



EXECUTIVE
SUMMARY

CLIMATE RESILIENCE DEVELOPMENT POLICY 2020-2045



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This document was written with the support, expertise, and input of several institutions and multidisciplinary experts. The contributors are:

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BMKG, especially the Climate Change Information Centre, provided observation data and atmospheric climate projection of rainfall and temperature. Projections of these two parameters are the basis for formulating strategies and policies in climate resilience.

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is a researcher whose expertise in marine science who contributed to projecting the oceanic climate of sea level and sea surface temperature.

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The Assessment Team for Economic Loss of Climate Change Impacts

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While collaborative effort, between Putra Dwitama (Head of RAN API Secretariat 2017-2019), resource persons, development partners, and NGOs/CSOs, has yielded the transformation of the RAN API 2014 review into a CRD.



Indonesia is the largest archipelagic country, yet vulnerable to the impact of climate change. It potentially disrupts the realization of national development stability in the economy, social, and environment. However, increasing the capability to adapt to the negative impact of climate change and increasing climate resilience has been the global response to this changing climate are mentioned in the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement.

In Indonesia, vulnerability levels across regions challenge governmental policies. As a response to the issue, The Climate Resilience Development (CRD) Policy manifested the Indonesian government's commitment to coping with climate change. In Presidential Regulation No. 18 of 2020, Climate Resilience Development has become the 6th (sixth) national priority (PN) in the 2020-2024 RPJMN, Improving the Environment, Increasing Disaster and Climate Change Resilience. The effort for increasing climate resilience focused on four affected sectors: Maritime and Coastal Sector; Agricultural Sector; Water Sector; and Health Sector.

The CRD document contains 6 (six) books: (i) list of priority locations and climate resilience actions; (ii) institutional arrangement of central and regional government in climate resilience; (iii) role of non-

state actors in climate resilience; (iv) climate resilience funding; (v) climate resilience monitoring evaluation and reporting (MER) mechanism in national development planning framework; and (vi) CRD Executive Summary. The achievement of climate resilience efforts at the Central and Regional Governments is monitored based on Government Regulation Number 39 of 2006, GR Number 8 of 2008, and the Regulation of the Minister of Home Affairs Number 54 of 2010.

The CRD document anchors and guides the stakeholders in implementing PN6 PP2 KP2 RPJMN 2020-2024, and the following national development planning framework are as follows: (i) developing climate resilience program and activities; (ii) guidelines for Line Ministries and Government Institutions (K/L) to avoid duplication of climate resilience efforts in priority sectors; (iii) reference for the implementation of M/I monitoring and evaluation function in assessing the contribution of climate resilience achievement to the predetermined targets; and (iv) guidelines for tagging the climate resilience activities in the Planning, Budgeting and Performance Information System (KRISNA).

With those highlights, this Climate Resilience Development Policy document must provide an overview and guidance for the optimum implementation of climate resilience actions. Therefore, the climate resilience targets can be achieved.

Jakarta, March 2021

Dr. Ir. H. Suharso Monoarfa
Minister of National Development Planning/Head of Bappenas



CLIMATE RESILIENCE DEVELOPMENT POLICY 2020-2045



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LIST OF ABBREVIATIONS

APBN	State Budget (<i>Anggaran Pendapatan dan Belanja Negara</i>)
CRD	Climate Resilience Development
CVI	Coastal Vulnerability Index
ENSO	<i>El Niño</i> –Southern Oscillation
GDP	Gross Domestic Product
GT	Gross Tonnage
ICCSR	Indonesia Climate Change Sectoral Roadmap
IOD	Indian Ocean Dipole
IPCC	Intergovernmental Panel on Climate Change
ITB	Bandung Institute of Technology
K/L	Ministries/Institutions (<i>Kementerian/Lembaga</i>)
KP	Kegiatan Prioritas
KRISNA	Collaboration Planning and Budget Performance Information (<i>Kolaborasi Perencanaan dan Informasi Kinerja Anggaran</i>)
NGO	Non-Governmental Organization
MER	Monitoring, Evaluation, and Reporting
PELNI	Indonesian National Cruise (<i>Pelayaran Nasional Indonesia</i>)
PN	Priority National
PP	Program Priority
RAN API	National Action Plan for Climate Change Adaptation (<i>Rencana Aksi Nasional Adaptasi Perubahan Iklim</i>)
RPJMN	National Mid-Term Development Plan (<i>Rencana Pembangunan Jangka Menengah Nasional</i>)
UNFCCC	United Nations Framework Convention on Climate Change
UI	University of Indonesia

1

THE URGENCY OF CLIMATE RESILIENCE DEVELOPMENT IN INDONESIA

“Climate change does not respect borders; it does not respect who you are – rich and poor, small and big. Therefore, this is what we call ‘global challenges’, which require global solidarity” - Ban Ki-moon.

The trend of global temperature represents an increase over the global surface. The increase is not only the average global temperature but also frequent extremes (both high and low) of daily and seasonal temperature that occurs in many places. Similarly, the frequency and duration of heatwaves have also been predicted to increase. In this changing atmosphere, the water cycle is responding to the trend of global surface temperature with changing rainfall patterns during wet and dry seasons. The simulation shows an increase in rainfall in the equatorial area, especially on the Pacific Ocean. Changes in long-term climate parameters also affect the climate variability such as El Niño–Southern Oscillation (ENSO), Indian Ocean Dipole (IOD), and monsoon.

Climate change can affect extreme weather which implies the frequency and intensity of disasters, particularly hydrometeorological disasters such as floods, landslides, abrasion, etc. The increasing temperature and changing rainfall patterns can affect seasonal periods of longer dry seasons, shorter wet seasons or vice versa. Other impacts from changing temperature and rainfall patterns are drought and decreasing water availability. This condition poses significant risks in water demand for agriculture, households, and other economic activities. In the agricultural sector, water availability is necessary for crop growth and production. For several central commodity areas, the decrease in water supply reduces crop productivity, shifts the cropping patterns, and changes the crop variety (Figure 1).

In the marine areas, the marine ecosystem and coastal communities also endure the brunt of

climate change. While in the coastal areas, the vulnerable coast is threatened by abrasion, inundation, and high waves are driven by sea-level rise. Changing oceanic climate can also lead to high waves endangering small boats to shipwreck and decrease the capture fisheries production.

In the health sector, temperature changes and floods, including coastal floods have profound impacts on human health with increased cases of climate-related diseases. Some diseases caused by climate change are vector-borne disease such as dengue haemorrhagic fever and malaria; water borne disease, such as diarrhoea and leptospirosis; and heat-stress, such as heat stroke and hypertension.

To tackle the issues of climate change and anticipate the impacts, it is essential to capture the future climate condition. Indonesia is located on the equator and situated between two oceans, resulting in a dynamic climate pattern. As an archipelagic country, the territorial sea is two-third of the country size, therefore the projected climate parameter divided into atmospheric and oceanic climate projections. Based on the atmospheric climate projection, the change of temperature, rainfall, and winds is identified and influences extreme weather and climate. Meanwhile, in the oceanic climate projection, the rise of sea surface temperature, sea level, sea surface salinity, wave height, and extreme sea surface temperature is identified. Both climate projections are critical to promoting climate actions.

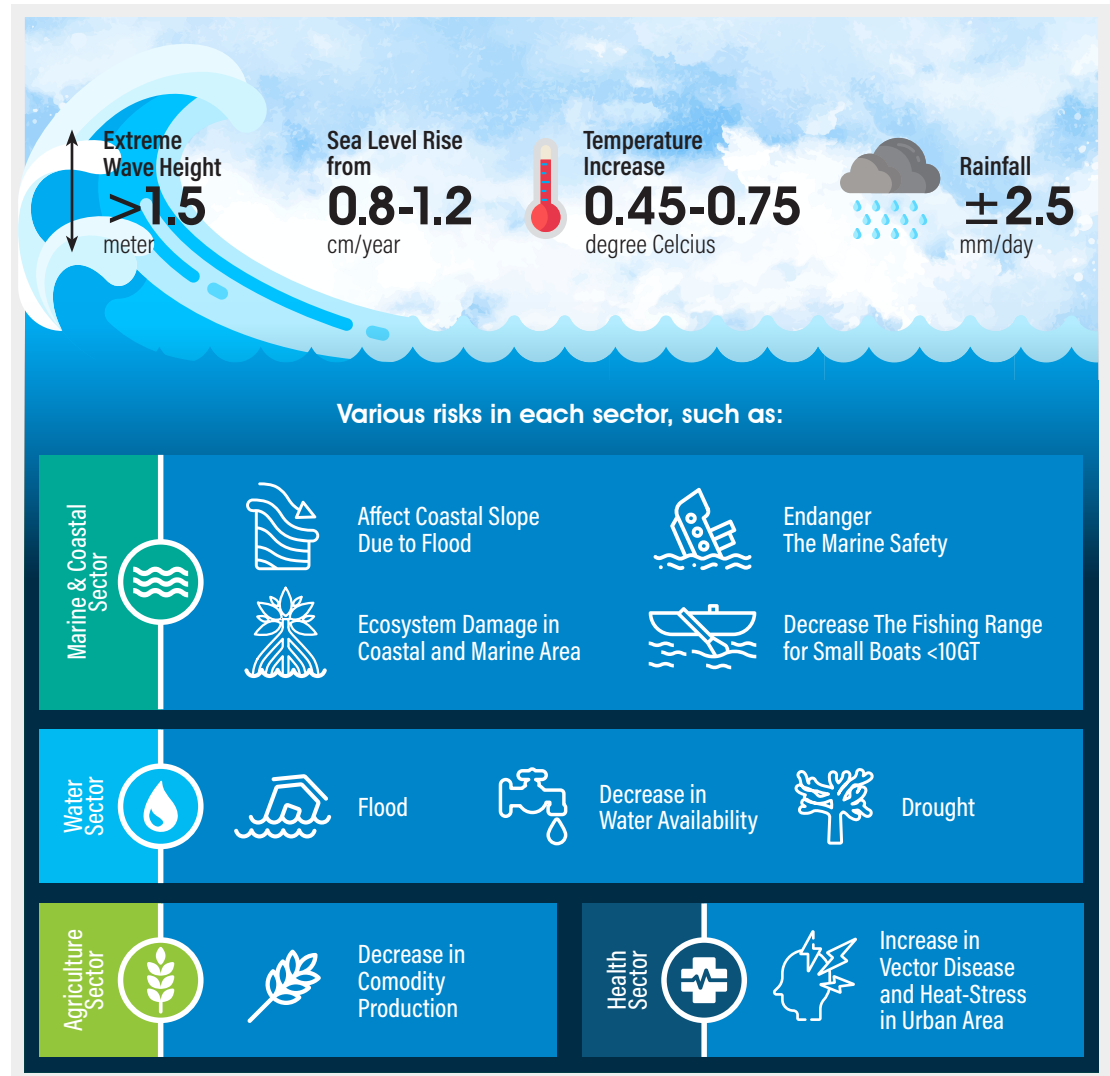


Figure 1. Impact of Climate Change.

