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Mainstreaming the Sustainable Development Goals into national planning, budgetary and financing processes: Indonesian experience

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Mainstreaming the Sustainable Development Goals into national planning, budgetary and financing processes: Indonesian experience+

by

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Abstract

Indonesia has made substantial progress in adopting the SDGs into national agendas of planning, budgeting and financing. The Government's commitment was confirmed through the Presidential Decree and the SDGs Roadmap with a concrete mandate to mainstream the Goals into national development frameworks, at both central and subnational levels. Continuous effort in establishing budget tagging system for SDG-related programmes and activities ensures that planning is translated into proper fiscal allocation for prioritized Goals, which also leads to effective public spending. Issues on financing gaps have been addressed through the introduction of innovative financing instruments, such as the issuance of sovereign green sukuk and the establishment of *SDG Indonesia One*, aimed at leveraging private financing. Despite considerable number of achievements recorded, there is room for improvement, particularly by: reconciling interrelated features of the Goals and targets through policy integration across sector and coordination enhancement among actors; improving the supporting system for better implementation of performance-based budgeting; and upscaling innovative sustainable financing instruments organized by the Government and non-State actors.

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Acronyms and Abbreviations

APBN	*Anggaran Pendapatan Belanja Negara* – State Budget
Bappenas	*Badan Perencanaan Pembangunan Nasional* – The Ministry of National Development Planning
BOS	*Bantuan Operasional Sekolah* – School Operational Subsidies
BPK	*Badan Pengawas Keuangan* – Audit Board of Republic Indonesia
BPKP	*Badan Pengawas Keuangan dan Pembangunan* - Indonesia's National Government Internal Auditor
CSR	Corporate Social Responsibility
DAK	*Dana Alokasi Khusus* – Special Allocation Funds
DD	*Dana Desa* – Village Fund
DID	*Dana Insentif Daerah* – Local Incentive Fund
Jampersal	*Jaminan Persalinan* – Universal Childbirth Care Program
JKN	*Jaminan Kesehatan Nasional* –Universal Health Care Program
K/L	*Kementerian/Lembaga* – Ministries/Agencies
Kemenkeu	*Kementerian Keuangan* – Ministry of Finance
KIP	*Kartu Indonesia Pintar* – Indonesia Education Card
KIS	*Kartu Indonesia Sehat* – the Indonesian Health Card
KPBU	*Kerjasama Pemerintah dan Badan Usaha* – Public Private Partnership
KRISNA	*Kolaborasi Perencanaan dan Informasi Kinerja Anggaran* – Indonesia Budget Application
LKPP	*Laporan Keuangan Pemerintah Pusat* - Central Government Financial Statement
OJK	*Otoritas Jasa Keuangan* – Financial Services Authority
Perpres	*Peraturan Presiden* – Presidential Decree
PINA	*Pembiayaan Investasi Non-Anggaran Pemerintah* – Non-State Budget Investment Financing
PKH	*Program Keluarga Harapan* – Indonesian Conditional Cash Transfer Programme
PNBP	*Penerimaan Negara Bukan Pajak* – Non-tax revenue
Puskesmas	*Pusat Kesehatan Masyarakat* – Community Health Center
RAN	*Rencana Aksi Nasional* – National Action Plan
RKP	*Rencana Kerja Pemerintah* – Government Work Plan
RPJMD	*Rencana Pembangunan Jangka Menengah Daerah* – Regional Medium-Term Development Plan
RPJMN	*Rencana Pembangunan Jangka Menengah Nasional* – National Medium-Term Development Plan
RPJPN	*Rencana Pembangunan Jangka Panjang Nasional* – National Long-Term Development Plan
SPM/MSS	*Standar Pelayanan Minimum* – Minimum Service Standards
SF	Sustainable Finance
TAKE	*Transfer Anggaran Kabupaten Berbasis Ekologi* – Ecological Fiscal Transfer of District

TAPE	*Transfer Anggaran Provinsi Berbasis Ekologi* – Ecological Fiscal Transfer of Province
TKD	*Tim Koordinasi Daerah* – Regional Coordination Team
UNDP	United Nations Development Programme
WHO	World Health Organization

Executive summary

Indonesia has committed to mainstream the Sustainable Development Goals (SDGs) into the national context *inter alia* by establishing the Presidential Decree, the SDGs Roadmap, and the National Action Plan on SDGs. The government has also integrated 118 of the 169 global SDG targets into the National Medium-Term Development Plan (RPJMN). The baselines and targets are set with measurable indicators, allowing the government to monitor progress. However, remaining challenges include measurement of certain indicators, insufficient coordination among government agencies, and limited adoption at the subnational level due to local priorities and political cycles.

