, and a sense of duty to defend the country in order to foster the spirit of nationalism and patriotism**, including: (a) fostering the ideology of Pancasila, strengthening civic education, national values, and national defense; (b) increasing the role and function of the Pancasila

Ideology Development Board (BPIP); (c) harmonizing and evaluating laws and regulations that are contrary to the

ideology of Pancasila; and (d) clear out elements that may threaten the state ideology.

B. Increasing cultural advancement and preservation to strengthen the nation's character and identity, improve people's welfare, and influence the direction of the development of world civilization, through:

1. **Revitalizing and actualizing cultural values and local wisdom to foster a spirit of kinship, community discussion, mutual cooperation, and collaboration among citizens**, including: (a) protecting, developing and utilizing cultural values, traditions, history, and local wisdom; (b) improving access and quality of museums and archival services; and (c) preserving, developing, and utilizing manuscripts and archives as sources of the nation's cultural values, historical past, and collective record.
 2. **Developing and utilizing cultural wealth to strengthen the nation's character and people's welfare**, including: (a) developing the arts, cultural products, and films; (b) organizing cultural festivals and developing operas that meet international standards; (c) managing cultural heritage to improve people's welfare; and (d) developing maritime culture and literacy, maritime resources, Save the Ocean movement, and Cleaner Indonesia movement.
 3. **Protecting cultural rights and expression to create and strengthen**
- an inclusive culture**, including: (a) developing indigenous territories as centers of cultural and environmental preservation; (b) empowering indigenous people and cultural communities; and (c) protecting communal cultural property and copyright.
 4. **Developing cultural diplomacy to strengthen the influence of Indonesia within the development of world civilization**, including: (a) developing cultural diplomacy through the promotion of Indonesian as an international language, of Indonesia's cultural arts, and its rich cuisine across the archipelago; and (b) strengthening learning centers and Indonesian cultural houses abroad.
 5. **Developing governance of cultural development**, including: (a) managing cultural trust funds; (b) enhancing the quality of human resources in the cultural sector; (c) improving cultural facilities and infrastructure; (d) developing an integrated cultural data collection system; and (e) developing cooperation and partnerships in the promotion of the nation's culture.

C. **Strengthening religious moderation to strengthen tolerance and social harmony**, through:

1. **Strengthening a moderate perspective, attitude, and practice of religious beliefs to strengthen brotherhood and togetherness among religious communities**, including: (a) developing religious campaign that instills peace and provides benefit to its respective congregation; (b) strengthening the education system from a moderate perspective that includes curriculum development, teaching materials, teaching processes, training of educational personnel, and teacher recruitment; (c) strengthening the role of religious boarding schools in developing religious moderation by increasing understanding and beneficial practice of religious teachings; (d) managing houses of worship as centers of religious tolerance; and (e) utilizing public space for the exchange of ideas among students and youth across cultures, across religions, and across ethnic groups.
2. **Strengthening harmony among religious communities**, including: (a) protection of religious communities that guarantees civil and religious rights; (b) promoting the role of religious institutions, religious social organizations, religious leaders, community leaders, state officials, the military, and the police as mediators to strengthen unity and harmony of the nation; and (c) strengthening the Forum for Religious Harmony (FKUB) to build solidarity, tolerance, and cooperation.
3. **Aligning religious and cultural relations**, including: (a) appreciating cultural expressions based on religious values; (b) enhancing religious, cultural literacy; (c) preserving religious sites and utilizing religious and cultural celebrations to strengthen tolerance.
4. **Improving the quality of religious services**, including: (a) increasing facilitation of religious services; (b) improving family planning services; (c) strengthening the implementation of the Halal Product Guarantee Act; and (d) improving the organizational quality of the Hajj pilgrimage and umrah.
5. **Improving the economy of religious communities and resources** by (a) empowering religious social funds; (b) developing economic institutions for religious communities; and (c) managing the Hajj funds in a professional, transparent, and accountable manner.

D. **Increasing the culture of literacy, innovation, and creativity to realize a knowledgeable society with character**, through:

1. **Amplifying the culture of literacy**, including: (a) developing a culture and love for reading; (b) developing a bookkeeping system and strengthening literacy content; and (c) improving access and quality of libraries based on social inclusion.
2. **Developing, promoting, and protecting the Indonesian language, Indonesia's local languages and**

their scripts, and Indonesian literature, including: (a) promoting of Indonesian as an international language; (b) developing literature education at schools and in community; and (c) revitalizing local languages and their scripts as the nation's cultural treasures.

3. **Developing the culture of science and technology, innovation, and creativity**, including: (a) enhancing

the culture of research and scientific experimentation from an early age; and (b) developing a culture of innovative production and creativity.

4. **Strengthening social institutions that drive literacy and innovation**, including: (a) developing library partners/supporters; (b) and developing social innovation supported by philanthropy.



CHAPTER VI

STRENGTHENING INFRASTRUCTURE TO
SUPPORT ECONOMIC AND BASIC
SERVICES DEVELOPMENT

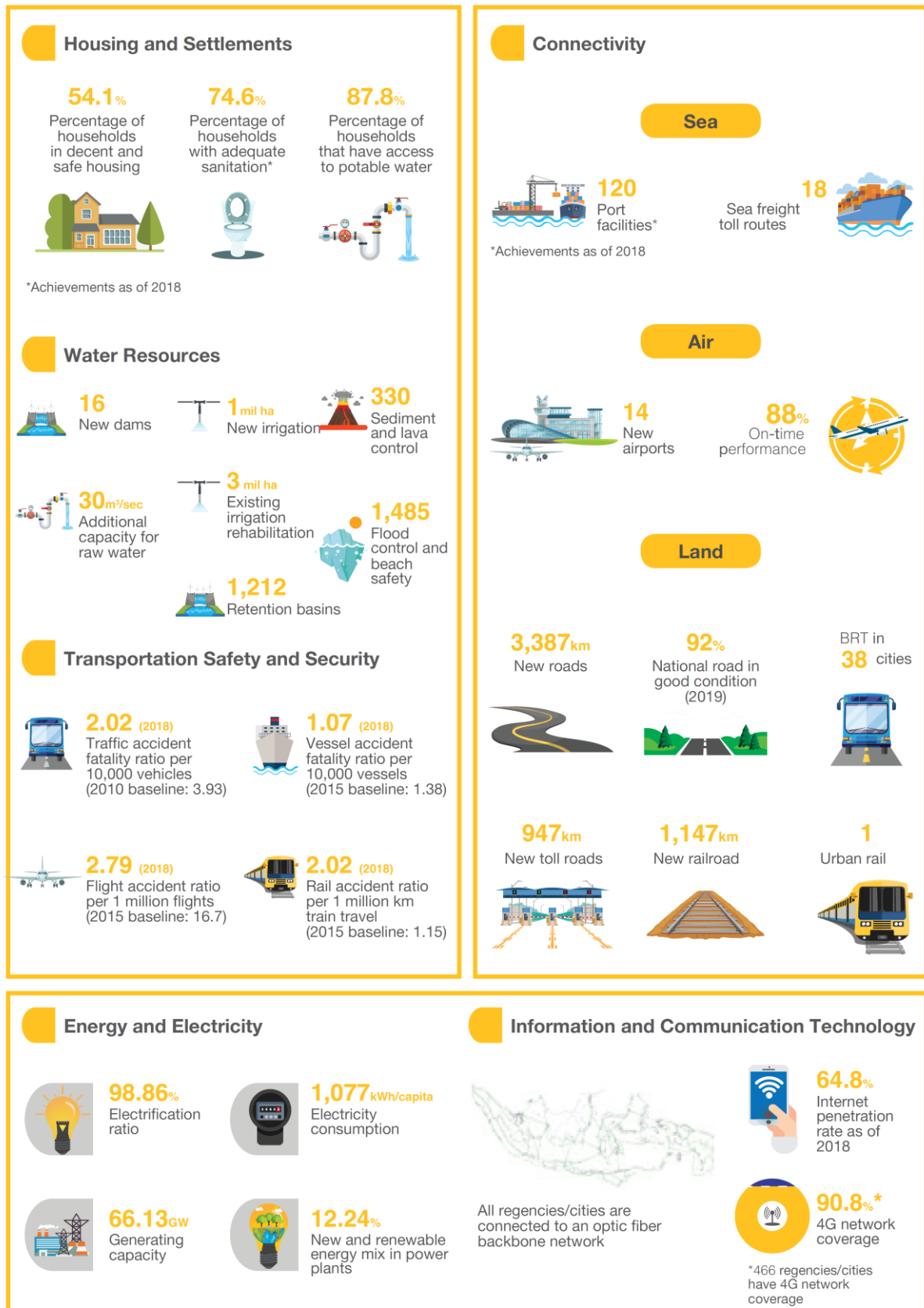
Preface

Infrastructure development is a strategic choice to accelerate the growth and equity of the Indonesian economy. The attention of the government in the field of infrastructure in recent years has had an impact on increasing the quantity and quality of infrastructure in Indonesia. However, Indonesia's infrastructure competitiveness still needs to be improved. The Global Competitiveness Report in 2018 placed Indonesia in terms of infrastructure competitiveness in 71st place out of 140 countries, lagging behind other ASEAN countries, such as Singapore, Malaysia, and Thailand. Others that need to be accelerated include the development of infrastructure to drive the economy, equitable distribution of basic services throughout Indonesia, and development of infrastructure to sustain the expansion of various cities along with the current urbanization in Indonesia. Therefore, in the period of 2020-2024, infrastructure development to support basic services, economic development, and cities is to be prioritized. Its main focus will be

supported by the development of energy and electricity, and by the implementation of digital transformation. In addition, infrastructure development for 2020-2024 will also be carried out by taking into account mainstreaming, such as sustainable development goals, digital transformation, and social and cultural capital.

In an effort to achieve the GDP growth target in the RPJMN 2020-2024, infrastructure spending needs to reach Rp 6,445 trillion, however, the government's is only able to fund as much as Rp 2,385 trillion (37% of what is needed). For this reason, innovative efforts are needed to encourage the participation of the community and business entities through the government-to-business (KPBU) schemes and other creative financing schemes. This is in accordance with the new paradigm of infrastructure funding that makes the state budget/regional budget as a last-resort alternative source of funding.

Development Achievements in 2015-2019



Environmental and Strategic Issues

Basic Services Infrastructure

Providing Access to Decent, Safe, and Affordable Housing and Settlements

There has been limited access to adequate and safe housing and settlements. Housing and settlements are basic human needs that are guaranteed in Article 28(h) of the 1945 Constitution, but the support from the Government, regional governments, and businesses to meet these needs is still limited, especially in providing public access to decent and affordable housing. Although the level of home ownership has hovered around 80% in the last decade, 45.9% of households in 2018 lived in inadequate housing and slums based on four basic aspects of decent housing that include building resilience, floor area per capita, access to drinking water and to proper sanitation.

On the demand side, public access to housing finance still needs to be improved, especially for people in the low-income bracket. Limited access to housing finance is indicated by the ratio of housing loans (KPR) to Indonesia's GDP that was under 3% in 2017, and quite behind compared to Malaysia which reached 38.4%. In addition, these financing options are not yet widely accessible to people with non-permanent income and those who build houses independently.

One of the challenges when expanding that access is that the primary and secondary housing finance market is not yet stable, and there has been a maturity

mismatch between financing sources. Government policies to provide facilitation and assistance have also not been running optimally and sustainably because they are highly dependent on the government budget. Moreover, the amount of assistance provided has not been proportional to the recipients' income, whose amount varies.

On the supply side, affordable housing for middle- and lower-income groups tend to be scattered and away from the city center, causing the growth of urban sprawls. This condition is caused by land management for housing that has not been effective and the by the lack of integration of housing, public transport, and basic housing infrastructure. In addition, guidance and supervision in housing and settlement areas need to be improved to ensure the reliability and orderliness of buildings in order to reduce the risk of disasters and prevent the growth of slums.

In order to manage the complexity of multi-sector housing and settlement development, it is still necessary to increase the integration of policies and programs between stakeholders at the central and regional levels. At the national level, policy integration is urgently needed in all supply chains for housing, especially in relation to land and financing.

At the regional level, although all provinces and districts/cities have Regional Apparatus Organizations (OPD) that handle housing and settlement areas, their existence has not been accompanied by an increased institutional capacity and human resources. The role of the local government needs to be strengthened to

create a conducive climate for the housing industry that allows for licensing and compliance with building reliability and design standards to ensure the provision of housing that is compatible with spatial planning and is served by the availability of adequate basic infrastructure.

Providing Access to Clean, Safe Water, and Sanitation

Inadequate increase in access to safe and proper drinking water.

Challenges to the provision of drinking water include weak governance and weak institutional management of drinking water supply, and the lack of commitment and capacity of the local government as the main operator of the Drinking Water Supply System (SPAM). Until 2018, access to piped water only reached 20.14% of all households in Indonesia. In accordance with the Sustainable Development Goals, access to drinking water for the public must meet the criteria for safe drinking water, which is derived from adequate water sources, availability at home, accessibility at any time, and quality that meets health standards. At present, it is estimated that only 6.8% of households meet these four criteria.

The regional government whose main responsibility is to provide access to drinking water for the public needs to increase its commitment through the integration of the national water supply targets in regional planning, which is supported by adequate budget allocation. Local governments need to prioritize the expansion of service coverage through the utilization of its current capacity of

57,000 liters/second, the improvement and construction of SPAM, and asset management that is expected to reduce the level of non-revenue water from 33% to 25% and ensuring the sustainability of the newly-built infrastructure.

The Regional Water Utility Company (PDAM) as a business entity under the regional government to carry out SPAM activities has not been able reach its optimum potential, where only 59.6% of PDAMs have shown healthy performance. Some of the challenges faced by PDAMs are the sustainability of the quantity and quality of raw water; improving the technical, financial, and human resource management of PDAMs; and determining water tariffs that meet the needs for operational and development of drinking water services.

In the context of achieving the Sustainable Development Goals with limited funding from the government, it is necessary to formulate policies that can increase interest in investment and business cooperation.

Inadequate increase in access to proper and safe sanitation services.

The percentage of open defecation behavior is still quite high (9.36% or equivalent to 25 million people) and Indonesia ranks third in the world for open defecation. Meanwhile, the operation of the City-Scale Wastewater Treatment Plant (IPAL) has not been optimal as indicated by the 36.3% of IPAL capacity that can still be utilized. The local Domestic Wastewater Management System (SPALD) also faces the same challenges, one of which is the low number of Fecal Sludge Treatment Plants (IPLT) that operate optimally.

Percentage of households that have access to domestic waste management in urban areas has only reached 61%. This is due to the low application of the principle of waste reduction and to limited waste reduction infrastructure, such as Integrated Waste Management Sites (TPST) and Reuse, Reduce, Recycle Waste Management Sites (TPS 3R). Moreover, efforts to transport waste in cities face challenges due to the lack of fleets and geographical challenges. The budget allocation for housing and settlement programs remains limited. The Urban Sanitation Development Program

2017 report shows that only 19 of the 47 districts/cities have allocated an ideal budget for sanitation development of at least 2% of the total regional budget.

The institutional function of regulators and basic service operators in the regions is still limited in both quantity and capacity. For example, only 77 districts/cities have a Regional Technical Implementation Unit (UPTD) or a Regionally Owned Enterprises (BUMD) managing domestic wastewater services (Kementerian PUPR, 2018).

The implementation of policies on the provision of basic services in settlements has also not been adequate. This is indicated by the lack of integration of inter-sectoral planning such as the Regency/City Sanitation Strategy (SSK) with regional development plans and spatial plans, as well as by the implementation of plans that has not been optimal. This can be reviewed from the compilation of SSK documents in 489 districts/cities (in 33 provinces), and there are 9 provinces that require significant acceleration in increasing access to sanitation.

Sustainable Groundwater and Raw Water Management

Managing ground water and raw water in Indonesia is still faced with a number of fundamental challenges: the low level of raw water supply, the problem with the quantity and quality of water (the 3Ts: too much, too little, and too dirty), and the problem with using technology to guarantee the sustainability of the quantity, quality, and safety of raw water.

The capacity of the infrastructure that provides safe and proper raw water in Indonesia only covered 30% of the total national raw water needs in 2019. This condition encourages the widespread use of other raw water sources that are not necessarily safe and proper, both in quantity and quality. Problems arise when the quality of ground water and river water that are used by the public does not

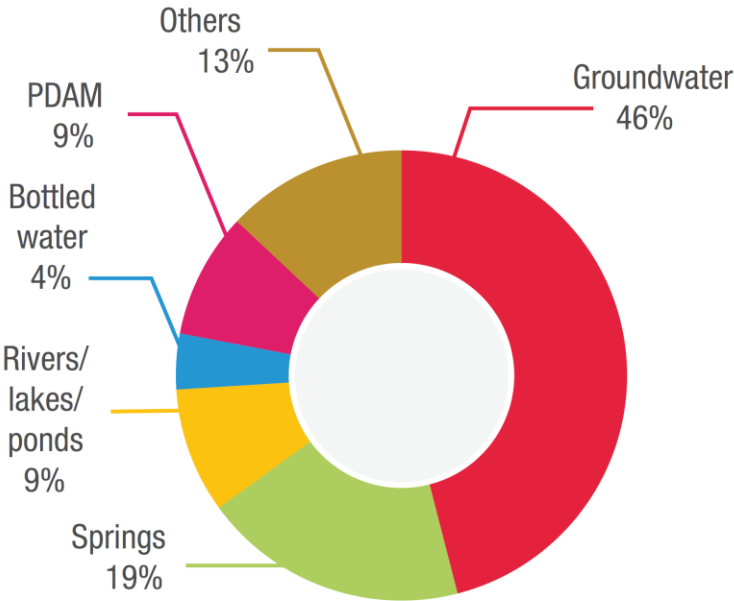
meet the standards of clean water, even the water in some places is not suitable for drinking due to contamination by certain bacteria and chemicals. For example, 45% of groundwater in Jakarta is contaminated by E. coli. In addition, raw water infrastructure in disadvantaged, frontier, and outermost areas (3T), small outermost islands (PPKT), and areas facing water stress still requires more intensive development.

Increased population pressure and increased economic activities in agglomeration and growth poles such as urban areas and strategic areas (KEK, KI, KSPN) also need to be addressed to meet their raw water needs through adequate infrastructure. If the availability of raw water in these areas does not meet existing needs, there will be the potential for large-scale groundwater extraction. This is a big concern because, in addition

to the potential problem with the groundwater quality, large-scale groundwater extraction may lead to significant land subsidence in some areas, such as on the north coast of Java.

The utilization of intelligent technology also remains inadequate to guarantee the quantity and quality of water in a sustainable manner. It is necessary to develop appropriate intelligent technologies such as to developed SIH3 (hydrological, hydrometeorological and hydrogeological information systems), water resources information systems, and integrated technologies for the utilization of various water sources. Institutional strengthening and integrated regulation of water resource management must be developed to respond to the growing challenges and needs for raw water supply, including developing public and private financing collaboration schemes.

Figure 6.1
Types of Water Sources for Domestic Use in 2019



Transportation Safety and Security

One of the main issues with road safety is the high mortality rate due to traffic accidents. In 2018, the number of people killed in traffic accidents in Indonesia reached 29,478 people, or an average of 3-4 people every hour. Traffic accidents are the third leading cause of death in Indonesia, after heart disease and stroke. The high level of fatality results in large economic losses and has the potential to reduce the level of welfare, given that most victims (77%) are of productive age (15-64 years) who are generally the breadwinner of the family. The high number of fatalities due to traffic accidents is caused by various factors, including vehicle worthiness, road infrastructure conditions, road user behavior, and speed of response to crash victims. Less than optimal coordination from various stakeholders becomes an obstacle to the realization of a more secure traffic system.

Concerning railroads, the main problem with safety is the lack of proper facilities and infrastructure that include train facilities, rail infrastructure, signaling systems, telecommunications, and railroad electrification. At present, some of the existing locomotives and electric trains are over 30 years old, while, based on international benchmarks, the operating age for locomotives and railroad facilities is under 25 years. In addition, the length of railroad lines that meet the standards (Track Quality Index/TQI categories 1 and 2) has only reached 81.5% of the entire railroad network. Data on train accidents in the period 2015-2017 shows that the majority of train accidents result from train-related slip, which illustrates the inadequate

condition of the rail infrastructure. The funding allocation for infrastructure maintenance and operation/IMO has only reached 64% of what is needed.

The main challenges concerning the safety of transport over a body of water that includes a sea, river, and lake are the inefficient role of port operators in ensuring transport safety, the lack of optimal infrastructure and facilities, undeveloped and nonoperational information system and ticketing system, and reduced workforce capacity to authorize and operate transport services. The role of the harbormaster that remains unsatisfactory in ensuring the safety of water transport is reflected in the ineffectiveness of the harbormaster's authority to ensure that the ship is in accordance with passenger capacity and type of goods. The problems with the workforce capacity include low competence of captains, crew members, and the capacity of harbormasters to conduct seaworthiness inspections. In addition, the undeveloped information and ticketing systems have resulted in uncontrolled number of passengers in relation to the passenger capacity. In addition, the availability of safety equipment in good condition, such as navigation equipment and weather monitoring, is still limited.

Issues on matters pertaining to search and rescue during transport-related accidents or disasters include the limited availability of human resources and equipment. The number of rescuers that are currently needed has reached 3,564 personnel, but only 1,673 personnel (46.94%) are available.

Another issue is the availability of search and rescue facilities and infrastructure that have not fully met the needs in accordance with the area and

Infrastructure Disaster Resilience

To increase community resilience to disasters such as floods, earthquakes, landslides, and volcanic eruptions, adequate infrastructure for disaster resilience is needed. Financial losses due to natural disasters in the period 2002-2015 in Indonesia reached US\$1.26 billion per year (International Disaster Database, 2018). The risk of disasters also increases with the trend of urbanization and climate change. Urban areas such as Jakarta, northern coastal cities of Java, as well as several priority river areas are facing increasing disaster vulnerability due to the development of cities and their positions in disaster-prone zones. The development of cities has a positive economic impact nationally. However, this causes the level of exposure of communities and economic assets to disasters to increase. This phenomenon has not been supported by adequate spatial planning efforts that take into account disaster risks. In addition, the level of security of vital urban infrastructure—such as transportation, energy, and water resources—remains inadequate in dealing with disaster risks.

In particular, the development of the northern coastal region (Pantura) of Java as the backbone of the national economy, as indicated by the contribution of more than 20% to Indonesia's GDP from 3 urban agglomeration areas, is currently

geographical conditions, characteristics of accidents, types of disasters, and the ability to cover all regions of Indonesia.

facing several challenges. The development of this region faces the potential for sea level rise, tidal flooding, and land subsidence especially in Jakarta, Pekalongan and Semarang. In addition, the Pantura region also experiences abrasion resulting in land loss and ecosystem degradation.

Besides vulnerability to natural disasters, Indonesia also faces an increased risk of environmental disasters. The process of restoring environmental conditions requires a long time and is very dependent on the recovery of catchment areas. Forest and land rehabilitation efforts have not been able to overcome the rate of land damage. In addition, the recovery performance of 15 critical watersheds and 15 priority lakes, and the management of swamp and peat areas remain low.

Disaster risk reduction through the development of the construction industry faces constraints due to limited human resources and undeveloped ecosystem for construction. On the human resources side, the ability to adopt technology for disaster-resistant infrastructure remains limited. As for the construction industry ecosystem, the existing infrastructure has not met disaster-resistant infrastructure standards.

Multipurpose Reservoirs and Irrigation Modernization

The water storage capacity remains low due to the limited number of dams, retention basins, and other water reservoirs. Water storage capacity has only reached 13.8 billion m³ from the target of 14.7 billion m³ in 2019. Optimizing reservoirs faces governance challenges due to the threat of sedimentation and a decrease in the level of security related to aging dams, inadequate operation and maintenance, inadequate dam safety instruments and lack of safety standards. The average decrease in reservoir volume due to sedimentation until 2019 reached 19%, and as high as 31% in Java.

In terms of utilization, the multipurpose role of reservoirs has not been optimal. For example, the utilization of electrical energy potential has only reached 28% of the total potential that can be generated. In addition, the supply of irrigation water

from reservoirs until 2019 only reached 12.3% of the total area of irrigation.

Management of water resources to support food and nutrition security is faced with low-performing operations and maintenance of irrigation systems. This is due to, among other things, the inadequate monitoring and recording of infrastructure damage and water utilization systems both online and in real time. The performance of irrigation systems also remains low, especially in irrigation areas under regional authorities. The low performance has an impact on the low efficiency of irrigation water. Efforts to provide irrigation infrastructure have not yet been harmonized with new agricultural land, primarily agricultural land outside Java. This takes into account the high level of land conversion from agriculture to non-agriculture and the limited land in Java.



Economic Infrastructure

Road Connectivity

The road network as the main mode of passenger transportation and logistics, is faced with challenges that include insufficient quality of road infrastructure and lack of available roads to support regional development. The total length of the road network has reached 582,200 km, consisting of 47,017 km of national roads, and 481,183 km of regional (provincial and district/city) roads. In terms of quality, there is a disparity between the national and regional roads. National roads make up 8% of the entire road network, and 92% of these roads are in good condition. In comparison, regional roads make up 92% of the entire road network, however only 68% of provincial roads and 57% for district/city roads are in good condition. The quality of existing roads has also not been fully supported by the provision of adequate road equipment, especially drainage, which is important in preventing damage to roads caused by standing water.

In addition, the existing road networks have not been sufficient to support regional development, both to support economic growth and equitable development. The lack of available roads for logistical purposes is reflected in the long travel time on the main roads, which has only reached 2.3 hours per 100 km. The availability of toll roads for logistical purposes is still limited to the areas along the Pantura line. The availability of road networks to support the development of industrial estates and tourism also remains limited. There is a number of transportation nodes (airports, seaports, and terminals) that do not have adequate road access. The availability of road networks in disadvantaged, frontier, and outermost regions and islands (3T) also remains inadequate to support community accessibility.

Railroad Connectivity

The main issue with rail connectivity is the ineffective role of trains in supporting freight transportation and intercity passenger movements to be more quickly and efficiently. The share of goods transported by rail has only reached 2% of the total goods transported by all modes of transportation. The majority of goods transported by rail are mining goods. Meanwhile, freight transport, which plays an important role in the logistics system, has not utilized rail

services to the full potential. The role of the railroad is also still limited to supporting urban agglomeration passenger transport and conurbation of major cities that have a high demand for inter-city travel. The travel time between Jakarta and Surabaya by train is currently 9 hours, and the time between Jakarta and Bandung is 3-4 hours. The long travel times have caused rail transport to not have competitive advantage over air transport or toll roads.

Maritime Connectivity

The strategic issue with sea transportation is the inefficient logistics transportation performance, which is caused by, among others, port performance indicators that do not meet certain standards (dock length, pond depth, and shipping lanes), shipping networks that still use less than optimal vessel sizes with routes that have not formed loops (a network connected to each other), undeveloped port support in hinterlands, limited multimodal and intermodal connectivity at ports and hinterlands, and limited use of maritime logistics information technology. In addition, the domestic commercial fleet is

still dominated by vessels over 25 years old. Another strategic issue is the need for a greater role for sea transportation in reaching disadvantaged, frontier, and outermost areas islands (3T) in order to reduce disparity in the price of goods between regions. Sea transportation modes that serve the 3T regions have not yet optimized transportation intermodal integration that includes ground transport and air transport. The limitation of sea transportation modes in serving 3T areas is also due to the inadequacy of port facilities, including the availability of loading and unloading equipment.

Air Connectivity

The strategic issue with air transportation development is the inadequacy of airport capacity and transport capacity in supporting regional development, particularly in major airports. The capacity of airports including runways and terminals has not optimally matched with the increase in the national air transport volume growth, which reached 9% per year in the 2015-2017 period. In addition, the role of pioneering air transport has not been optimal in supporting the movement of passengers and the distribution of goods that can

reach 3T regions. Airstrip infrastructure to support transportation in the 3T regions, especially in Papua, has been inadequate, not well-managed, has not met safety standards. The role of air transport to support the tourism sector remains limited as the quality of airport services and air transport routes that support tourism are not optimal. In addition, the development of water-based airports in supporting the increase in water tourism destinations has not achieved progress.

Land Connectivity

An important issue in managing land transportation is the high rate of overloading on the road. Along the Java Pantura line, there is an average of 12,000 truckloads of goods transported each day, of which as many as 67.5% of

trucks inspected violate the maximum transport capacity limit.

On the other hand, long distance ferries which have the potential to reduce the burden of road transport have not been sufficiently developed. The development

of transportation over bodies of water, such as rivers and lakes, is still limited, especially to support tourism areas and 3T regions/islands. In addition, there are

issues with the use of transport vessels that do not meet specifications and are over 25 years old, including those that support pioneering transportation.

Urban Infrastructure

Urban Transportation

The strategic issue with urban transportation is the inadequate availability of urban mass public transport systems in large cities. For example, when compared to some cities in Asia, the MRT network in Jakarta only spans 15 km long, still far below Tokyo (304 km), Singapore (200 km), Hong Kong (187 km), and Kuala Lumpur (52 km). This condition has an impact on the low share of public transportation in major cities in Indonesia. The share of public transportation in Jakarta, Bandung and Surabaya is still below 20%, while other major cities in Asia have a share of public transport above 50%, such as Hong Kong (92%), Singapore (61%), and Tokyo (51%). The low share of public

transportation has an impact on traffic congestion and economic losses due to traffic congestion. Based on Tomtom Traffic Index data (2019), Jakarta ranked 7th most congested city in the world from 403 cities surveyed in 56 countries. The value of losses due to traffic congestion in Jakarta has reached Rp 65 trillion per year. Efforts to develop mass public transportation are still limited by government administrative limitations, making it difficult to develop integrated and affordable public transportation systems outside the administrative boundaries cities/regions. In addition, the fiscal capacity of local governments has not been sufficient to build a modern urban mass public transport system.

Urban Energy and Electricity

Increased demand for urban electricity, if not accompanied by diversification of sources of electricity supply, has the potential to further reduce environmental quality. This is due to the fact that most power plants in Indonesia currently use fossil energy sources. The potential of solar power, which is one of the clean energy sources for urban areas, is not utilized optimally. That is because the use of solar rooftop panels is still constrained by the limitations of domestic solar cell production, inadequate pricing policies to support solar power, intermittent nature

of solar energy, and electricity networks that have not been able to fully receive power from renewable energy sources.

Clean energy utilization in the transportation sector is still underdeveloped. This can be seen from unutilized electric vehicles and electric mass transit. Likewise, the infrastructure for charging electric vehicles (Public Electric Vehicle Charging Stations/SPKLU) in various cities is also still limited.

Urban ICT Infrastructure and Ecosystems

ICT infrastructure and its utilization are an important part of urban development in various big cities. The development of smart cities, as one of the goals of urban development, is currently not supported by reliable use of ICT in various urban services. The level of utilization of ICT in cities across the country is still low. Only a few cities are served by integrated emergency service systems, integrated community reporting systems such as the Public Online Complaints Services (LAPOR), as well as other digital-based government services. In addition, the

penetration of ICT infrastructure has not been optimal. The rate of penetration of fixed broadband access in urban areas remains low, which is below 9% of urban households. This also shows that the people prioritize wireless access or data. In addition, the use of wireless access or data is also more widely used for social interaction and social media than for government services or productive activities. Consequently, the benefits of ICT services provided by the government have become less than optimal.

Providing Access to Water and Sanitation Both Clean and Safe in Urban Areas

Provision of infrastructure for drinking water and sanitation services in urban areas is still inadequate. The level of proper drinking water supply in urban areas has only reached 51.54%, including the coverage of piped water access services that has only reached 29.30%. This is also the case with proper domestic wastewater services in urban areas, at only 69.36%, which includes safe access at 11.12%. Another problem is that in urban areas, there are still 3.85% of households that practice open defecation in the open, and 8.52% of households that have toilets but do not have septic tanks (direct disposal into ponds/rice

fields/rivers /lakes/seas/beaches/open fields/gardens). These problems cause a decrease in the quality of the residential environment, a decrease in water quality, and an increase in waterborne diseases such as diarrhea and stunting.

Moreover, limited access to safe wastewater in urban areas is caused by the inadequate utilization of city-scale wastewater treatment plants and of fecal sludge management services. Efforts and hard work should be made in accelerating the development of drinking water and wastewater supply, especially in urban areas as centers of economic activity.

Providing Access to Decent, Safe, and Affordable Housing and Settlements in Cities

The rapid population growth due to natural growth and urbanization has led to an increase in urban housing needs. However, the inadequate housing system

for middle- and lower-income people has led to the development of unsuitable, unregulated, and also illegal housing. At present, there are around 40.39% of

urban households that live in inadequate housing, of which some still live in slums or illegal housing. Managing slums in urban areas requires renovation, rejuvenation, and resettlement efforts. In

certain areas, vertical land consolidation is needed in order to manage slums while providing a supply of new homes in urban areas that are integrated with the public transportation system.

Energy and Electricity

Energy and electricity development will take into account efforts to balance the following three factors, namely: (i) the sustainability of energy and electricity

supply; (ii) energy and electricity access and affordability; and (iii) adequate energy and electricity supply.