Extreme weather has led to a series of disasters in Indonesia, drought which exacerbates land and forest fires, floods and landslides, a sea-level rise that deliver water inland causing higher tide and abrasion, also extreme wave height offshore. As described in **Figure 2**, the hydrometeorological disaster from 2010 to 2019 increases and is potentially even more intense in the future.

There are two categories of climate change impacts, rapid onset for prompt impacts, and slow onset for

gradual impacts in, relatively, long periods. These disastrous impacts are triggered by hazards and lead to economic losses in four sectors. The slow onset impact is not significantly perceived directly, but accumulated and becomes significantly adverse in the future.

Climate change impacts can disrupt and damage infrastructure, and people can lose their livelihoods, for example, fishermen and farmers. At a macro scale, the Indonesian economy has foreseen to be affected

by climate change, represented by a decrease in GDP per capita.

Based on the economic loss assessment in 2019, the loss in four priority sectors: marine and coastal water, agriculture, and health were estimated to be IDR 102.3 Trillion in 2020 and IDR 115.4 Trillion in 2024, or increase 12.76% over five years (**Figure 3**). However, the economic loss is undervalued and can result in a bigger loss if it includes all variables.

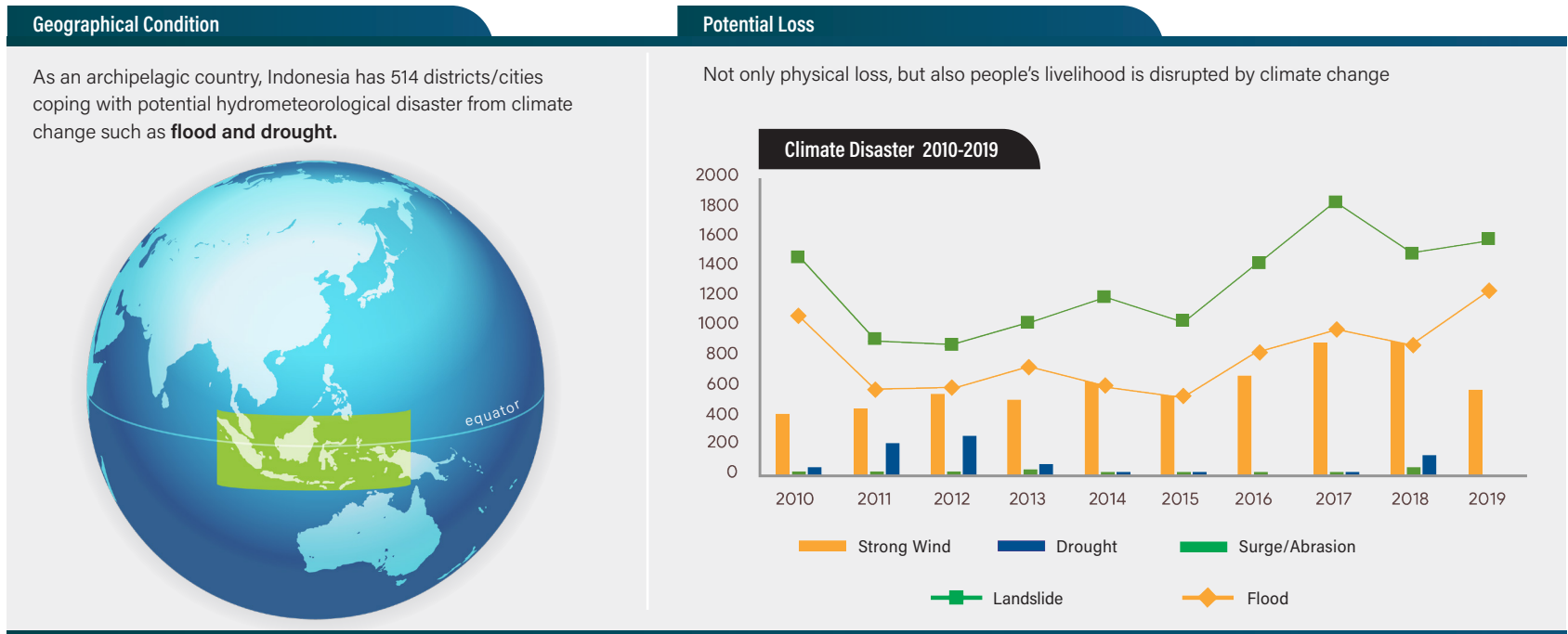


Figure 2. Indonesian Territory Conditions and the Climate Disaster Event Graph 2010-2019 (BNPB, 2019)

To effectively anticipate the impact of climate change and its potential economic loss, precise and measurable policy-making based on climate change scenarios and climate risks is critical. It will develop a resilience community and resilience development (Figure 4).

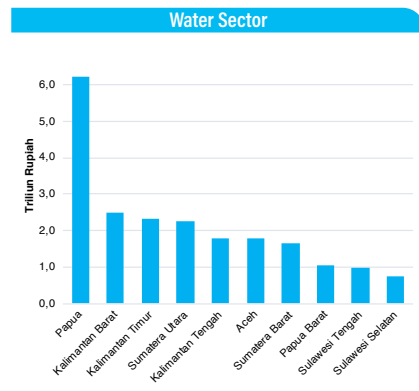
Based on the assessment, the economic loss due to climate change will reach IDR 112.2 Trillion in 2023. This loss can be reduced by implementing spontaneous actions (refer to sectoral programs) to IDR 95.7 Trillion (down to about 15%). Planned action helps to avoid the economic loss of up to IDR 58.3 Trillion (down to about 50%).



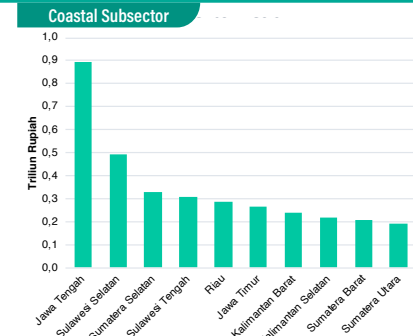
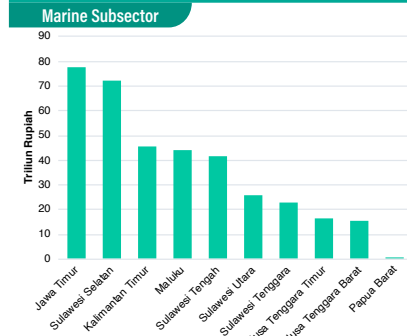
Potential Economic Loss from Climate Change Impact in Four Priority Sectors (Trillion Rp)

Sector	Year				
	2020	2021	2022	2023	2024
Marine & Coastal	81.30	81.43	81.57	81.69	81.82
Water	3.83	4.74	5.61	6.45	7.29
Agriculture	11.20	13.40	15.59	17.77	19.94
Health	6.03	6.15	6.26	6.37	6.48
Total	102.36	105.72	109.03	112.29	115.53

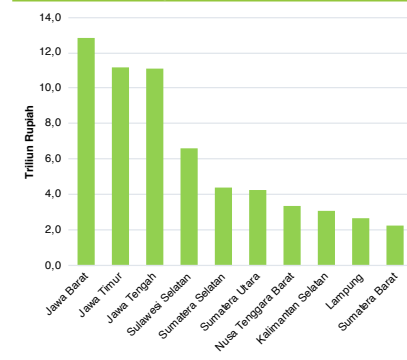
10 PROVINCES with Highest Potential Economic Loss in 4 Priority Sectors in Climate Resilience



Marine & Coastal Sector



Agriculture Sector



Health Sector

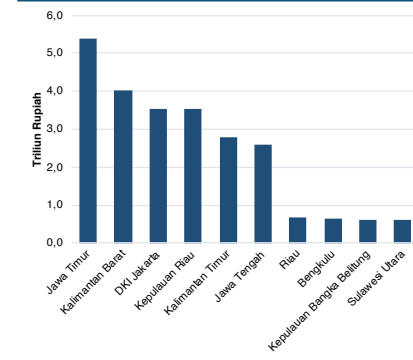


Figure 3. Potential Economic Losses from Climate Change Impacts (Bappenas, 2019)