For implementation of SDG related programmes, the government has identified the required funds and their sources, namely, state budget and non-state budget. First, as long as SDG programmes are included in the RPJMN, they will be prioritized in the national budget. However, despite ongoing efforts, there is a lack of a comprehensive budget-tagging mechanism built to trace SDG related financing. Second, the government has engaged stakeholders including businesses and civil society so that initiatives such as *zakat*, philanthropy, and crowdfunding can contribute to SDG progress. Additionally, the government plans to establish the SDGs Finance Hub, to coordinate financing from the banking sectors, financial markets and foreign investors and to engage the private sector though Public-Private Partnership (KBPU) and Non-state Budget Investment (PINA). However, with monitoring and evaluation voluntary and a reporting platform still under development, there is a risk that non-state budget programmes will not be implemented as planned.

In light of progress and challenges in mainstreaming the SDGs, the following recommendations are made. First, in the context of *performance-based budgeting*, the government needs to establish measurable indicators, optimize budget tagging system, and spend better on programmes with quantifiable impact. Second, with proper understanding of interlinkage among Goals and targets, policies should *focus on the core targets* and *coordination mechanism among actors* that can effectively enhance the achievement of other targets. Third, given the financing gap, the government can initiate and *scale up innovative instruments* to provide new channels for the non-state actors to mobilize their funds towards sustainable investments.

I. Mainstreaming SDGs into national development planning and policy

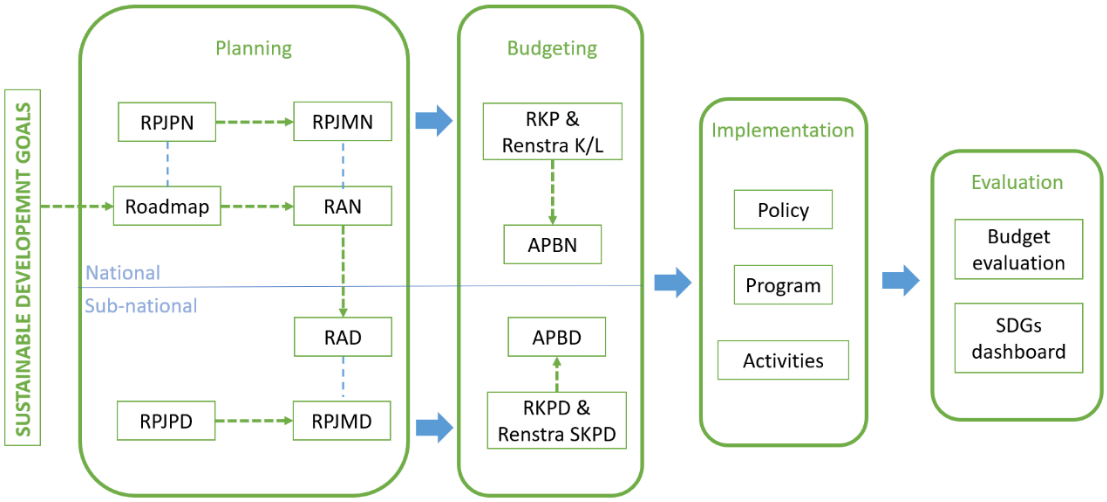
The Sustainable Development Goals (SDGs) were adopted by the United Nations General Assembly in 2015 with the intent of being achieved by 2030. The SDGs are a collection of 17 global goals which are interconnected to one another and address challenges such as poverty, inequality, climate change, environmental degradation, peace and justice. The SDGs replace the Millennium Development Goals (MDGs), which were implemented from 2000 to 2015 with a focus on tackling poverty.

Through the Presidential Decree (Perpres) No. 59/2017, Indonesia has committed to mainstream the SDGs into national context. The 17 Goals were translated into national development agendas, which in turn are based on the four pillars of the National Long-term Development Plan (RPJPN), 2005-2025: steady law and political institution, increasing wealth and prosperity, more advanced and sustainable economic structure, and biodiversity preservation. The Presidential Decree mandated the release of the SDGs Roadmap, to serve as the general policy guideline for future medium-term development plans (RPJMN), national action plans (RANs) and subnational action plans (RADs). In essence, all three documents are serving the same purpose of getting SDGs mainstreamed into all development plans.