Sustainability of Energy and Electricity Supply

Most power plants in Indonesia still use fossil energy (oil, coal, and natural gas), which accounts for 81.3% in 2018. In addition to the increasingly limited availability of fossil energy, the high share of use of fossil energy has an impact on environmental degradation due to CO₂ emissions and sizeable particulate matter. The utilization of new and renewable energy (EBT) is still far from the target of the EBT mix in the primary energy supply, which is set at 23% in 2025 in accordance with the commitment to reduce greenhouse gas (GHG) emissions.

Another important issue is the large energy losses in electricity transmission and distribution (9.55% in 2018). This illustrates inefficient energy utilization. This is due to the undeveloped management of fuel quality, the replacement of engines and software for control devices, and the underdevelopment of power plants that use cleaner coal technology. Likewise, the use of natural gas needs to be increased to reduce fuel oil consumption (replacing diesel power stations) and reduce carbon emissions.

Access and Affordability of Energy and Electricity

The reliability of electricity services also needs to be improved. The annual electricity disruption ratio in Indonesia in 2018 reached 15.97 hours per customer. This means that in one year, each customer on average experiences blackouts for 15.97 hours. For example, in several regions such as South Sumatra and Bengkulu, the ratio of this disturbance is remarkably high, reaching 73.92 hours per customer per year. The high annual disturbance ratio shows the

low reliability of electricity services in Indonesia.

For activities involving cooking, there are still many people who use firewood (21.57% in 2017) due to lower price and affordability. On the other hand, the consumption of liquefied petroleum gas (LPG), mainly for cooking fuel, is still largely imported (75%) due to a decrease in domestic production of raw materials and an increase in consumption. Until

2018, national LPG consumption per year reached 7.5 million metric tons (MT).

To ensure the affordability of energy sources for small communities, the

government developed an energy subsidy policy. However, the intended policy misses its target, hence energy consumption tends to be inefficient.

Adequate Energy and Electricity Supply

The indicator of electricity consumption per capita reflects the level of socioeconomic development and productivity of the population. Electricity consumption per capita in Indonesia has only reached 1,064 kWh in 2018, far below compared to Malaysia, which has reached 4,460 kWh in 2016. Limited development of productive public activities is the cause of low electricity usage per capita in Indonesia when compared to the average electricity consumption per capita in other middle-income countries.

Electricity industry governance has also not been optimal, where policies concerning electricity prices and tariffs have not fully taken into consideration the people's ability to pay and the

sustainability of the electricity supply industry. Moreover, institutional development to boost the electricity industry still needs to be improved so that the industry and distribution of electricity supply run more efficiently and continue to develop.

Meeting domestic needs for oil and gas fuels remains a challenge. Domestic supply has not been fully adequate due to the lack of optimal trading system governance and limited natural gas infrastructure. Likewise, the relatively stagnant fuel oil refinery infrastructure capacity also contributes to this challenge. These have resulted in a large amount of imported fuel oil to meet domestic needs.

Digital Transformation

Completing ICT Infrastructure

The role of ICT has become even greater in accelerating economic growth. ICT infrastructure development needs to be improved in line with technological developments and public needs. In addition, to encourage basic services and improve socio-economic activities, ICT infrastructure needs to be expanded to reach all regions and all community groups. Increasing the reliability and speed of information services requires the expansion of fixed broadband

network and mobile broadband network. The speed of fixed and mobile broadband networks in Indonesia remains low. The average speed of fixed broadband has only reached 14.9 Mbps (2018), compared to the world average of 46.1 Mbps (2018). While the average speed of mobile broadband was also relatively slow, at 10.4 Mbps (2018), compared to the world average of 22.8 Mbps (2018). The number of fixed broadband subscribers in Indonesia in 2018 was also

still incredibly low (2.3% of the total population), far below the world average of 12.4%.

The fixed broadband network needs to be expanded to reach sub-districts, while the telecommunications and internet access through broadband network need to be extended to all villages. At present, there are 7,971 villages that have no access to telecommunications and the internet due to geographical challenges, such as mountainous areas and remote areas.

Utilizing ICT Infrastructure

The utilization of ICT infrastructure has been applied to expand service coverage and improve service quality in government, industrial, service, and social sectors. In the government sector, the use of ICT can improve the efficiency and quality of services provided by the government. However, currently there are many agencies that have built common applications and there is much data that has not been integrated to optimize the use of ICT. In public services, such as education and health, the use of ICT can expand services and equitable service quality. Nevertheless, the application of distance learning in the education sector, especially in rural areas, has been less than optimal, therefore equitable quality of education through the use of ICT remains ineffective.

Utilization of ICT in the health sector has also not been optimal, where health data still lacks integration. In addition, several uses of digital platforms such as

The expansion of fixed and mobile broadband networks will facilitate public access to government services.

In addition, the migration of broadcasting technology from analog to digital is also needed to improve the efficiency of frequency spectrum usage and broadcast quality, especially for television. The digital switchover will provide space for the use of frequency spectrum for other uses (digital dividends).

telemedicine, telediagnosis, and other health technologies have also been ineffective.

In the economic, industrial, and service sectors, the use of ICT may have a large impact. However, the current use of ICT in the agricultural and fishery sector remains limited, hence the benefits of ICT for farmers and fishermen have not been significant, for example the exchange of current price information and expansion of the sales network for fishermen. In the trade and the creative economy sectors, the use of ICT has a major impact on increasing economic growth. One study showed that the contribution from partners of ride-sharing start-ups has added Rp 44.2 trillion to the national economy. Digital start-up innovations need to be developed and utilized to enhance national economic growth. Due to its potential, it is hoped that the use of ICT can be expanded to digitize all development sectors.

Digital Transformation Support Facility

Developing ICT, in addition to accelerating the supply of goods and services, also produces a variety of new goods and services that can be further utilized such as big data. In order to optimize the utilization of the development of goods and services that result from ICT, it is necessary to improve the digital literacy of the people so they can understand and use information to their benefit.

The wide use of ICT requires a variety of expertise in managing ICT instruments and utilizing information. For this reason, it is necessary to develop human resources, including through vocational education in ICT. ICT development also requires human resources from various fields, especially science, technology, engineering, and mathematics (STEM). The number of STEM graduates in Indonesia is still lagging behind, with only 0.8 graduates per 1,000 population, far below compared to India (2.0), China (3.4), even Iran (4.2).

The development of ICT-based human resources is also in line with the size of the ICT market in Indonesia. The

development of human resource capabilities in producing ICT-based goods and services is needed so that Indonesia is not only a consumer in the ICT market. Increased research and development of ICT as well as improvements to industrial policies, such as market and fiscal incentives, need to be implemented in order to encourage the improvement of the capability of the domestic ICT industry, especially when facing Industrial Revolution 4.0.

In the digital age, various types of data and information can be stored in interconnected digital networks without being limited by distance and time. These technological breakthroughs have facilitated socio-economic activities and people's daily lives. However, these conveniences may also have potential consequences, such as misuse of data and information. Guaranteeing digital security for the people, government, and the business world when exchanging data and information on the internet is a challenge that needs to be mitigated by improving information technology security, improving regulations, and increasing public literacy.

Objectives, Indicators, and Targets

No	Objectives or Indicators	Baseline (2019)	Target (2024)
1	Increasing provision of basic services infrastructure		
	a. Households that live in decent and affordable housing (%)	67.0 (2018)	74.3
	b. Mortgage to GDP ratio (%)	2.9 (2017)	4
	c. Households that live in housing with access to safe and proper drinking water (%)	87.8 proper 6.7 safe (2018)	100 proper 15 safe
	d. Households with access to piped water (%)	20 (2018)	30
	e. Households that live in housing with access to safe and proper sanitation (domestic wastewater) (%)	74.6 proper 7.42 safe (2018)	90 proper 15 safe
	f. Number of connected households served by wastewater managed system at the residential/city/regional level	1,300,000 (2015-2019)	3,000,000
	g. Number of households served by sludge treatment plants	N/A	6,500,000
	h. Households that still practice open defecation (%)	9.36 (2018)	0
	i. Households that live in housing with access to well-managed waste services in urban areas (%)	59.45 (managed); 1.19 (reduced) (2016)	80 (managed); 20 (reduced)
	j. Number of households served by landfills using standard and sanitary landfilling method	N/A	19,000,000
	k. Construction of new (cumulative) irrigation networks	1,000,000	500,000
	l. Reducing road accident fatality ratio per 10,000 vehicles against the 2010 base rate (%)	53	65
	m. Average search and rescue response time (in min)	28	25
	n. Increasing availability of domestic and industrial raw water (in m ³ /second)	81.36	131.36
	o. Construction of multipurpose dams (unit)	45	63
	p. Increasing productivity of water usage for rice production (in m ³ /kg)	N/A	3
	q. Reducing disaster risk in disaster-prone provinces (province)	N/A	20
2	Increasing regional connectivity		
	a. Travel time on an island's main road network (in hour/100 km)	2.3	1.9

No	Objectives or Indicators	Baseline (2019)	Target (2024)
	b. Length of newly built and/or operational toll roads (in km)	1,461	2,500
	c. Length of newly built roads (in km)	3,387	3,000
	d. Percentage of roads in good condition at the national/provincial/regency/city level (%)	92/68/57	97/75/65
	e. Length of newly built rail network (cumulative) (in km)	6,164	7,451
	f. Railroad conditions according to the Track Quality Index (TQI) categories 1 and 2 (%)	81.5	94.0
	g. Connected shipping routes/loops (%)	23	27
	h. Number of main ports that meet standards	1	7
	i. Number of subsidized sea toll routes	14	25
	j. Number of newly built ports for water transport	24	36
	k. Number of newly built airports	15	21
	l. Number of air transport routes	35	43
3	Increasing mass public transportation services in 6 (six) metropolitan cities		
	a. Number of metropolitan cities with built and developed urban mass transit systems	1	6
	b. Number of cities with multi-level transport systems	3	6
4	Increased access to and supply of equitable, reliable, and efficient energy and electricity		
	a. Number of gas network connections that connect to households (cumulative)	537,936	4,000,000
	b. Total oil refinery capacity (cumulative) (in barrel per calendar day/BPCD)	1,151,000	1,276,000
	c. National electricity demand (consumption) per capita (in kWh)	1,077	1,400
	d. Electrification ratio (%)	98.86	~100
5	Increasing development and utilization of ICT infrastructure, as well as contribution of the information and communication sector in economic growth		
	a. Fixed broadband network coverage (% of total districts)	35.71	60
	b. Mobile broadband network coverage (% of total districts)	87.4	95
	c. Population served by digital broadcasting (%)	52.28	80
	d. Facilitating new start-up unicorns (unit)	5	8

Policy Directions and Strategies

Basic Services Infrastructure

Providing Access to Decent, Safe and Affordable Housing and Settlements

The policy direction for housing and settlement development is to gradually increase public access to affordable and safe housing and settlements to create inclusive and livable cities. The strategy is focused on three aspects, namely the demand side, the supply side, and the enabling environment.

The demand-side strategy includes:

1. Strengthening the primary and secondary housing finance system, including optimizing the use of long-term financing sources such as Savings and Pension Insurance (TASPEN) and BPJS Employment;
2. Reforming housing subsidies that are more efficient and with effective targeting measures;
3. Expanding housing finance facilities, especially for people with non-permanent income and who build their houses independently;
4. Developing services from the People's Housing Savings Agency (BP Tapera) to expand access to housing finance.

The supply-side strategy includes:

1. Increasing the provision of housing in accordance with spatial planning and integrated with the basic services infrastructure, including public transportation systems;
2. Developing public housing systems based on flats in urban areas;

3. Inclusive urban renewal and land consolidation in the context of creating a city without slums;
4. Utilizing state-owned land to support the provision of housing for middle- and lower-income groups;
5. Developing the role of the business community including state or regionally owned enterprises (BUMN/BUMD in providing housing, namely the National Housing Development Corporation (Perumnas), PT. Sarana Multigriya Finansial (PT. SMF), and the National Savings Bank (BTN).

Whereas the strategy from the aspect of creating an enabling environment includes:

1. Strengthening the implementation of reliability standards and orderliness of buildings, easing licensing and administration of land, as well as developing technology and inexpensive building materials;
2. Increasing the capacity of the government/regional government, communities, and businesses in providing housing;
3. Increasing collaboration between the government, regional government, communities, and businesses in providing housing;
4. Developing a system of incentives and disincentives in providing housing;
5. Developing national and regional public housing service agencies.

Priority projects that support the provision of access to decent, safe and affordable housing and settlements include: i) facilitating the provision of new housing; ii) improving housing financing; iii) developing home improvement

facilitation; iv) providing infrastructure, facilities, and utilities for housing and settlements; v) improving building safety standards for housing (IMB and SLF); vi) providing 1 million urban flats (Major Project); and vii) managing slums.

Sustainable Groundwater and Raw Water Management

The policy direction in the management of ground water and sustainable raw water is to accelerate the supply of raw water from protected water sources, increase integration in drinking water supply, and use technology in raw water management.

Strategies to accelerate the supply of raw water from protected water sources include: (a) Increasing the capacity of raw water from dams and other water sources that are supported by the safeguarding of water quality; (b) Rehabilitating and improving infrastructure efficiency of raw water providers; and (c) Implementing groundwater conservation that is integrated with the raw water supply system and supported by the enforcement of groundwater extraction regulations. The strategy needs to be developed simultaneously with the improvement of the performance of water treatment plants and the water distribution system. The acceleration of raw water supply systems also needs to involve business entities. Sustainable availability of water also needs to be supported by an increase in public awareness to encourage water-saving behavior; and (d) compiling the Water Resilience Index scores.

Strategies to improve integrated water resources management policies include:

(a) Completing government regulations related to the water resources law; (b) Improving the performance of river basin management by optimizing natural resource planning for water, food and energy; (c) Strengthening the management of water resources and increasing the capacity of state-, regionally-, and privately-owned enterprises and government-to-business entities for raw water/drinking water; and (d) Compiling the Water Resilience Index scores.

Strategies for the use of technology in water resources management include: (a) Developing water resources information systems; and (b) Developing hydrological, hydrometeorological, and hydrogeological information systems.

Priority projects that support the management of ground water and sustainable raw water include: i) Providing and securing raw water and ground water as the Major Project to provide access to piped drinking water (10 million house connections); ii) Structuring regulations and strengthening natural resource institutions; and iii) Developing an integrated water resources information system (SISDA) based on smart technology (smart water management).

Providing Access to Clean, Safe Water, and Sanitation

The policy directions and strategies in the framework of providing access to safe and proper drinking water include:

1. Improving institutional governance for the provision of safe and proper drinking water, through: (a) Integrating policy directions and development targets for access to safe and proper drinking water in regional planning; (b) Improving commitment through adequate state budget allocation; (c) Strengthening the roles of provincial and district/city governments through tiered control and guidance mechanisms; (d) Enhancing the quality of planning for an integrated water supply (Jakstrada, RISPAM, RPP Drinking Water, and PDAM Business Plan) supported by data and information systems (e) Strengthening the institutional function of drinking water regulators; and (f) Optimizing funding and developing alternative funding including through performance-based grants and cooperation between the business-to-government entities (PPP).
2. Increasing the capacity of drinking water providers, through: (a) Improving PDAM performance through technical and non-technical assistance to improve service quality, which includes reducing water loss, better production efficiency, better financial and human resource management, and applying adequate tariffs; and (b) Empowering and building capacity of other SPAM providers (UPTD, BUMDes, KPSPAM, etc.).
3. Developing and managing SPAM, through: (a) Optimizing the SPAM capacity that can be utilized through expanding service coverage; (b) Improving and developing SPAM; (c) Asset management (network inventory, operations, maintenance, and repairs); (d) Providing access to drinking water for water-stressed areas and islands; and (e) Providing access to non-piped drinking water that is well managed independently, by the community, or by the government and regional government in specially assigned areas; (f) Developing drinking water treatment and safety technology.
4. Awareness of the community to adopt water-saving behavior, to access piped drinking water services or use non-piped drinking water sources that are independently managed, and to implement safe drinking water management in the household;

The sustainable sanitation service system is realized through the Accelerated Sanitation Development in Human Settlements Program (PPSP), which is broken down into five policy directions and strategies, namely:

1. Increasing institutional capacity in sanitation management services, through: (a) Developing wastewater management systems, sludge services, and waste management systems; (b) Confirming the role of regulators for domestic and wastewater management services; and (c) Strengthening the role and capacity of PDAMs as providers of

- domestic wastewater management services, especially for regions with piped water coverage of more than 50%.
2. Increasing the commitment of regional leaders to sustainable sanitation services, through: (a) Formulating regulations in regions regarding the management of domestic wastewater and waste; (b) Providing incentive mechanisms for local governments to allocate budget for sanitation infrastructure development and/or provide subsidies for operations and maintenance; and (c) Implementing regional regulations that govern payment obligations for sanitation services from consumers, and requiring households to become customers of sludge and waste management services.
 3. Developing infrastructure and housing sanitation services in accordance with the characteristics and needs of the region, through: (a) Technical guidance for sanitation infrastructure development; (b) Coordinating spatial planning with sanitation development; (c) Developing the concept of resource recovery and circular economy; (d) Developing guidelines at the central level regarding waste management; (e) Developing human resources and technology through collaboration with universities; (f) Developing sanitation infrastructure; (g) Developing technology using the incremental approach; and (h) Information technology-based data management, monitoring and evaluation, namely NAWASIS (National Water and Sanitation Information Services).
 4. Encouraging behavior change of the people to achieve safe access to sanitation, through: (a) Implementing behavior change programs in each village and sub-district where open defecation (BABS) is still practiced; (b) Strengthening scheduled monitoring mechanisms; (c) Strengthening the sustainability of community-based total sanitation (STBM) at the regency/city level; and (d) Strengthening waste reduction campaigns.
 5. Developing cooperation and funding, through: (a) Providing appropriate subsidies to enhance community capacity; (b) Developing sanitation services through an innovative financing system; (c) Facilitating local governments to collaborate with other entities; (d) Creating sanitation entrepreneurship in areas that have potential; and (e) Facilitating sanitation entrepreneurs to be able to create products that comply with standards.\
- Priority projects that support the provision of access to safe and proper drinking water and sanitation include: i) Developing a safe and proper drinking water supply and sanitation system; ii) Fostering safe and proper drinking water and sanitation operations; iii) Regulating safe and proper water and sanitation administration; iv) Monitoring the quality of drinking water and sanitation; v) Safe and proper access to sanitation (wastewater) (90% of neighborhoods) (Major Project); vi) Piped water access (10 million house connections) (Major Project).

Transportation Safety and Security

Transportation safety policy is focused on road traffic safety given the high number of fatalities in traffic accidents. Improving traffic safety and road transport is directed through the integrated implementation of the five pillars of road safety, which include management of road safety, safe roads, safe vehicles, safe behavior of road users, and management of pre- and post-traffic accidents.

This policy was strengthened by the issuance of Presidential Regulation on the National General Plan for Traffic Safety and Road Transportation (RUNK LLAJ) that contains road safety action plans for each pillar. Road safety management needs to focus on strengthening coordination among stakeholders in ministries/institutions at the levels of the central government, regional government, education and research institution, business entities, and community organizations. Institutional strengthening is needed at both the central and regional levels through coordination, use of data and information, and research activities that can serve as the basis for planning and implementing national road safety action plans.

For other modes of transportation, safety policies are directed at strengthening the role of institutions, improving the safety of

facilities and infrastructure, and increasing the capacity of human resources to support safety performance. Improving railroad safety is carried out through the provision of railroad facilities and infrastructure that meet feasibility standards, including railroad facilities, infrastructure, and signaling. To guarantee the condition of railroad infrastructure, the needs of infrastructure maintenance must be met. The structural safety of railroad facilities is fulfilled by rejuvenating the railroad fleet in accordance with the operating age of under 25 years. The safety of sea transportation and crossings is increased by strengthening harbormaster's offices, providing safety infrastructure, standardizing vessels that meet safety standards, and the developing passenger (ticketing) and cargo information systems (manifests) to prevent overloading.

Priority projects that support transportation safety and security include: i) Implementing action plans for the five pillars of traffic safety and road transport; ii) Fulfilling the needs of facilities, infrastructure, institutions, transportation safety and security information systems, and search and rescue operations (SAR); and iii) Developing and educating human resources on transportation safety and SAR.

Infrastructure Disaster Resilience

Policy directions in developing disaster-resilient infrastructure include developing resilient infrastructure and strengthening vital infrastructure, integrated management of disaster-prone areas,

and restoring and conserving watersheds.

Strategies to develop disaster-resilient infrastructure and strengthen vital

infrastructure against the risk of floods, earthquakes, tsunamis, landslides, mud flow and sediments include: (a) Developing and improving the quality of disaster-resilient infrastructure in disaster-prone priority areas; (b) Assessing and improving vital infrastructure security against disasters; (c) Establishing standards for disaster-resilient buildings; and (d) Developing green infrastructure. These strategies are supported by improving the quality of the construction industry, as well as quality control and supply chain management in the construction industry. Collaboration between research institutions and industry players in the mastery of technology also needs to be improved and supported by improving the quality of human resources in the construction sector. In addition, funding innovations are needed to improve budgeting efficiency in efforts to increase disaster resilience.

Strategies to support integrated management of disaster-prone areas include: (a) Integrated programs in disaster risk management, especially concerning the risk of flooding in urban areas, with a combination of structural and non-structural approaches including

green infrastructure; (b) Establishing a master plan for regional resilience to disasters, (c) Preparing disaster risk maps based on regional characteristics; (d) Developing a land subsidence monitoring system; and (e) Providing early warning systems for floods and landslides.

Strategies to support watershed restoration and conservation include: (a) Normalizing and building capacity of river basins; (b) Conserving swamp and peat areas; and (c) Controlling pollution in reservoirs and lakes with high levels of pollution.

Priority projects that support infrastructure disaster resilience include: i) Developing regional policies and strengthening vital infrastructure for disaster resilience; ii) Developing and rehabilitating disaster-resilient infrastructure including the Major Project "Recovering 4 Critical Watersheds" and "Integrated Management of 5 Coastal Urban Areas Along Pantura"; iii) Providing an integrated system for early warning and emergency response; and iv) Restoring and conserving natural infrastructure.

Multipurpose Reservoirs and Irrigation Modernization

The policy direction in the context of optimizing multipurpose reservoirs and irrigation modernization is increasing water reservoir capacity, increasing and utilizing the functions of water reservoirs, increasing dam performance and decreasing Dam Risk Index value, increasing the efficiency and performance of irrigation systems, and

providing water for high-value agricultural commodities.

Strategies to increase water storage capacity include: (a) Planning multipurpose dams with sustainable protocols; (b) Planning the use of natural reservoirs; (c) Rehabilitating critical dams; and (d) Constructing multipurpose dams that involve business entities.

These strategies are supported by the development of integrated economic zones based on multipurpose dams and the application of new dam investment schemes that involve business entities.

Strategies to improve and utilize functions of water storage are: (a) Utilizing dams for various integrated purposes such as raw water, irrigation, and flood control; (b) Developing potential reservoirs for the supply of renewable energy; (c) Revitalizing critical lakes; and (d) Utilizing the potential of lakes for raw water and other needs. These strategies are supported by the improvement and recovery of reservoir conditions and the development of cooperation schemes with BUMN and business entities in optimizing reservoir functions.

Strategies to increase dam performance and reduce dam risk include: (a) Increasing the level of safety of high-risk dams; (b) Conserving dam catchment areas; (c) Increasing the capacity of human resources in dam management; and (d) Improving dam operation performance that is in accordance with standards and supported by competent dam management units. These strategies are supported by structuring dam assets as state property.

Strategies to increase the efficiency and performance of irrigation systems by applying the concept of irrigation modernization include: (a) Constructing

new irrigation networks; (b) Rehabilitating existing irrigation networks; (c) Building capacity of irrigation institutions; (d) Increasing the effectiveness of irrigation water allocation; and (e) Utilizing sub-optimal land through swamp revitalization.

Strategies to supply water for high-value agricultural commodities include: (a) Developing water reservoirs and irrigation systems for estate crops, livestock, horticulture, and fishery; (b) Developing irrigation networks for smallholder farm ponds; and (c) Developing micro-irrigation especially in land that has not been utilized optimally. These strategies are supported by increasing the role of local government, community participation, and partnerships with business entities in irrigation management.

Priority projects that support multipurpose reservoirs and irrigation modernization include: i) Planning the development of multipurpose dams and the use of natural reservoirs; ii) Dam construction and rehabilitation including the Major Project "18 Multipurpose Reservoirs"; iii) Optimizing and utilizing reservoirs; iv) Improving operation and maintenance (OP), and dam safety; v) Developing and rehabilitating irrigation networks; vi) Improving management of irrigation water allocation and institutional capacity.

Economic Infrastructure

Road Connectivity

Improving road quality is carried out by meeting the needs of road maintenance, including routine road maintenance and road worthiness. Meeting road maintenance needs is encouraged through improved governance in the management of roads that prioritize routine and periodic maintenance activities. Cooperation schemes between government-to-business entities (KPBU) such as the Availability Payment Scheme (AP) based on performance and the Regional Road Grant Program that encourages road maintenance performance need to be expanded. The KPBU-AP scheme also supports the quality of roads through integrated road management and weighbridge operations to control road overloading behavior, which is the main cause of road damage.

Increasing the availability of road networks that support regional development is carried out through the construction of roads on the main road network of island-regions, roads that support priority industrial and tourism areas, access roads to priority transportation nodes, outer ring/trans-island roads, and access roads supporting disadvantaged, frontier, and outermost areas (3T) and border areas. For example, the completion of the Trans-Sumatra toll road connecting Aceh-Lampung has become a priority program to reduce travel time and provide access to the main port of Kuala Tanjung to

encourage the development of industrial estates along the road corridor. The construction of access roads to priority nodes is to ensure optimal infrastructure utilization, especially at seaports and airports. There is a need to strengthen coordination of planning for the construction of transportation nodes and access roads. In addition, strengthening planning for "Special Allocation Funding (DAK) for Roads" is needed so that the implementation is in line with regional development priorities. Moreover, to strengthen funding for road network development, it is necessary to develop infrastructure funding innovations such as KPBU, long-term use of funds, and revolving funds, especially for toll road development.

Priority projects that support road connectivity include: i) Strategic road development, for example: Trans-Papua Merauke-Sorong (Major Project) and Trans-Roads on 18 Disadvantaged, Frontier, and Outermost Islands (*Major Projects*); ii) Toll road construction, for example: Trans-Sumatra Toll Road Aceh - Lampung (Major Project); iii) Road construction that supports priority areas (KI, KEK, KSPN, and border areas); iv) Developing access roads to transportation nodes (seaports, airports, and bus terminals); v) Preserving national roads (including improving/widening roads); and vi) Developing and maintaining regional roads.

Railroad Connectivity

The development of railroad connectivity is prioritized in the development of the Makassar-Parepare railroad and high-speed rail in Java. The Makassar-Parepare railroad development is carried out through integrated railway network construction, regional development, and railroad access to the port. This integrated approach is applied under business-to-government schemes that connect industrial estates in Makassar and along the rail corridor with the Makassar New Port and Garungkong Port. The construction of high-speed intercity passenger trains is focused on the Java conurbation corridor, especially between Jakarta-Bandung and Jakarta-Semarang. The construction of rail lines in other corridors includes the continuation of the Trans-Sumatra railroad, and the construction of double-track rail and reactivation of rail lines in Java and Sumatra. In order to support inter-modal transportation to the airport and seaport, construction of airport and seaport rail links will be carried out.

Maritime Connectivity

The development of maritime transport connectivity to support national logistics performance is carried out through performance standardization set by the Ministry of Transportation at a number of major ports, including port depth, dock length, and loading/unloading performance. Performance standardization accompanied by regional development in a number of major ports is expected to increase the consolidation of domestic goods transport and allow larger-sized vessels to dock while forming a network of interconnected routes (loops). There are seven main ports designed to be points of consolidation of domestic goods, namely the ports of Kuala Tanjung, Tanjung Priok, Kijing, Tanjung Perak, Makassar New Port, Bitung and Sorong.

Institutional coordination between operators in the seven ports needs to be established to ensure the standards and compatibility of the infrastructure and services in these seven ports, so as to encourage shipping efficiency. Improving logistics performance also needs to be done through the development of logistical information systems (e-logistics) that

Meanwhile, to meet the needs of maintenance and operations of rail infrastructure and facilities, the rail infrastructure maintenance and operation (IMO) mechanism is to be implemented. In the framework of providing rail services at affordable rates to the public, public service obligation schemes (PSO) and pioneer subsidies are also to be implemented.

Priority projects that support rail connectivity include: i) High-Speed Rail (Jakarta-Semarang & Jakarta-Bandung) (Major Project); ii) Makassar-Parepare Rail (Major Project); iii) constructing new rail lines (including double-track and reactivating existing lines) and improving rail lines in Java and Sumatra; iv) Developing airport and seaport rail links; v) Maintaining and operating rail infrastructure and facilities (IMO), and vi) Providing PSOs and pioneer subsidies.

facilitate the exchange of data and information among all logistical actors, as well as through the development of more efficient multi-modal and inter-modal transport for access that also involve port support areas (hinterland). In addition, it is necessary to rejuvenate commercial vessels by prioritizing the role of domestic shipyards for shipbuilding. To support development in disadvantaged, frontier, and outermost (3T) regions, the development of marine connectivity is aimed at strengthening the integration of subsidized sea toll transport with other modes of transportation including the subsidized transportation of air cargo (air bridges) and ground transportation.

Priority projects that support maritime connectivity include: i) Developing major ports, for example: Integrated Main Port Networks (Major Project), ii) Developing and expanding ports that support sea tolls, iii) Developing and expanding ports that priority areas, for example: cruise ports, iv) Implementing sea toll subsidies and pioneering sea transport services, v) Procuring sea transport facilities and infrastructure, and vi) Developing shipping information technology.

Air Connectivity

The development of air transport is focused on improving airports and transport capacity to support economic growth and accessibility of the 3T regions. The development and improvement of airport capacity are carried out through the construction of new airports, development of primary hub airports, rehabilitation and development of airports, development of airports that support priority areas (KSPN, KEK, and KI), as well as construction of water-based airports to support water tourism destinations. The accessibility to and from the 3T regions is carried out by increasing the scope of pioneering flight services, the implementation of the air bridge program that is integrated with sea toll routes in Papua, and the revitalization of a pioneering flight subsidy scheme that

guarantees certainty and sustainability of services (multi-years), including exploring the potential use of the KPBU-AP financing schemes. The need for air connectivity in remote areas, especially in Papua, which is reflected in the high number of airstrips, needs to be accommodated through regulatory support, guidance, and supervision including safety aspects.

Priority air connectivity projects include: i) 37 Air Bridge Routes in Papua (Major Project), ii) Developing 21 new airports, iii) Developing 10 primary hub airports, iv) Rehabilitating and developing 175 airports to support priority areas (KSPN, KEK, and KI), and v) Constructing water-based airports in 5 locations to support water tourism destinations.

Land connectivity

The development of land transportation is prioritized to reduce the practice of road overloading by implementing weighbridges that are integrated with the

road operations (KPBU-AP scheme), developing road facilities and tools, and constructing interstate terminals to support the ease of flow of passengers

and goods within national borders, constructing new ferry ports, constructing ferry vessels to support 3T regions, and providing pioneer subsidies for ferries, buses, and modes of transport over bodies of water such as rivers and lakes. In addition, in order to support inter-modal transportation service integration, buses will be connected to

transportation nodes as well as the National Tourism Strategic Areas (KSPN).

Land connectivity priority projects include: i) Constructing international passenger and freight terminals, ii) Constructing 26 ferries, iii) Constructing 36 new ferry ports, and iv) Providing pioneering land transportation services for passengers and goods.

Urban Infrastructure

Urban Transportation

Development of urban mass public transport systems is prioritized in 6 (six) major metropolitan cities, namely Jakarta, Surabaya, Bandung, Medan, Semarang, and Makassar. In an effort to accelerate the development of mass public transport in these metropolitan cities, mass public transport development programs have been prepared that regulate central government funding support to regional governments with a number of criteria. Important criteria that must be met by local governments are the availability of integrated urban mobility plans and the existence of an institutional transport

authority based on metropolitan areas (administrative boundaries).

Urban transport priority projects include: i) Developing mass public transport systems in 6 metropolitan areas (*Major Projects*); ii) Developing inter-modal facilities that are integrated with centers of economic activities, housing, and public facilities via transportation nodes, iii) Constructing grade-separated road and rail crossings in urban areas, iv) Developing urban ring roads, and v) Providing PSOs and subsidies for urban mass public transport.

Urban ICT Infrastructure and Ecosystems

Policy directions and strategies in order to improve urban ICT infrastructure and ecosystems are:

1. Deploying fixed broadband network infrastructure for urban areas (residential areas, economic centers, and education centers), through (a) facilitating license grants for fixed broadband network infrastructure; (b) increasing the capacity of local industries that support fixed

broadband networks; and (c) encouraging development of services, applications and content that educate and appropriate to the needs of urban communities;

2. Developing a 112 emergency call service system, by (a) developing an emergency call service system and operating guidelines for districts/cities;(b) implementing and assisting an independent emergency

call service system in select districts/cities; and (c) expanding the use of call service systems to districts/cities;

3. Developing a Public Protection and Disaster Relief (PPDR) system, through (a) developing a PPDR pilot project and testing the use of a special frequency spectrum in case of

disasters; (b) preparing regulations, service standards, and tools for the PPDR system; and (c) implementing the PPDR system, especially in disaster-prone districts/cities.

The priority project that supports urban ICT infrastructure and ecosystems is "Urban ICT Development".