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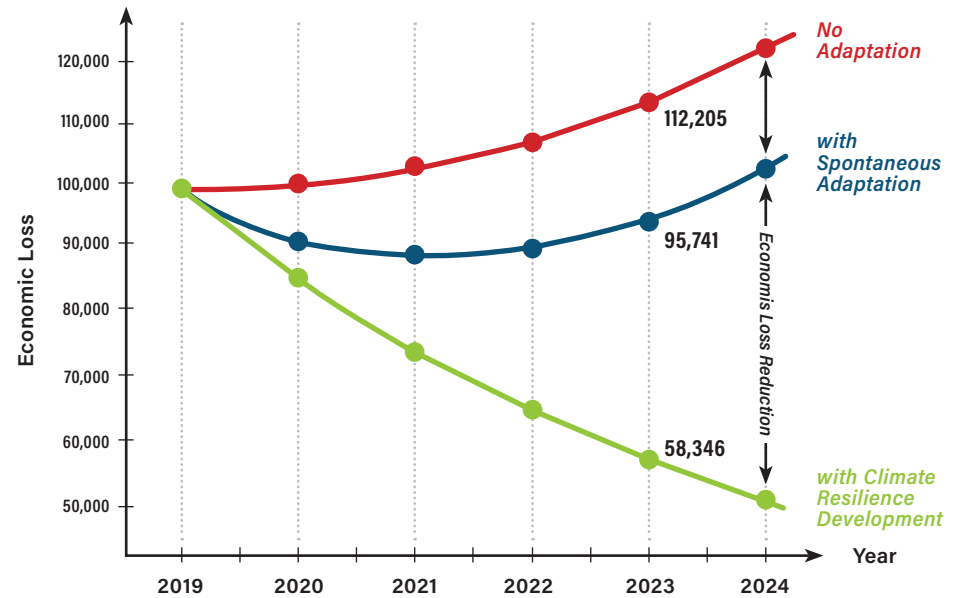


Figure 4. Policy Scenarios for Climate Resilience (Bappenas, 2019)

2

GLOBAL AGREEMENTS AND NATIONAL COMMITMENTS ON CLIMATE RESILIENCE

"Climate change is the environmental challenge of this generation, and it is imperative that we act before it's too late"; - John Delaney.

The IPCC report shows that climate change is accelerating and affecting various aspects of people's lives significantly. The close relationship between the impacts of climate change and human life has made the issue of climate change increasingly a concern of the countries in the world. The UNFCCC governs international agreements on this issue. The Special Report Global Warming of 1.5°C published in October 2018 stated that the government needs to deal with climate change in the best possible time because climate change impacts are unavoidable and are projected to increase in 2030.

As part of the UNFCCC, one of the aims of the Paris Agreement is to increase the adaptability to the negative impacts of climate change towards climate resilience. The ratification of the Paris Agreement through Law No. 16 of 2016 is a manifestation of the Indonesian government's commitment to addressing climate change. To fulfil this commitment, the Ministry of National Development Planning/Bappenas has made Climate Resilience Development one of the six National Priorities in the 2020-2024 National Medium-Term Development Plan. It covers Building the Environment, Increasing Disaster Resilience and Climate Change, stipulated by Presidential Regulation No. 18 of 2020 (Figure 5).

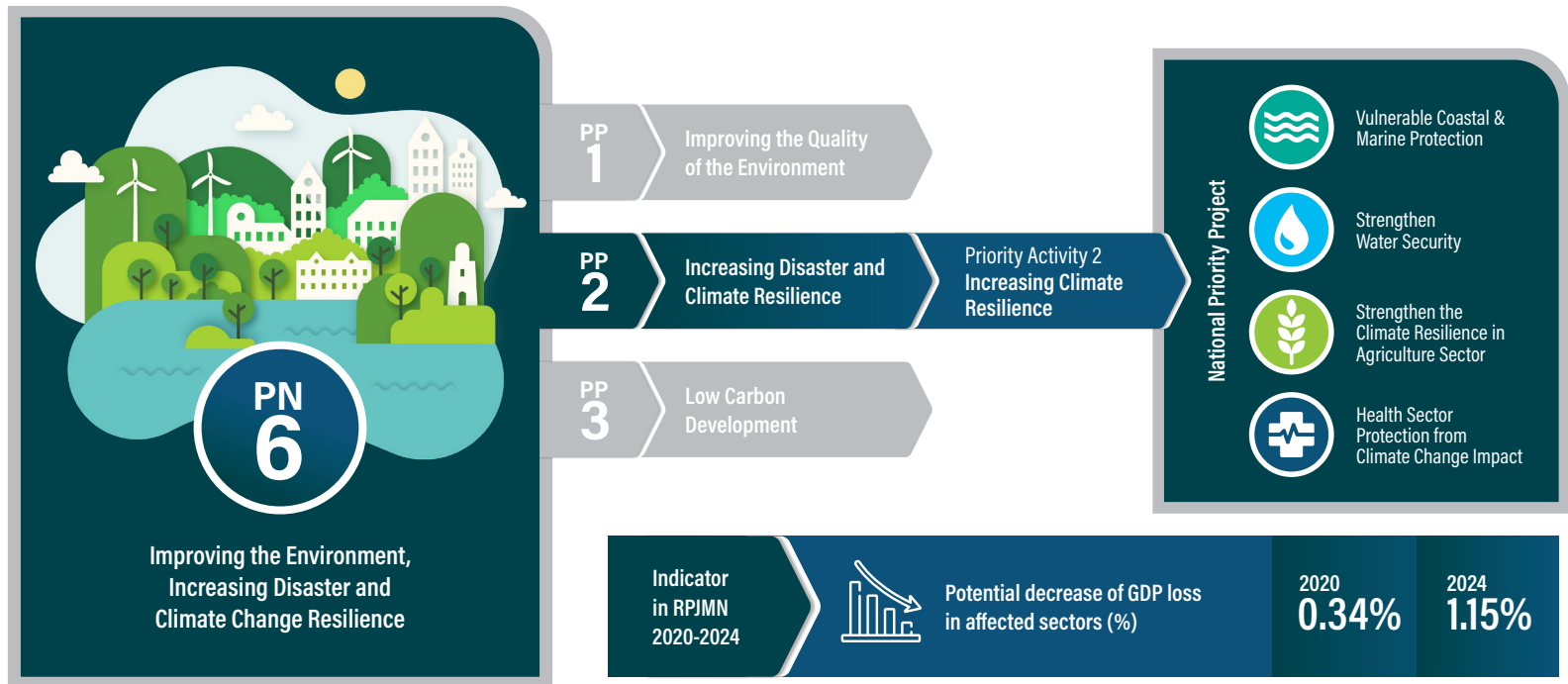


Figure 5. National Priorities for Climate Resilience in the 2020-2024 National Medium-Term Development Plan (PR 18/2020)

The targets and indicators set in the Climate Resilience Development action are the reduced percentage (%) of GDP reduction in 4 (four) priority sectors: Marine and Coastal Sector, Water Sector, Agricultural Sector, and Health Sector. Hopefully, various policy interventions and climate resilience activities carried out in these four priority sectors can reduce potential economic losses due to climate change (Figure 6).

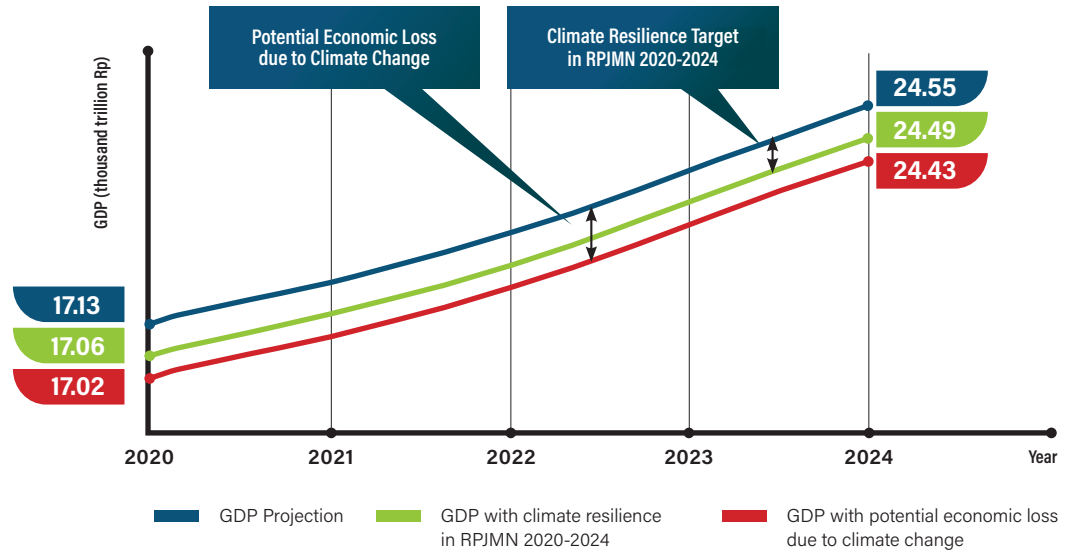


Figure 6. Impact of Climate Resilience Policy Interventions on Reducing Potential Losses to the National Economy (Bappenas, 2019)

A long process had been taken in implementing climate change adaptation. It started in 2010 with the preparation of the ICCSR, which translated into the RAN API 2014. Based on the evaluation process and national conditions, the Climate Resilience Development 2021-2030 document is prepared and published (Figure 7).



Figure 7. Transformation of the RAN API into Climate Resilience Development (CRD)



The Document of
Climate Resilience
Development
consists of
6 books
, i.e:



Book 1
List of Priority
Locations and Climate
Resilience Actions



Book 4
Funding for Climate
Resilience



Book 2
Institutional
Arrangement for
Climate Resilience



Book 5
Monitoring, Evaluation, and Reporting of
Climate Resilience Actions in the Framework
of National Development Planning



Book 3
The Roles of Non-State Actors
in Climate Resilience

Executive Summary
Climate Resilience
Development Policy

Figure 8. Climate Resilience Development Policy Document

Hopefully, the CRD document can be the reference for the government and other stakeholders in supporting the implementation of PN 6 PP 2 RPJMN 2020-2024.