The SDGs Roadmap comprises of milestones of SDGs implementation from 2016 to 2030 (Bappenas, 2017b). It was developed to define issues, projections, and forward-looking policies for the main SDGs indicators for Indonesia. Taking into account all stakeholders, the SDGs Roadmap provides the needed measures to achieve the Goals, comparing 'business as usual' scenarios with the policy intervention scenarios along the way. The scenarios are then fit into the targets defined in the National Medium-term Development Plan (RPJMN), ensuring the policy suggested to be those meant to achieve the Goals. 94 of 169 global targets were initially integrated into the 2015-2019 RPJMN with adjustment for national priorities (see appendix 1).

As the government becomes more prepared, the 2020-2024 RPJMN adopts 118 global targets. The mainstreamed targets are used as guidance by ministries/agencies and local governments in planning, implementing, monitoring, and evaluating. The RPJMN also serves as a reference for ministries/agencies (K/L) in preparing the Strategic Plan (Renstra K/L) and for sub-national government in preparing the Regional Medium-Term Development Plan (RPJMD). Mainstreaming the achievement of the SDGs in the Government Work Plan (RKP/RKPD) is carried out in the form of formulated policies, programmes, activities, measurable indicators and sources of financing, mainly from the government budget (APBN/APBD).

Figure 1. Map of the alignment between SDGs and national development



Aligned with RPJMN, the government formulates National Action Plan (RAN) for SDGs through Bappenas's Ministerial Decree No. 7 of 2018. It is a planning document of five-year programmes and activities as well as the output designed specifically for SDGs achievement. In the document, the government established national indicators to measure the targets. There are total 319 indicators of which 76 are set slightly differently from the global indicators due to data availability. They also include 69 unique indicators added to accommodate local context, and other indicators that are still in the development process.

Baselines and targets, using the indicators, are presented with a timeline following the national development planning scheme (see example in appendix 2). The relevant agencies, responsible to achieve the targets, are included in the document. The actors are not only government, but also the private sector. These details are important for monitoring and evaluation phase. Similarly, the sub-national government (province and district) also formulates Sub-national Action Plan (RAD) for SDGs which aligns with Subnational Medium-Term Development Plan (RPJMD).

In line with SDGs RAN, the government also has other sectoral RAN documents which may support SDG achievement, as presented in table 1. For instance, the RAN on Greenhouse Gas Emission Reduction and the RAN on Climate Change Adaptation are relevant for Goal 13; the Indonesia Biodiversity Strategy and Action Plan is relevant for Goals 14 and 15; and the RAN on Prevention and Control of Disease is relevant for Goal 3. Although most of these RAN were issued by Bappenas, they may or may not have the same format. For instance, some specify the actions at the programme level while others specify at the activity level; and yet some do not relate the actions to government's planning structure. Thus, it is difficult to make comparisons between these RANs and the RAN SDGs. Moreover, the implementation period is set differently among documents which makes the targets are incomparable.

Table 1. List of National Action Plans and their relevance to SDGs

National Action Plan (RAN)	Period	Relevant SDGs
Greenhouse Gas Emission Reduction (GRK)	2010-2020	13
Climate Change Adaptation (API)	2015-2019, 2020-2025	13
Indonesia Biodiversity Strategy and Action Plan (IBSAP)	2015-2020	14, 15
Prevention and Control of Disease (P3TM)	2015-2019	3
People with Disabilities	2014-2019	8, 11
Food and Nutrition	2017-2019	1, 2, 3, 4

A simple consistency check can be done by looking at the indicators. While some of these RANs were adopted before the SDGs and therefore have different indicators, others use similar indicator. For instance, in the case of Goal 14, both RAN SDGs and IBSAP use "size of water conservation area." It is important to note that in some cases, RAN SDGs focus on administrative action while sectoral RANs propose concrete field action. For instance, on climate change mitigation, RAN SDGs targets "disaster risk strategy document" and "greenhouse gas emission report" while RAN GRK and RAN API contain a wide range of actions such as forest and critical land rehabilitation, forest reclamation, spatial control, peatland rehabilitation, etc. Full investigation on their consistency can be conducted in further study.

The policies for SDGs are developed in the context of RPJPN and RPJMN, making it easier for policymakers and other stakeholders to understand the strategies needed in the shorter and longer term to achieve the Goals. For example, to achieve Goal 7 (affordable and clean energy), the SDGs Roadmap defines strategies to expand the coverage of electricity. For 2020-2024, the Roadmap suggests increase of private sector participation, acceleration and expansion of power plant development, and adjustment of tariffs to economic value. This is followed by the 2025-2030 policy direction of utilizing renewable energy and boosting economic growth of secluded areas through evenly distributed electricity. The government is currently preparing the new regulation compromising agendas to support the development of renewable energy in Indonesia. The private sector is included in the preparation of the regulation as they will be part of the agendas. They are invited in a meeting where they can voice their aspiration. This implies that the government starts to involve stakeholders in the planning process.