Providing Access to Clean and Safe Water and Sanitation in Urban Areas

The policy directions and strategies in the framework of providing access to proper and safe drinking water and sanitation (wastewater and garbage) include:

1. Developing a drinking water supply system (SPAM) and sanitation in urban areas, by: (a) strengthening the functions of operators and regulators; (b) preparing urban sludge services (fecal sludge management); (c) providing integrated services for drinking water, wastewater and solid waste; (d) developing areas with portable water services/prime drinking water zones (ZAMP); and (e) increasing the reliability of drinking water network management through Smart Grid Water Management.

2. Encouraging behavior change of the people to achieve safe access to sanitation, through (a) implementing behavior change programs in each sub-district where open defecation (BABS) is still practiced; (b) strengthening scheduled monitoring mechanisms; (c) strengthening the sustainability of community-based total sanitation (STBM) at the regency/city level.

The priority project that supports the provision of access to safe and proper drinking water and sanitation in urban areas is the "Supplying and Implementing Reliable and Integrated Water Supply and Sanitation".

Providing Access to Decent, Safe and Affordable Housing and Settlements in Cities

The policy directions and strategies in the context of fulfilling the needs for adequate, safe and affordable housing and settlements in urban areas are to develop a public housing system through the provision of simple flats to own or rent that are integrated with the public transportation system, using the

approach of forming urban public housing agencies in the respective metropolitan areas by providing land, managing assets, and rejuvenating areas including the developing new towns.

Priority project that supports the provision of decent, safe, and affordable

housing and settlements in cities is facilitating the management of urban slums through slum rejuvenation.

Energy and Electricity

The five policy directions and strategies in the framework of fulfilling access, energy supply, and electricity that is equitable, reliable, efficient, and sustainable, include:

1. Diversifying energy and electricity to meet certain needs, by (a) increasing new and renewable energy sources (EBT) such as geothermal, water, solar, and biomass, and other EBTs; (b) developing mini-/micro-grids based on clean energy; (c) developing and utilizing energy storage systems including batteries; and (d) utilizing solar rooftop panels and floating solar power plants while simultaneously developing the domestic solar-cell industry;
2. Increasing the efficiency of energy and electricity use, through (a) developing energy service companies (ESCO); (b) expanding, rehabilitating and increasing the capacity of transmission and distribution systems; (c) developing an information management and data control system; (d) developing and utilizing smart grid technology and (e) utilizing technology that has high efficiency and low emission (HELE).
3. Strengthening and expanding energy supply and electricity services, through (a) meeting electricity needs in priority areas; (b) providing assistance to install new electricity for poor households; (c) supporting and supplying primary energy (gas and coal) for electricity; (d) increasing capacity of domestic oil refineries; (e) improving natural gas infrastructure, particularly gas transmission pipelines and non-pipeline distribution, including LNG receiving terminals; (f) developing fuel and gas buffer/operational reserves; (g) constructing an urban gas network, LPG, and electric clean stoves; (h) increasing national engineering capabilities for energy and electricity supported by domestic industries; (i) expanding a single-price fuel distribution system; and (j) developing supporting infrastructure for electric vehicles.
4. Improving energy and electricity governance, which is pursued by (a) improving institutional tasks and functions in the electricity sector; (b) strengthening the independence of transmission system operators; and (c) encouraging energy price/tariff policies and their application so as to gradually achieve economic prices.
5. Developing funding and financing policies, which is pursued by (a) developing targeted subsidies through direct subsidies and reallocating expenditure; (b) implementing adjustments to electricity and energy pricing; (c) utilizing financing with simple and reasonable requirements, alternative instruments, and asset leverage; and

(d) developing suitable and sustainable funding schemes.

Priority projects that support the sustainability of electricity supply include improving efficiency and reducing emissions. Whereas priority projects that support access to energy and electricity include: i) Expanding energy and electricity access and affordability; ii) City gas network infrastructure for 4 million house connections (Major Project); and

iii) Trans-Kalimantan Natural Gas Pipeline (2,219 km) (Major Project). There also priority projects that support the adequacy of energy and electricity supply, which are to improve the reliability of energy and electricity infrastructure through two *Major Projects*: i) Developing 27,000 MW power plants, 19,000 KMS transmission and 38,000 MVA substation (Major Project); and ii) Developing and expanding oil refineries (Major Project).

Digital Transformation

Completing ICT Infrastructure

Policy directions and strategies in the context of supporting the completion of ICT infrastructure include:

1. Optimizing Universal Service Obligation (USO) funds in providing and maintaining the quality of telecommunications and internet services, by constructing base transceiver stations (BTS) for non-commercial villages, and providing multi-functional satellites for internet access;
2. Providing telecommunications and internet services that can be accessed by the public, by facilitating licensing for the deployment of telecommunications and internet infrastructure; and
3. Deploying fixed broadband network infrastructure to sub-districts, while prioritizing strategic tourism areas, industrial zones, tertiary institutions, by facilitating licensing for the deployment of fixed broadband network infrastructure and increasing

the capacity of local industries that support fixed broadband networks.

4. Structuring the allocation of the frequency spectrum to encourage economic activities, and provide both basic services and a safe intra-government network
5. Encouraging the development of an intra-government network is by utilizing domestic industries to increase national independence and competitiveness;
6. Implementing analog to digital broadcast migration as part of the analog switch-off (ASO) plan by considering the readiness of the industry and society, and by accelerating the completion of regulations that support such implementation;
7. Encouraging the implementation of passive infrastructure development that can be shared to accelerate the

deployment of infrastructure and reduce development costs; and

8. Encouraging the revitalization of facilities and infrastructure of public broadcasting institutions by considering technological developments.

Priority projects that support the completion of ICT infrastructure include:

Utilizing ICT Infrastructure

Policy directions and strategies in the framework of supporting the use of ICT infrastructure include:

1. Expanding cashless social assistance services, digital educational content, digital public information, digital health services, and digital agricultural information, by providing start-up incentives that focus on social services, education, health, public information, and agricultural information;
2. Increasing and facilitating the growth of existing start-ups, especially those

- i) Developing broadband infrastructure, which also includes the Major Project component, namely "ICT Infrastructure to Support Digital Transformation"; ii) Developing broadcast infrastructure, which includes the Major Project component "ICT Infrastructure to Support Digital Transformation"; and iii) Developing government ICT infrastructure.

that have the potential to obtain funding from global investors; and

3. Expanding the use of ICTs in growth sectors to increase efficiency, productivity, value-added, and creating demand, through increasing the productivity of the economic sector by utilizing ICT, such as digitizing the economic sector.

Priority projects that support the use of ICT infrastructure include: i) Utilizing ICT government services; and ii) Utilizing ICT services for the public and business actors.

Digital Transformation Support Facilities

Policy directions and strategies in the context of providing digital transformation support facilities include:

1. Increasing the independence of the domestic ICT industry and human resources, by (a) harmonizing policies and regulations to encourage the development of the domestic ICT industry;(b) increasing the capacity of ICT-based human resources to meet domestic needs in a well-targeted

manner; (c) increasing public digital literacy; and (d) building the ICT industry (5G, IoT, AI, etc.) in Indonesia, with a high level of domestic components.

2. Adopting the use of global technology (Big Data, IoT, AI, etc.) that is cross-sectoral in the process of planning, monitoring, and implementing performance management systems, by (a) encouraging the implementation of "One Data" initiative in the framework of

utilizing interoperable, standardized, and shareable data; (b) encouraging the utilization of big data analytics to improve the accuracy of planning, the performance of development implementation, and the accuracy of development supervision; and (c) encouraging the establishment of national data dashboards to support data-based policy making and decisions that

are interoperable, standardized, and shareable. Priority projects that assist digital transformation support facilities include: i) Securing and integrating information management that also includes the Major Project component "ICT Infrastructure to Support Digital Transformation"; ii) Developing ICT literacy and expertise; and iii) Developing and facilitating the ICT industry.



CHAPTER VII

STRENGTHENING THE ENVIRONMENT
AND IMPROVING RESILIENCE AGAINST
NATURAL DISASTERS AND CLIMATE
CHANGE

Preface

A decrease in the quality of the environment and depletion of natural resources could hamper the sustainability of Indonesia's economic growth, which currently relies on the commodity and natural resource sectors. In addition, the geographical characteristics of Indonesia related to high exposure to natural disasters coupled with the influence of climate change can lead to greater losses and damage in the future if not properly anticipated and managed.

Regarding these conditions, efforts to strengthen the environment and improve resilience against natural disasters and climate change have been established as part of the national priorities in the RPJMN 2020-2024. More specifically, the national priorities are outlined into three policy groups, namely: (1) improving the quality of the environment; (2) increasing resilience against natural disasters and climate change; and (3) applying a low-carbon development approach.

Development Achievements in 2015-2019

01 02 03 04 05

01: Fluctuating Environmental Quality Index score, from 64.8 in 2015; to 65.7 in 2016; 66.5 in 2017; and 65.1 in 2018

02: Reduction in area affected by forest fires and land fires, from 2,611,411 ha in 2015, to 510,564 ha in 2018

03: Reduction in the rate of deforestation in forest areas, from 1.1 million ha in 2015 to 0.5 million ha in 2017

04: Management of 27.4 million ha of forest conservation area and 20.9 million ha of marine conservation area as of 2018

05: Reduction in the Indonesian Disaster Risk Index (IRBI) score, from 169.4 in 2015, to 135.8 in 2018

06 07 08 09 10

06: Establishment of 34 Regional Disaster Management Agencies (BPBD) at the provincial level and 481 BPBD at the regency/city level

07: An increase in the dissemination of early warning information on extreme weather , from 850 times in 2015 to 37,230 times in 2016, and its accuracy increased by 1% compared to 2014

08: An increase in the dissemination of early warning earthquake and tsunami information, from 151 times in 2015 to 181 times in 2016, and its accuracy increased by 13.8% compared to 2014

09: Trial implementation of the climate change adaptation plan (RAN-API) in 15 pilot areas; and trial review in 4 priority sectors (sea and coastal, water, agriculture, and health);

10: Reduction in greenhouse gas emissions by 22.6% in 2018

Improving the Quality of the Environment

Even though it has gotten better in 2018, the quality of the environment in Indonesia in general has not shown an improvement, which necessitates efforts to repair and control any environmental damage more progressively to achieve the expected results in the future. Indonesia's National Environmental Quality Index (IKLH) score reveals that the water quality is getting worse, and air quality is decreasing in absolute terms; however, land cover is improving.

The handling of pollutant sources has not been optimal. Its realization and coupled with domestic waste reduction fall short of the RPJMN 2015-2019 targets. Likewise, the performance in controlling plastic pollution and industrial waste pollution still needs to be improved.

Forest and land rehabilitation for the restoration of degraded land within forest management units (KPH) and watershed areas has not met the intended target due to constrained rights and status of critical land that is to be rehabilitated, and due to less than optimal control of spatial use around watershed areas. However, the rate of deforestation has been successfully reduced. Forest and land fires have also been significantly reduced through effective countermeasures.

Efforts to conserve areas to support biodiversity preservation have shown positive results. The extent and effectiveness of managing conservation forest areas and marine conservation areas continue to improve. In addition, until 2018, there had been decisions and guidance for 35 essential ecosystem units (KEE) including karst, mangroves, wildlife corridors, and biodiversity parks with a total area of 1,447,576.3 ha, which allowed for 73% of the cumulative target in the year 2019 (48 units) to be reached.

Achievements in law enforcement to support environmental and forestry management have improved in terms of handling complaints, supervising permits, providing administrative sanctions, resolving disputes outside the court, and enforcing criminal law. Law enforcement can make changes in behavior and has a deterrent effect so as to protect the forest and the environment. However, the considerable potential for non-tax state revenue (PNBP) from fines and compensation for damage and recovery costs is still difficult to realize due to processes of execution of court decisions that have not been successfully implemented. In the future, the execution of judgments will be carried out through a collaborative approach involving other law enforcement institutions.

Improving Resilience Against Natural Disasters and Climate Change

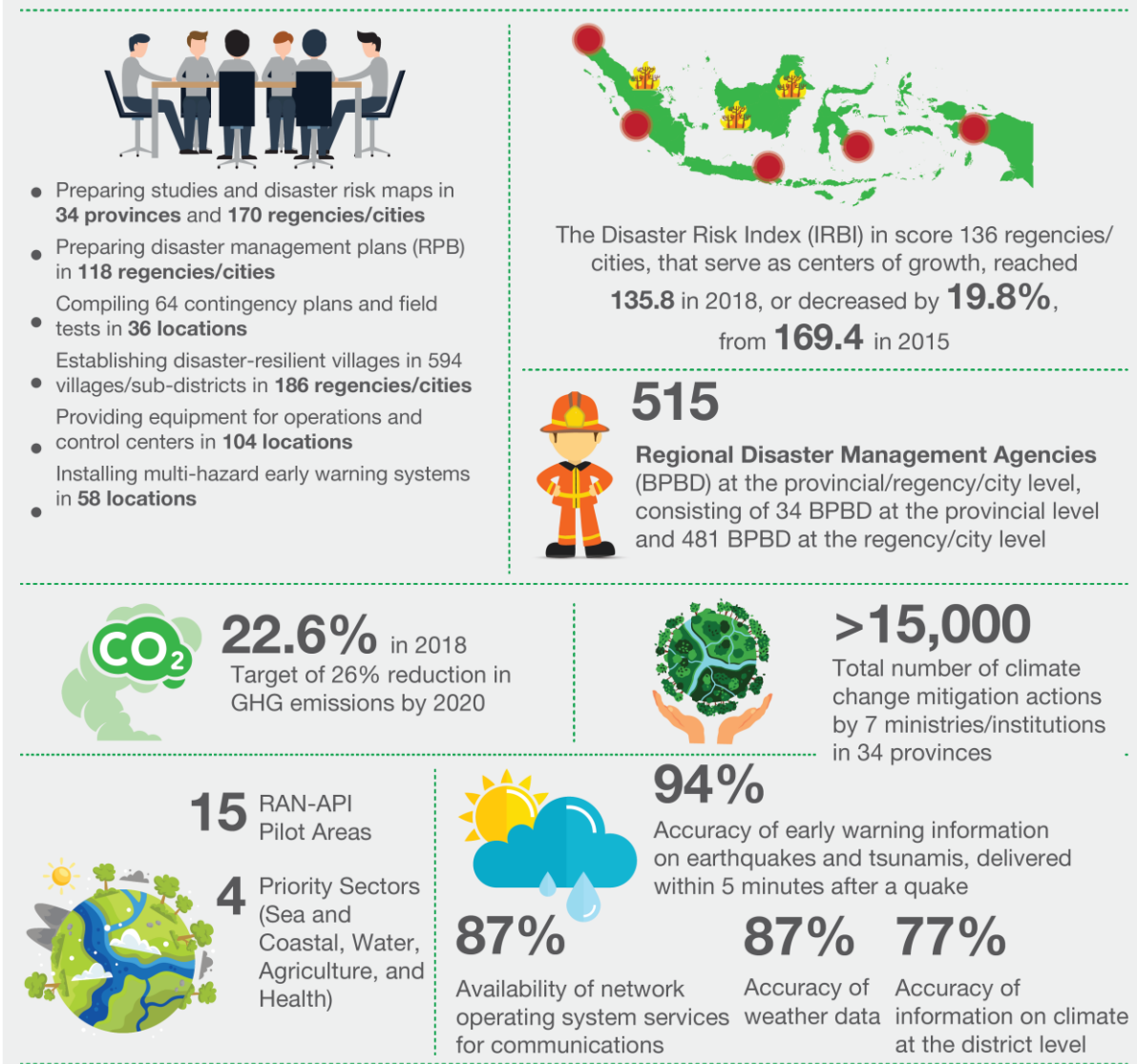
Indonesia has a history of high number of disasters, with most (>75%) being hydrometeorological disasters related to climate and its changing dynamics. These

disasters include tornadoes, floods, flash floods, landslides, forest and land fires, drought, and extreme weather conditions.

By applying a policy framework to reduce vulnerability and increase resilience, which become a convergence in adaption to climate change and disaster risk reduction, the Disaster Risk Index (IRBI) score for the national growth centers In Indonesia has been successfully reduced

(see Figure 7.1). This achievement was generated through the implementation of programs and disaster management activities carried out by ministries/institutions in collaboration with local governments, communities, volunteers, and business actors.

Figure 7.1
Achievements in Building Resilience Against Disasters and Climate Change and in Low-Carbon Development in 2015-2019



Other achievements that have been reached in the framework of reducing vulnerability are mitigation efforts and increasing adaptive capacity, namely the ability or readiness to anticipate or reduce the impact of disasters in disaster-prone

areas. Mitigation and improvement efforts to increase adaptive capacity are carried out by developing strategic infrastructure in priority sectors; strengthening human resources in regional government level and community level by providing

counseling activities, training, and disaster simulation drills; and improving regulations related to disaster and climate resilience in priority sectors.

Increasing resilience to disasters is carried out through several improvements to the legal and institutional regulatory frameworks related to disaster risk reduction and disaster management at both the central and regional levels. In several locations, various disaster risk reduction efforts have been carried out, which are supported by a strong database of meteorology, climatology and geophysics, which includes the preparation of studies and disaster risk maps, the strengthening of geological disaster mitigation analysis in the preparation of spatial planning, and the planning of disaster-resilient infrastructure. Another achievement was the preparation of disaster management plans (RPB), the preparation of contingency plans, the formation of disaster resilient villages (Destana), and the initiation of a disaster-resilient family program (Katana), the strengthening of disaster management resources, which included the provision of assistance in the form of equipment to control and operation centers (PUSDALOP), disaster relief volunteer training, and the provision of an early warning system for high tides during tropical cyclones and other

Low-Carbon Development

The greenhouse gas (GHG) emission reduction is nearing the target of 26% reduction in 2020. The potential GHG emission reduction until 2018 was 22.59% from the accumulated baseline. The potential annual GHG emission

extreme weather conditions. In addition, there has also been an improvement in the accuracy of earthquake assessment, tsunami early warning within five minutes, and the installation of multi-threat warning systems. Within the financing framework, the Government's commitment to financing disaster management has been continued, particularly its commitment to investing in disaster risk reduction, in rehabilitation and reconstruction after disasters, and in initiating financing innovations for disaster-related programs.

In the context of increasing resilience to climate change, trials have been carried out on the implementation of climate change adaptation plans in four priority sectors (water, agriculture, coastal and marine, and health) in 15 pilot areas. The improvement in climate resilience is also supported by the provision of fast and accurate climate data through the development and guidance programs for meteorology, climatology and geophysics that also play an important role in supporting disaster risk reduction.

In the future, the convergence agenda between climate change adaptation and disaster risk reduction will be further enhanced, through activity plans and integrated efforts across sectors, among regions, stakeholders, and cooperation at the global level.

reduction in the year of 2018 was 23.18% or 452,613 thousand tons of CO₂e. The intensity of GHG emissions in 2017 was 412 tons CO₂e/billion rupiah.

Based on the evaluation results on RAN-GRK activities by comparing the targets and achievements in the reduction in GHG emissions in 2018, three sectors (land-based, energy, and industrial processes and product use, or IPPU) have reached, and even exceeded the annual target. Comparison between achievements and targets in reducing GHG emissions in 2018 can be seen in Table 7.1.

In addition to GHG emission reduction, low-carbon development programs also contribute directly to economic growth in Indonesia. For example, the low-carbon development in the energy sector--which is carried out through three core programs, namely renewable energy, energy efficiency, and substitution of fuel

oil--has shown positive results. The use of B20 biofuel as a fuel substitute has recorded a state savings of US\$385,926,208 between 2018 and 2019. This amount of savings is a breath of fresh air as the Indonesian government is handling its current account deficit. In addition, through the energy efficiency efforts launched by the Ministry of Energy and Mineral Resources and the Ministry of Industry, the Indonesian government was able to record a decrease in energy intensity (energy consumption per billion GDP) by an average of 2% per year. This shows that fluctuations in the energy consumption of the industrial sector are relatively stable, and the efficiency of the industrial sector in carrying out economic activities is increasing.

Table 7.1
Comparison Between GHG Emission Targets and Achievements

No	Sector	GHG Emission Reduction Target (2018)	Potential GHG Emission Reduction (2018)	Percentage of Achieved Target (Effectiveness)
1	Forestry, peatlands, and agriculture	1,141,745.26	377,634.56	33.1%
2	Energy, transportation, and manufacturing	733,834.99	70,030.83	9.5%
3	Waste management	168,106.64	4,948	2.9%

Remarks:
The GHG emission reduction target uses the results from the dynamic system modeling (or Indoclimos) compiled by Bappenas. Achievement of GHG emission reduction is based on a report from various ministries/institutions and regional governments in 2018.

In the forestry sector, the highest GHG emission reduction is derived from the forest moratorium policy, forest fire control, and forest rehabilitation efforts. Based on BPS data for 2018, the area of palm oil plantations from 2000 to 2018 continued to increase. The total area in 2018 was estimated to have reached 12.7 million hectares. Optimizing the

productivity of palm oil plantations is expected to have a positive impact on the economy and reduce the rate of deforestation where forests are converted to oil palm. In addition to increasing the productivity of oil palm, the efforts to certify palm oil sustainability through RSPO certification will also have

a positive impact on sustainable land management efforts.

Whereas in waste management, the potential for GHG emission reduction comes mainly from the provision of waste management infrastructure (construction of landfill sites/TPA, 3R waste management facilities/TPS3R, and integrated waste management facilities/TPST). Low-carbon development activities within the field of waste management not only contribute to

the reduction of GHG emissions, but also potentially increase access to sanitation and strengthen the environment from pollution and domestic waste. Through the policies of Jakstranas and Jakstrada related to household waste management, waste management activities consist of 30% waste reduction and 70% waste handling by 2025. These efforts are expected to form an integrated waste management program that traces waste from its source to the final processing site.

Environmental and Strategic Issues

Improving the Quality of the Environment

Natural Resources Depletion and Environmental Degradation

Indonesia's forest cover tends to shrink every year. The average rate of deforestation that occurred in 1990-2017 reached 1 million hectares per year. Although the rate of deforestation fell to 480 thousand hectares in 2017, without significant control, the reduction in forest cover will continue to occur due to development pressures.

Forest cover is expected to decrease from 50 percent of Indonesia's total land area in 2017 to around 45 percent in 2045. A decrease in forest cover will further trigger water scarcity, especially in areas with very low forest cover, such as Java, Bali, and Nusa Tenggara.

Reduced forest cover will also trigger a reduction in the habitat area of endangered species west of the Wallace line, from 80.3 percent in 2000 to 49.7 percent in 2045. The same condition is expected to occur east of the Wallace

line, especially in Papua. This is partly driven by an increase in the area of monoculture plantations, especially oil palm that is increasingly exerting pressure on forest cover and may result in increased loss of biodiversity if not immediately addressed.

Indonesia, as a country rich in biodiversity, has the opportunity to develop products from what nature has to offer. Utilizing biodiversity through bioprospecting may meet the needs of raw materials for medicines, clothing, food, spices, animal feed, resins, dyes, and others. Studies from LIPI (2014) show that as many as 410 microbial species have been identified based on an Indonesian network of microbial collection data banks and on the results of bioprospecting research. In addition, test results on sponges and microalgae have shown that they potentially have antitumor, antioxidant, anticancer, and

antibacterial properties. In addition, the diversification of primary medicinal plant products into secondary products has high economic value-added.

Although national water reserves as a whole are still in the "safe" category, there are still problems in terms of accessibility, continuity, and also quality that does not meet standards. The proportion of area that is experiencing water scarcity at the national level is projected to increase from 6.0% in 2000 to 9.6% in 2045. This is due to imbalance of the water budget caused by the worsening condition of upstream catchment areas and excessive groundwater exploitation, especially in urban areas. Some regions such as Java, where the value of water availability per capita is already rare, and Bali-Nusa

Tenggara, which is currently under stress, require special attention.

Water quality is expected to continue to decline significantly due to the worsening condition of upstream catchment areas and water pollution from settlements, industries, agriculture, and mining activities. In 2018, Bappenas reported that the average biological oxygen demand (BOD) and chemical oxygen demand (COD) content (mg/L) is projected to increase 1.1 times in 2024 and 1.2 times in 2030 compared to 2020. Although the projected BOD and COD values have not exceeded the water quality standard threshold levels yet, the average BOD value is approaching the threshold, which requires attention.



Forest cover

is predicted to decrease from 50% (93.4 million ha) in 2017 to only 45% (84.7 million ha) of Indonesia's total land (188 million ha) by 2045.



Water scarcity

in Java, Bali and Nusa Tenggara is predicted to rise through 2030. The proportion of area that will experience water scarcity will increase from 6.0% in 2000 to 9.6% by 2045. Water quality is also expected to decrease significantly.



The ideal habitat area

for endangered species on four large islands (Sumatra, Java, Kalimantan, and Sulawesi) will decrease from 80.3% in 2000 to 49.7% by 2045.

Source: KLHS Team Scientific Review, 2018

The environmental capacity is also deteriorating due to high levels of pollution and efforts that have been less than optimal to overcome it. Some pollutant sources that need to be prioritized in terms of management include household waste, plastic waste, and hazardous (B3) waste.

In 2018, the success rate of the national waste management strategy has only

covered 68.8% of the total generated waste of 65.8 million tons, whereas the level of waste reduction has only reached 2.8%. As a result, 28.4% of unmanaged waste or around 18.7 million tons is discharged directly into the environment (leakage) and causes pollution. Of the unmanaged waste, around 0.7 million tons/year ends up in the ocean, most of which is plastic waste.

Besides causing environmental pollution, plastic waste also causes serious disruption to marine life. There are many incidents concerning sea turtles, seabirds, and marine mammals that die from ingesting plastic waste. In addition, microplastics, which are accumulated in the water and inside marine animals, are also found in humans. It is predicted that microplastics may have a negative impact, which will lead to health problems later on.

This condition is attributed to the less than optimal national waste management system in terms of infrastructure, supporting infrastructure, levies on waste management, human resource capacity, institutions, and law enforcement. For this reason, an integrated waste management

system is needed from upstream to downstream toward a circular economy.

The issue of hazardous (B3) waste and medical waste also needs to be prioritized on a national scale. In 2018, the amount of B3 waste generated from hospitals is 294.7 tons/day, whereas the number of hospitals that have B3 waste processing permits is 69, with a processing capacity of 54.2 tons/day. The number of licensed third-party medical waste processing services is 6, with a capacity of 115.7 tons/day. Referring to this data, it is estimated that there is 41.9% of B3 medical waste that has not been managed and has the potential to be disposed of directly into the environment or to the waste recycling sites (TPA).

Increased Violations of Law Pertaining to Natural Resources and the Environment

The high level of environmental damage in Indonesia is inseparable from the rampant violations of the law pertaining to natural resources (SDA) and the environment; these violations include illegal logging, burning of forests and fields, illegal mining, oil spills at sea, destruction of coral reefs, non-procedural forest control, and B3 waste pollution. Even conservation and protection areas are not spared from crime that includes encroachment, illegal logging, exploitation of protected forest areas, and wildlife crime.

The findings of the Corruption Eradication Commission (KPK) in 2015 revealed the potential state losses in 2003-2014 attributed to indications of inaccurate recording of wood production sourced from reforestation funds and the provision

of forest resources of around Rp 7.3 trillion per year, as well as from the commercial value of wood products of around Rp 66.8 trillion per year. In addition to state losses, criminal cases pertaining to natural resources and the environment may also lead to ecological disasters, as well as threats to the legal system, state authority, and national security.

Law enforcement efforts in cases pertaining to natural resources and the environment face several challenges in the form of diverse crime typologies, massive scale of crime, crime locations that are spread even across administrative boundaries, the magnitude of the impact and the value of losses incurred, and the increasingly dynamic and organized modes of crime.

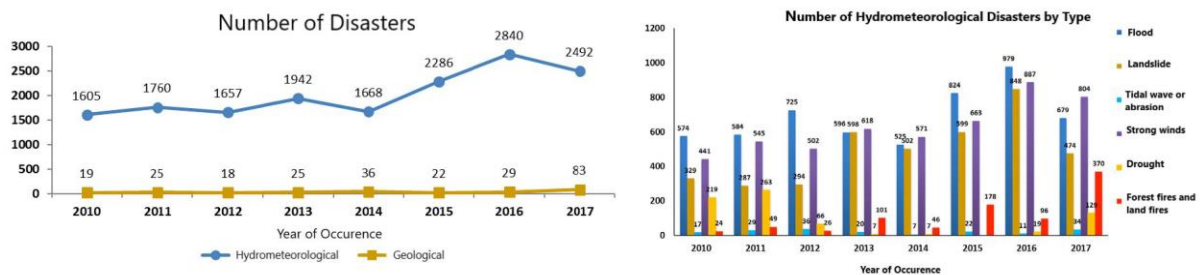
Improving Disaster and Climate Resilience

High Disaster Risk in Indonesia

In the World Risk Report (2016), Indonesia is categorized as a country with a high disaster risk. This is due to the high levels of exposure and vulnerability to disasters. In fact, almost 75 percent of the industrial and basic connectivity infrastructure in Indonesia, including supporting facilities, are built in hazardous/high-risk zones.

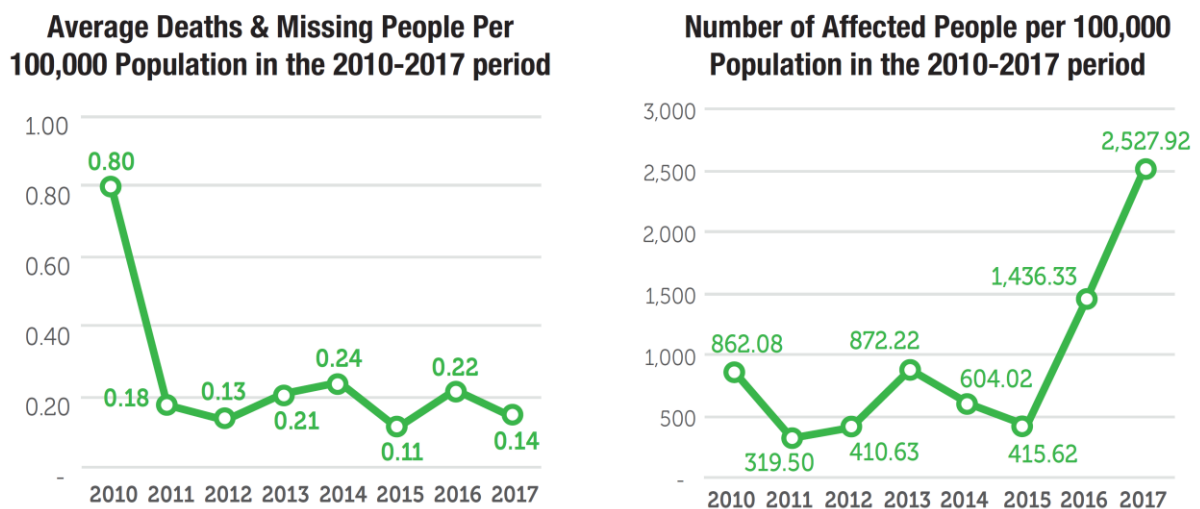
Based on the data in Figure 7.2, a comparison can be observed between the two types of natural disasters that increasingly occur in Indonesia, namely hydrometeorological disasters due to climate change and disasters due to geological activities.

Figure 7.2
Comparison Between Total Number of Disasters and Total Number of Hydrometeorological Disasters

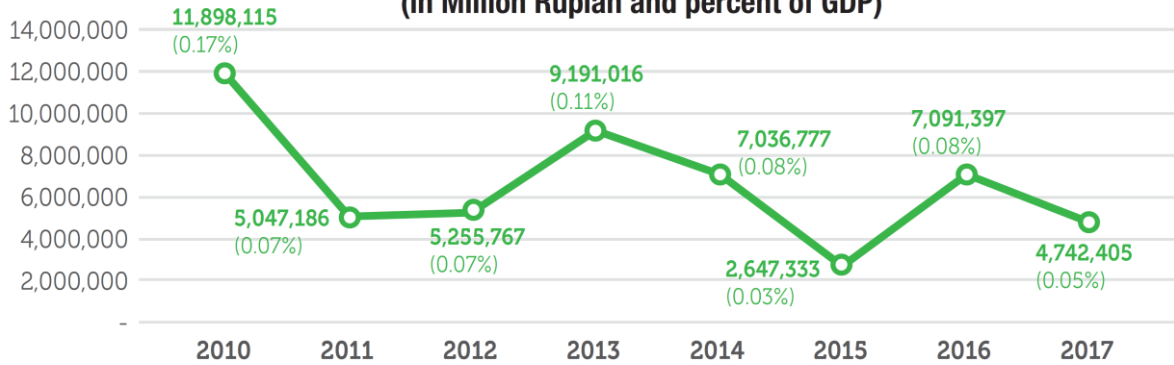


Source: BNPB, 2018.