3

DEFINITION OF CLIMATE RESILIENCE & PRIORITY SECTORS

"Climate change is sometimes misunderstood as being about changes in the weather, in reality it is about changes in our very way of life", - Paul Polman.

The implementation of climate resilience development is to balance the economic, social, and environmental aspects. The operational definition used for the implementation of the CRD are as follows:

"Climate resilience is a planned and/or spontaneous anticipatory action to reduce potential losses due to hazards, vulnerabilities, impacts, and risks of climate change on the communities' lives in the areas affected by climate change"

To reducing national climate vulnerability, impact, and risk, climate resilience development planning focused on 4 (four) priority sectors: Marine and Coastal Sector, Water Sector, Agricultural Sector, and Health Sector (**Figure 9**). These four sectors contribute significantly to GDP sector revenue.

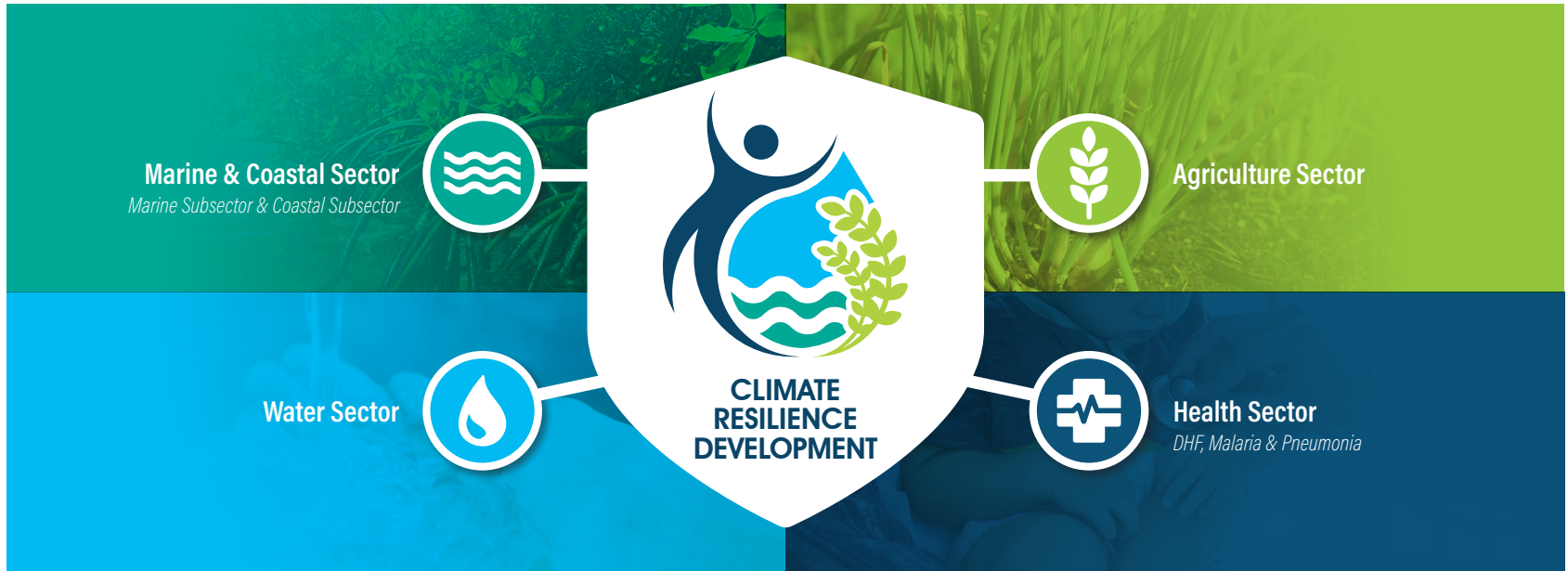


Figure 9. Sectors in Climate Resilience Development



Marine & Coastal Sector

Marine

The projected wave height for the period of 2006-2045 shows that the total area of waters threatening ships with a capacity of <10 GT is around 5.8 million km² or about 90% of the total area of Indonesian waters. Several sea toll routes determined by the Ministry of Transportation will cross dangerous water areas, especially in western Sumatra and northern Maluku. In general, the PELNI route on the west part of Sumatra waters will cross an area of wave heights >3m.

Coastal

Indonesia's 102 thousand km coastline has different levels of vulnerability. The very high vulnerability coast is around 1,800 km. South Sulawesi Province is the province with the longest of the most vulnerable coast (CVI 5), reaching up to 573 km (Figure 10). The total potential economic loss for the Marine Sector is estimated at IDR 400.8 Trillion, and for the Coastal Sector is IDR 6.7 Trillion.

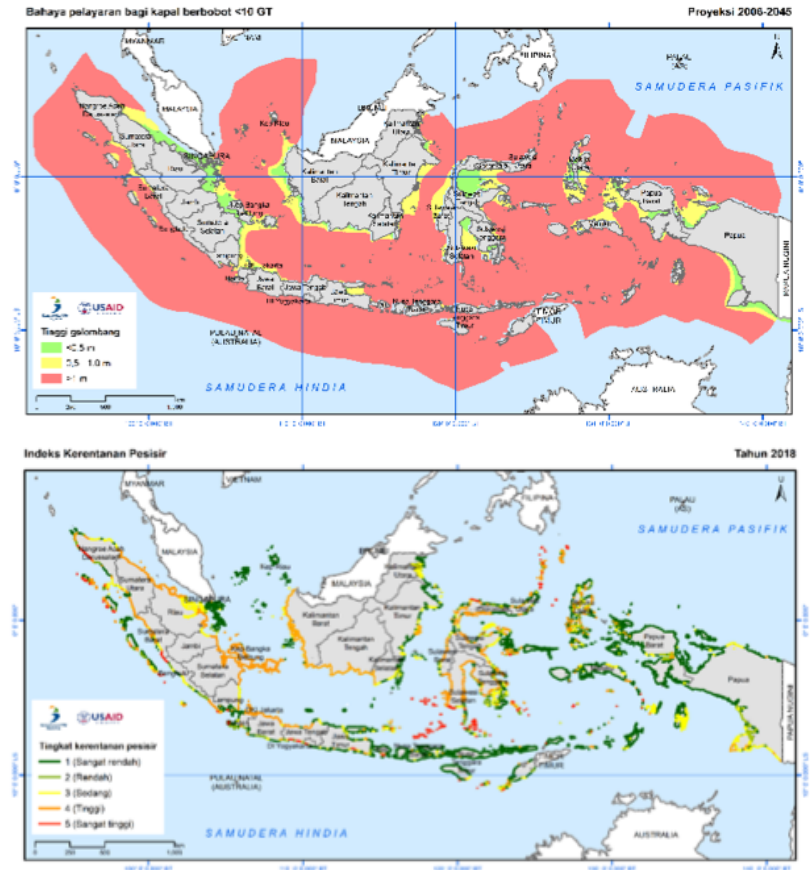


Figure 10. Projections of Climate Hazards in Marine and Coastal Sector



Water Sector

A decrease in water availability will evenly occur in Java and Nusa Tenggara in 2020-2034 and 2030-2045 projection periods. In 2024, the average decrease in Java Island will reach 439.21 m³/capita/year and 1,098.08 m³/capita/year in Nusa Tenggara (Figure 12). The projection of potential economic loss in this sector has estimated a loss at IDR 27.9 Trillion.



Agricultural Sector

A more than 25% decrease in rice production is projected to occur in the Provinces of North Kalimantan, Gorontalo, Maluku, and North Maluku in the period 2020-2045. The production in Java and Sumatra, known as the rice production centres, will also decrease from 10% to 17.5% or in the moderate category (Figure 12). The projection of potential economic loss in the agricultural sector has estimated a loss at IDR 77.9 Trillion.



Figure 11. Hazard Projection of Decreasing Water Availability (2020-2034)



Figure 12. Hazard Projection of Decreasing Rice Production (2020-2045)



Health Sector

The increase in temperature and rainfall can trigger the population of vector disease, particularly the *Aedes sp.* mosquitoes. Based on the assessment done by the Ministry of Health, other diseases that will increase due to climate change are malaria and pneumonia. The DHF occurrence will be very high in the following cities: Pekanbaru, Palembang, Banjarbaru, Banjarmasin, Samarinda, Tarakan, Kolaka, Ambon, Semarang, and Kupang (Figure 13). The projection of potential economic loss in the Health Sector of DHF alone has estimated a loss at IDR 31.3 Trillion.