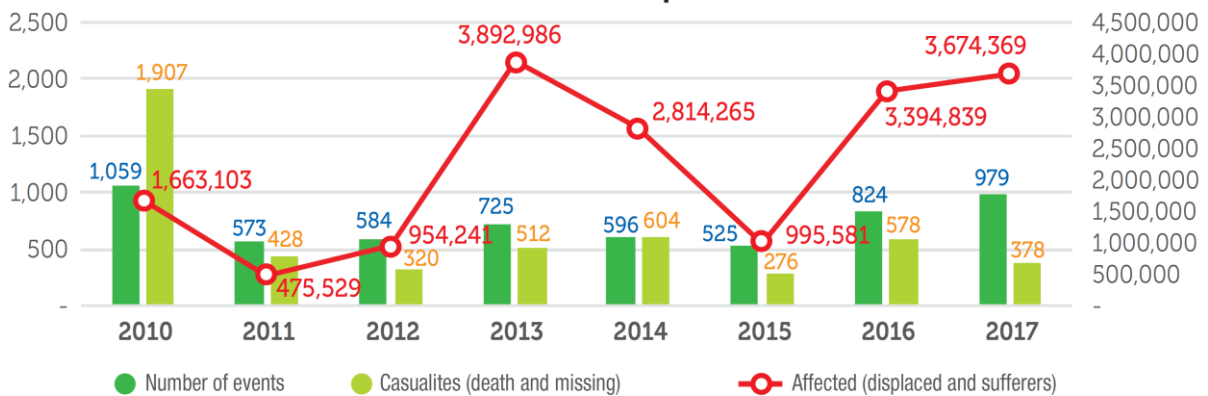
Figure 7.3
Impact of Natural Disasters in 2010-2017



Economic Losses Due to Disasters in 2010-2017 (in Million Rupiah and percent of GDP)



Number of Disasters and Affected Population in 2010-2017



Source: BNPB, 2018.

The number of hydrometeorological disasters is far greater and tends to increase compared to geological disasters.

Within a period of 8 years (2010-2017), there was an increase of 887 hydrometeorological disasters; whereas in the same period, geological disasters increased by 64 incidents. The types of hydrometeorological disasters with the greatest increase in the number of incidents during the period 2010-2017 were waterspouts (363 incidents), forest and land fires (346 incidents), landslides (145 incidents), floods (105 incidents), and tidal waves/abrasion (17 incidents).

Although most of these disasters were triggered by climate factors, the geological characteristics that place Indonesia at a point of several tectonic plates have made it prone to geological disasters such as earthquakes, volcanic eruptions, and potential tsunamis. In terms of frequency, these geological disasters are rare, but they have the potential to cause loss of life and economic losses on a large scale as a large number of human settlements and important infrastructure are built around active faults (see Figure 7.3).

Disaster Risks Based on Geological Characteristics

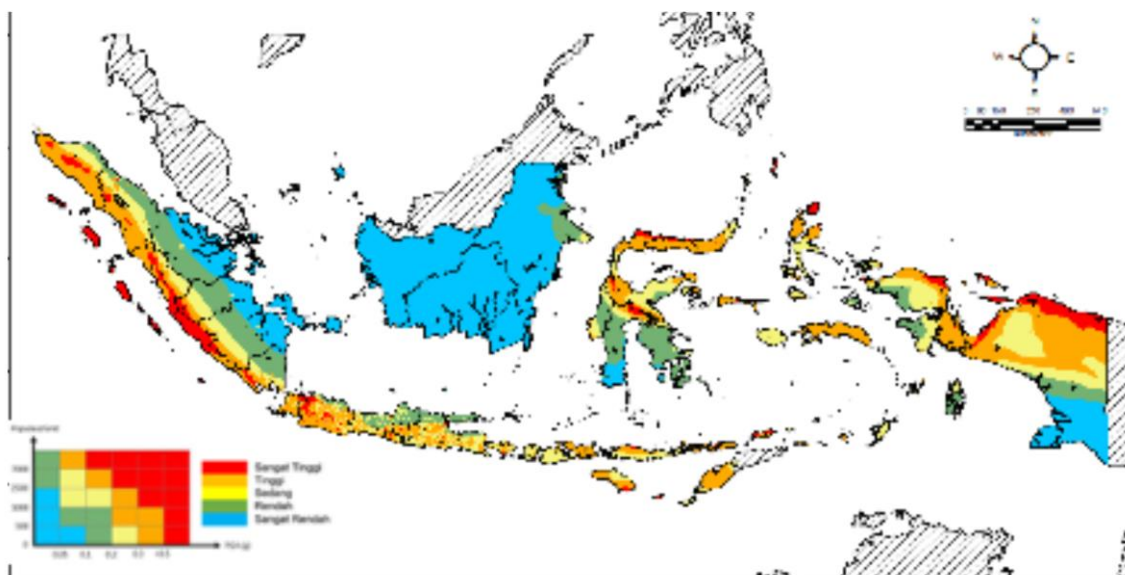
Indonesia is located above major earthquake-producing stresses, along the subduction-zone megathrust fault and other active faults. Based on Earthquake Source and Hazard Maps of Indonesia (Pusgen, 2018), the number of active faults that could potentially produce earthquakes of magnitude 6.5 and above on the Richter scale have been identified to reach 280 (see Figure 7.4). This shows the number of potential locations that lie above active faults and are threatened by earthquake shocks and deformation by fault movements.

The frequency of earthquakes with a Richter magnitude less than 5 is also relatively high. Even with a small magnitude, if the earthquake occurs at a shallow depth along a fault, it can cause damage to infrastructure and social

disturbance. Efforts to observe earthquakes with small magnitudes have been less than optimal, hence information cannot be disseminated effectively. There is still a need to increase the number and quality of short-period seismograph that are sensitive to small-scale earthquakes, especially in locations around active faults.

High-risk areas due to potentially high peak ground acceleration ($>0.5g$) are estimated to be in the regions of Sumatra, Sulawesi, Maluku, and Papua, which are colored red. Meanwhile, high-risk areas with peak ground acceleration of greater than $0.1g$ and with high population densities are the cities of Jakarta, Bandung, Semarang, Yogyakarta, Surabaya, Medan, Padang, Banda Aceh, and their surrounding areas.

Figure 7.4
Exposure and Vulnerability to Earthquakes and Active Faults



Source: Pusgen, 2018.

The distribution of population affected by earthquakes covers the area of Java and Bali, which are home to 50% of

Indonesia's population (around 130 million people), Sumatra (around 48 million), Sulawesi (around 21 million),

Nusa Tenggara (around 7 million), Maluku (around 6 million), and Papua (around 4 million). Meanwhile, Kalimantan has the fewest population affected by earthquakes, which is around 2 million.

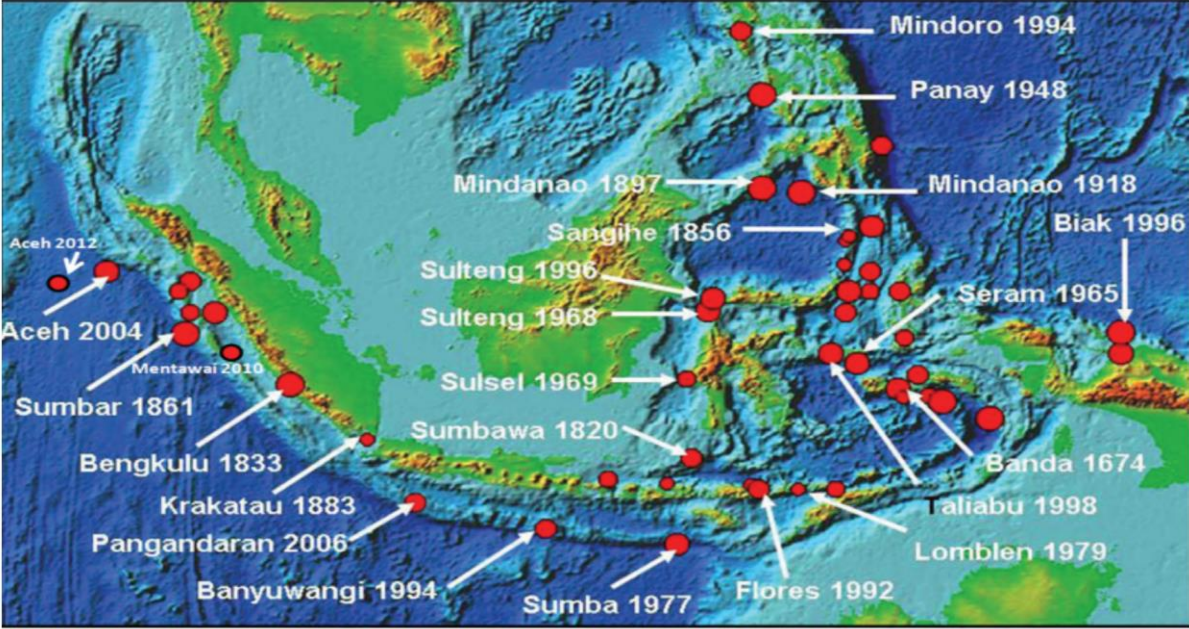
Indonesia is also classified as a tsunami-prone country because it is located at a point where three major tectonic plates of the world meet, namely the Eurasian Plate, the Indo-Australian Plate, and the Pacific Plate. Historical records of tsunamis in Indonesia show that approximately 172 tsunamis occurred in the period between the years 1600 and 2012. There are regions that directly face the inter-plate subduction zones, such as the western part of Sumatra, southern Java, Nusa Tenggara, northern Papua,

and Sulawesi and Maluku; these areas are very prone to tsunamis (see Figure 7.5).

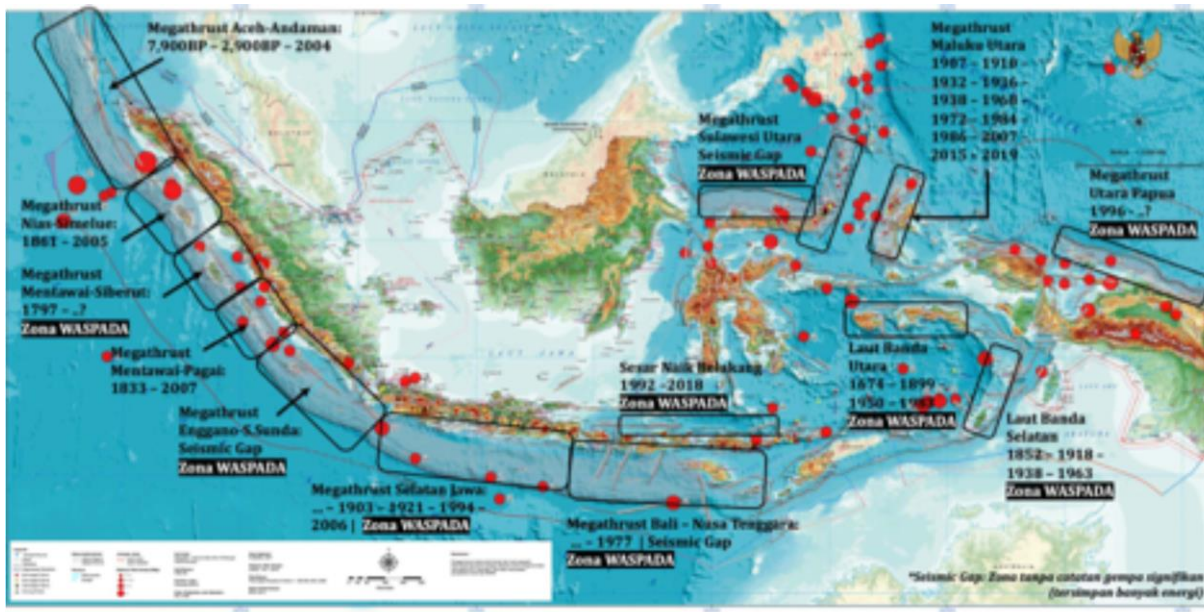
Almost all coastal cities and regencies are at high and very high risk of tidal waves of three meters or higher. There are four main regions that have a high risk and probability of tsunamis, including: the Mentawai megathrust, Sunda Strait and southern Java megathrust, southern Bali and Nusa Tenggara megathrust, and northern region of Papua. The number of people affected by the tsunami in 2015 reached 3.7 million, and by 2030, it is projected to potentially increase to 4.4 million or an increase of 19% (BNPB, 2019).

Figure 7.5
Exposure and Vulnerability to Earthquakes and Tsunamis

(a) History of Earthquakes and Tsunamis in Indonesia by Location



(b) Tsunami Risk Map of Indonesia



Source: BNPB, 2019.

Understanding of information regarding earthquake and the tsunami early warning system in the community has not been achieved optimally, which may cause high potential damages due to earthquakes and tsunamis. The lack of understanding from the community may be attributed to several factors, including the lack of socialization regarding earthquake and the tsunami early warning to the community, and the lack of "precursor" research for forecasting earthquakes in active faults around major cities with inhabitants and dense infrastructure.

The spread of information regarding earthquake and the tsunami early warning system has not reached all areas prone to earthquakes and tsunamis. The increase in frequency of earthquakes, including those that are more likely to generate tsunamis, serves as a warning that public exposure to these disasters is still high.

Not only earthquakes and tsunamis, Indonesia is also potentially affected by geological disasters arising from volcanic eruptions. As many as 127 volcanoes (about 13% of volcanoes in the world) are spread across Indonesia. The volcano chain forms an archipelago that stretches from the west to the east, covering Sumatra, Java, Bali, Nusa Tenggara, Maluku, North Maluku, northern Sulawesi, and Sangir Talaud Islands (see Figure 7.6 and Table 7.2).

Volcanic eruptions can cause severe destruction to the surrounding population. No fewer than 5 million people live and commute around active volcanoes, so the risk of a catastrophic eruption is exceptionally large. In the next few years, potential volcanic disasters that need attention are centered in Mount Sinabung, Mount Merapi, Mount Soputan, Mount Agung, and Mount Lokon. Moreover, volcanic craters that also require special attention are the craters of Mount Ijen and Mount Dempo.

Figure 7.6
Exposure and Vulnerability to Volcanic Eruptions



Source: PVMBG, 2015.

Table 7.2
Active Volcanoes in Indonesia

No	Category	Number of Active Volcanoes			Total
		Type A	Type B	Type C	
1	Sumatra	13	11	6	30
2	Java	19	10	5	34
3	Lombok	1	0	0	1
4	Bali	2	0	0	2
5	Sumbawa	2	0	0	2
6	Flores	17	3	6	25
7	Banda Sea	7	2	0	9
8	Sulawesi	6	2	5	13
9	Sangihe Islands	5	0	0	5
10	Halmahera	5	1	0	6
Total		77	29	21	127

Source: Renas PB, 2015-2019.

Increased Danger and Risk from Hydrometeorological Disasters Due to Climate Change

In Indonesia, there is a rising trend in hydrometeorological disasters influenced by extreme short-term climate variability and by the effects of climate change. In

the short term, extreme climate events will occur more frequently, while in the long run, the surface temperature of the

earth will experience a significant increase from current conditions.

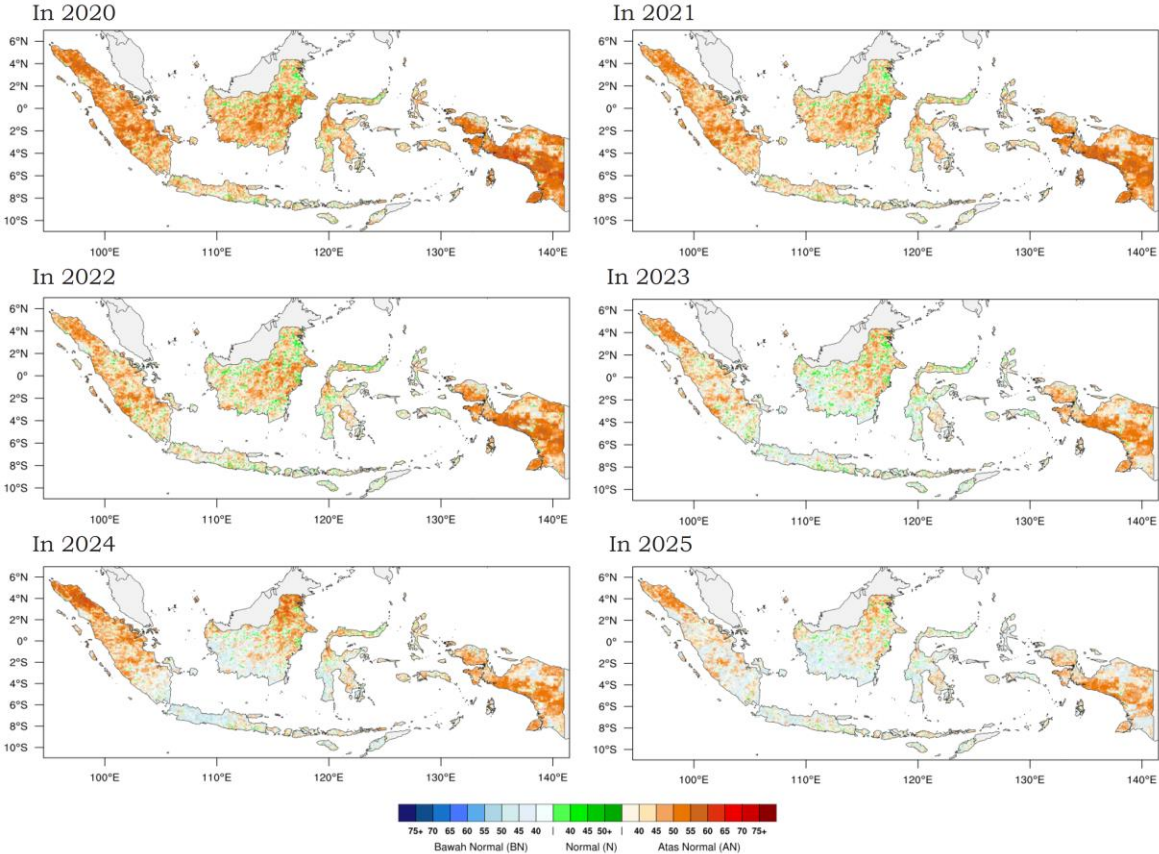
Climate change is predicted to cause surface temperatures in Indonesia to increase consistently. The effects of the rising trend of temperature has also begun to be felt at this time, with an increase reaching 0.5°C in 2020 compared to the average temperature in 2000. Temperature increase between 2020-2024 will vary between regions in Indonesia. In urban areas and areas with massively built structures, the temperature increase can be even higher, giving rise to the “urban heat island” phenomenon.

Anticipatory efforts against rising surface temperature need to be undertaken as soon as possible to reduce both the

impact and risk that will occur in the long run. A continuous increase in air temperature will result in an increase in extreme weather events and periods of intense droughts, which hamper the growth of important agricultural crops and cause health problems due to heat stress. Therefore, efforts to deal with the rising temperature due to the effects of climate change must be a priority for the 2020-2024 RPJMN period.

In addition to the rising temperature, climate change also affects rainfall in Indonesia. The magnitude of the effect of climate change on rainfall pattern in Indonesia is shown by the higher rainfall in the wet months and lower rainfall in the dry months with a range of values of rainfall ranging from -2.5 to 2.5 mm/day.

Figure 7.7
 Predicted Probability of Extreme Dry Climate for 2020-2025



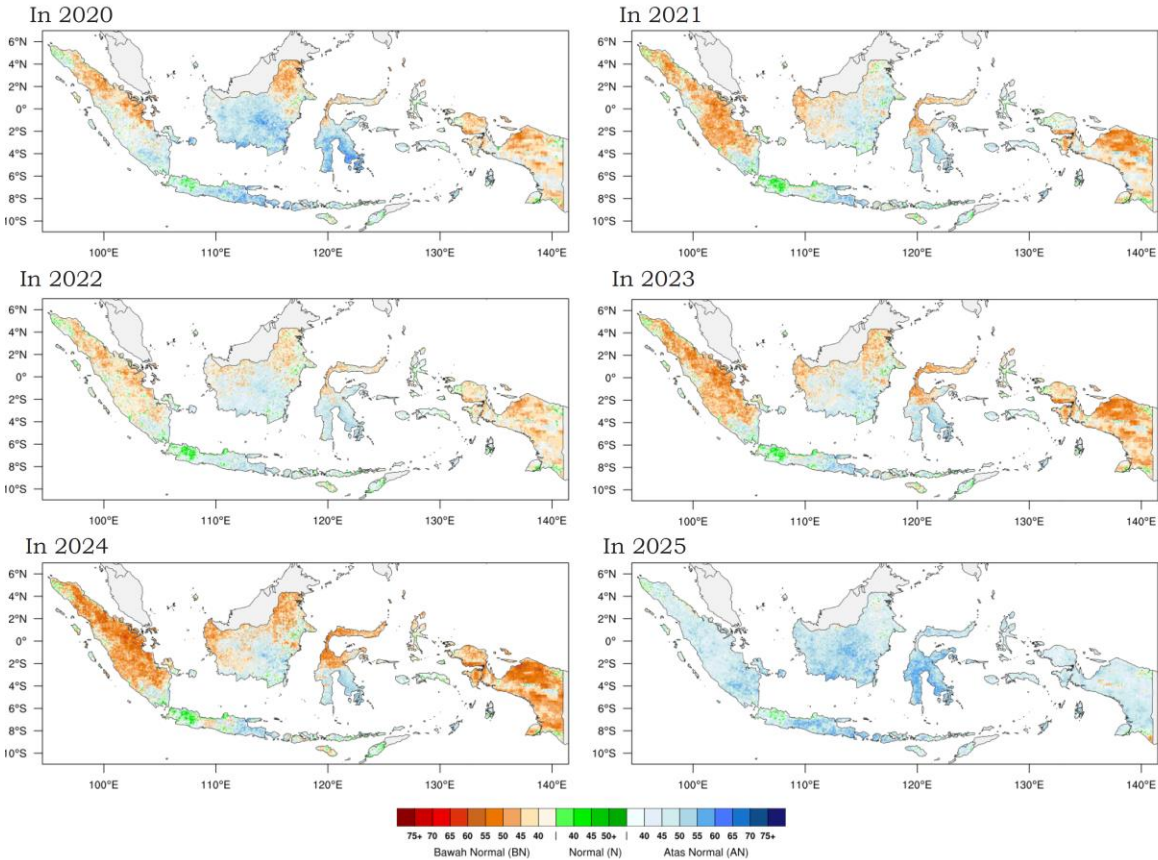
Source: Bappenas after Review of RAN-API, 2018.

Decadal of climate prediction research in Indonesia provide an overview of the future where there will be a significant decrease in rainfall during El Niño, either independently or when El Niño coincides with the positive Indian Ocean Dipole (IOD) phenomenon. The decadal forecast for the RPJMN period also shows that extreme dry climate conditions will more than likely have a normal chance of occurring, which is predicted to cover most of Indonesia, especially Sumatra, Kalimantan, and Papua (see Figure 7.7). Meanwhile, the predicted Extreme Wet Index score (see Figure 7.8) shows variations during the RPJMN period, where some regions are predicted to experience above normal conditions,

especially in the southern regions of Indonesia, covering the southern part of Sumatra and Sulawesi, most of Java, and parts of Nusa Tenggara and Maluku.

Under extreme dry climate conditions, more attention needs to be given especially to areas that have great potential for disasters such as forest fires, crop failures, and lack of clean water. In addition, to anticipate other impacts that may occur such as air pollution, health problems, and transportation safety due to haze. Moreover, in areas that experience extreme wet climate conditions, it is necessary to anticipate and mitigate hydrometeorological disasters such as floods and landslides.

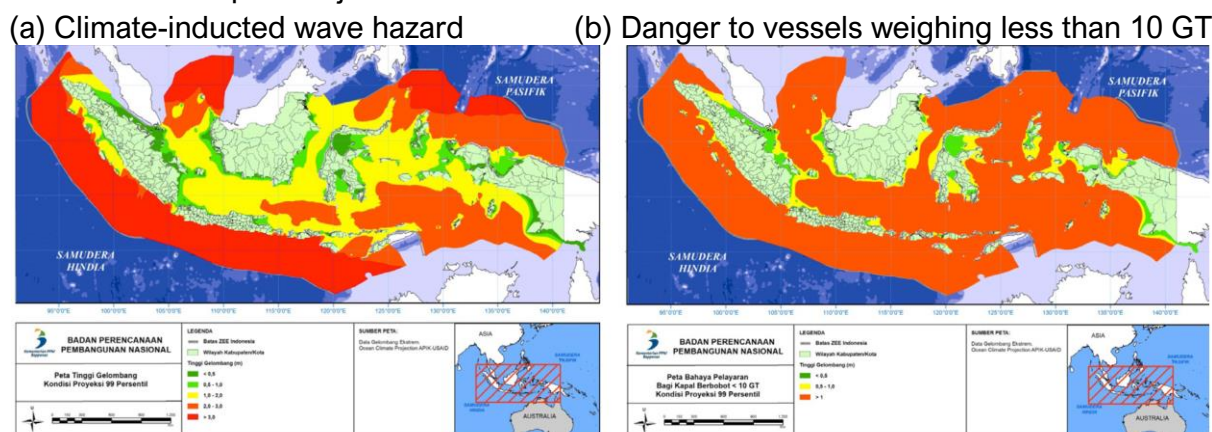
Figure 7.8
 Predicted Probability of Extreme Wet Climate for 2020-2025



Source: Bappenas after Review of RAN-API, 2018.

Figure 7.9

Map of Projected Climate Hazard in Indonesian Waters in 2045



Source: Bappenas after reviewing RAN-API, 2018.

Anticipatory effort is also needed to prevent the increase in the number of populations affected by disasters and economic losses due to the high threat of hydro-meteorological disasters in Indonesia. It is recorded that around 100 million Indonesians live in areas that have the potential to flood. During the 2005-2018 period, most floods occurred in the areas of West Java, Central Java, East Java, Aceh, West Sumatra, North Sumatra, South Sumatra, and South Sulawesi. Meanwhile, landslides often occurred in West Java, Central Java, East Java, West Sumatra, and Papua with the number of affected people potentially having reached 14 million. Moreover, land and forest fires that lead to haze blanketed areas in Riau, South Sumatra, Jambi, Lampung, South Kalimantan, West Kalimantan, Central Kalimantan, and East Kalimantan.

Sea surface temperature is projected to rise by 1°C and 2°C compared to 2000 and 1961, respectively. Meanwhile, surface salinity continues to decrease from 33.2 PSU in 2000 to 32.1 PSU in 2040. As the ocean is getting warmer and more acidic, marine life will be negatively affected, which may lead to, for example, coral bleaching. It is estimated that the

area of existing coral reefs would decrease by 70-90% until 2030-2045 if there was an increase of sea surface temperature by 1.5°C (IPCC, 2018).

Changes in sea surface temperature may also cause an increase in sea-wave height (see Figure 7.9), especially in the Banda Sea, Sulawesi Sea, southern Java, western Sumatra, and the southern part of the South China Sea. As there is an increase of areas with an average wave height above 1 meter per year, there will be a reduction in the cruising range and fishing areas for fishermen, and in the safety of vessels weighing less than 10GT. Increased wave height will also exacerbate changes to the coastal slope and coastal environment due to flooding and changes in sediment supply.

Other hazards caused by changes in temperature and extreme rainfall include changes in the water budget that may affect analysis in projecting floods, water availability, and drought; increased flight hazard; decreased agricultural production; and increased proliferation of dengue vectors in urban areas. These conditions contribute to the increased risk of catastrophic events in Indonesia.

Weak Governance and Weak Financing (Investment) for Disaster Management in Various Regions

Strengthening cooperation and governance for disaster management in various regions are mandated by law, specifically Law No. 23/2014, which intends to increase the role of regional governments in disaster management. Moreover, the issuance of Government Regulation No. 2/2018 and the Minister of Home Affairs Regulation No. 101/2018 revitalized the cooperation mechanism between institutions in the respective regions in an effort to realize the minimum disaster management standards.

At present, efforts to increase disaster resilience have not been supported by an adequate budget, especially for post-disaster recovery. Based on the 2017 program monitoring and evaluation, there are 31 ministries/institutions involved in disaster management with a total budget of Rp 54.670 trillion. This budget is mostly used for pre-disaster preparedness, which amounted to Rp 32.370 trillion, emergency response at Rp 11.975 trillion, and post-disaster management at only Rp 9.33 trillion. Not only at the national level, the lack of budget allocation for post-disaster recovery also occurs at the provincial and regency/city levels.

In terms of financing, support for financial innovation in relation to disaster risk mitigation has not been developed much.

The government is currently drafting legislation, institutional framework, and various financing innovation schemes that focus on the capacity of disaster risk management, which includes emergency response, rehabilitation, and reconstruction. Apart from the contribution of the state/regional budget, financing can come from a collection of private funds, public funds, international bodies, and BUMN, which will be implemented by a management body appointed through regulation. The formation of pooling funds and their derivative products will be formulated as targeted risk transfer instruments that strengthen funding from the current state budget.

Based on a survey conducted by the National Disaster Management Authority (BNPB) in 2018, of all the regions that had compiled their disaster management plans, only 45% utilized these plans as a part of their respective regional RPJM. Therefore, planning reviews and disaster risk management across administrative regions also need careful attention. There are many disaster-risk areas that overlap several government administrative areas, including watersheds, volcanoes, areas affected by forest fires, and areas prone to tsunamis.

Low-Carbon Development

Reducing Emissions and Intensity of GHG Through Low-Carbon Development

Greenhouse gas (GHG) emissions are the main cause of climate change that can threaten the life of the nation. Indonesia has become one of the countries that support various efforts in tackling climate change. In 2009, the Government of Indonesia expressed its commitment to reduce GHG emissions by 26% independently, and by 41% with international support in 2020. At the 2015 UNFCCC COP 21 conference in Paris, the Government of Indonesia increased its target to reduce GHG emissions by 29% independently, and by 41% with international support under the 2030 GHG emission baseline.

Along with the dynamics of development at the national and global level, it is necessary to strengthen integration between efforts to tackle climate change with targeted programs and achieve development targets. Integration of climate change mitigation policies is incorporated into the national development program and as part of the implementation of Article 3.4 UNFCCC. In this context, climate change is not only concerned with environmental issues, but is also closely related to the economic development of each country in accordance with the principles of sustainable development.

Therefore, it is necessary to transition the management of climate change from only focusing on efforts to reduce GHG emissions to a more holistic approach that maintains sustainability and harmony between aspects of economic development, sociocultural factors, and improvement to the environment based on low-carbon development.

Low-carbon development (LCD) is a new development platform that aims to sustain economic and social growth through low-emission development, and to reduce the excessive exploitation of natural resources. The LCD concept emphasizes cross-sectoral policy trade-offs that are needed to balance economic growth and poverty reduction targets with efforts to reduce emissions and encourage the growth of green investment for more sustainable development.

One of the main indicators used in the framework of LCD is emission intensity. Emission intensity (EI) is defined as the amount of greenhouse gas emissions (CO₂e) per unit of economic output (Rp billion GDP). Emission intensity behavior in a certain period of time can describe the relationship between the rate of emission and the rate of economic growth.

GHG emissions are increasing in the baseline, whereas the intensity of emissions despite its tendency to decrease has not been able to support the efforts to reduce emissions as a whole. To achieve the 29% emission reduction target (fair scenario), GHG emissions must be maintained below 1.56 Gt CO₂e per year by 2024 (a decrease of 27.3% from the baseline). Moreover, the intensity of GHG emissions must be maintained below 333.7 tons CO₂e/Rp billion by 2024 (a decrease of 31.6% from the baseline) as illustrated in Figure 7.10.

Reduction in GHG emissions and emission intensity will depend on the implementation of policies in the following sectors: energy, peatlands, industry, waste, agriculture, as well as coastal and marine (blue carbon). For this reason, the

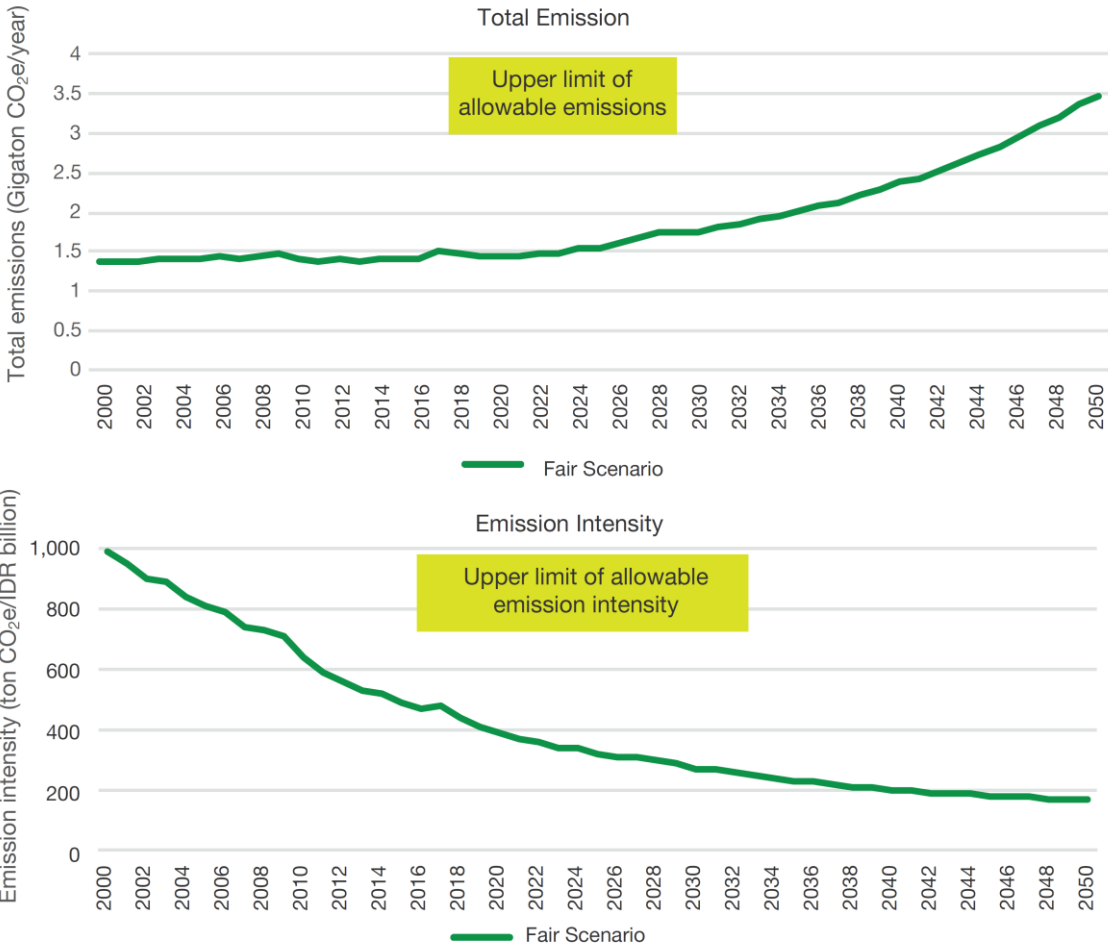
five sectors need to be a priority for low-carbon development in the RPJMN 2020-2024.