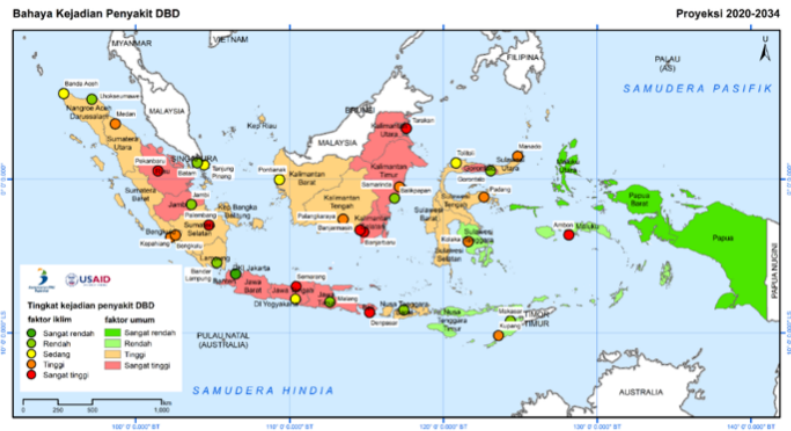
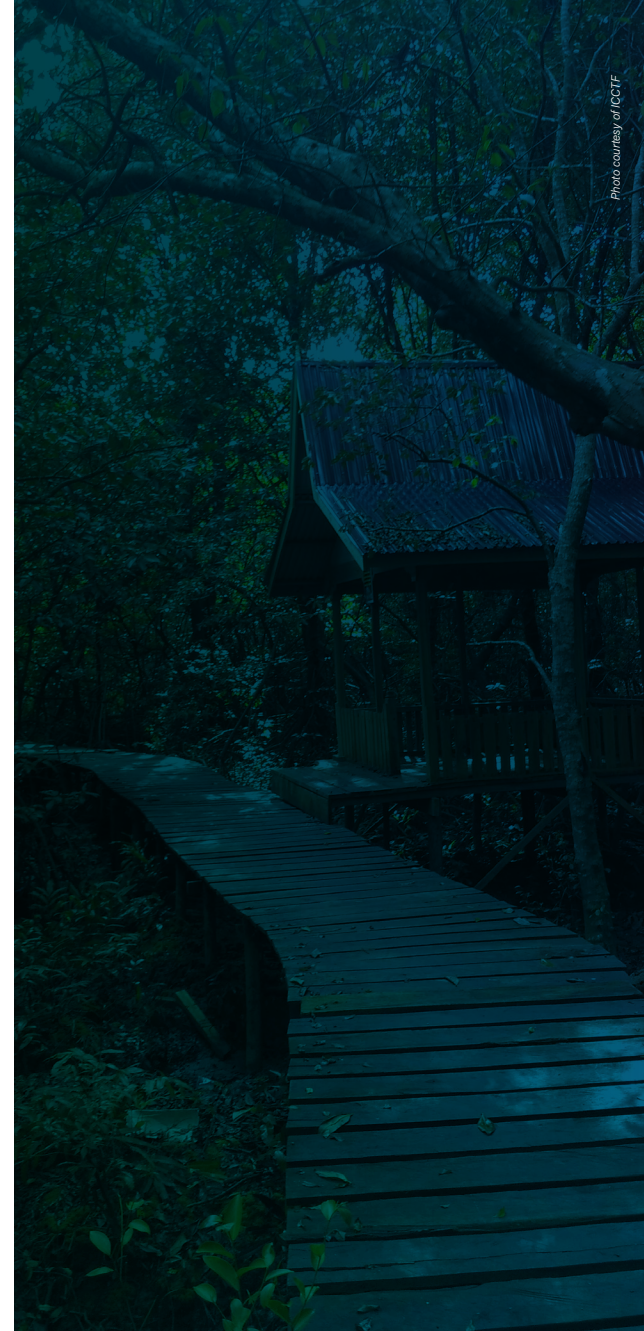


Figure 13. Hazard Projection of DHF (2020-2045)



4

Photo courtesy of LCCJ Secretariat

PRIORITY LOCATIONS OF CLIMATE RESILIENCE ACTION

Change is coming, whether you like it or not! - Greta Thunberg.

According to BPS 2020 data, Indonesia is a region of approximately 1.92 million km² and consists of 16,056 islands. Most of this area is affected by the negative impact of climate change. Thus, appropriate intervention is necessary to cope with those impacts. Finding out the future climate conditions and risks are required to determine the locations of climate resilience action. In this context, 2020-2045 climate projection, climate hazard potential, and the valuation of economic losses in 4 (four) priority sectors based on the scientific studies are used. Besides, vulnerability and disaster risk circumstances are also considered, by using the SIDIK 2018 vulnerability index, specific sector vulnerability parameters from line ministries/institutions' studies, and IRBI 2018 disaster risk index. Furthermore, those data and information are strengthened by the results of ground checking and validation, as the final component in determining the climate resilience priority locations (Figure 14).

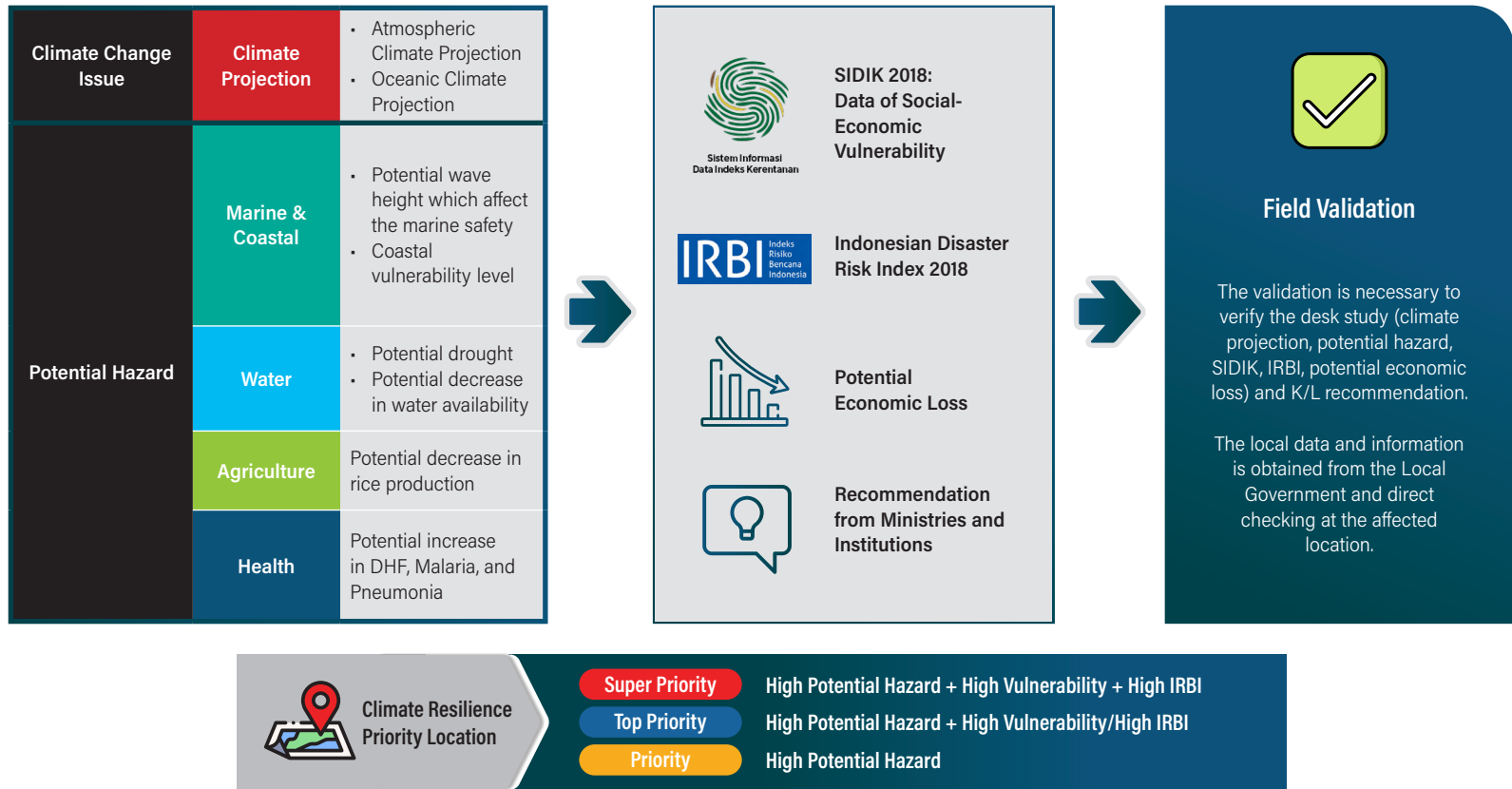


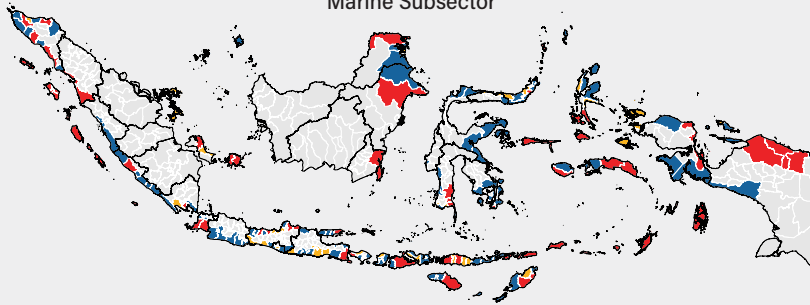
Figure 14. The Determination of Climate Resilience Priority Locations

Based on Figure 14 location criteria, the priority locations of climate resilience interventions are divided into three categories, Super Priority, Top Priority, and Priority. The Super Priority locations have high hazard potential, high vulnerability, and high risk of disaster. The Top Priority locations have high hazard potential and high vulnerability or high disaster risk, while the Priority locations consist of high hazard potential areas, but with low vulnerability and disaster risk. Other locations outside these three categories are the low-affected climate change areas with lower hazard potential. The distribution of climate resilience priority locations in 4 (four) sectors is presented in Figure 15 and Table 1.