In the energy sector, Indonesia still relies on energy sources that are high in emissions. In 2018, most of Indonesia's electricity generation is sourced from fossil fuels, and only 17.1% comes from new and renewable energy (Ministry of Energy and Mineral Resources, 2019). Looking at energy security, Indonesia needs to transition its energy sources to renewables, especially since Indonesia became a net oil importer in 2014. Transitions are not only applied in the electricity sector, but also in the

transportation, industry, and household sectors.

In the land and peat sector, the government has issued a moratorium on clearing primary forests and peatlands to improve sustainable management of forest resources. The policy is expected to save 66 million ha of forests and peatlands from the threat of destruction. The most common threat in relation to peatlands is fire, especially when the season coincides with El Nino as it hits Indonesia. The potential for GHG emissions generated during peat fires is immense. As an illustration, GHG emissions released during forest and peat fires in 2015 amounted to 1.54 Gt CO₂e.

Figure 7.10
Maximum Allowable Emission Rates and Intensity



Source: Bappenas, 2019.

In the industrial and domestic waste sectors, proper management of both industrial and domestic waste is believed to have contributed to a reduction in GHG emissions by 1.69%. In the long term, the

management of industrial and domestic waste can improve water and air quality, which can have a positive impact on the human health and increase the productivity of human resources.

Support for Low-Carbon Development

Applying low-carbon development in the planning and implementation of national development requires cross-sectoral and multi-stakeholder support, both from within and outside the country. The involvement of non-governmental actors needs to be increased to support the success of achieving development targets.

Commitment to implement low-carbon development needs to be strengthened nationally and internationally, not only to build motivation, but also to strengthen capital and capacity of the parties. To realize this, the national interest needs to be made a top priority.

At the national level, support for low-carbon development continues to roll. Not only the central government, the regional government represented by the provincial government also shows strong commitment and support for the implementation of low-carbon development in their respective regions. This commitment and effort were demonstrated through the signing of a memorandum of understanding (MoU) between the Minister of National Development Planning/Head of Bappenas and the provincial governments on low-carbon development planning. The involvement and support from regional governments in low-carbon development need to be increased, especially when related to the

preparation of the Regional Low-Carbon Development Plan (RPRKD) documents at the provincial level. The RPRKD will become a reference for regional governments in carrying out various low-carbon development actions, integrated with other regional plans.

In addition, the involvement of non-governmental actors such as the private sector and community organizations also needs to be improved. Uneven distribution of information regarding the various impacts and benefits of low-carbon development to various parties is one of the factors that leads to less than optimal support from the private sector. Communication and outreach to non-governmental actors to increase awareness need to be intensified, so it is hoped that the involvement of non-governmental actors in the low-carbon development agenda can be further enhanced.

The conduciveness and stability of national politics need to be a concern given that the risks and potential support for low-carbon policies and overall environmental governance depend on the actual political climate. Policy formulation that is in line with the principle of sustainability can only be realized under a conducive political situation.

Transition toward low-carbon development needs to be aligned with the support of technological development

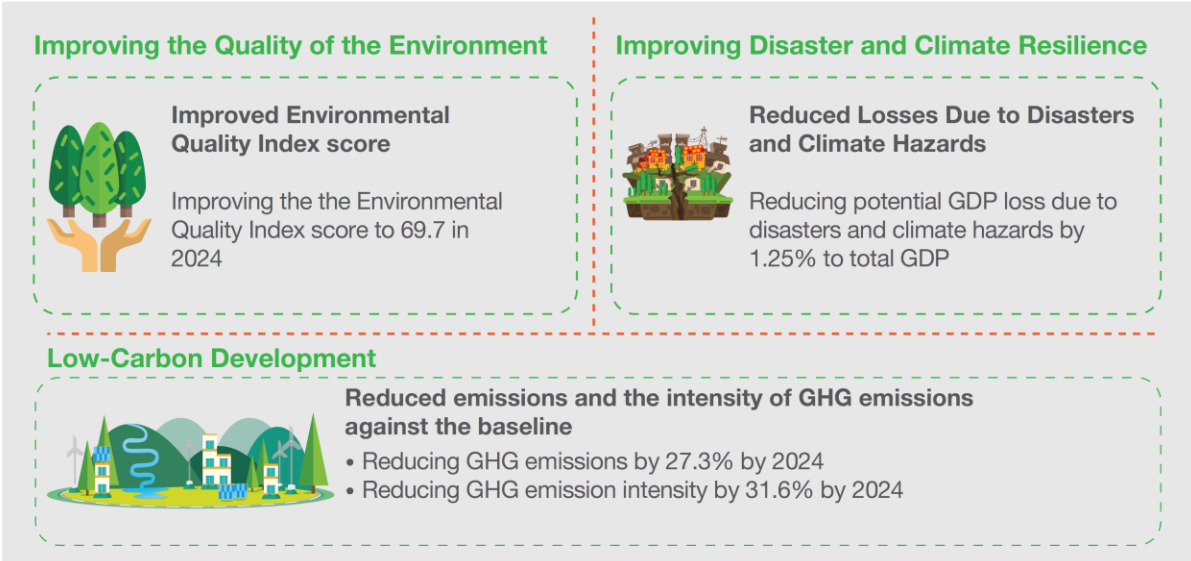
and innovation. Efforts to improve low-emission technologies need to be encouraged so that they can be more affordable and have more profitable economic value. Technological advances also need to be utilized for more efficient planning, supervision, and control of development; and for their positive impact on the environment. This will enable low-carbon development interventions to be carried out at a lower cost, with better coordination, and in a timely manner.

Business innovations that are built on environmentally friendly principles also need to be developed to reduce the negative impacts of pollution, and at the same time increase competition for environmentally friendly businesses. In addition, the potential for business support through CSR programs in low-carbon development needs to be optimized further.

Objectives, Indicators, and Targets

Objectives, targets, and outcome indicators for national priorities to strengthen the environment and improve

resilience against natural disasters and climate change are grouped as follows:



No	Objectives	Indicators	Baseline (2019) ^a	Target (2024)
1	Improving the Quality of the Environment	Air Quality Index score	86.8	84.5
		Water Quality Index score	47.0	55.5
		Sea-Water Quality Index score	N/A	60.5
		Land Cover and Peat Ecosystem Quality Index score	60.6	65.5
1.1	Preventing Pollution and	Number of environmental quality monitoring locations	1,048	1,141

No	Objectives	Indicators	Baseline (2019) ^a	Target (2024)
	Destruction of Natural Resources and the Environment	Number of businesses and/or activities that meet environmental quality standards	1,705 ^b	3,750
		Total area of high conservation value (HCV) maintained nationally (in million ha)	52	70
		Total conservation area under management (in million ha)	27	27
		Marine conservation area (in million ha)	22.68	26.9
		Reduction in forest fire and wildfires each year (%)	942,485 ha burnt	2
		Meteorological accuracy (%)	77	80
		Climatological accuracy (%)	77	79
1.2	Overcoming Pollution and Destruction of Natural Resources and the Environment	Amount of waste managed at the national level (in million ton)	67.45 ^b	339.4 ^c
		Reduction in the amount marine debris (%)	N/A	60
		Amount of hazardous (B3) waste managed (in million ton)	367.3 ^b	539.8 ^c
1.3	Recovering the environment and natural resources from the impacts of pollution and damage	Number of contaminated lands by B3 waste that have been recovered (in ton)	475.676 ^b	1,200,000 ^c
		Number of damaged coastal areas and small islands that have been restored	17	26
		Number of endangered species whose population has been increased	25	25
1.4	Strengthening institutions and law enforcement concerning the environment and natural resources	Number of permit holders who comply with regulations related to environmental and forestry management (%)	30	70
		Number of criminal and civil cases concerning the environment and forestry that have been handled	193	540
		Forest area protected from disturbance and threat (ha)	4,384,918	10,000,000 ^c
		Number of provinces that have plans for the utilization and control of natural resources and the environment	N/A	34 ^c

No	Objectives	Indicators	Baseline (2019) ^a	Target (2024)
2	Improving resilience to natural disasters and climate change	Potential GDP loss due to impacts of disasters (% of GDP)	N/A	0.10
		Reduction in the potential GDP loss affected by climate change (% of GDP)	N/A	1.15
		Speed of delivery of early warning information to the public (in min)	5.0	3.0
2.1	Disaster management	Ratio of disaster risk reduction investment to the state budget (%)	0.04	1.36
		Completeness of equipment for tectonic and hydrometeorological early warning system	87	100
2.2	Improving resilience to climate change	Reduction in potential GDP loss due to climate change in the marine and coastal sector (% of GDP)	N/A	0.732
		Reduction in potential GDP loss due to climate change in the water sector (% of GDP)	N/A	0.072
		Reduction in potential GDP loss due to climate change in the agricultural sector (% of GDP)	N/A	0.251
		Reduction in potential GDP loss due to climate change in the health sector (% of GDP)	N.A	0.093
3	Low-carbon development	Reduction in greenhouse gas (GHG) emission against the baseline in the energy sector (%)	10.3 ^b	13.2
		Reduction in GHG emission against the baseline in the land use sector (%)	36.4 ^b	58.3
		Reduction in GHG emission against the baseline in the waste management sector (%)	8.0 ^b	9.4
		Reduction in GHG emission against the baseline in the IPPU sector (%)	0.6 ^b	2.9
		Reduction in GHG emission against the baseline in the coastal and marine sector (%)	N/A	7.3
3.1	Sustainable energy development	Share of renewable energy in the national energy mix (%)	8.55 ^b	up to 23
		Primary energy intensity (in BOE/billion Rp)	141.0	133.8

No	Objectives	Indicators	Baseline (2019) ^a	Target (2024)
		Reduction in final energy intensity (in BOE/billion Rp)	0.9	0.8
3.2	Sustainable land restoration	Area of degraded peatlands that have been restored and facilitated through peat restoration policies (in ha)	122,833	330,000 ha per year
		Forest and land cover that have been improved at the national level (in ha)	206,000	420,000 ha per year
		Percentage of paddy fields assigned to be sustainable agricultural lands for food production (%)	50	100
3.3	Waste management	Managed waste at the national level (in million ton)	67.5 ^b	339.4 ^c
		Number of households served by landfills that meet sanitary standards	N/A	3,885,755
		Number of households served by 3R waste management facilities	N/A	409,078
		Number of households served by integrated waste management systems	N/A	494,152
3.4	Green industry development	Percentage of medium- to large-sized industries that certified and meet green industry standards (%)	N/A	10
		Number of standard designs for the reduction of GHG emissions in industries	3	20
		Number of standard designs for the management of hazardous waste in industries and for the application of circular economy in sustainable industrial development	3	20
3.5	Low-carbon coasts and marine	Area of recovered mangrove and coastal ecosystems (in ha)	1,000	50,000

Remarks:

- a. The 2019 baseline is based on achievements up to Q3 of 2019 (unless otherwise indicated).
- b. This baseline is based on achievements in 2018.
- c. Cumulative target for the next five years (2020-2024)

Policy Directions and Strategies

The policy direction in the context of strengthening the environment, increasing resilience to disasters and climate change as part of national priorities consists of: (a) improving the

quality of the environment; (b) improving resilience to natural disasters and climate change; and (c) low-carbon development. The strategies to realize each policy direction are outlined as follows:

Improving the Quality of the Environment

This policy direction is carried out by integrating efforts for prevention, mitigation, and recovery of the environment affected by pollution and destruction, and by strengthening institutions and law enforcement in the environment sector.

Strategies to realize the policy direction for the improvement of the environment as part of the 2020-2024 RPJMN 2020-2024 include:

1. Prevention pollution and destruction of natural resources and the environment, which is carried out by: (a) monitoring air, water and seawater quality; (b) monitoring the performance of environmental management systems in businesses and/or economic activities; (c) providing information on weather and climate; (d) preventing land and forest fires; (e) preventing and controlling pollution in marine and coastal areas, and monitoring the health of the marine ecosystem; (f) increasing the capacity and awareness among the government, private sector, and communities in relation to the environment; (g) preventing biodiversity loss and ecosystem damage through conservation and protection of endangered species both on land and in water; and (h)

providing information and data on biodiversity and ecosystems.

2. Overcome pollution and destruction of natural resources and the environment, which is carried out by: (a) handling pollution and damages in the environment; (b) managing household waste and specifically plastic waste (c) Removing and replacing mercury, especially in ASGM sites; and (d) developing integrated facilities for of hazardous and medical waste treatment.
3. Recovering natural resources and the environment from pollution and destruction, which is carried out by: (a) recovering and restoring peatlands; (b) recovering former mine sites and lands contaminated with hazardous waste; (c) restoring damaged ecosystems and the environment surrounding coastal and marine areas, including mangroves, coral reefs and seagrass beds; (d) restoring the habitat of endangered species; and (e) increasing the population of endangered plant and animal species.
4. Strengthening institutions and law enforcement in the natural resources and environment sector, which is

carried out by: (a) strengthening the regulations and institutions in the natural resources and environment sector at the central and regional levels; (b) strengthening the licensing, supervision, and security systems of

natural resources and environmental management; and (c) strengthening mechanisms for criminal justice and mediation in civil proceedings in law enforcement processes in the natural resources and environment sector.

Improving Resilience Against Natural Disasters and Climate Change

Improving resilience against disasters and climate change is carried out by strengthening the convergence of disaster risk reduction and climate change adaptation.

Strategies to realize the policy direction for the improvement of resilience to disasters and climate change as part of the 2020-2024 RPJMN include:

1. Mitigating disasters, which is carried out by: (a) strengthening data, information, and literacy on disasters; (b) strengthening systems, regulations, and governance of disasters; (c) strengthening disaster risk reduction plans through the national and regional disaster risk reduction action plans, which are to be integrated with the climate change adaptation action plans; (d) improving infrastructure for disaster mitigation and management; (e) integrating interregional cooperation related to policies and spatial planning based on disaster risk assessment and disaster management; (f) Strengthening disaster and emergency management; (g) implementing the rehabilitation and reconstruction in areas affected by disasters; (h)

strengthening integrated disaster mitigation systems, mainly by improving InaTEWS and MHEWS; and (i) strengthening disaster preparedness and resilience through social re-engineering at multiple levels, especially at the family, community, and village levels; and (j) increasing the development and innovation of alternative disaster mitigation financing schemes.

2. Improving resilience to climate change, which is carried out with the implementation of the "National Plan for Climate Change Adaptation" (RAN-API) in priority sectors, by: (a) addressing the vulnerability of coastal and marine areas and strengthening these ecosystems based on ecosystem adaptation, community awareness, technology, and diversification of the livelihoods of coastal communities; (b) protecting water security in areas vulnerable to climate change by increasing supply of raw water and providing protection against water damage; (c) protecting food security against climate change; and (d) protecting the public health and the environment from the impacts of climate change.

Low-Carbon Development

Low-carbon development is carried out through efforts to reduce emissions and emission intensity in priority sectors, including energy, land, waste, industry, and marine.

Strategies to realize the policy direction for low-carbon development as part of the 2020-2024 RPJMN include:

1. Developing sustainable energy, which is carried out by: (a) managing new and renewable energy through developing renewable energy generation and increasing the supply of biofuels from low-carbon raw materials; and through (b) energy efficiency and conservation.
2. Restoring lands sustainably, which is carried out by: (a) restoring peatlands; (b) rehabilitating forests and lands; (c) reducing deforestation rates; and (d) increasing agricultural productivity and efficiency toward sustainable agriculture.
3. Managing waste through: (a) household waste management; and (b) liquid waste management.
4. Developing green industry by: (a) conserving and auditing energy use in the industry; (b) applying process and technological modifications; and through (c) industrial waste management.
5. Low-carbon coasts and marine, which are realized by inventorying and rehabilitating coastal and marine ecosystems



CHAPTER VIII

STRENGTHENING THE STABILITY OF POLITICAL,
LAW, DEFENCE AND SECURITY AFFAIRS;
AND TRANSFORMATION OF PUBLIC SERVICES

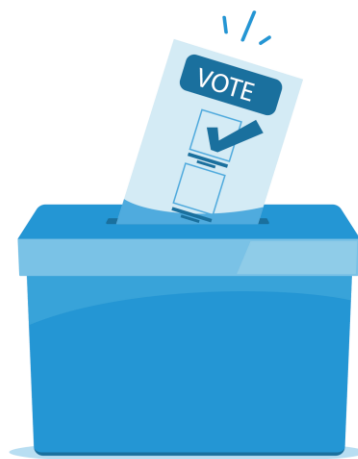
Preface

The development of political, law, defence and security affairs, which will be referred to as Polhukhankam, in Indonesia for the 2020-2024 period is directed towards democratic consolidation; rule of law and enforcement of human rights; clean and trusted bureaucracy; a sense of security and peace for all people; and territorial integrity of the Republic of Indonesia and sovereignty against various threats, both from within and outside the country. These conditions are prerequisites to support national development.

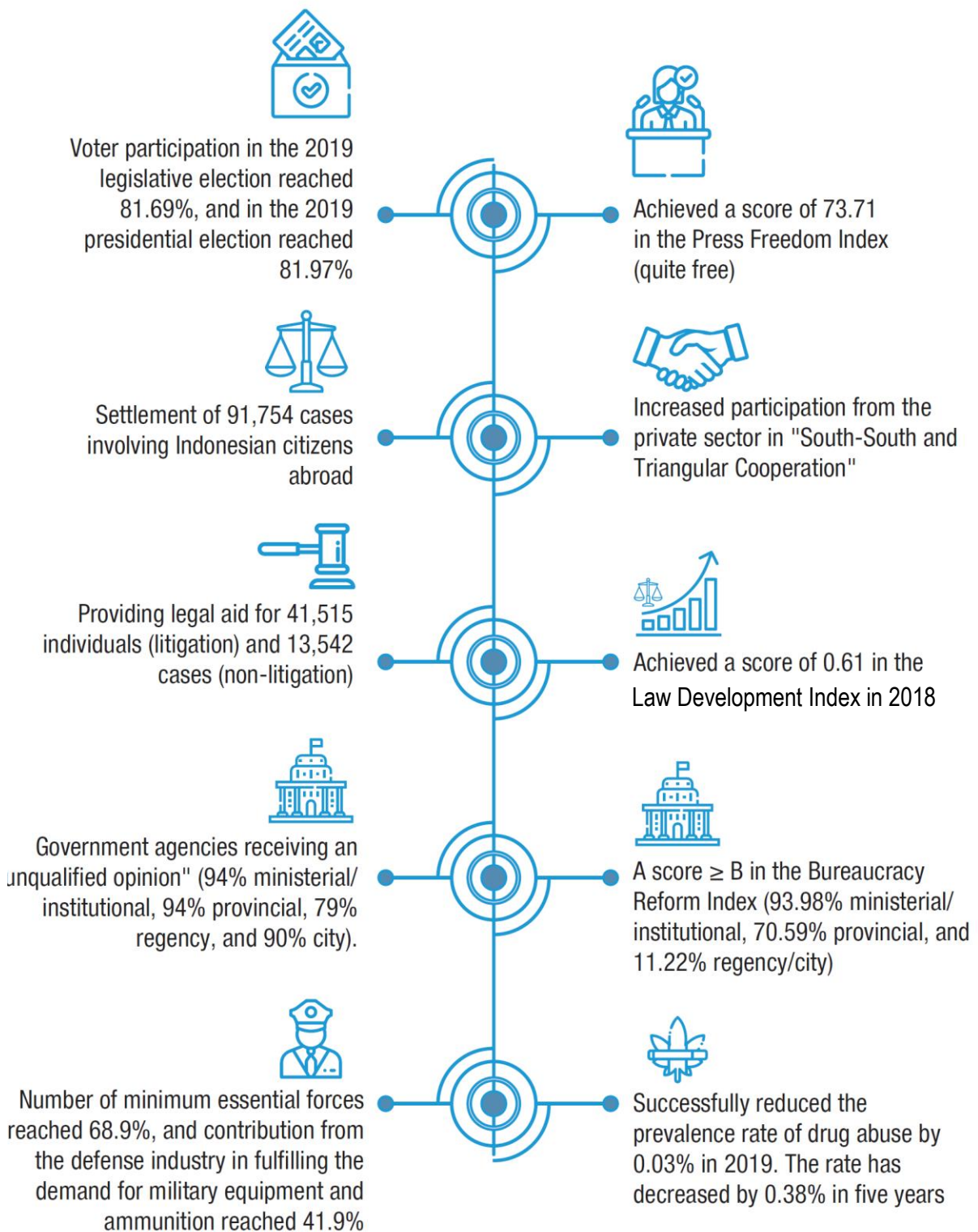
The development of Polhukhankam considers a variety of factors that occur within and outside the country. Some domestic issues that need to be anticipated over the next five years are the issues of intolerance, procedural

democracy, the complexity of bureaucratic and law enforcement services, corruption, potential security threats, and state sovereignty. At the global level, some issues that need attention are the depolarization of international politics, the shifting of key powers' focus on maritime affairs, deglobalization and populism that have led to unilateral policies of several countries, and instability in the Middle East.

The direction of the Polhukhankam's development policy is focused on five areas, namely consolidating democracy, optimizing foreign policies, enhancing legal systems, reforming bureaucracy, and governance, as well as strengthening national security.



Development Achievements in 2015-2019



Environmental and Strategic Issues

Global Geopolitical Dynamics



Source: Bappenas, 2019.

The dynamic of global geopolitics will affect the future of Indonesia's development. Competition between world's major powers has led to the depolarization of international relations both in the West (America and Europe) and in the East (Asia). This situation has resulted in the dispute over the South China Sea and China's military expansion in that region.

The dynamics of the global political economy are manifested in a trade war between the United States and China. In addition, competitions between nation states are heightened with the emergence of several infrastructure

development across Asia and Africa, funded by China's Belt and Road Initiative. In respective, United States has initiated funding for infrastructure development in the same continents with the Better Utilization of Investments Leading to Development (BUILD) Act.

The relatively easy transnational movement of non-state actors results in nontraditional threats. Nontraditional threats that garnered signification attention are: (1) terrorism; (2) human trafficking; (3) narcotics abuse; (4) illegal, unreported, and unregulated fishing; and (5) cyber-attacks.

National Strategic Environment

At the national level, Indonesia's development policy and focus will face several challenges, namely procedural democracy, the complexity of

bureaucratic and law enforcement services, corruption, the potential threat to sovereignty, and rising transnational crime.

Procedural democracy is reflected in the value of the Indonesian Democracy Index comprising to the aspects of civil liberties (78.46) and democratic institutions (75.25), which rank higher than the aspect of political rights (65.79).

Another challenge is the uneven implementation of bureaucratic reform. The bureaucratic reform at the regency/city level is still low as seen from the Bureaucratic Reform Index score of

"B and above" (at 11.22%), which requires special attention. Meanwhile, corruption is still rampant. This is indicated by a few regional heads who committed criminal acts of corruption.

Armed criminal groups that threaten sovereignty, such as those active in Papua, are significant national-level issues. In addition, illicit trafficking and abuse of narcotics remain a challenge to security.



Source: Bappenas, 2019.

Framework for Polhukhankam Development

National development is based on the aspirations of the people through a democratic political process. In realizing people's aspirations, a professional development administration is needed. The results from monitoring and evaluation of the impact of the latest

development goals serve as feedback to meet people's aspirations at a later stage. The cycle will take place in conducive situation based on good governance, applicable legal systems, and robust national security.

Strategic Issues

Democratic Consolidation

There are four relevant issues:

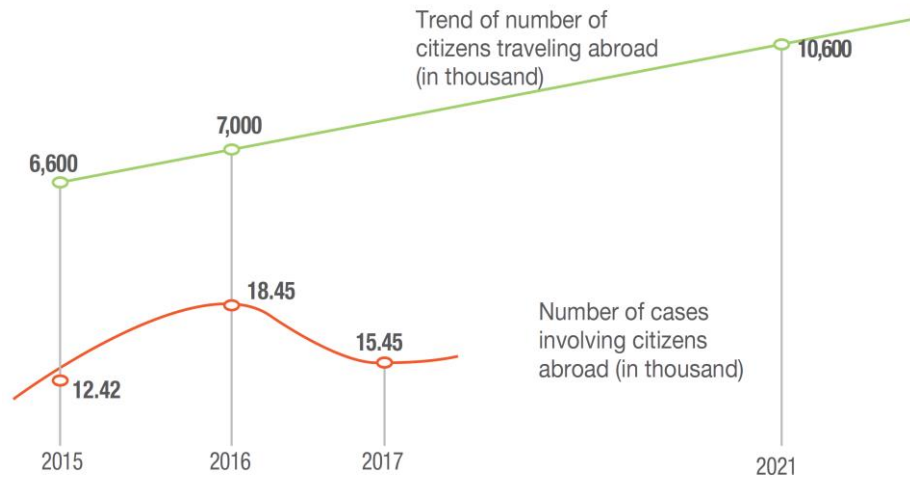
1. The problem of representation, gaps between representatives and constituents due to the issues in recruitment processes, regeneration, and candidacy within the political parties.
2. High political costs are multidimensional issues that must be resolved appropriately. This problem results in widespread practices of corruption, and damage to societal values and governance.
3. Issues concerning equality and freedom, such as threats to freedom of speech, intolerance, and discrimination, which be able to weaken national identity and unity.
4. Information and public communication management issues which lead to lessen public participation and trust.

Optimizing Foreign Policy

To optimize foreign policymaking, there are four issues that need attention:

1. The issue of security along with easier transnational movement of people amid globalization has increased the complexity regarding Indonesian citizens who are migrating. Moreover, Indonesia also has territorial boundaries that are currently under negotiation, both maritime boundaries and land boundaries, in order to maintain the sovereignty of its territory as an island nation. In addition, the government is also facing transnational threats, such as terrorism; drug smuggling; and illegal, unreported, and unregulated fishing.
 2. The management of nontraditional markets that engage in South-South trade has not been optimal. For this reason, it is necessary to strengthen international development cooperation by optimizing "South-South and Triangular Cooperation" to support trade and investment. The institutional implementation of assistance provision and international development cooperation is strengthened, while new sources and funding mechanisms continue to be developed, for example, export credit schemes can be channeled through export financing providers.
- The participation of non-state actors, especially from the private sector, needs to be increased. This is part of the effort to introduce products and technologies developed by private companies, and to boost the image and recognition of national products at a global level.

Figure 8.1
Comparison Between Number of Indonesian Citizens Traveling Abroad and
Number of Cases Involving Indonesian Citizens Abroad



Source: Ministry of Foreign Affairs, 2018.

3. There is an urgency to synergize public diplomacy programs with our socio-cultural wealth such as cuisine, ethnic diversity, and tolerance. Such policy would lead to a better understanding of Indonesia as a country, within the lens of international relations. In addition, there is a need for a cohesive and one agreement over Indonesia's international branding that would be presented at the global stage.
4. There is the need to strengthen leadership and governance when responding to the dynamic development of international relations using "total diplomacy". Structuring the roles and functions of ministries/institutions is also needed to streamline the implementation of foreign policy.

National Law Enforcement

Legal development efforts in Indonesia are still ongoing. However, the Rule of Law Index score over the past five years (2013-2018) follows a decline. According to the index, some aspects of the country's legal development have shown weakness, particularly the judicial system (both criminal and civil), enforcement of legislation, and rampant corruption.

There are several problems arise in legal development, among others, are excessive regulations or hyper-regulation; and regulations that show

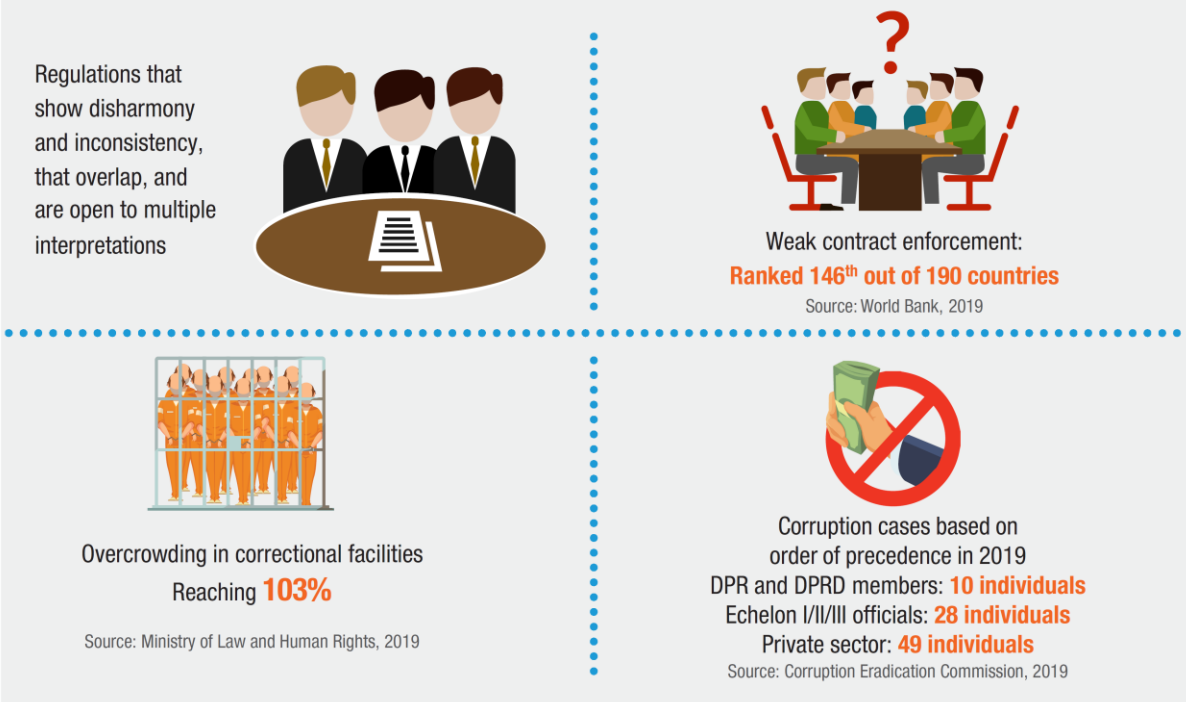
inconsistencies, disharmony, and are subject to multiple interpretations, which have an impact on legal uncertainty. Moreover, the implementation of the justice system, both in criminal and civil courts, has not provided legal certainty and increased public confidence. The current criminal justice system tends to be punitive as reflected in the overcrowding of the prison population by 103%.

Meanwhile, the issue of enforcement in the civil justice system also needs to be

addressed. Indonesia is ranked 146 out of 190 countries for contract enforcement. Bribery is still rife in various sectors,

including law enforcement, despite efforts to prevent such practice.

Figure 8.2
Strategic Issues Concerning the National Law System



Bureaucratic and Governance Reform

To realize the ideals and goals of the country, members of the state apparatus are required to carry out their role in implementing policies, delivering public services, and bringing society together on Pancasila and the 1945 Constitution.

There are still several strategic issues to be addressed in the next five years:

1. Related to the professionalism of state apparatus, the data from the Indonesian Civil Service Commission shows that among 34 ministries, only six have successfully implemented a merit system. Furthermore, five-levels echelon system makes decision-making process is inefficient, therefore it is necessary to simplify the

bureaucracy structure and expand the functional positions that require specific expertise and competence. In terms of competence, ministries/institutions still lack of specialists, and unequal competency and level of education between the the state apparatus in Java Island and outside Java. The distribution functional staffs are not based in regional priorities, caused by in political interventions, especially from subnational heads, in the state apparatus management. From the welfare side, it is necessary to continue to improve the welfare system for state apparatus and retirees. From the regulatory aspect, it is necessary to accelerate the

issuance of derivative law of Law No. 5/2014 concerning state apparatus.

2. From the institutional aspect, there are overlapping tasks and functions between central government institutions (i.e. ministries, non-ministerial government institutions, and non-structural institutions). This overlap is caused by unclear division of labor amongst these institutions. The fragmentation of tasks and functions complicates the coordination between institutions, which further leads to ineffective governance. An effort to overcome this issue is by implementing a government business process framework that will also support the implementation of e-government and "One Data Indonesia" in an integrated manner in terms of governance, ICT infrastructure, and services.
3. For public service delivery, Ombudsman data shows that the number of public complaints increased significantly from 6,859 in 2015 to 8,314 in 2018, in which the majority complaints were regarding the protracted delays and procedural

irregularities. Pertaining to integrated services, it is necessary to delegate authority to public service malls and public service units in villages, sub-districts, and districts. Another issue is the lack of integration of business processes and utilization of integrated data in service provision. Moreover, the application of e-service has not been integrated between types of services and with varying levels of maturity.

4. In terms of accountability, the 2018 data from the Audit Board of Indonesia (BPK) revealed some problems related to the internal control systems, non-compliance with statutory provisions, and corruption. For this reason, it is necessary to accelerate the integration of systems and the continuation of the "Money Follows Program" policy, so that planning and budgeting can be more results-oriented, which will then support the achievement of development goals. Therefore, an institutional performance management system, an integrated and reliable planning and budgeting system, and the implementation of an integrity system are needed.

Maintaining Stability of National Security

The Dynamic of Defense Threats

Defense development plan is needed to respond, deter, and defeat threats from national, regional and international to maintain the stability of national security. Indonesia, now is facing an uncertain, invariably complex, and ambiguous environment. Regionally, the level of arms

procurement in Asia remains high and the tension in Korean Peninsula as well as South China Sea still ongoing. Nationally, the challenge is to tackle the problem of sovereignty in a certain areas of Indonesia.

The Lack of Defense Industry Support

Although Indonesia's defense industry has the ability to produce some military equipment, other strategic defense equipment such as fighter planes, destroyers, rockets, missiles, unmanned combat aerial vehicles, and radars still rely on foreign production. The mastery of key technology, integrated system

capability, and compliance with national regulations are requirements for defense industries to increase its contribution to the provision of defense and security equipment. In the future development, Indonesia's defense industry hopefully can increase its competitiveness and be part of global supply chain.

The Dynamic of Cyber Threats

The rapid development of technology as well as the free access to internet has opened a gate for potential cyber threats and crime. The high number of cyber-attacks in the form of malware in

Indonesia is a reflection of the increasing national security threat. Cyber threat in Indonesia is increasingly serious and harmful due to the lack of regulations, infrastructure, and human resources.

Drug Trafficking Destination

The market in Indonesia attracts international narcotics syndicates, due to its large population and high selling prices. Its geographical conditions as an archipelago state has introduced many

entry points for narcotics smugglers. Smuggling is frequently carried out by sea due to limited surveillance along the border.

Territorial Violations and Crime Rates Along the Border

Limited infrastructure and weak surveillance in border regions are the causes of high crime rates. In addition, violations in Indonesian Exclusive Economic Zone of Natuna have also become a threat to Indonesia's sovereign rights to explore natural resources. Another threat in the border of Indonesia is a force migration from other countries.

Conflicts occurring in the Middle East, North Africa, and other regions are driving illegal migration and making Indonesia as a transit and destination country for asylum seekers, though Indonesia has not ratified the United Nations High Commissioner for Refugees (UNHCR) Convention and Protocol, regarding refugee status.

The Low Sense of Security in the Public

Crimes against life, physical integrity, morality, and human trafficking are still relatively high in Indonesia. Particularly,

crimes against women and children become a global concern and commitment in achieving Sustainable

Development Goals. Therefore, women and children who have become victims of violence require special treatment.

Violations and Crime in the Sea

The high number of ship that transit regularly are prone to become objects of crime, including piracy, smuggling, and disposal of waste or oil. Ineffective law enforcement has a high impact on piracy and smuggling. In addition, criminal offenses related to natural resources remain high, such as unreported and

unregulated fishing, and ocean dumping. To respond to the problems, it is necessary to strengthen regulations, infrastructure, and institutions that regulate the duties, functions, and authority of stakeholders related to marine security.

Diverse Means of Spreading Radical Ideas

The rise and spread of ideology based on violence and terrorist recruitment process are frequently done through social media, schools, and correctional

institutions. The recruitment demographic is increasingly diverse, reaching not only adult men, but also women and children.

Objectives, Indicators, and Targets

To successfully strengthen the stability of Polhukhankam and the transformation of

public services, the following objectives, indicators, and targets are set as follows:

No	Objectives	Indicators	Baseline (2019)	Target (2024)
Strengthening the Stability of Polhukhankam and Transformation of Public Services				
1	Democratic consolidation	a. Democracy Index score in Indonesia	72.39 (2018)	78.37*
		b. Election Vulnerability Index score	49	39
		c. Public satisfaction with public information content related to government priority policies and programs (%)	70	72
		d. Number of competent and professional human resources in the communication and informatics sector	37,000	50,000
2	Optimizing foreign policies	a. Service and Protection Index score for citizens and legal entities abroad	92.46* (2018)	90*
		b. Number of South-South & Triangular Cooperation (SSTC) programs	76	152

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		c. Total funding for international development cooperation programs, including SSTS (billion Rp)	112	190
		d. Level of participation of non-governmental actors in international development cooperation activities (%)	2.23	2.96-3.16
		e. Nation Brand Index score (measures international reputation)	3.8 (2018)	4.0
		f. Number of forums led by Indonesian representatives at regional and multilateral levels	8	16
3	Solid National law enforcement	a. Law Development Index score	0.61 (2018)	0.73*
		b. Percentage of granted judicial review	13.15 and 12.05 (2018)	8.15 and 7.05
		c. Indonesia's EoDB ranking regarding the Enforcing Contract Indicator	146	70
		d. Indonesia's EoDB ranking regarding the Resolving Insolvency indicator	36	20
		e. Indonesia's EoDB ranking regarding the Getting Credit indicator	44	20
		f. Percentage of recidivists (%)	9.06	6.56
		g. Anti-Corruption Behavior Index score	3.70	4.14
		h. Access to Justice Index score (%)	69.6	71-80
4	Reforming bureaucracy and governance	a. Government agencies with Bureaucratic Reform Index score of \geq Good*:		
		i. Ministries/institutions (%)	93.98 (2018)	85
		ii. Provincial (%)	70.59 (2018)	85
		iii. Regency/city (%)	11.22 (2018)	70
		b. Percentage of government agencies with a Merit System Index score of \geq Good:		
		i. Ministries/institutions (%)	32 (2018)	100
		ii. Non-ministerial government agencies (%)	24 (2018)	100
		iii. Provincial (%)	15 (2018)	85

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		iv. Regency/city (%)	0.58 (2018)	30
		c. Government agencies with a level of public service compliance in the “Good” category	90 per 277	164 per 623
		d. Percentage of government agencies with E-governance Maturity Index score in the “Good” category:		
		i. Ministries/institutions (%)	43.3 (2018)	100
		ii. Provincial (%)	32.4 (2018)	80
		iii. Regency/city (%)	6.1 (2018)	50
		e. Central government agencies that got “unqualified opinion”:		
		i. Ministries/institutions (%)	94 (2018)	95
		ii. Provincial (%)	94 (2018)	95
		iii. Regency (%)	79 (2018)	85
		iv. City (%)	90 (2018)	95
		f. Government agencies with a performance accountability value of ≥ Good:		
		i. Ministries/institutions (%)	92.77 (2018)	100
		ii. Provincial (%)	94.12 (2018)	100
		iii. Regency/city (%)	46.85 (2018)	80
5	Maintaining the stability of national security	a. Global Fire Power Index score	0.28	0.20
		b. Global Terrorism Index score	5.07	4.24
		c. Percentage of people who feel safe walking alone (%)	53.32 (2017)	>60
		d. National Security and Order Index score	N/A*	3.4
		e. Terrorism Risk Index score (actor)	38.24 (2018)	37.80
		f. Terrorism Risk Index score (target)	54.46 (2018)	54.00

No	Objectives	Indicators	Baseline (2019)	Target (2024)
		Number of cross-border violations and incidents	332	<150
		g. Number of significant conflicts	60	35
		h. Number of internal refugees	16,000 (2018)	14,000
		i. Percentage of minimum essential force (%)	68.9	100
		j. Contribution of defense industry to fulfill demand for defense equipment	41.9	≥50
		k. Number of legal violations and disruptions to maritime security	300	202
		l. Prevalence of both illicit use and drug use (%)	1.8	1.69
		m. Crime rate (person/100,000 population)	113 (2018)	111
		n. Quality of police services (%)	61	65
		o. Global Cyber Security Index score	0.776 (2018)	0.838

*) Updated calculation method for 2020-2024

Policy Directions and Strategies

Democratic Consolidation

Strengthening the capacity of democratic institutions by:

1. Strengthening laws and regulations in the political sphere;
2. Stabilizing internal democracy of political parties;
3. Strengthening transparency and accountability of political parties;
4. Strengthening election organizers.

Strengthening equality and freedom through:

1. Consistent political and voter education;
2. Increasing the quality and capacity of civil society organizations;

3. Well-managed elections.

Improving public communication quality by:

1. Strengthening governance on information and public communication in ministries/institutions/regional government, and providing content and access;
2. Increasing community ICT literacy;
3. Strengthening the role and quality of human resources in communication and information technology, press, broadcasting, and journalism institutions.

Optimizing Foreign Policy

Strengthening the territorial integrity of the Republic of Indonesia and the protection of Indonesian citizens abroad by:

1. Increasing and intensifying the effectiveness of border negotiations, and accelerating the mapping of national borders;
2. Upholding international norms and law in protecting Indonesia's sovereignty;
3. Increasing international cooperation in the prevention and management of transnational crime;
4. Strengthening the protection of Indonesian citizens and legal entities at the bilateral, regional, and multilateral levels; and increasing efforts to prevent incidents involving Indonesian citizens abroad; and
5. Strengthening the participation of non-governmental actors in protecting Indonesian citizens.

Strengthening international development cooperation by:

1. Increasing the utilization of new funding sources and mechanisms;
2. Creating an environment that increases private participation in

international development cooperation;

3. Strengthening SSTC to support trade and investment;
4. Strengthening aid agencies and international development cooperation.

Improving Indonesia's image in the eyes of the international world by:

1. Formulating Indonesia's public diplomacy policy to improve coordination at the national level; and
2. Increasing the participation of non-governmental actors in inclusive public diplomacy.

Enhancing Indonesia's role at the regional and global level by:

1. Improving Indonesia's initiation and/or position at the regional and global level;
2. Increasing Indonesia's active role in maintaining world peace;
3. Enhancing domestic coordination to carry out international commitments; and
4. Structuring the roles, structure, human resources, and functions of ministries/agencies in implementing Indonesia's foreign policy

National Law Enforcement

The main objectives of law development for the future can be achieved through the following policies and strategies:

1. Harmonizing regulations through the following strategies:
 - a. Establishing regulatory management institutions, while focusing on: synchronizing with stakeholders in the formation of

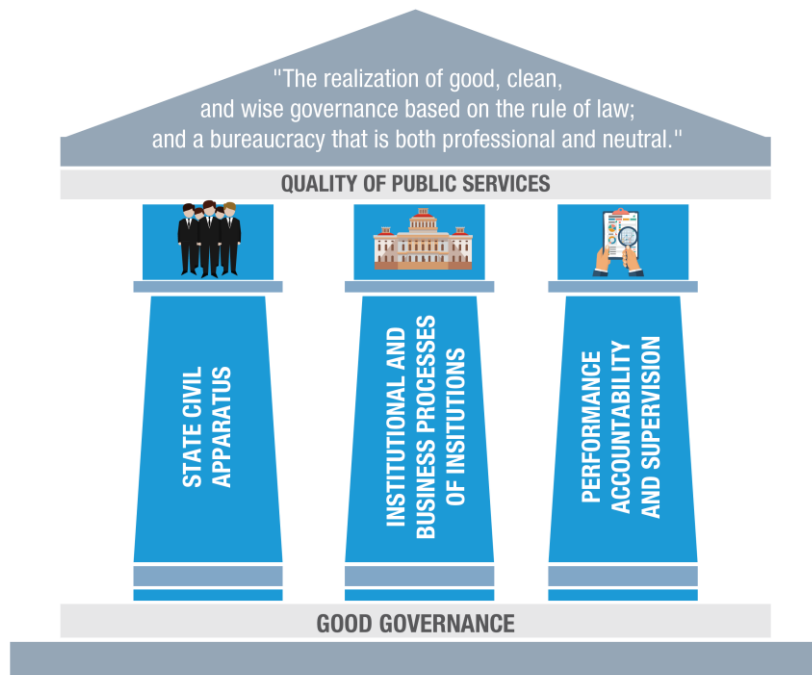
regulations; integrating regulatory monitoring and evaluation processes; optimizing public access and participation in the formulation and formation of regulations; strengthening the harmonization and synergy of policies and regulations; and

- supporting information technology-based databases; and
 - b. Legal reform, including changes in the criminal codes and procedures; and regulations related to business entities, movable property guarantees, international civil law, and bankruptcy.
- 2. Improving the criminal and civil law system through the following strategies:
 - a. Improving economy-related laws that support the ease of doing business by preparing regulations that, strengthen IT-based systems in services and management of civil cases, and strengthen institutions that support the execution of court decisions.
 - b. Implementing restorative justice approach by optimizing the use of regulations that are stipulated in legislation that supports restorative justice; by optimizing the role of traditional institutions and institutions that administer alternative dispute resolution proceedings; by prioritizing efforts to provide rehabilitation, compensation and restitution for victims, including victims of human rights violations;
 - c. IT support in the legal field through the provision, management, and sharing of data between law enforcers, including to strengthen database management in each law enforcement agency; and
 - d. Improving the competence and integrity of judges through education and training, public education, and improving use of IT on Judges supervision.
- 3. Strengthening the anti-corruption system through the following strategies:
 - a. Strengthening corruption prevention efforts, through the implementation of corruption prevention actions in accordance with the national strategy for corruption prevention; and
 - b. Optimizing the mechanism of recovery and management in the judicial system as a whole of assets resulting from corruption and utilizing these assets to support national development.
- 4. Increasing access to justice system through the following strategies:
 - a. Strengthening justice services for the public by improving the quality of legal aid services, of formal and informal mechanisms, and expanding the affordability of justice services;
 - b. Legal empowerment for the public by increasing public understanding of the law and public access to justice, and build community capacity and encourage the community to take an active role in utilizing mechanisms and services for and by the people in an effort to obtain legal certainty.

Bureaucratic and Governance Reform

Figure 8.3

Policy Directions and Strategies for Bureaucratic and Governance Reform



Achieving key targets for the future through the following policy directions and strategies:

1. Strengthening the management of the state civil apparatus, or ASN, by applying ASN national talent management, enhancing the ASN merit system, simplifying bureaucracy echelon system, and improving functional jobs and positions;
2. Re-organising institutional and business processes of institutions by implementing integrated e-government;
3. Reforming the performance accountability system by expanding
4. the implementation of the integrity system, strengthening the management of bureaucratic reforms, and the accountability of organizational performance, as well as reforming the planning and budgeting system;
4. Transforming public services, through: electronic-based public services (e-services), strengthening public supervision of the performance of public services, strengthening the innovation ecosystem, and strengthening integrated services.

Maintaining Stability of National Security

Stability of national security can be achieved by:

1. Strengthening domestic security by:
 - a. Increasing the prevention, prosecution, and deradicalization of terrorism acts;
 - b. Securing vital and vulnerable targets;
 - c. Strengthening defense and security at the borders and on outermost islands;
 - d. Increasing search and rescue response in vulnerable and disaster-prone areas; and
 - e. Managing conflicts in a humane manner
2. Strengthening defense capability accompanied by confidence building measures (CBM) and budget reforms by:
 - a. Determining priority in the procurement of defense equipment by considering maintenance capacity and prioritizing domestic production;
 - b. Developing defense infrastructure;
 - c. Increasing professionalism and welfare of servicemen;
 - d. Developing cyber defense; and
 - e. Compiling and revising laws and regulations concerning the defense industry.
3. Strengthening marine security is by:
 - a. Strengthening the capacity of integrated early warning systems;
 - b. Strengthening capacity of marine security operations;
 - c. Resolving maritime security cases in a more efficient manner; and
 - d. Improving regulations on maritime security.
4. Enhancing security and public order by:
 - a. Preventing and eradicating illicit traffic in narcotics drugs, narcotics abuse, and precursors;
 - b. Managing human trafficking cases, as well as crimes against women, children, and other vulnerable groups;
 - c. Improving police services to be more professional, modern, and reliable; and
 - d. Increasing professionalism and welfare of police officers.
5. Strengthening cyber security and resilience by:
 - a. Developing and strengthening the cyber security rapid response team;
 - b. Strengthening infrastructure, human resources, and regulations concerning cyber security;
 - c. Resolving cybercrime cases; and
 - d. Preventing cybercrime and increasing international cooperation on cyber security.



CHAPTER IX

MEANS OF IMPLEMENTATION

Preface

The 2020-2024 RPJMN is a manifestation of the vision, mission, and programs of the President and Vice President in the 2019-2024 period, which is in line with long-term development planning in Indonesia. This document is a guideline for ministries/institutions in preparing strategic plans from ministries/institutions, and a guideline for regional governments in preparing regional medium-term development plans (RPJMD). Ministries/institutions, regional governments, the public, and business actors need to pay attention to the principles of implementing the RPJMN when implementing these programs.

Planning and budgeting for the 2020-2024 RPJMN are implemented through:

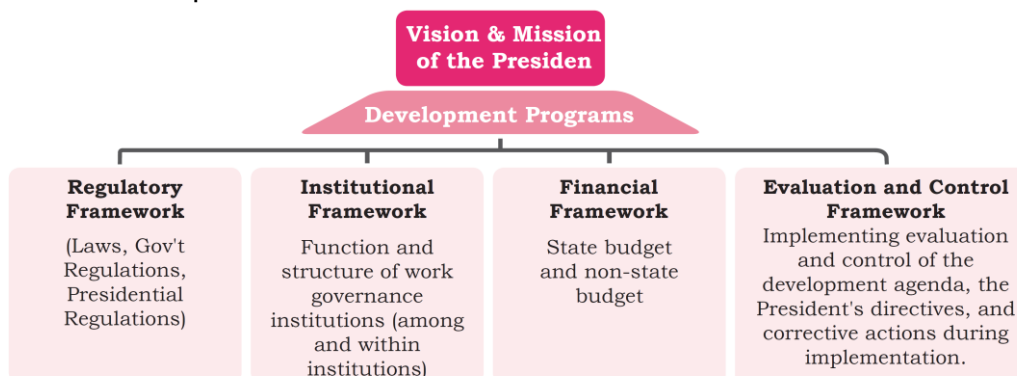
1. Strategic planning and budgeting processes with a program-based budgeting approach ("Money Follows" principle) through performance-based budgeting.
2. Synchronizing planning and budgeting processes to improve the integration of efficient and effective planning and budgeting in the context of achieving national development goals in accordance with the 2005-

2025 RPJPN, the vision and mission of the President and Vice President, and the President's directives using a thematic, holistic, integrative, and spatial approach.

3. Conduct of implementation through: i) regulatory framework, ii) institutional framework, iii) funding framework, and iv) evaluation and control framework.

Each ministry/institution and regional government needs to ensure consistency and integration between the 2020-2024 RPJMN and strategic plans from ministries/institutions or RPJMD according to their respective authorities. In addition, all stakeholders collaborate and build integrated programs to support the achievement of national development targets in the 2020-2024 RPJMN. To ensure the effectiveness of the 2020-2024 RPJMN implementation, the Ministry of National Development Planning/Bappenas monitors and evaluates the elaboration of the RPJMN in the strategic plans from ministries/institutions and from the RPJMD, and controls the implementation of the RPJMN.

Figure 9.1
Implementation Framework for the 2020-2024 RPJMN

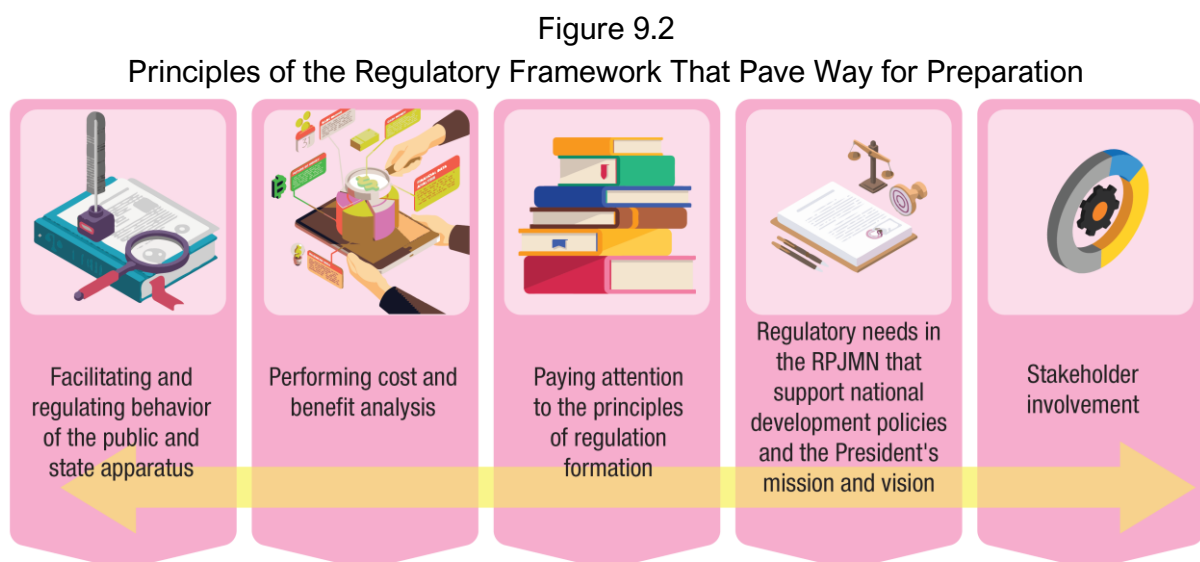


Regulatory Framework

Regulation and institutionalization have become some of the main binding constraints on economic growth in Indonesia (based on the study *Growth Diagnostic, A New Approach to National Development Strategies: Identifying the Binding Constraint to Growth in Indonesia*, Bappenas, 2018). For this reason, regulatory framework that is prepared in an appropriate, simple, flexible, and constructive manner is believed to help facilitate, encourage, and regulate the behavior of the people and state administrators in order to achieve the objectives of the country.

Improving the quality and quantity of regulations must be carried out with governance that not only takes into account the rules that apply in the formation of regulations, but is also able to produce regulations that are simple, orderly, easy to understand, and provide concrete benefits in the implementation of national development.

To ensure the quality and quantity of regulations, a few important principles must be considered as listed in Figure 9.2.



Source: Minister of National Development Planning/Bappenas, 2019.

The prevailing mindset--common in ministries/institutions/regional government--of making as many regulations as possible must be changed by first studying priority policies and performing regulatory impact analysis by utilizing information technology in order to produce accurate evidence-based regulations and/or policies in the next five years (2020-2024).

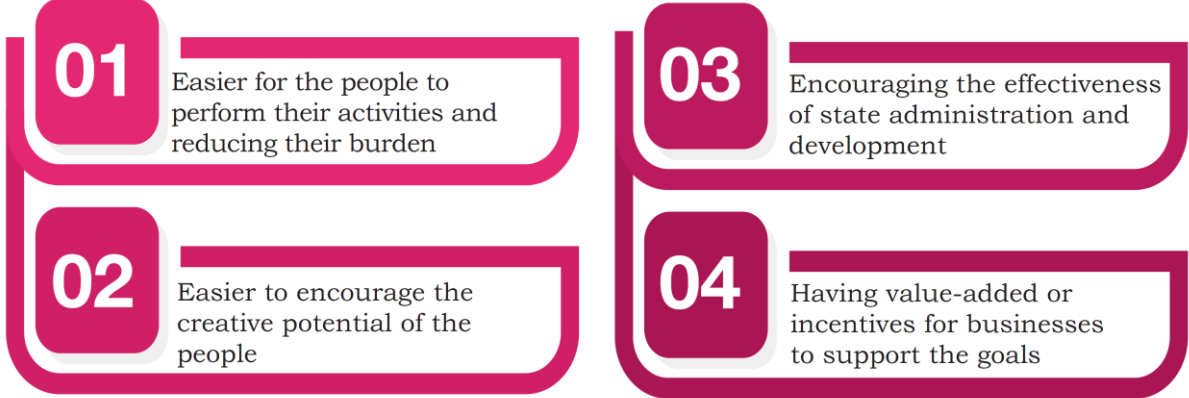
This approach will reduce the number of unnecessary regulations and save the cost of establishing legislation in order to have a clear regulatory framework that contributes and support the vision and mission of the President and Vice President for 2020-2024, as shown in Figure 9.3.

Based on Figure 9.3, regulation is a factor that integrates policies in the

context of achieving national development, including creating a

conducive investment climate for the public and business world.

Figure 9.3
The Role of Regulation in Development



Source: Minister of National Development Planning/Bappenas, 2019.

As one of the strategies for revising existing regulations, the Omnibus Law approach can be applied, namely by simplifying, revoking, revising, or combining several regulations--including laws, government regulations, presidential regulations, ministerial regulations, and regional regulations--whose substance is almost the same as that of another regulation, or whose substance overlaps or is conflicting with that of another.

The Omnibus Law approach in practice has been carried out by simplifying regulations and deregulating economic policy packages. A concrete example is the passing of Law No. 7/2017 concerning general elections that supplanted: Law No. 42/2008 concerning the election of the President and Vice President, Law No. 15/2011 concerning organizing elections, Law No. 8/2012 concerning the election of Members of DPR, DPD, and DPRD, and Law No. 11/2006 concerning the provincial government of Aceh as stated in article 57 and 60 paragraphs (1), (2), and (4). Another example is the Government

Regulation No. 17/2017 concerning the synchronization of the national development planning and budgeting process that revoked several articles in the Government Regulation No. 40/2006 concerning procedures for the preparation of national development plans and several articles in Government Regulation No. 90/2010 concerning the preparation of work plans and budget of ministries and Institutions that conflict and hinder the achievement of national development targets.

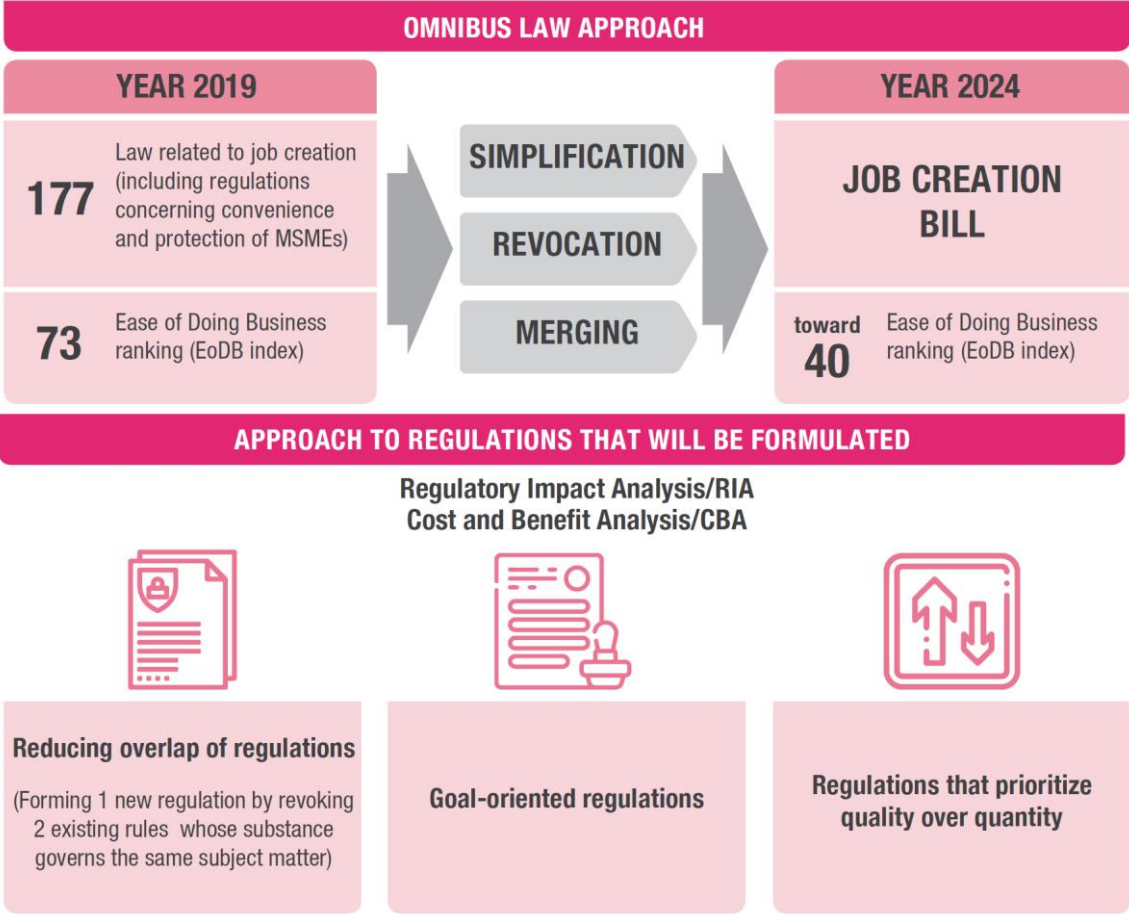
The core of the Omnibus Law approach is the evaluation, assessment, and research related to regulations and policy choices to ensure proper, flexible, and accountable regulations.

In accordance with the President's directives to support ease of doing business and investment, and to support simplification of regulations, ministries/institutions and regional governments that issues a new regulation must revoke at least two valid regulations whose substance regulates the same aspect.

The Omnibus Law approach can be applied, for example, to empower UMKM and support employment creation where initial studies show that there are 177 laws related to employment creation and 11 related clusters or issues to which the Omnibus Law approach can be potentially applied, namely: 1) business

licensing; 2) investment requirements; 3) employment; 4) ease and protection of UMKM; 5) ease of doing business; 6) research and innovation support; 7) government administration; 8) imposition of sanctions; 9) land procurement; 10) ease of government projects; and 11) economic zones.

Figure 9.4
The Omnibus Law Approach



Given the dynamic nature of development, the needs of the regulatory framework will be adjusted accordingly through the government work plans (RKP) every year.

The Omnibus Law approach must be understood as a comprehensive and integrated effort in the framework of structuring and improving the quality of regulations as illustrated in Figure 9.4.

From the flowchart above, the effectiveness or encumbrance of an existing regulation can be detected early.

To ensure good regulatory quality, the following touchstones must be addressed: 1) legal aspects, 2) aspects of needs and 3) aspects of benefits, as listed in Figure 9.6.

Figure 9.5
Flowchart of Synergy Between Policy and Regulation

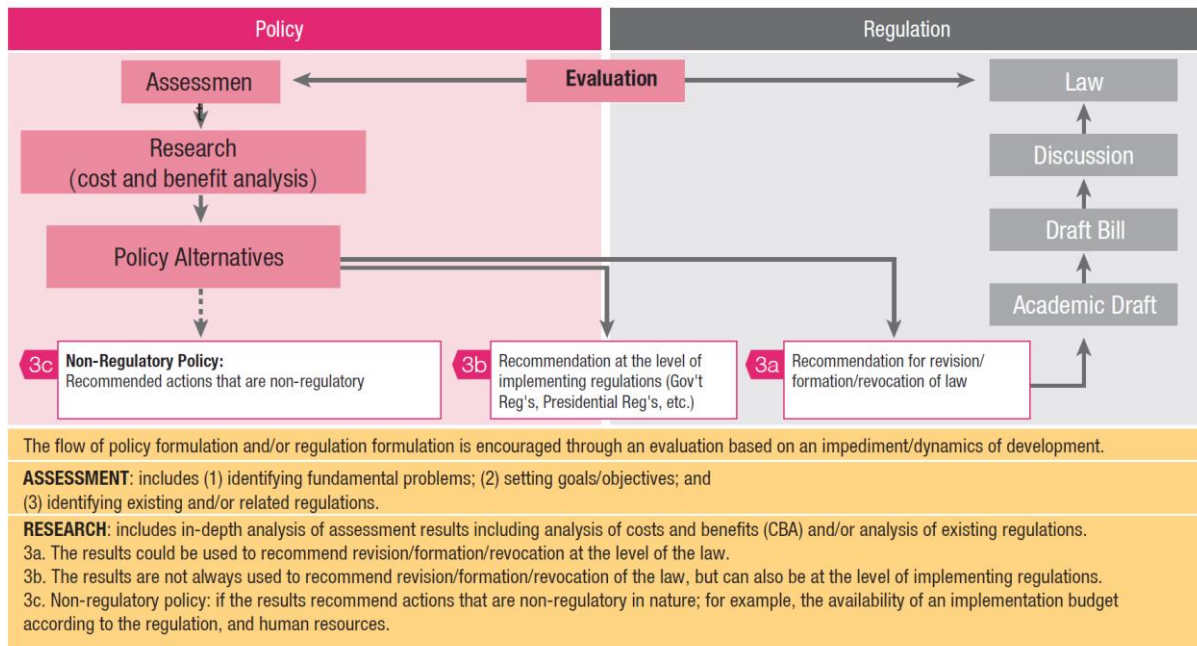


Figure 9.6
Touchstones for Proposed Regulatory Framework



Source: Minister of National Development Planning/Bappenas, 2018.