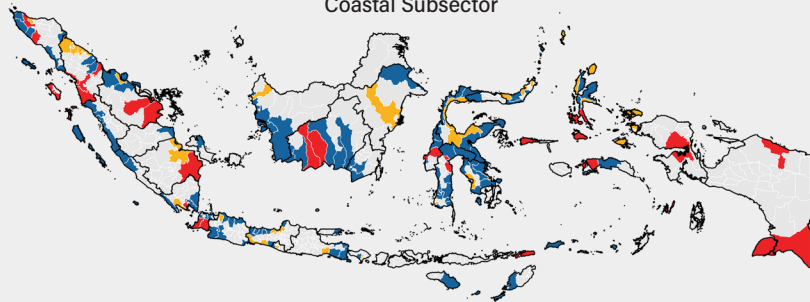


Marine & Coastal Sector

Marine Subsector



Coastal Subsector



Note:




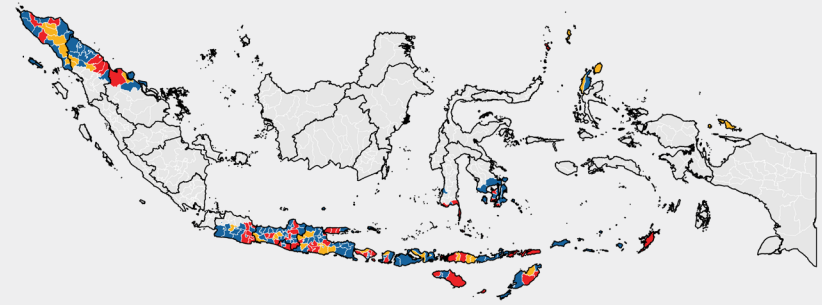
-  Super Priority
-  Top Priority
-  Priority

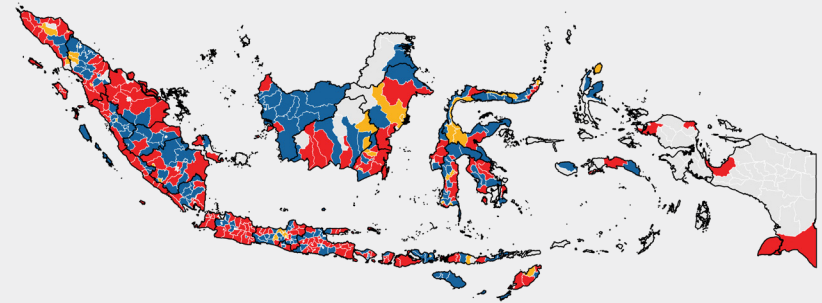
Figure 15. Climate Resilience Priority Locations in 4 (four) Priority Sectors



Water Sector



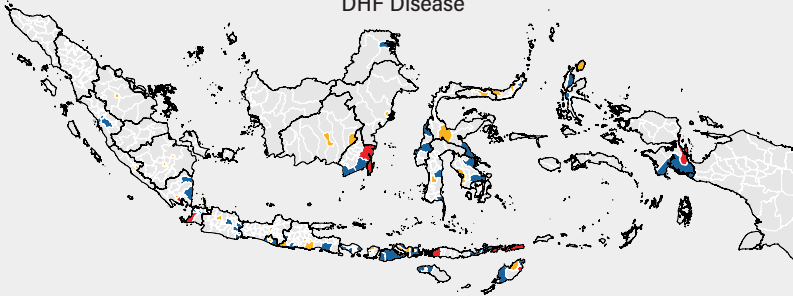
Agriculture Sector



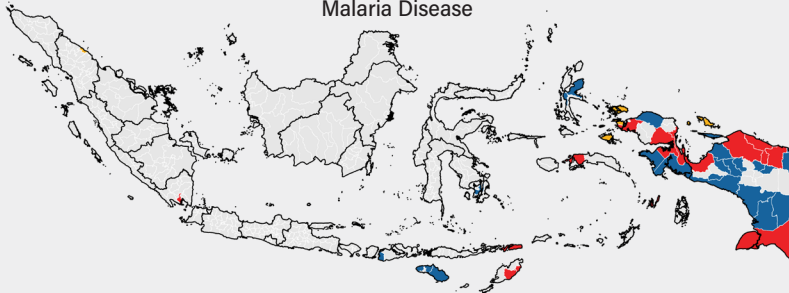


Health Sector

DHF Disease



Malaria Disease



Pneumonia Disease

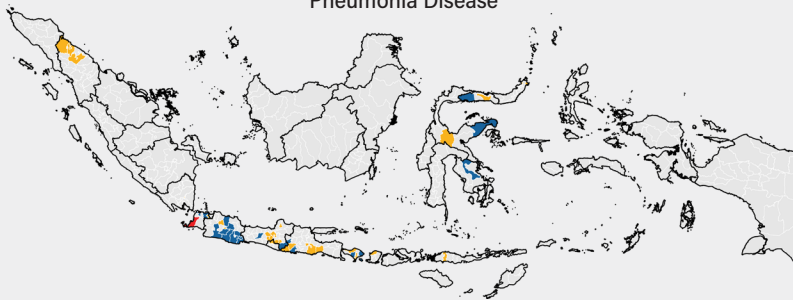


Table 1. Number of Climate Resilience Priority Locations in 4 (four) sectors

No.	Climate Resilience Priority Sector	District			City		
		Super Priority	Top Priority	Priority	Super Priority	Top Priority	Priority
1	Marine Subsector	59	101	32	2	13	8
	Coastal Subsector	27	98	33	0	8	10
2	Water Sector	52	89	28	6	27	0
3	Agriculture Sector	164	148	23	4	12	16
4	Health Sector for DHF Disease	8	42	24	0	5	23
	Health Sector for Malaria Disease	16	22	4	0	2	0
	Health Sector for Pneumonia Disease	1	19	22	0	4	12
TOTAL		377	520	166	12	71	69

Note:

Super Priority

the location in which has high potential hazard, high vulnerability, and high risk

Top Priority

the location in which has high potential hazard and high vulnerability or and high risk

Priority

the location in which has high potential hazard

Detailed information and explanation regarding these priority locations can be found in **Book 1. List of Locations and Actions of Climate Resilience.**

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Photo courtesy of ICGIF









CLIMATE RESILIENCE ACTIONS

"We have to wake up to the fierce of the now", - Jim Yong Kim.

Economic and non-economic losses of climate change potentially disrupt the development targets. It is necessary to take appropriate actions for the affected areas in accordance with the level of vulnerability and characteristics of the areas to anticipate worse impacts on the development targets. Climate resilience actions can support the Sustainable Development Goals and in line with the disaster risk reduction strategy.

Climate resilience actions are divided into 2 (two) categories, the main and supporting activities. Every action is built based on 4 (four) approaches, infrastructure, technology, capacity building, and governance and funding (Table 2).

Table 2. Approach of Climate Resilience Actions

Priority Sector	Group of Climate Resilience Action			
	Main Activity		Supporting Activity	
	Type of Action	Output	Outcome	Implementer (K/L)
 Marine & Coastal				
 Water				
 Agriculture				
 Health				
	Infrastructure	Governance & Funding	Technology	Capacity Building
	Approaches:			

A detailed list of climate resilience actions is available in **Book 1. List of Locations and Actions of Climate Resilience**



6

INSTITUTIONAL ARRANGEMENT FOR CLIMATE RESILIENCE

“ We have a single mission: to protect and hand on the planet to the next generation”, – Francois Hollande.

Under Law no. 25/2004, the Ministry of National Development Planning/Bappenas has a strategic role as a Clearing House¹ that encourages the implementation of national priorities and the achievement of national development targets and indicators as stated in the 2020-2024 National Medium-Term Development Plan (Presidential Regulation No. 18/2020). The implementation of the national development priorities, targets and indicators, in the National Medium-Term Development Plan, resembles the President's vision, mission, and direction. As one of the national development priority agendas, CRD policy is a program/activity that needs to be carried out by the National and Local Governments, and/or strategic business entities in the priority locations to support the achievement of the national climate resilience development agenda.

CRD's priority is to support the regulations and policies in increasing climate resilience of 4 (four) priority sectors. It reinforces the urgency of climate resilience issues to be included in the priority of each Ministries/Institutions. Therefore, it is necessary to analyse the institutional aspects of the CRD with the following objectives: (i) mapping the roles, main tasks, and functions of the stakeholders to have a correct interpretation of authority; (ii) optimizing the synchronization of national and local policies and regulations; and (iii) enhancing the role of institutions and supporting systems. CRD institutional arrangement includes planning, implementation, and funding, based on the identification and analysis of their respective juridical basis, is presented in **Figure 16**.

¹Policy/decision maker, development activities coordinator, think-tank, and administrator in the national development planning