Regulatory Needs in the 2020-2024 RPJMN Development Agenda

Table 9.1
Recapitulation of Regulatory Framework (RF) of
The Development Agendas in the 2020-2024 RPJMN

Development Agenda	Regulatory Framework (RF)		
	Law	Government Regulations	Presidential Regulations
Strengthening economic resilience for quality growth and development	4	8	4
Develop areas to reduce gaps and inequality	8	9	18
Increase the quality and competitiveness of human resources	10	20	24
Strengthening infrastructure to support economic development and basic services	1	3	3
Improving the environment, and increasing resilience to disasters and climate change	1	8	1
Strengthening the stability of Polhukhankam and transformation of public services	13	1	3
TOTAL RECAPITULATION OF REGULATORY FRAMEWORK	37	49	53

Development Agenda for Economic Resilience for Quality Growth and Development

1. Law
 - a. Draft bill on development funding in Indonesia
 - b. Revision of Law No. 2/1981 concerning legal metrology.
 - c. Draft bill on job creation (including bill related to UMKM, using the Omnibus Law approach)
 - d. Draft bill on provisions and tax facilitation to strengthen the economy (Omnibus Law approach)
 - e. Draft bill on business entities and takeover of company shares;
2. Government Regulations (PP)
 - a. Revision of PP No. 57/2010 on merging and consolidating business
 - b. PP Draft on procedures for handling cases and imposing administrative sanctions for unfair business competition;
 - c. PP Draft on the Indonesia Competition Commission (domestically known as KPPU);
 - d. PP Draft on the criteria of small and medium enterprises (UMKM);
 - e. PP Draft on sharia cooperatives
 - f. PP Draft on cooperative deposit guarantee
 - g. PP Draft on functions, roles, and principles of a cooperative

- h. PP Draft on cooperative empowerment rules
- 3. Presidential Regulations (Perpres)
 - a. Draft Perpres on integrated tourism master plans
 - b. Draft Perpres on agricultural insurance
 - c. Draft Perpres on improving welfare of corporate farmers
 - d. Draft Perpres on protecting agricultural land

Development Agenda for Area Development to Reduce Gaps and Inequality

- 1. Law
 - a. Revision of Law Number 21/2001 on special autonomy for Papua
 - b. Revision of Law Number 28/2009 on regional taxes and regional levies
 - c. Revision of Law Number 24/2011 on the Social Security Organizing Agency (BPJS)
 - d. Draft bill on the state capital
 - e. Revision of Law Number 29/2007 on the Special Capital Region of Jakarta as the capital of the Unitary State of the Republic of Indonesia
 - f. Revision of Law Number 27/1959 on forming level two regions in Kalimantan
 - g. Draft bill on urban cities
 - h. Revision of Law Number 33/2004 on financial balance between the central government and regional governments
- 2. Government Regulations (PP)
 - a. Revision of PP No. 11/2010 on control and utilization of abandoned land
 - b. PP draft on guidelines for giving names and changes to topographical names
 - c. Revision of PP 13/2017 on amendments to PP No. 26/2008 concerning national spatial planning (RTRWN)
 - d. PP draft on control of spatial use
 - e. Revision of PP No. 96/2015 on facilities and ease in special economic zones
 - f. Revision of PP No. 43/2014 on regulations for implementing Law No. 6/2014 concerning villages
 - g. PP draft on urban cities and related regulations related to urban service standards
 - h. PP draft on incentives for private sector in the development of the national capital
 - i. PP draft on the financing scheme of the national capital
- 3. Presidential Regulations (Perpres)
 - a. Perpres draft on the state capital authority agency
 - b. Perpres draft on the national strategic area spatial plans for the state capital (RTR KSN IKN)
 - c. Perpres draft on spatial planning for the central government of the state capital
 - d. Perpres draft on spatial planning for the state capital's economic center
 - e. Perpres draft on the national strategy for the acceleration of development of underdeveloped regions (STRANAS-PPDT) in the 2020-2024 period (revokes the Perpres on 2015-2019 STRANAS PPDT)

- f. Perpres draft on the yearly national action plan for the acceleration of development of disadvantaged regions (RAN-PPDT)
- g. Perpres draft on determining underdeveloped regions for the 2020-2024 period (revokes Perpres No. 131/2015 concerning the determination of underdeveloped regions in 2015-2019)
- h. Perpres draft on the spatial plans for the Palembang-Betung-Indralaya-Kayuagung urban area (Palembang metropolitan area)
- i. Perpres draft on spatial plans for the Banjarmasin-Banjarbaru-Banjar-Barito-Kuala-Tanah Laut metropolitan area (Banjarmasin metropolitan area)
- j. Perpres draft on spatial plans for the Bitung-Minahasa-Manado urban area
- k. (Manado metropolitan area)
- l. Perpres draft on the spatial plans for the Jabodetabek-Punjur urban area, including the Thousand Islands (Jakarta metropolitan area)
- m. Perpres draft on the spatial plans for the Gresik-Bangkalan-Mojokerto-Surabaya-Sidoarjo-Lamongan (Gerbangkertosusila) urban area (Surabaya metropolitan area)
- n. Perpres draft on the spatial plans for the Denpasar-Badung-Gianyar-Tabanan
- o. (Sarbagita) urban area (Denpasar metropolitan area).
- p. Revision of Perpres on spatial planning on islands.
- q. Perpres draft on detailed spatial planning in border regions.
- r. Perpres draft on spatial planning in national strategy areas.
- s. Perpres draft on national urban policies.
- t. Revision of Perpres on the arrangement of the national council and the special economic zone council.

Development Agenda for Increasing the Quality and Competitiveness of Human Resources

1. Law
 - a. Revision of Law No. 40/2004 on the national social security system.
 - b. Revision of Law No. 52/2009 on population growth and family development.
 - c. Draft bill on childcare.
 - d. Draft bill on gender equality.
 - e. Revision of Law No.12/2010 on scouting.
 - f. Revision of Law No. 3/2005 on the national sports system.
 - g. Draft bill on drug and food control.
 - h. Revision of Law No. 44/2009 on hospitals.
 - i. Revision of Law No. 29/2004 on medical practice.
 - j. Revision of Law No. 4/1984 on communicable diseases.
2. Government Regulations (PP)
 - a. Revision of PP No. 22/2015 on implementing work accident insurance and life insurance.
 - b. Revision of PP No. 45/2015 on implementing pension benefits.

- c. Revision of PP No. 46/2015 on implementing retirement plans.
 - d. Revision of PP No. 60/2015 on amendments to PP No. 46/2015 concerning the implementation of old retirement plans.
 - e. Revision of PP No. 76/2015 on changes to PP No. 101/2012 concerning beneficiaries of health insurance schemes.
 - f. PP draft on implementing social rehabilitation.
 - g. PP draft on proper accommodation for persons with disabilities in law enforcement.
 - h. PP draft on efforts on managing poverty.
 - i. PP draft on incentives and concessions.
 - j. PP draft on employment disability service providers.
 - k. PP draft on quality standards for health services.
 - l. PP draft on school health efforts.
 - m. PP draft on implementing regulations on health quarantine laws.
 - n. PP draft on securing the availability of pharmaceutical and medical devices.
 - o. PP draft on food labeling and advertisements.
 - p. Revision of PP No. 109/2012 on safeguarding materials containing addictive substances such as tobacco products.
 - q. PP draft on mental health efforts.
 - r. PP draft on food safety.
 - s. Revision of PP No. 16/2007 on implementing sports schemes.
 - t. Revision of PP No. 17/2007 on holding sports week and championships.
- 3. Presidential Regulations (Perpres)
 - a. Revision of Perpres No. 46/2014 on organizational structure and procedures regarding work, appointment, replacement, and dismissal of members of the national social security board.
 - b. Perpres draft on managing integrated social welfare data.
 - c. Revision of Perpres No. 63/2017 on cashless social assistance.
 - d. Revision of Perpres No. 15/2010 on accelerating poverty reduction programs.
 - e. Revision of Perpres No. 96/2015 on amendments to Perpres No. 15/2010 concerning poverty reduction acceleration.
 - f. Perpres draft on pre-employment cards.
 - g. Perpres draft on establishing a public service agency (BLU)/holding that manages science and technoparks, institutes for research and development, and marketing of research products.
 - h. Perpres draft on simplifying licensing and regulations on the commercialization of products on innovation.
 - i. Perpres draft on using research prototypes for ministries/institutions/regional work unit and BUMN.
 - j. Perpres draft on the mechanism of cooperation among human resources in the science and technology sector in the country and abroad.
 - k. Perpres draft on the mechanism of mobilization of science and technology human resources among research and development

- institutions, BUMN, and the private sector.
- l. Perpres draft on tax incentives for private research and development, on income from intellectual property rights, and on investment in research and development
 - m. Perpres draft on endowment for research, development, assessment, and application.
 - n. Perpres draft on national strategy for child marriage prevention.
 - o. Perpres draft on national strategy for helping out-of-school children to receive education.
 - p. Perpres draft on planning and budgeting for education.
 - q. Perpres draft on health-oriented regencies/cities.
 - r. Perpres draft on halal certification of medicinal products, bioproducts and medical devices.
 - s. Perpres draft on comprehensive and integrated family development
 - t. Perpres draft on integrating social assistance and targeted subsidies
 - u. Revision of Perpres No. 104/2007 on providing, distributing, and pricing 3 kg LPG cylinders.
 - v. Revision of Perpres No. 38/2019 on providing, distributing, and pricing LPG for targeted fishing vessels, and water pumps for targeted farmers.
 - w. Perpres draft on adaptive social protection.
 - x. Perpres draft on the national strategy for the acceleration of gender mainstreaming.

Development Agenda for Strengthening Infrastructure to Support Economic Development and Basic Services

- 1. Law
 - a. Revision of Law No. 23/2014 on regional authorities
- 2. Government Regulations (PP)
 - a. PP draft on implementing a public housing savings scheme (also known as Tapera).
 - b. PP draft related to the secondary housing financing system.
 - c. PP draft on the government regulation concerning the implementation of drinking water supply systems.
- 3. Presidential Regulations (Perpres)
 - a. Perpres draft on the general plan for national road safety.
 - b. Perpres draft on managing integrated container terminal operations.
 - c. Perpres draft on supporting urban transport development.

Development Agenda for Improving the Environment, and Increasing Resilience to Disasters and Climate Change

1. Law
 - a. Revision of Law No. 18/2013 on preventing and eradication forest degradation.
 2. Government Regulations (PP)
 - a. Revision of PP No. 41/1999 on controlling air pollution.
 - b. Revision of PP No. 19/1999 on controlling sea pollution and/or degradation.
 - c. Revision of PP No. 82/2001 on managing water quality and controlling water pollution.
 - d. Revision of PP No. 21/2008 on implementing disaster management.
 - e. PP draft on enforcing integrated environmental laws.
 - f. PP draft on environmental protection and management plans.
 - g. PP draft on procedures for determining environmental carrying capacity.
 - h. PP draft on managing hazardous and toxic materials.
3. Presidential Regulations (Perpres)
 - a. Perpres draft on instruments to control greenhouse gas emissions and on low-carbon development plan.

Development Agenda for Strengthening the Stability of Polhukhankam and Transformation of Public Services

1. Law
 - a. Revision of Law No. 2/2011 on amendments to Law No. 2/2008 concerning political parties.
 - b. Revision of Law No. 37/2008 on the Ombudsman of the Republic of Indonesia.
 - c. Revision of law on the national development planning system.
 - d. Revision of Law No. 37/1999 on foreign relations.
 - e. Draft bill on amendments to Law No. 24/2000 concerning international treaties.
 - f. Revision of Law No. 35/2009 on narcotics.
 - g. Revision of Law No. 12/2011 on forming regulations.
 - h. Revision of Law No. 37/2004 on bankruptcy and suspension of debt payment obligations.
 - i. Draft bill on movable security.
 - j. Draft bill on civil procedures in the following localized regulations: HIR, RBg and Rv.
 - k. Draft bill on business entities.
 - l. Revision of Law No. 8/1981 on criminal procedures.
 - m. Draft bill on criminal law.
2. Government Regulations (PP)
 - a. Revision of the second amendment to PP No. 5/2009 on financial assistance political parties.

3. Presidential Regulations (Perpres)
 - a. Perpres draft on sanctions against staffing officers who violate the principle of the merit system in the management of the state civil apparatus.
 - b. Revision of Perpres No. 118/2014 on the secretariat, system, and

management of human resources, work procedures, financial responsibility, and the state civil apparatus commission.

- c. Perpres draft on the grand design for bureaucratic institutional reform.

Institutional Framework

The institutional framework has a role to encourage the effectiveness of the development process with institutional support that is the right size, has the right function and follows the right process. In terms of the delivery mechanism, institutions are focused on structuring government organizations and their rules, both intra- and inter-organizational, that function to carry out development programs. The policy focus of the institutional framework in the 2020-2024 RPJMN is aimed at government organizations, and is concerned with the formulation of duties, functions, authorities, roles, and structures, as described in the framework for the implementation of 2020-2024 RPJMN (see Figure 9.1).

Appropriate institutional function, size, and process are expected to encourage institutional effectiveness in line with the direction of development. By

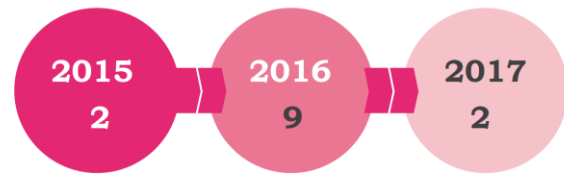
emphasizing the concept of "structure follows strategy", the formation of government organizations should be based on sound strategies to achieve development goals. The government organizations in accordance with the legislation include: (a) state institutions; (b) ministries; (c) non-ministerial government institutions; (d) non-structural institutions; (e) regional governments and regional organizations; and (f) other coordinating bodies such as coordinating boards, national committees, national teams, and others.

During the implementation of the 2015-2019 RPJMN, a total of 313 non-structural institutions were formed based on the mandate of the legislation, with more details in Table 9.2. In addition, the results of the arrangement of these institutions resulted in a total of 13 non-structural institutions being removed, as illustrated in Figure 9.7.

Table 9.2
Number of Non-Structural Institutions

Type of Regulations	2015	2016	2017
Law	72	73	73
Government Regulations	5	5	5
Presidential Regulations	31	29	20
Total	108	107	98

Figure 9.7
Number of Dissolved Non-Structural Institutions



The urgency of the institutional framework in the planning document is intended to:

1. Direct the arrangement of the government organizations to be in line with and support development; and
2. Encourage institutional effectiveness through accurate organizational structure, accurate governance over the organization, and by preventing

duplication of tasks and functions of the organization

The formation of government organizations/institutions has an impact on several aspects, including the burden of state spending. For that purpose, the organizational restructuring initiative must pay attention to the principles of the institutional framework as in Figure 9.8.

Figure 9.8
Principles of Institutional Framework



To ensure that the institutional framework supports the implementation of the 2020-2024 RPJMN, a number of stages of feasibility analysis needs to be carried out. This analysis will study the following

aspects: (a) conformity; (b) urgency and; (c) feasibility. The elaboration of the three aspects is revealed in several sub-criteria as follows.

Conformity

- Is the proposed institutional framework in accordance with the national development goals/targets (RPJMN)?
- Is the proposed institutional framework consistent with the institutional framework policy?

Urgency

- Does the proposed institutional framework have an impact on achieving development targets?
- Is the proposed institutional framework mandated by law?

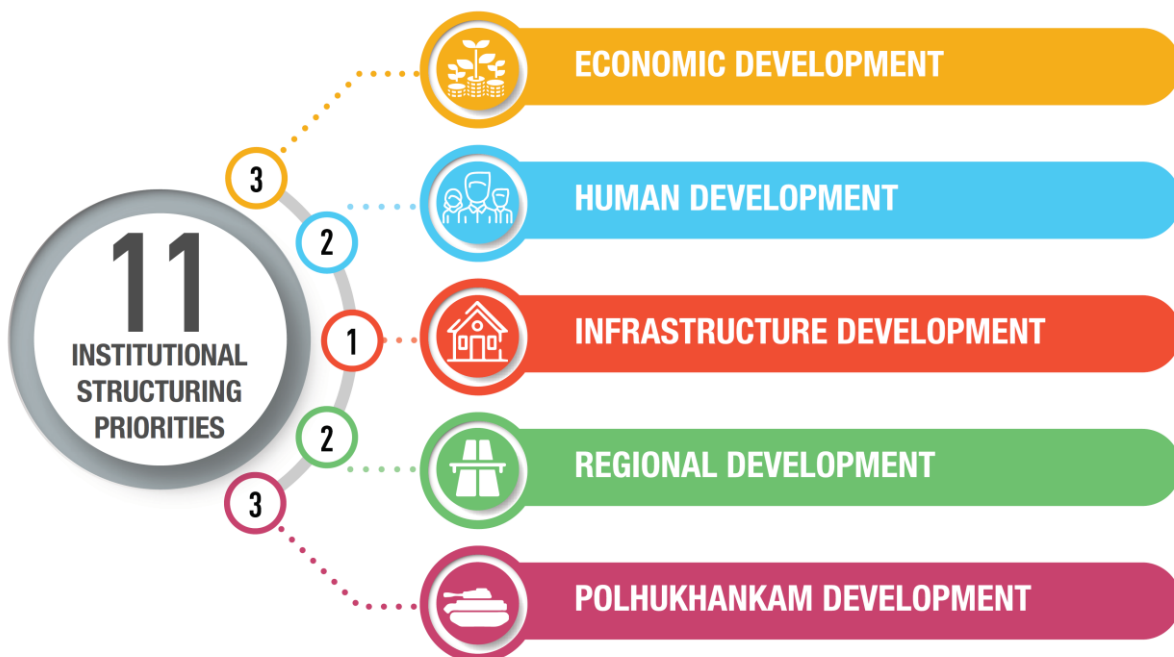
Feasibility

- Does the proposed institutional framework overlap with other existing institutions?
- Does the proposed institutional framework have an impact on the efficiency of development implementation?
- Does the proposed institutional framework shorten the bureaucratic chain in policy implementation?
- Does the proposed institutional framework have a direct and positive impact on society?
- Can the proposed institutional framework be realistically implemented (within the first 3 years of 2020-2024 RPJMN)?
- Is the proposed institutional framework reinforced by comprehensive supporting documents arising from studies, and cost and benefit analysis.

In order to support the achievement of national development goals, the priority of restructuring government institutions in line with the principles of the institutional

framework is directed to support the achievement of the national priority agenda, which is illustrated below:

Prioritizing Institutional Arrangement in the 2020-2024 RPJMN Development Agenda



Institutional Arrangement Needs in the 2020-2024 RPJMN Development Agenda

Development Agenda of Building Economic Resilience for Quality Growth

1. Institutional governance in order to support development financing efforts.
2. Institutional governance in order to support vocational programs.
3. Institutional governance in order to support Islamic finance.

Development Agenda of Regional Development to Reduce Inequality

1. Institutional governance in order to support special economic zones.
2. Institutional governance for the preparation and transference of the national capital.

Development Agenda of Increasing the Quality and Competitiveness of Human Resources

1. Institutional governance in order to foster sports education and achievements.

2. Institutional governance in order to support national talent.

Development Agenda of Strengthening Infrastructure to Support Economic Development and Basic Services

1. Institutional governance in order to support the implementation of digital transformation.

Development Agenda of Strengthening the Stability of Polhukhankam and Transformation of Public Services

1. Institutional governance in order to support national security.
2. Institutional governance in order to optimize the execution of legal decisions.
3. Institutional governance in order to support national planning and development.

Funding Framework

In an effort to optimize and synergize the utilization of funding sources for development, it is necessary to have a

funding framework that considers sources of funding, direction of utilization, and principles of implementation.

Funding Sources

Government Funding Sources

Government funding comes from taxes, non-tax revenue, and other financial sources such as bonds, loans, and grants from domestic and foreign sources originating from: (1) bilateral and

multilateral development financing institutions; (2) financial institutions (banks and non-banks); and (3) investors, both individuals and business entities.

These funding sources have different characteristics, so their utilization needs to be adjusted to their respective characteristics:

- a. Taxes, which are state revenue derived from the public, which is sourced from income tax, value-added tax, land and building tax, excise tax, tax on international trade, and other taxes, among others. The tax is used to finance operational activities and government investment.
- b. Non-tax revenue, which is state revenue outside of taxes that includes but is not limited to revenue derived from natural resources, services performed by the government, management of separated state assets, management of state property, management of funds, and others. This type of revenue is used to finance operational activities and government investment.
- c. Grants, which are state revenue in the form of foreign currencies, converted foreign currencies, the rupiah, goods, services and/or securities that do not need to be repaid, which can come from within and outside the country. Grants are used to support national development programs, disaster management, and humanitarian assistance.
- d. Foreign loans, which are state revenue that must be paid back with certain conditions in the form of government debt bound by a loan agreement and not in the form of state securities. Foreign loans consist of cash loans and loans that fund specific activities. These loans are

sourced from multilateral creditors, bilateral creditors, foreign private creditors, and export credit guarantee institutions.

Foreign loans can be used to finance state deficit and priority activities of ministries/institutions; manage debt portfolios; to fund regional governments and BUMN; as a grant to regional governments with a focus on financing economic and social infrastructure along with technology transfer; for international good practice and knowledge sharing; for pilot projects that can be replicated with funding in the local currency; and have a high leverage value.

- e. Domestic loans, which are loans from the government obtained from domestic lenders that must be paid back with certain conditions, in accordance with their validity period. Domestic loans are mainly used to develop domestic industries and support the achievement of national development goals;
- f. Government securities, which are securities that serve as a form of recognition of debt in rupiah or foreign currencies, whose interest and principal payments are guaranteed by the state. The issuance of government securities is used to finance operational activities and government investment.
- g. Government shariah-compliant securities, which are government securities issued in rupiah or foreign currencies, which have a unique characteristic of using sharia

principles and requiring assets that are used as the underlying collateral. Sukuk-certified government shariah-compliant securities are more

preferred for infrastructure development and the provision of public services.

Non-Government Funding Sources

Sources of non-governmental or private funding can be obtained from: business entities (private and state- or regionally owned enterprises) and the public.

Potential sources of non-government funding that can be utilized along with their characteristics include the following:

a. Cooperation among government and business entities, or public-private partnership (PPP), is a collaboration among the government and business entities in providing public service facilities and infrastructure based on a risk-sharing framework. PPP is conducted to: (i) bridge the financing gap through private investment, including unsolicited business initiatives, to provide public service facilities and infrastructure; and (ii) achieve private sector efficiency. With this PPP scheme, the government can provide public service facilities and infrastructure on schedule, on budget, and on service. To return the investment issued by the private sector in the implementation of PPP, there are several investment return schemes, namely: (i) payments by service users that can be supported by the government through the viability gap fund (VGF) or through the provision of a portion of assets; (ii) periodic payments by the government based on the principles of service availability; (iii) other forms which are not in conflict with the existing laws and regulations.

- b. Business funding, in the form of both domestic and foreign investment originating from the assets of the business entity concerned, or as loans from financial institutions.
- c. Corporate social responsibility (CSR), is the company's commitment to contribute to improving the quality of life of the local community, or the public at large. Funding through CSR is more focused on the development of social infrastructure, environment, survivor assistance, and community empowerment.
- d. Philanthropy is an activity carried out by a group of people or foundations for the good of the community or the public at large, in the spirit of the common good through voluntary private or group funds. Activities undertaken by philanthropists may include building social infrastructure, strengthening the environment, providing survivor assistance, community empowerment, and advocacy.
- e. Religious funds are funds collected from adherents of certain religions that have the potential to be used in development. In general, religious funds are focused on projects/activities/programs that are social in nature and on economic development of communities.

Managing Development Funding

A. Managing Expenditure

Funding from these various sources is managed with a focus on: (a) central expenditure management and (b)

regional transfer and village funds management.

1. Managing Central Expenditure

The policy direction of central government expenditure management is to improve the allocation for development priorities. This has become the basic policy guidance for planning and budgeting ministerial/institutional expenditures and non-ministerial/institutional expenditures. Central government expenditure management is based on the "Money Follows" principle, and on a holistic, integrated, and spatial approach.

control mechanisms, so that accuracy in the implementation of these development plans can be ensured. For this reason, the government will control the development of projects, including priority ones, where the location and the subject in charge have been clearly identified. The improvement of these priority projects will also be continually pursued in terms of the selection criteria and mechanism to control the implementation.

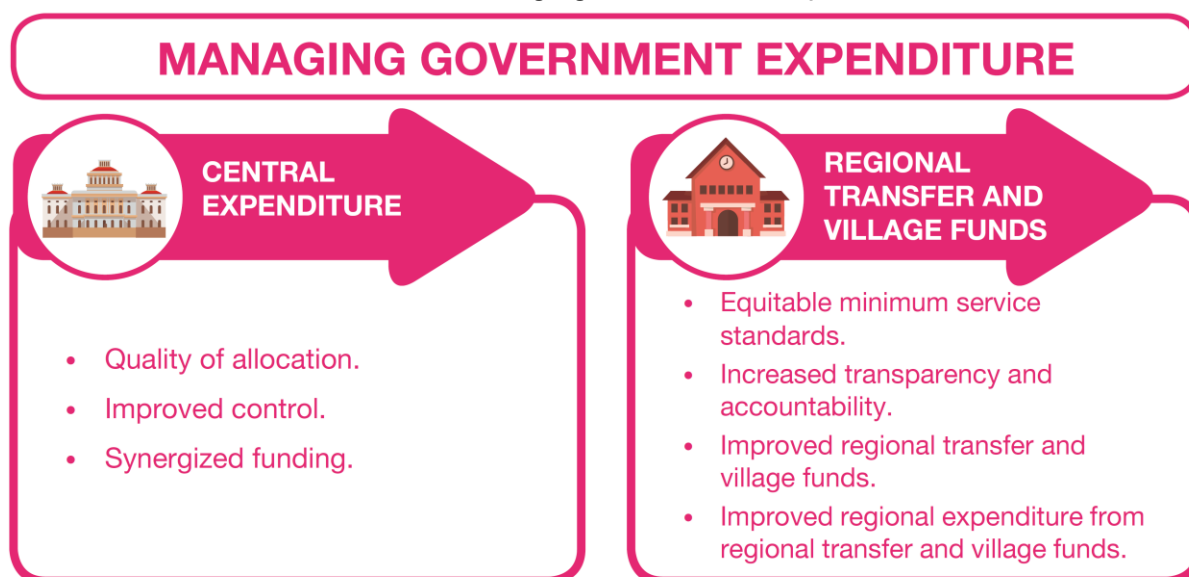
The implementation of a medium-term expenditure framework and performance-based budgeting in planning and budgeting continues to be done in stages in accordance with the capacity and conditions of the implementation.

The 2020-2024 RPJMN contains plans for *Strategic Priority Projects* (also known as *Major Projects*), which clearly detail the respective targets, locations, and implementing agencies. The *Major Projects* serve as references for policy emphasis and policy funding in the annual RPJMN, government work plans (RKP), and state budget. The funding for these *Major Projects* synergizes various sources, including ministerial/institutional expenditures, non-ministerial/institutional expenditures (among others subsidies/PSO and grants), regional transfer and village funds, regional governments, BUMN, and public/business entities.

Steps by the government to improve the allocation for development priorities must begin with improving the quality of planned programs/activities and priority projects to achieve development goals. The development plan must be focused and set clear targets and clear implementers in charge.

Improving allocation for priority projects must also be accompanied by good

Figure 9.9
Direction for Managing Government Expenditure



The integration between these funding sources has been carried out annually, from the preparation of the government work plan (RKP), to the drafting of the state budget. This is supported through coordination across ministries/institutions, agencies, and among the different levels of government in preparing the RKP. Strengthening the integration between the central and regional governments is also carried out by developing and expanding grant mechanisms in regions through output-based transfers. This is also closely related to program management to ensure the achievement of national priorities in various regions.

Efforts to improve allocation for priority projects are also carried out through continuous improvement in the effectiveness and efficacy of the

2. Regional Transfer and Village Funds

To support the implementation of decentralization, regional autonomy, and village autonomy; and to enhance the

development programs. For this reason, reviews on these programs are conducted periodically. These reviews are conducted by comparing the results of the evaluation with the development performance and budget performance. The results then serve as a point of consideration when allocating for development and as a feedback to improve funding and delivery mechanisms.

To support integration, strengthen synergy, and improve the accuracy of policymaking, the government is currently developing system and data integration services to help planning, budgeting, and evaluating by using the same and most up-to-date database. This will simultaneously strengthen transparency and accountability in regard to state expenditure.

welfare of villagers in a fair and equitable manner, the government will allocate regional transfer and village funds that

consist of four components, namely: (1) balancing funds, which are divided into general transfer funds containing funds from profit sharing and general allocation funds, and special transfer funds containing tangible and non-tangible special allocation funds, (2) regional incentive funds, (3) special autonomy funds and funds for the Special Region of Yogyakarta, and (4) village funds.

The policy directions for regional transfer and village funds are as follows:

- a) Supporting the implementation of Law No. 23/2014 on the regional government, Law No. 11/2011 on the government of Aceh, Law No. 21/2001 on the special autonomy status for the province of Papua, Law No. 13/2012 on the privileges of the Special Region of Yogyakarta, and Law No. 6/2014 on villages in a full, consistent, real, and responsible manner;
- b) Encouraging, in stages, the fulfillment of minimum service standards, especially basic services that local governments are obliged to provide by taking into account the regional fiscal capacity, country's financial capacity, and affirmative action in disadvantaged, outermost and frontier regions, border areas, small outermost islands, and island groups;
- c) Supporting regional governments to achieve national priority goals and objectives, such as increasing the independence and empowerment of rural communities, boosting economic growth, expanding employment opportunities, reducing poverty, reducing inequalities,

increasing the Human Development Index, reducing stunting, providing clean water and sanitation, improving the quality of human resources, reducing carbon emissions, managing forest areas and conservation areas, reducing disaster risks; building strategic economic areas; and achieving global development goals;

- d) Increasing the integrated utilization of regional transfer and village funds by ministries/institutions and other funding sources more efficiently and effectively following the "value for money" principle;
- e) Improving the quality of governance of regional transfer and village funds when planning, allocating, and implementing, as well as developing IT-based control and evaluation

The policy directions for each component are as follows:

The policy directions for **profit sharing** are: (1) improving profit-sharing governance that is more transparent, accountable, fair, responsible, and effective based on performance improvement; (2) setting up profit-sharing distribution plans that are timely and fair through commitment to quickly resolve any underpayment or overpayment; and (3) optimizing the utilization and management of profit-sharing plans to accelerate the improvement of people's welfare and regional progress by taking into account the carrying capacity of the environment in the respective regions.

The policy directions for **general allocation funds** are: (1) Improving the allocation formulas by taking into account

changes in benchmark weights (i.e. regional civil servants' salaries), and the needs to meet minimum service standards and fiscal capacity; (2) maintaining affirmative action policies for island regions by adjusting weight coefficients to sea areas to be at 100 percent; (3) considering the application of affirmative policies to conservation areas by taking into account the region's ability to maintain the area of planted forests; (4) perfecting the allocation formulas to ensure interregional equity and balanced regional allocation at the provincial and regency/city levels by improving interregional fiscal distribution; and (5) a minimum of 25% of the general allocations funds is directed toward regional infrastructure spending.

The policy directions for **special transfer funds** are:

- a) Enhancing the ability of regional governments to provide basic services according to minimum service standards, accelerate infrastructure development that would have a direct impact on the welfare of the people (regular scheme), which includes education, health, drinking water, sanitation, housing, and transportation;
- b) Enhancing the ability of regional governments to support the achievement of national priority goals and objectives, and achieve global development goals through cross-sectoral schemes, including by supporting conservation zones, and strategic and regional areas (assignment scheme); and encourage affirmative action (affirmation scheme) for disadvantaged, outermost, and frontier areas, border regions, small outermost islands, and island groups;
- c) Refining the synchronization and integration of the planning, allocation,

and management of special transfer funds with activities supported by other funding sources;

- d) Increasing efficiency, effectiveness, and fairness in the allocation and utilization of special transfer funds by calculating: (1) unit costs, expenditure standards, and Regional Expensiveness Index; (2) the previous year's implementation costs; (3) the relationship between allocation and performance of development with incentives to achieve performance (reward); and (4) the application of disincentives for regions that exchange special transfer fund budget with regional budget;
- e) Encouraging grant allocation schemes to regions through output-based transfers and regions with high fiscal capacity to initiate infrastructure development;
- f) Strengthening coordination, cooperation, and partnership among ministries/institutions and regional governments in managing special transfer funds by developing: (1) integrated web-based information systems and databases, (2) facilitation and capacity building of regional governments, (3) performance-based distribution control, and (4) regular reporting;
- g) Strengthening the role of the Government Internal Oversight Body (APIP) in improving governance of special transfer funds that is transparent, fair, and accountable.

The policy directions for **regional incentives funds** are:

- a) Increasing the efficiency and effectiveness of the use of regional

incentive funds for regional governments in supporting public services, economic development, and increasing competitiveness in accordance with regional priorities;

- b) Improving the formula for calculating the allocation of regional incentives that take into account and directly link the amount of allocated funds with the performance of outputs, outcomes, and tangible impacts resulting from policies, initiatives, innovations, creativity, and achievements by the regional government.

The policy directions for **special autonomy funds** are:

- a) Special autonomy funds for Aceh are used to: (1) strengthen and empower the people of Aceh based on Islamic sharia guidelines that prioritize human values; strengthen governance that is participatory, transparent, accountable, and fair; strengthen public services and economic development to improve regional progress and the welfare of the people in Aceh; increase the capacity of the apparatus of the government; develop performance-based management; and (2) strengthen the coordination, cooperation, and partnership among the Aceh provincial government, reGENCY/city governments, and ministries/institutions in planning, allocating, budgeting, channeling, reporting, monitoring, controlling and evaluating the use of funds;
- b) Special autonomy funds for Papua and West Papua are used to: (1) strengthen and empower Papuans based on culture and customs that prioritize human values; develop customary territories in support of regional economies; strengthen governance that

is participatory, transparent, accountable, and fair; strengthen public services and economic development to improve regional progress and the welfare of Papuans; increase the capacity of the apparatus of the government; develop performance-based management; and (2) strengthen the coordination, cooperation, and partnership among the governments of Papua and West Papua, reGENCY/city governments, and ministries/institutions in planning, allocating, budgeting, channeling, reporting, monitoring, controlling, and evaluating the use of funds; and (3) refining the synchronization and integration of the use of special autonomy funds with activities supported by other funding sources, including sources from business entities and development partners.

- c) Special funding for the Special Region of Yogyakarta is used to: (1) strengthen and empower the people based on culture and customs; strengthen governance that is participatory, transparent, accountable, and fair by prioritizing excellent public services; strengthen social and cultural resilience and economic development to improve regional progress and welfare of the people in Yogyakarta; increase the capacity of the apparatus of the government; develop performance-based management; and (2) strengthen coordination, cooperation, and partnership among the government of the Special Province of Yogyakarta, reGENCY/city governments, and ministries/institutions in planning, allocating, budgeting, channeling, reporting, monitoring, controlling and evaluating the use of funds.

The policy directions for **village funds** are:

- a) Encouraging village governments to optimize the use of village funds to: (a) realize the independence of village communities and create sustainable villages that have developed social, economic and ecological resilience; (b) improve basic services and basic village infrastructure; (c) increase the capacity of village officials for good governance; (d) develop an integrated village information system that details the arrangement of village territories and the determination of village boundaries; (e) transform the village economy by developing tourism villages, digital villages, leading products, rural areas, and increasing the role of village-owned enterprises (also known as BUMDes or BUMDes Bersama); and (f) strengthen and develop traditional villages, *nagari*, and other subdivisions equivalent to villages;
- b) Improving the allocation of village funds by taking into account fairness and affirmation for disadvantaged villages,

and providing incentives for villages that show high performance;

- c) Strengthening coordination, cooperation, and partnership in planning, allocating, budgeting, channeling, reporting, monitoring, controlling, and evaluating village funds by developing: (a) integrated web-based information systems and databases, (b) assisting regional governments to develop and strengthen, among others, the role of the district as a center for public services, empowerment, and growth, by utilizing funds from the regional budget to optimize the management of village funds, (c) controlling performance-based distribution, and (d) regular reporting;
- d) Increasing the use of village funds for inter-village development activities, including distributing village authority, and determining boundaries and ownership of assets, and emphasizing operational and maintenance responsibilities.

B. Expanding Funding Capacity

Developing new potential funding sources is carried out through creative financing, which then accelerates the achievement of development targets and increases cooperation between the government and business entities for the purpose of reducing the burden of government spending. From the creative financing standpoint, it is expected that resources in the form of assets and participative expertise from both the government and business entities can be used together to provide services and/or facilities needed by the general public. In

addition, it benefits each party and allocates risk proportionally.

In addition, the government can explore and maximize the use of funding from non-conventional sources. This is intended to take advantage of the changing global financial architecture to attract private investment. Specifically, the government needs to seek private sector funding for several types of public investment projects, to use and securitize government assets, to invite other development actors such as philanthropists, to achieve land value

capture, to benefit from limited concession schemes and other sources of funding that can be pursued and developed.

In accordance with the principles of sustainable development, the government can also rely on and explore green funding in the future. Thus, it is hoped that much of the future public investment will be funded from a mix of various sources of funding (or blended finance) for projects that generate large public benefits, in line with the achievement of the Sustainable Development Goals in Indonesia.

To fund disaster management, the government is developing an insurance scheme for emergency response financing, and it is also preparing a joint financing scheme by pooling funds for rehabilitation and reconstruction.

To finance programs at the central and regional levels, it is important to continually develop public-private partnership (PPP) schemes, increase the role of the private sector through corporate social responsibility (CSR), develop direct lending from development

Fundamentals of Funding

On one hand, needs for development funding continue to increase even though public funding sources are limited. On the other hand, various sources of funding and new funding instruments continue to increase. For this reason, a funding management approach is needed to encourage growth and performance of public investment. Increasing the efficiency and performance of public investment requires an improvement in the investment planning process in all sectors and all levels

partners to BUMN, and develop the municipal development funds.

The utilization of PPP schemes for national development will continue to be expanded and developed for the social sector, including education, health, and others. The utilization of PPP schemes in the social sector is accompanied by improvements to applicable laws and regulations. Whereas that of CSR is directed at harmonizing development projects with government programs in support of national development.

Nonetheless, the use of direct lending is aimed at reducing the government's loan burden. Direct lending with government guarantees can reduce costs compared to commercial loans. In addition, loans originating from foreign countries can optimize the comparative advantages of development partners. Direct loans that have collateral can be earmarked to help inject BUMN with capital. However, its utilization is directed to priority projects and needs to be supported by adequate technical evaluation in the form of feasibility assessments; engineering designs; and economic, financial, and environmental analyses.

of government. This includes allocating government investment to the right sectors and the right projects for leverage, carrying out projects on time and with the right cost, and increasing institutional capacity and efficiency. These efforts are performed in conjunction with the provision of stimulus for the private sector and the public, through regulations and policies that provide incentives to optimize the role of non-government financing in national development (or public investment).

Increasing the capacity and quality of government financing and investment schemes is carried out by improving public investment planning and policies, management, governance and policies, and project selection based on environmental and social sustainability criteria. For this reason, strategies for national, regional, and sectoral development will be detailed by including investment plans to guide public and private investment in the long run. The government formulates strategies and policies that include improving low-carbon development strategies that are aligned with the Paris Agreement, and integrating them into the national economic and development plans.

In terms of delivery mechanisms, the government also continues to develop and implement government procurement processes that incorporate sustainability criteria with a more systematic and consistent approach based on best practice.

In addition to building efficiency of public investment, the government will also set the terms, conditions, and frameworks in which private investment is expected to play a greater role, and even exceed government funding in, for example, the energy sector. For this reason, international support, and cooperation in terms of financial access, access to clean technology, capacity building, and effective governance will still be needed.

The use of development funding must be able to optimally utilize existing funding capacity and therefore be carried out more effectively. For this purpose, rules as guidelines are needed for using development funding, namely:

- 1. Focusing on improving the allocation of funds based on priorities, which target priority projects through funding integration.**

This improvement is carried out in several steps, namely:

- a. Allocating limited funding sources by prioritizing activities or projects that are national priorities, such as the *Major Projects*, among others. Development funding must be directed based on a national development strategy, where the focus of the budget allocation is on funding development priorities, especially on meeting the basic needs of the people, which the government is obliged to undertake.
- b. Strengthening the synergy and integration of development funding by synergizing and integrating both ministerial/institutional and non-ministerial/institutional spending (including subsidies, special transfer funds, and village funds), as well as other funding sources from, among others, the central government, regional government, and the private sector to support financing of national priority projects.

- 2. Identifying projects that can be carried out by the central government, regional government, BUMN, and the private and public sector.**

Indonesia's large-scale national development requires coordination, cooperation, and division of labor among stakeholders. For this reason, the implementation of development projects requires the identification and distribution of tasks, authorities, and

responsibilities among the central government, regional government, BUMN, and the private and public sector. It is also intended to increase the effectiveness of the implementation and efficiency of the use of national resources in implementing development projects.

3. Adjusting funding modalities to be in line with development goals and ensuring readiness for project implementation.

In order to achieve congruity in the funding of programs, activities, or projects, the following aspects must be considered:

- a. Funding capacity and sustainability, including financing needs that exceed one fiscal year;
- b. Agreement between the characteristics of funding sources with those of government investment;
- c. Appropriate and efficient delivery mechanism; and
- d. The level of implementation readiness.

4. Optimizing and expanding the utilization of existing funding sources.

Development funding sources that are currently available and in use, such as foreign loans, can be optimized by utilizing loans from development financing institutions and making use of development cooperation funding schemes and other foreign financing facilities with favorable terms and conditions. When using foreign loans, there are several aspects to be considered, including: interest rates, tied and untied aid, and the comparative

advantage of each development partner.

The government will continue to increase the utilization of PPP schemes by strengthening the following aspects: regulation; joint office functions; the role of the four pillars of PPP (the regulator, the person in charge of the collaborative project or investee, the transaction advisor, and the investors), project planning and preparation, and the internalization of PPP in the planning and budgeting by the central and regional governments

In addition, the government can expand the utilization of financing schemes sourced from various thematic financing windows, such as green financing schemes. In addition to being a source, these schemes also help the government maximize the leverage of public funding sources and bring in private investment in development.

5. Encourage innovative financing mechanisms for development.

Development financing needs will continue to increase despite the government's limited ability to fulfill these needs. Hence, efforts are needed to develop various sources, schemes, and financing instruments in terms of quantity, efficiency, and effectiveness of their utilization. In order to encourage innovation in development funding, it is necessary to:

- a. Strengthen coordination between stakeholders in utilizing blended finance to fund programs, projects, or activities using different funding sources, schemes and instruments that are tailored specifically to the time, stage, and type of

aforementioned programs, projects, or activities. In the implementation and development of blended finance, several steps are needed, among others:

- (i) Providing and perfecting the legal and regulatory framework as a basis for funding innovation. As a middle-income country, the opportunity for Indonesia to obtain soft loans and conventional funding is estimated to be increasingly limited. To maximize the use of these funds, it is necessary to support an adequate legal framework.
- (ii) Positioning government financing as a leverage and catalyst for obtaining and

developing non-government funding sources;

- (iii) Prioritizing the use of non-government funding sources in accordance with their financial, economic, and social feasibility;
- b. Developing the principle of output-based transfer. To strengthen program control and synergy between the central and regional governments in achieving development targets, the central government will continue to develop grants to regions as a form of output-based transfer. This mechanism is specifically intended to support funding of basic services for the public and support the achievement of certain development targets.

Figure 9.10
Fundamentals of Funding



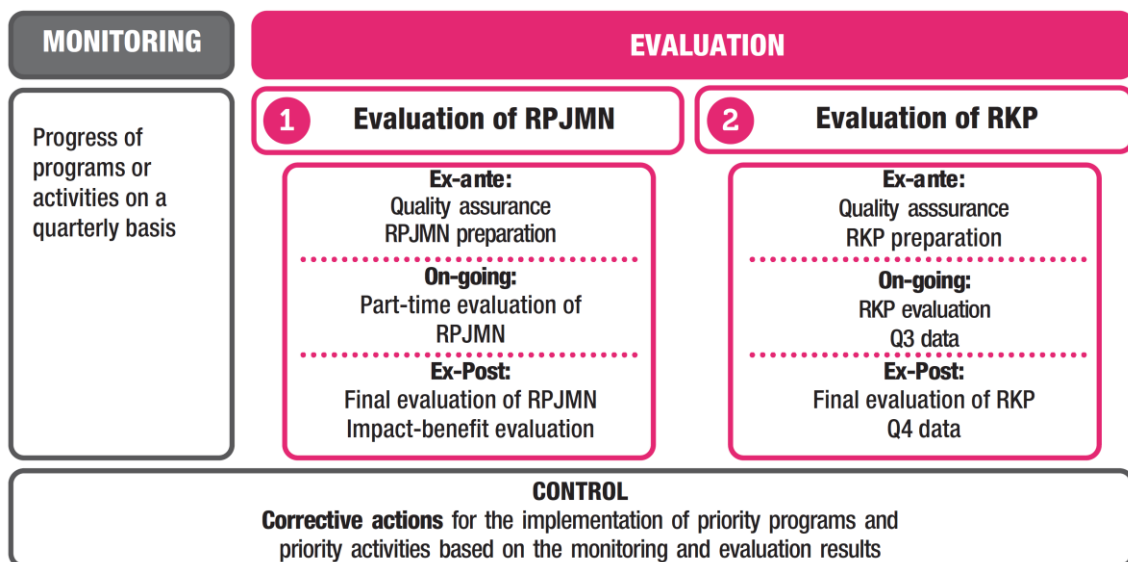
Evaluation and Control Framework

The legal basis for development evaluation and control includes: (1) Law No. 25/2004 on the national development planning system, (2) Government Regulation No. 39/2006 on procedures for controlling and evaluating the implementation of development plans, (3) Presidential Regulation No. 2/2015 on the 2015-2019 National Medium-Term Development Plan (RPJMN) and (4) Government Regulation No. 17/2017 on the synchronization of the planning and budgeting processes.

Based on the aforementioned legal basis, controlling the implementation of development plans is intended to ensure the achievement of development goals

and objectives stated in the development plans document through corrective and adjustment measures during their implementation by the leadership of the ministry/institution or the local government. Meanwhile, a systematic evaluation of plan implementation is carried out by collecting and analyzing data and information to assess the achievement of development goals, objectives, and performance based on specific indicators and performance targets listed in the planning document (including inputs, outputs, results, benefits, and impacts), which also details important achievements, progress, and constraints in the implementation of development initiatives.

Figure 9.11
Evaluation and Control Framework for National Development



The framework for evaluating and controlling national development, including aspects of monitoring that assesses the progress of programs or activities on a quarterly basis, can be illustrated in Figure 9.11 above. Evaluations activities are included: (1)

evaluation of the draft (ex-ante) and the implementation of the RPJMN (on-going and ex-post); and (2) evaluation of the draft (ex-ante) and the implementation of government work plans/RKP (on-going and ex-post). Meanwhile, the framework for control includes corrective actions for

the implementation of programs and activities based on the monitoring and evaluation results. The evaluation and control processes in the next five years are focused on evaluating the performance of the seven development agendas and five presidential directives through integrated evaluation and control

A. Evaluation

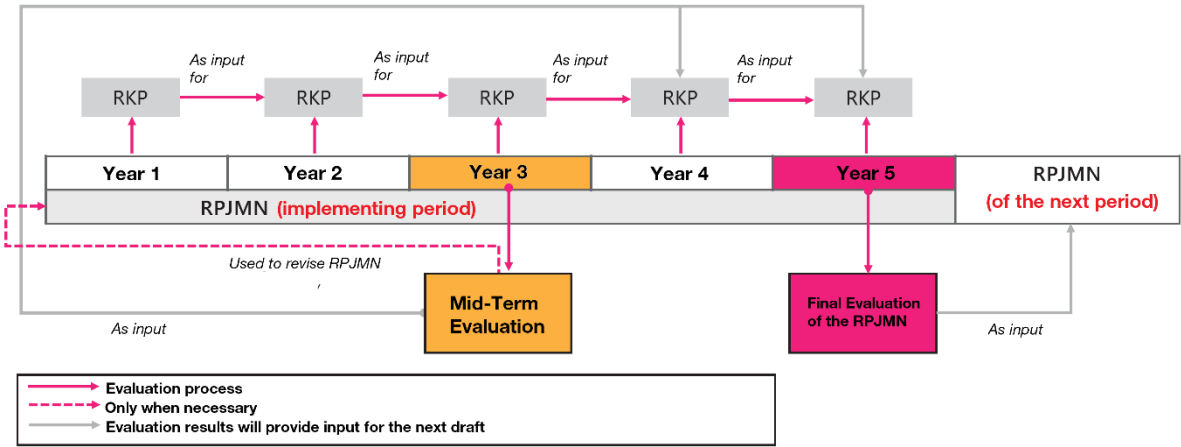
Evaluation is carried out in order to assess the achievement of policy objectives, programs, or activities, and identify problems that occur during the implementation process so that the evaluation analysis becomes feedback to improve development performance. The evaluation results should be able to provide data and information about the efficiency, effectiveness, needs, benefits, and impacts of the programs or activities. This information can then be used as a valuable input in planning and budgeting for the next period. For this reason, an evaluation framework needs to be developed to ensure that the evaluation

information systems, of which the implementation is expected to be effective from the middle-term of the 2020-2024 RPJMN period. A more detailed explanation of the evaluation and control framework is described in the following section.

runs well, and the evaluation results are beneficial to the process of policymaking and the process of planning and budgeting for the next period.

1. The purpose of implementing evaluations are, among others: (a) to gauge the performance of development and its achievements, identify problems and recommend follow-ups as valuable input for future formulation and improvement of policies, programs, or activities; and (b) to determine development targets and performance appropriately.

Figure 9.12
Timeline of RPJMN Evaluation



2. Periodic of Evaluation

The evaluation of the 2020-2024 RPJMN is conducted at least twice (see Figure 9.12), namely through:

- a. A mid-term evaluation of the RPJMN, which is carried out in the third year of the 2020-2024 RPJMN period of which the results are used as input in the preparation of the next government work plans (RKP) and as feedback for revisions in the 2020-2024 RPJMN if needed. Every year, an RKP evaluation is conducted, which is part of the stage of the RPJMN implementation. This RKP evaluation serves as input for next year's drafting of RKP;
- b. The final evaluation of the RPJMN is carried out in the last year of the implementation period. The results of which are then used as input in the preparation of the next RPJMN period (RPJMN 2025-2029).

3. Data Source

Data source used in the implementation of the RPJMN evaluation is based on the evaluation results of the ministry/institution strategic plans (also known as Renstra K/L), and also on data from integrated evaluation and control information systems, which utilize:

- a. "One Data Indonesia",
- b. Electronic-based government systems,
- c. Specific data and information, including:
 - (i) Data and information from the Audit Board of Indonesia (BPK), the Finance and Development Supervision

Body (BPKP), the Ombudsman of the Republic of Indonesia (ORI);

- (ii) Regional development performance report; and
- (iii) Thematic survey and research results (both domestic and international).

4. Implementer and Submission of Evaluation Results

The RPJMN evaluation is conducted by the Minister of National Development Planning/Head of Bappenas based on the strategic plan evaluation report from all ministries/institutions, the government work plan (RKP) evaluation report from the current RPJMN period, and other supporting data from survey and research results. The evaluation results are then conveyed by the minister to the president as a form of government accountability and later used as input/feedback in the context of policy-making and subsequent planning and budgeting processes.

5. Evaluation Types

There are three types of evaluation that can be conducted, namely:

- a. Evaluation of performance measurement, which is done by comparing real values with set targets--also known as the gap analysis method--at the level of output, outcome, and impact.
- b. Evaluation of Development Plan Implementation, which is conducted to answer descriptive questions to explain the progress of implementation of priority programs or activities, including:
 - (i) a description of the processes that take place, and review that

takes into account the who, what, when, where, why, how, and how much; (ii) background description of priority programs or activities; and (iii) description of the implementing organization and related parties.

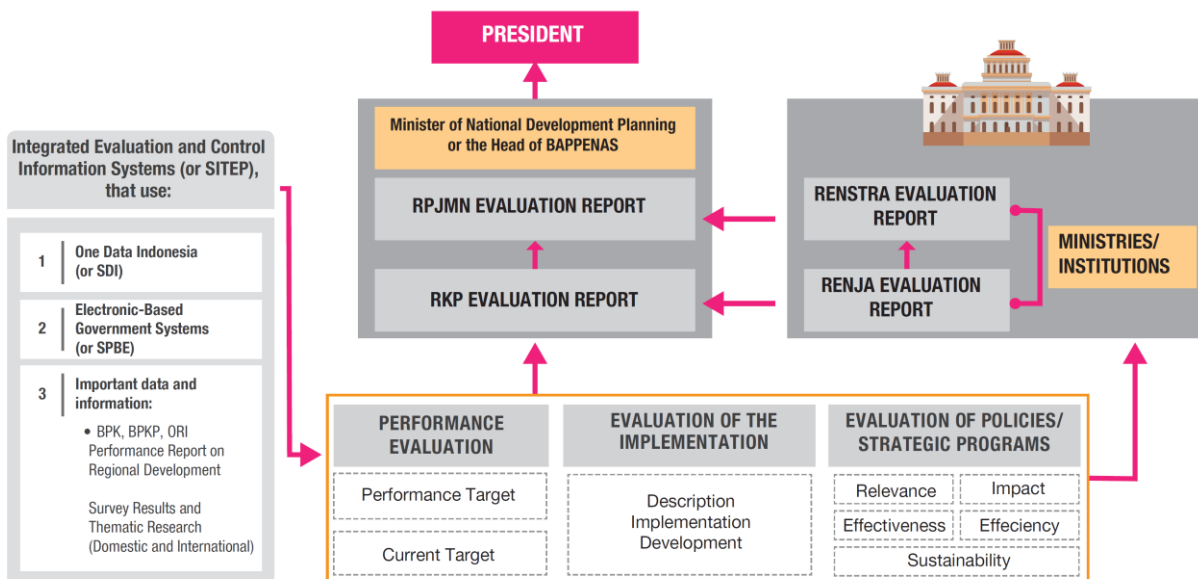
- c. Evaluation of strategic policies or programs, which is carried out to clarify the causal relationship of the success and failure factors of a plan. Evaluation is carried out on strategic policies or programs that fulfill the criteria of having a large budget, which has a large impact on the target group or community; and of having a large influence on the achievement of national development. Evaluation covers all aspects, namely relevance, effectiveness, efficiency, impact, and sustainability of activities or programs.

The choice of evaluation type depends on the purpose of the evaluation, so that only one type or a combination of the three can be used simultaneously.

6. Evaluation Mechanism

The Ministry of National Development Planning/Bappenas evaluates the RPJMN based on the evaluation results of the Renstra K/ and other available data sources. The evaluation of the ministerial/institutional strategic plans is coordinated by the deputy in charge of development evaluation and control, together with the deputy in charge of the sectoral and regional aspects of development. The evaluation is carried out by identifying and then using the type of evaluation that is in accordance with its purpose (either performance measurement, development plan implementation, or evaluation of strategic policies/programs). The results of the evaluation carried out by the Ministry of National Development Planning/Bappenas are then conveyed to the president as a form of accountability and is immediately followed up, with a focus on strategic policies or programs that have not reached the intended target. The mechanism for implementing the RPJMN evaluation can be seen in the Figure 9.13.

Figure 9.13
RPJMN Evaluation Mechanism



7. Applying Evaluation Results

The evaluation results of the 2020-2024 RPJMN are used as:

- a. Input in the drafting next period's government work plans (RKP) and the 2025-2029 RPJMN; and

- b. The basis for revising the 2020-2024 RPJMN, by considering: (i) any fundamental underlying problems; and (ii) a change in the policy direction by the president.

B. Control

Based on Law No. 25/2004 on the national development planning system, control of the implementation of development plans is intended to ensure the achievement of development goals and objectives through corrective and adjustable actions during the implementation of development plans. For this reason, it is necessary to develop a control framework as explained below.

1. The purpose of control implementation is to guarantee and ensure that the implementation of priority programs or activities are in accordance with their respective plans (or on-track) by taking into account recommendations or findings on the monitoring and evaluation results

2. The Scope of Control

- a. Various types of performance measurements can be used for control purposes. They can either be done simultaneously and comprehensively, or only each type of measurement is used.
- b. The control in question specifically refers to the control of implementation of priority programs or activities.

- c. Function of development control is attached in each government agency both at the central and regional levels, and is carried out by the leader of the ministry/institution or regional government in accordance with their respective duties and authorities in the monitoring and supervising processes.

- d. It is important to discern the difference between control and supervision as supervision is part of the control process.

- e. If the control is accompanied by corrective actions (or alignment) at the level of priority programs or activities mid-implementation of the RPJMN, then supervision is an on-site inspection that is carried out regularly within a certain period.

3. Mechanism for Development Control

Control of development implementation is carried out as shown in Figure 9.14, with the following details:

- a. Based on the results of the mid-term evaluation of the RPJMN in the third year of the 2020-2024

period, corrective actions are taken to ensure that the implementation of priority programs or activities is on track according to the RPJMN document. Corrective actions halfway through the implementation of the RPJMN are focused on priority programs or activities (with a certain minimum budget determined for the selection of priority programs or activities) that have a broad impact; and

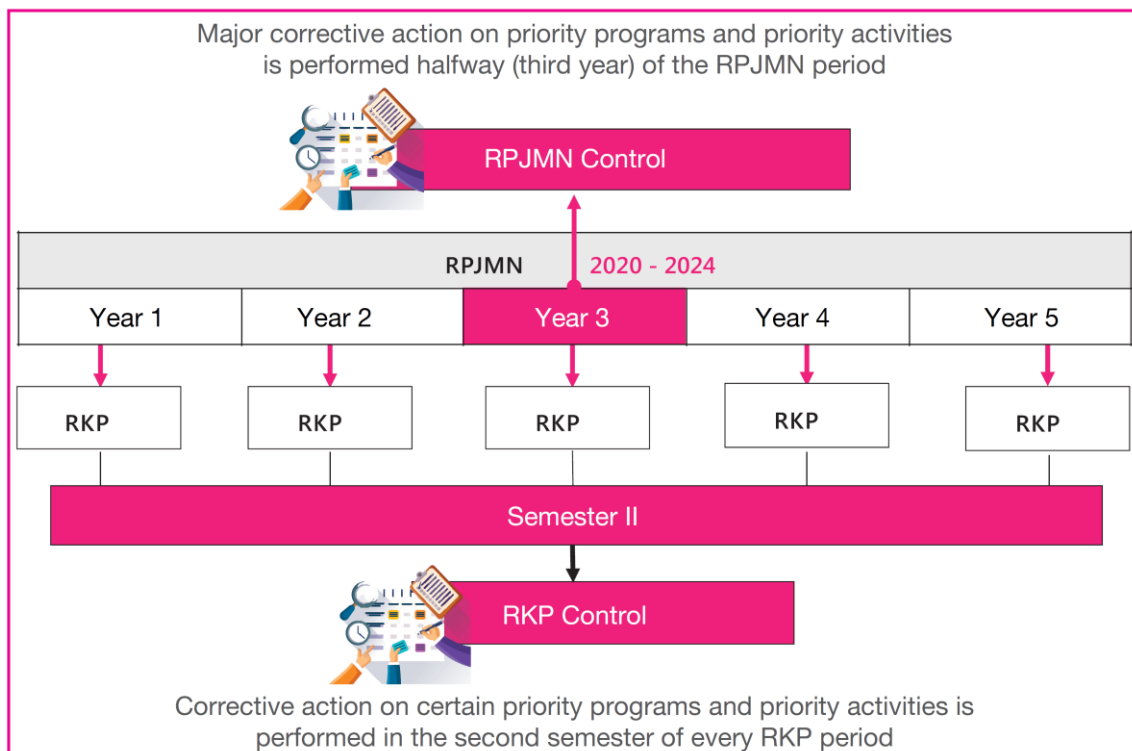
- b. Based on point (a) above and/or on the results of the government work plan (RKP) evaluation that is performed annually, corrective actions are carried out in the second semester of each implementation of RKP on certain

priority programs or activities (with a certain minimum budget determined for the selection of priority programs or activities).

4. Control Mechanism

- a. Control is a follow-up step taken to ensure that the implementation of priority programs or activities are according to plan. Control is carried out by assessing priority programs or activities based on three main aspects, namely strategic planning, implementation management, and performance. Sources of data and information for conducting assessments are obtained from the Integrated Evaluation and Control Information Systems (SITEP).

Figure 9.14
Timeline of Development Control

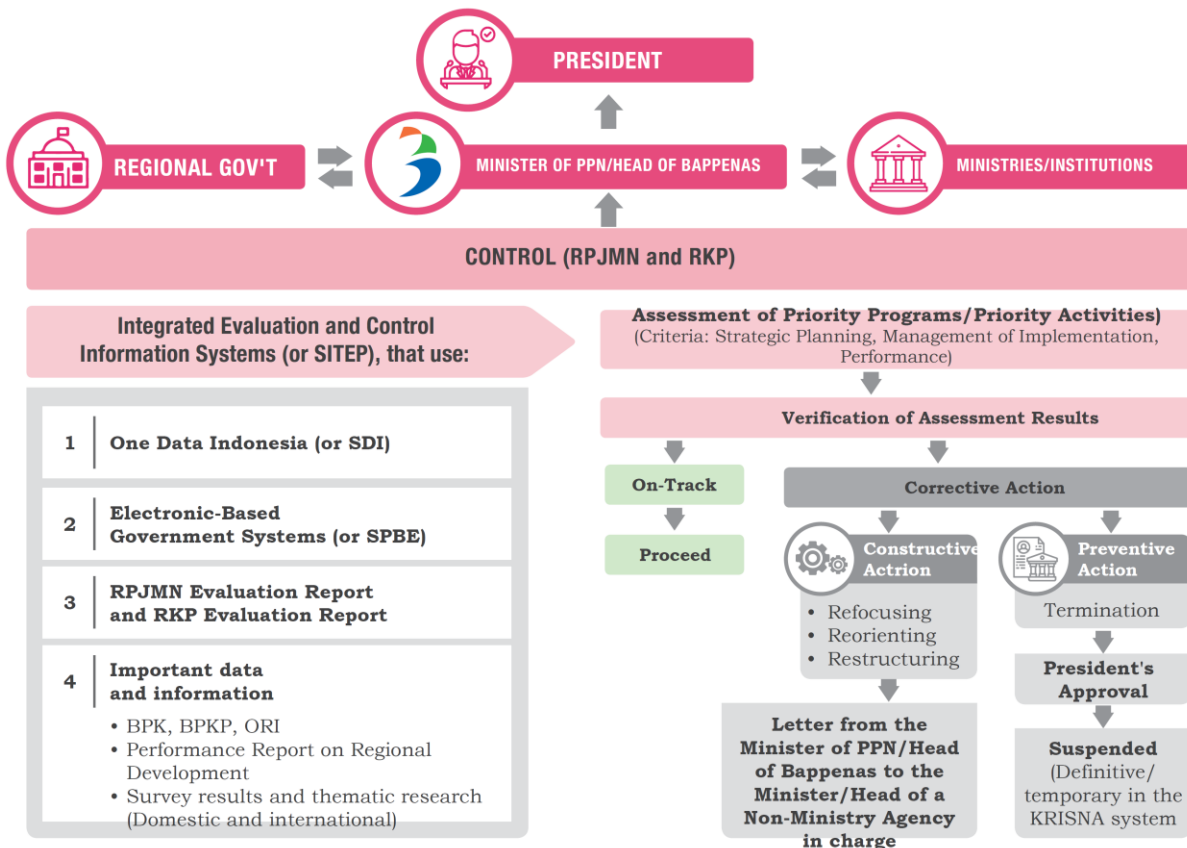


- b. The process of verifying the results of the assessment is carried out by:
- (i) Identifying any irregularities that occur during the implementation of priority programs or activities,
 - (ii) Confirming the implementation of priority projects or activities, and
 - (iii) Clarifying and resolving any ambiguity during the implementation of priority programs or activities.
- c. The decision to take corrective actions halfway through the implementation of priority programs or activities takes into account two aspects, namely constructive and preventive

actions. Constructive action is the act of establishing and improving the implementation of priority programs or activities, which can be implemented through the following policies:

- (i) Refocusing policy, which focuses on accelerating the achievement of priority program/activity targets;
- (ii) Reorientation policy, which reviews or adjusts the development target and strategy for implementing priority programs or activities; and
- (iii) Restructuring policy, which changes to improves the design of priority programs or activities at issue.

Figure 9.15
Development Control Mechanism



Preventive action is a control measure to reduce or eliminate the possibility of implementing priority programs or activities that are not on target. Moreover, it is also possible to arrive at a decision to stop the implementation of priority programs or activities, which can be temporary or permanent if necessary (definitive or temporary suspension according to the KRISNA system).

Meanwhile, corrective actions in the second semester of implementation of government work plans (RKP) only cover constructive actions through a refocusing policy that concentrates on steps to achieve priority program/activity targets. The development control mechanism can be seen in Figure 9.15.

CHAPTER X

CONCLUSION

The National Medium-Term Development Plan (RPJMN) of 2020-2024 is a manifestation of the vision, mission, and priority programs of President Joko Widodo and Vice President K.H. Ma'ruf Amin. The 2020-2024 RPJMN consists of the main RPJMN narrative with three appendices: first, the *Strategic Priority Projects (or Major Projects)*; second, the development matrices; and third, the regional development directions, with all three functioning as one inseparable unit. This document serves a reference for ministries and institutions in preparing strategic plans (Renstra) and for regional governments in preparing their respective regional medium-term development plans (RPJMD) for the next five years.

In the next five years, the development goal of embodying the vision of "creating a developed Indonesia that is sovereign, independent, and with characteristics based on mutual cooperation", is achieved through the nine missions known as the Second Nawacita. All of these missions are elaborated in the form of seven development agendas, namely:

(1) strengthening economic resilience for quality and equitable growth; (2) developing regions to reduce inequality and ensure equity; (3) increasing quality and competitiveness of human resources; (4) mental revolution and cultural development; (5) strengthening infrastructure to support economic and basic services development; (6) strengthening the environment and improving resilience against natural disasters and climate change; and (7) strengthening the stability of political, legal, and security affairs and the transformation of public services. In addition, other development sectors that have not been mentioned remain to be supported for the achievement of the above vision and mission.

In the next five years, the development as outlined in the RPJMN is conducted through efforts of all components of the nation. The 2020-2024 RPJMN is the starting point for achieving the target of Indonesia's Vision 2045 where Indonesia successfully becomes a developed country.

PRESIDENT OF
THE REPUBLIC OF INDONESIA

JOKO WIDODO

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SECRETARIAT OF CABINET
Deputy for Economic Affairs

Satya Bhakti Parikesit