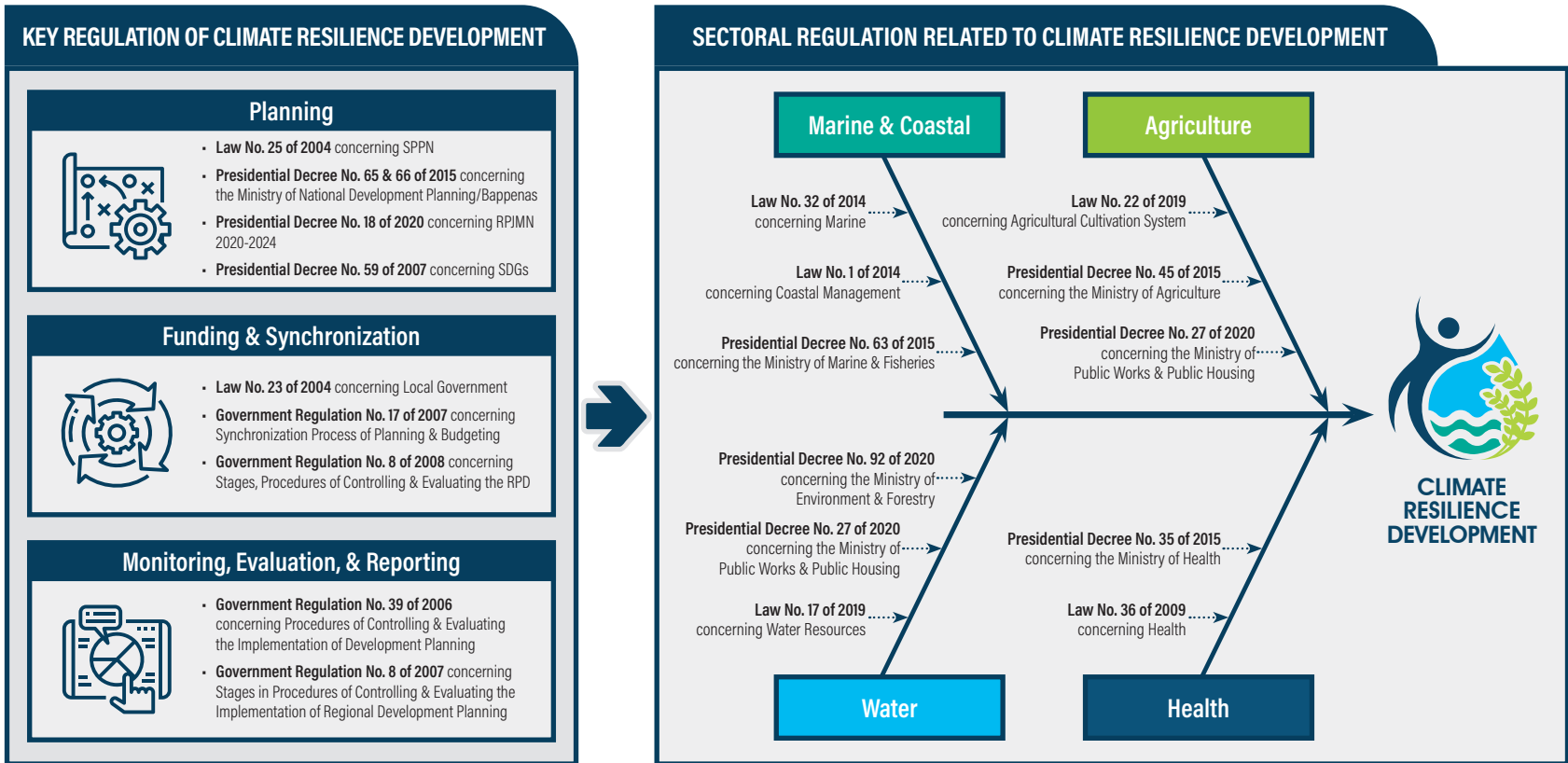


Figure 16. Juridical Basis related to Climate Resilience Issues

The institutional framework for the implementation of Climate Resilience Development is presented in Figure 17.



THE ROLE OF NON-STATE ACTORS IN CLIMATE RESILIENCE

“It is a collective endeavour, it is collective accountability and it may not be too late”, – Christine Lagarde.

One of the challenges in climate resilience development is the large number of climate resilience priority locations that need to be intervened. Therefore, the involvement of all actors, both at the national and local levels, is required. The implementation of climate resilience development is expected to be more effective and ambitious with contributions from all stakeholders.

Support for climate resilience actions can encourage the synergy between stakeholders, particularly in helping the affected communities to manage their environment, and developing more inclusive regional or local policies. Mapping of Non-Governmental Organizations (NGOs) that have contributed to the four climate resilience priority sectors and locations is presented in **Table 3**.

Table 3. Recapitulation of NGOs' Contribution in Climate Resilience Priority Sectors

No	Organization	Climate Resilience Priority Sectors															
		Marine & Coastal				Water				Agriculture				Health			
		I	T	CB	GF	I	T	CB	GF	I	T	CB	GF	I	T	CB	GF
1.	Aisyiyah			✓	✓			✓	✓			✓	✓			✓	✓
2.	ABC										✓	✓	✓				
3.	IFRC			✓	✓		✓	✓	✓			✓	✓			✓	✓
4.	IR Indonesia		✓	✓	✓				✓		✓	✓	✓				✓
5.	Kemitraan				✓			✓	✓				✓				✓
6.	KONSEPSI			✓	✓			✓	✓			✓	✓			✓	✓
7.	LPBI NU	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓
8.	MUI			✓				✓				✓				✓	
9.	MCI		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓
10.	Muhammadiyah			✓				✓				✓				✓	
11.	Oxfam										✓	✓	✓				
12.	PMI		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓
13.	Rainforest Alliance											✓	✓				
14.	RARE Indonesia	✓	✓	✓	✓												
15.	SNV Indonesia						✓	✓	✓			✓			✓	✓	✓
16.	WVI											✓					
17.	WWF	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓			✓
18.	Yayasan Bintari	✓	✓	✓	✓		✓	✓			✓	✓	✓		✓	✓	✓
19.	Yayasan KARINA				✓				✓				✓				✓
20.	YKAN				✓				✓				✓				✓
21.	Yayasan Kota Kita			✓	✓			✓	✓			✓	✓			✓	✓
22.	YLBA	✓	✓		✓												
23.	Yayasan Obor Tani					✓				✓							
24.	UCLG ASPAC			✓	✓				✓	✓		✓	✓			✓	✓

Note:

I : Infrastructure

T : Technology

CB : Capacity Building

GF : Governance & Funding

The distribution of climate resilience activities types and locations carried out by the 24 (twenty-four) NGOs are shown in Figure 18.

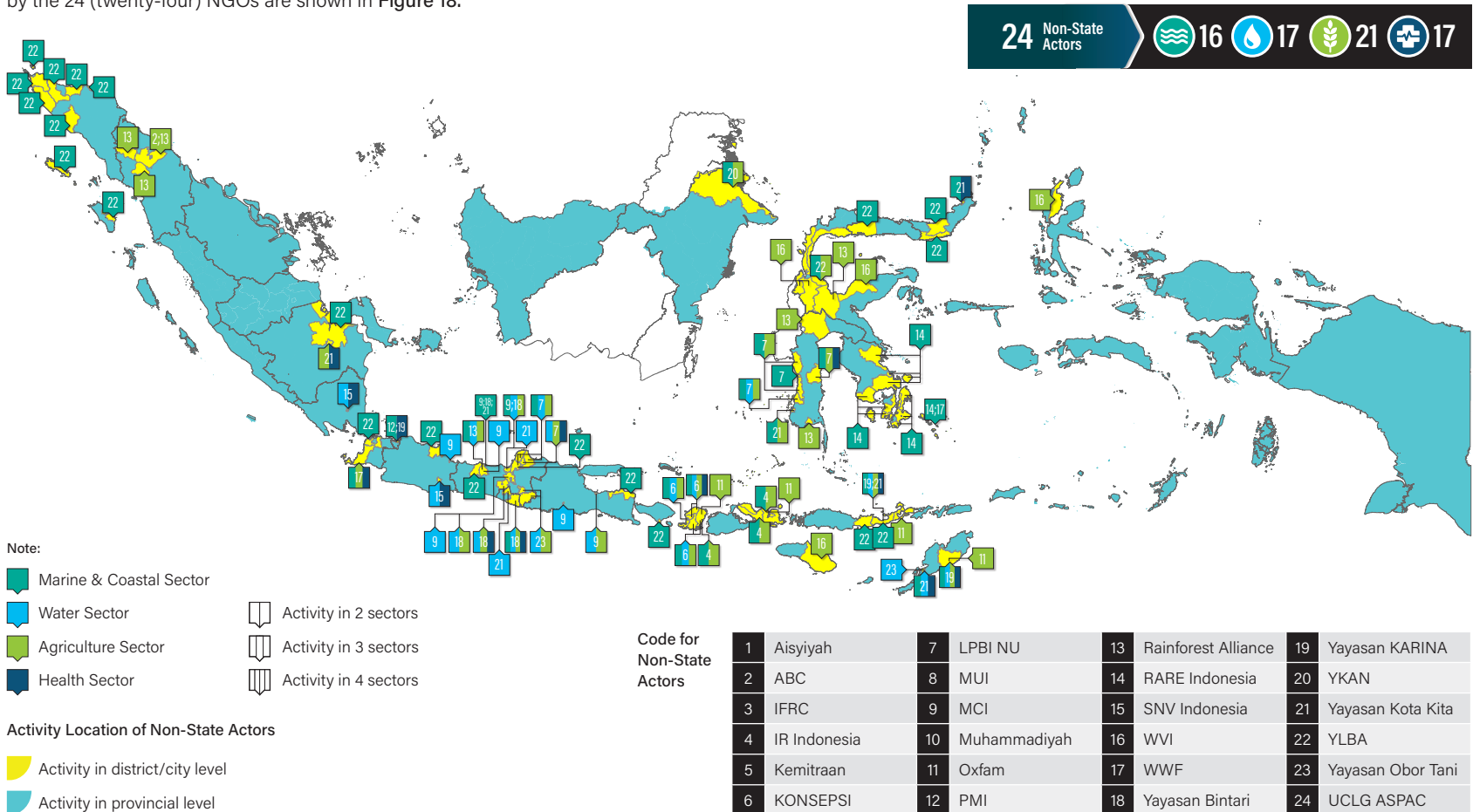


Figure 18. Area of Climate Resilience Intervention by Non-Governmental Institutions

Further information to strengthen collaboration and increase the scope of these Non-Governmental Institutions in climate resilience development can be seen in **Book 3: The Role of Non-State Actors in Climate Resilience**.

CLIMATE RESILIENCE FUNDING

"Climate change is a terrible problem, and it absolutely needs to be solved. It deserves to be a huge priority", – Bill Gates.



Climate resilience development needs to be supported by effective and efficient funding. In this context, the funding refers to a source fund that can be used optimally to support the implementation of all interventions, both primary and supporting activities, in achieving climate resilience targets.

This funding can be obtained from various domestic and foreign sources, through the state budget mechanism and grants from development partners through bilateral, multilateral, private, and philanthropic cooperation (**Figure 19**). Detailed information and explanation on funding mechanism and sources are available in **Book 4: Climate Resilience Funding**.

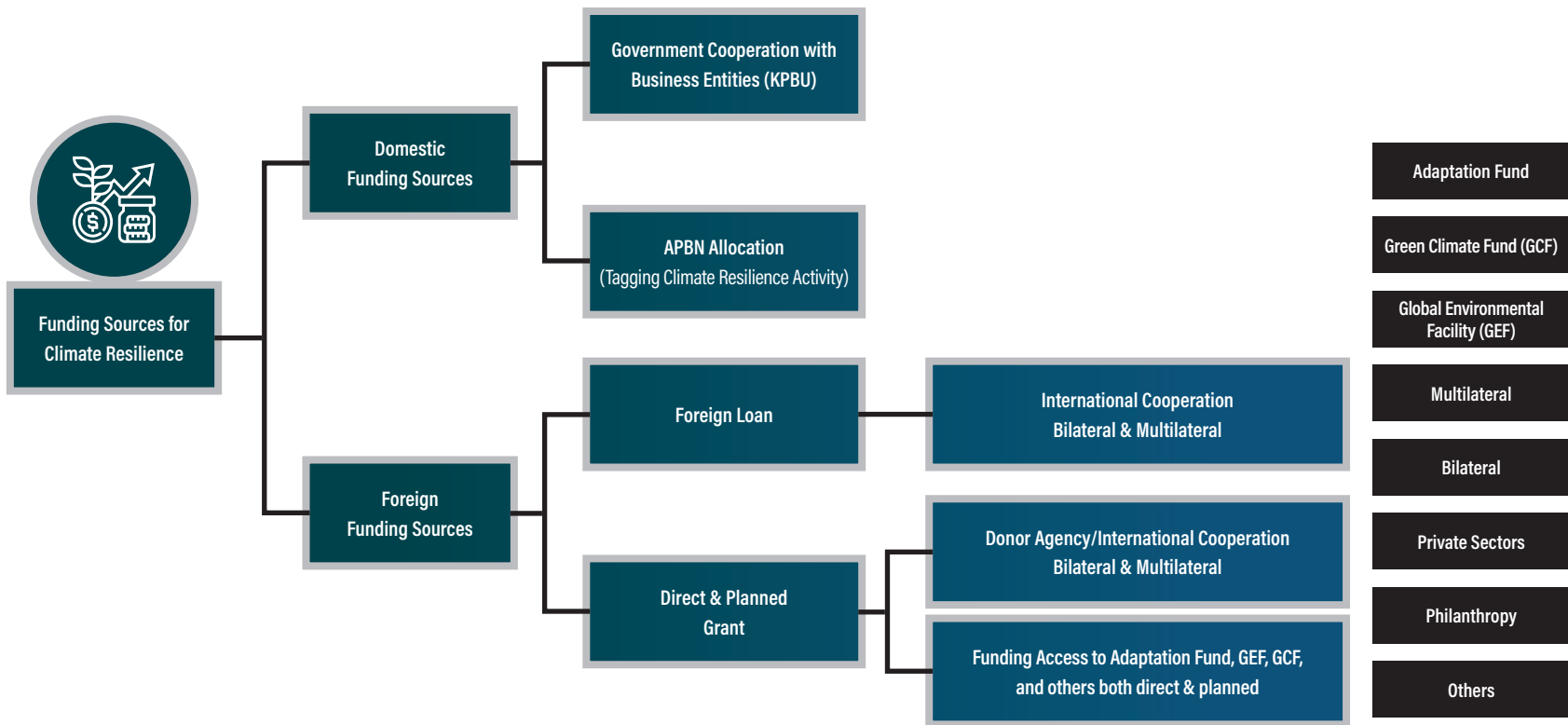


Figure 19. Climate Resilience Funding Resources and Mechanisms

MONITORING, EVALUATION, & REPORTING ON CLIMATE RESILIENCE ACTIONS IN THE NATIONAL DEVELOPMENT PLANNING FRAMEWORK

“Unless strategy evaluation is performed seriously and systematically, and unless strategists are willing to act on the results, energy will be used up defending yesterday”, - Peter Drucker.

In ensuring the achievement of CRD goals and targets, increasing effectiveness and efficiency of resources allocation, also transparency and accountability of development program management, the Ministry of National Development Planning/Bappenas has developed a mechanism for monitoring, evaluating, and reporting the climate resilience activities. The monitoring mechanism follows Law No. 25/2004 on the National Development Planning System and the Government Regulation No. 39/2006 on Procedures for Controlling and Evaluating the Implementation of Development Plan.

Stakeholders coordination and roles, in the process of monitoring, evaluation and reporting on the climate resilience actions, need to be arranged and regulated to avoid overlapping and effectively conducting the process. Stakeholders' participation, in this matter, is divided into (1) parties who implement and monitor the climate resilience activities and (2) parties who evaluate and report on the implementation of climate resilience activities.

Climate Resilience Action Monitoring, Evaluation, and Reporting (MER) process will be implemented in the AKSARA² under the mechanism described in Figure 20. This process is integrated from planning, budgeting, monitoring and evaluation, to reporting, and will involve all line Ministries and Institutions, Regional Government, and Non-Governmental Institutions. However, during this period, the

² Application for Planning and Monitoring Indonesia's Low Carbon Development and Climate Resilience Actions.

AKSARA platform only focused on the programs and activities of line Ministries and National Governmental Institutions. Detailed information and explanation of climate resilience monitoring, evaluation and reporting is available in **Book 5: Monitoring, Evaluation, and Reporting on Climate Resilience Actions in the National Development Planning Framework.**

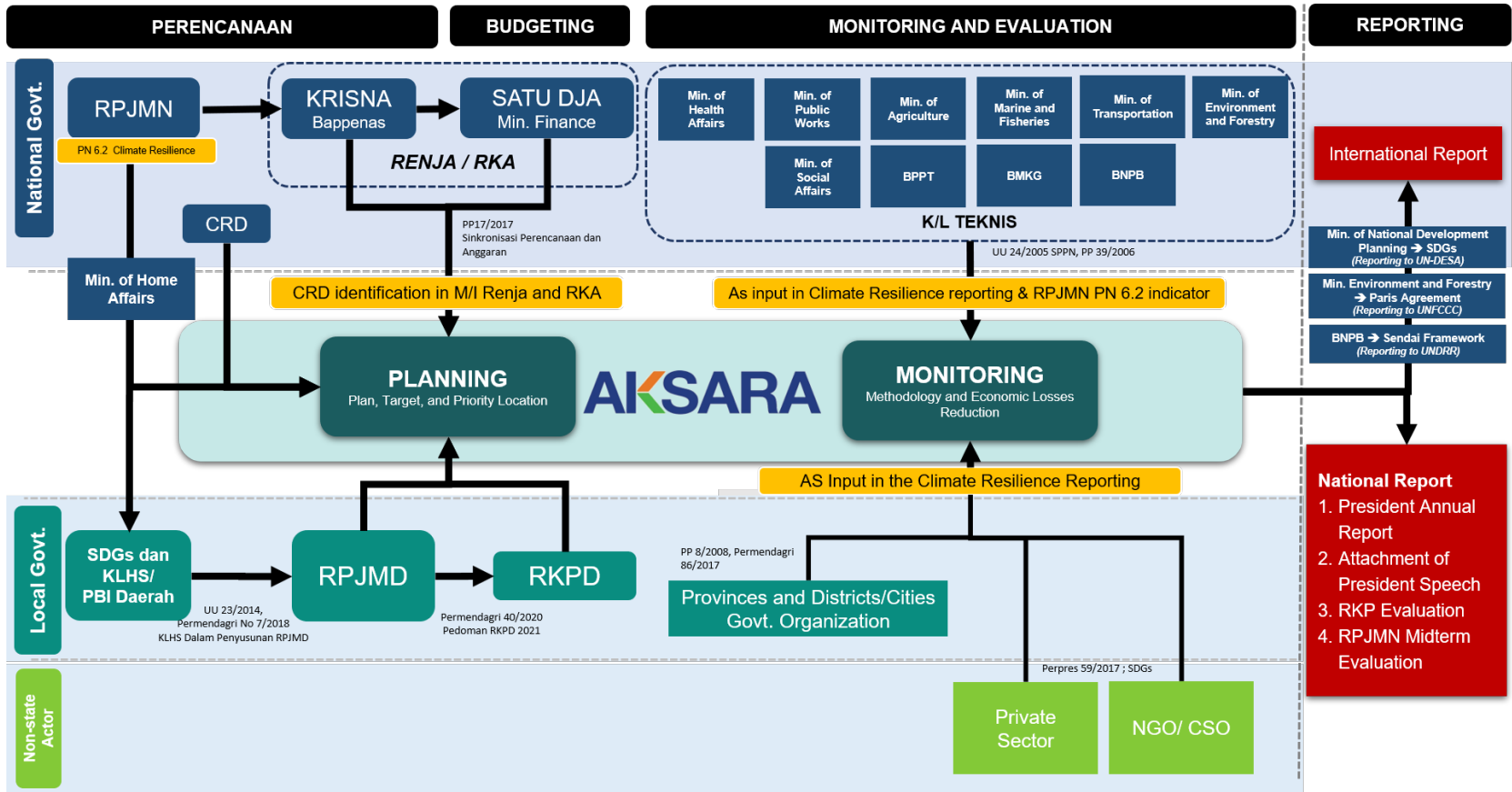


Figure 20. The MER Process of Climate Resilience in AKSARA platform

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Photo by Quang Nguyen Vinh on Pexels

CLOSING

“Climate change is no longer some far-off problem; it is happening here, it is happening now” - Barack Obama.

The Climate Resilience Development Policy (CRD) is the government's commitment to support sustainable development and fulfil the Paris Agreement in tackling the impacts of climate change. The implementation of the CRD Policy requires support from all stakeholders who have the same vision and strategy in the efforts of increasing national climate resilience.

In the National Development Planning framework, as shown in **Figure 21**, CRD policy acts as a reference for the executing ministry and institution in the preparation of their annual work plans, especially for the programs and activities that support the 2020-2024 RPJMN national priority targets in climate resilience. Furthermore, the CRD policy is also an input in the evaluation of the 2020-2024 RPJMN implementation, to strengthen the climate resilience strategy in the next RPJMN and RPJPN.



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EXECUTIVE
SUMMARY

CLIMATE RESILIENCE DEVELOPMENT POLICY 2020-2045



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