For the implementation of SDGs, the President leads the National Coordination Team which involves relevant ministers/key persons. The Minister of National Development Planning (Bappenas) is mandated as the Implementation Coordinator, supported by the Implementation Team, Secretariat, Experts Team, and four Working Groups (Social Development, Economic Development, Environmental Development, and Justice and Governance). The membership of the Implementation Team and the Working Groups are inclusive, including government representatives as well as non-state actors, such as civil society organizations, media, business and philanthropic organizations and academia.

For target evaluation purpose, Bappenas established the SDGs Dashboard.[1] The data are gathered from three group of sources. First, survey-based sources are collected by the Central Bureau of Statistics (BPS); for instance, the National Socioeconomic Survey (Susenas) and the Labor Force Survey (Sakernas). Second, sectoral-based sources are collected by ministries and agencies. The other sources are periodical report issued such as Sustainability Report, municipal statistics report, AKSARA and SRN.[2] So far, the first sources have been fully utilized while the two latter are still in integration progress. The data are visualized in the dashboard in a way that allows the authorities and even the public to trace progress. However, some baselines remain unfilled because some of the indicators are still unavailable or technically hard to obtain.

A. National level planning

When the international community adopted the SDGs in 2015, Indonesia was already implementing the 2005-2025 RPJPN and just started implementing the 2015-2019 RPJMN. Fortunately, several SDGs were represented in the existing RPJPN – example being how RPJPN envisions a sustainable and fair use of natural resources, in line with Goal 12. However, there are visions of the RPJPN that are not directly related to the SDGs; for instance, the vision for political development and national defence. Being a parallel to the RPJPN with alignment to the President's vision (Nawacita), the 2015-2019 RPJMN experienced the same issue as the RPJPN; for instance, on the goals to provide national safety and competitiveness for Indonesians.

Examination of the RPJPN, RPJMN, Nawacita and the SDGs reveals that these agendas share similar goals and targets at certain level. However, to further align between current development planning and the SDGs, Indonesia released the Presidential Decree No. 59/2017. The preparation for the decree took two years mainly because: (i) SDGs are more complex than MDGs and the transition requires major adjustment; and (ii) unlike MDGs, SDG implementation involves many stakeholders and thus they were invited to take part in the planning process. Despite the late release, the document defines how the 2015-2019 development planning had all the goals running (see appendix 2), indicating that Indonesia has been on the right track towards achieving the SDGs since the beginning. This is primarily due to Indonesian involvement in the international discussion on the Post-2015 Agenda in which President Yudhoyono was the co-chair of high-level panel of eminent persons.

The new RPJMN for 2020-2024 provided an opportunity to have the whole planning aligned with the SDGs. The seven development agendas of 2020-2024 RPJMN were conceptualized by

[1] The dashboard is accessible at http://sdgs.bappenas.go.id/dashboard.

[2] AKSARA (updated from previous platform PEP - monitoring, evaluation, and reporting) is an integrated platform under Bappenas for planning and monitoring the effort and achievement of low carbon development in Indonesia. SRN (*sistem registri nasional*) is a dashboard developed by MOEF on the activities and emission reduction of both public and private institutions.

keeping the SDGs in mind (table 2). Furthermore, Indonesia uses SDGs-driven indicators to measure the achievement of the targets. For example, in achieving 2020-2024 target to improve the maritime and oceanic management, the RPJMN uses the same indicator used for Goal 14 of the SDGs. Another example, in achieving the strengthening of economic growth and competitiveness, the RPJMN uses the same indicator used for Goal 8.

Table 2. 2020-2024 RPJMN Development Agendas and the relevant SDGs

No.	Development Agenda	Relevant SDGs
1.	To improve in the quality and competitiveness of the human resources.	1, 2, 3, 4, 5
2.	To build the nation's culture and identity.	4
3.	To strengthen economic resilience for a better economic growth.	8, 17
4.	To reduce inequality through regional development.	1, 10
5.	To strengthen the infrastructure to support economic empowerment and basic services.	5, 7, 9
6.	To strengthen the stability of law and defence (*polhukhankam*) and transform public services.	16
7.	To rebuild the living environment and increase the resilience towards disaster and climate change.	11, 12, 13, 14, 15

Indonesia has been handling the integration of SDGs on national plan quite well. The Presidential Decree No. 59/2017 has defined the relevant agencies to achieve each existing national and global target. The quinquennial RAN also provides clear actions, success measure, budget source and, more importantly, the implementing agencies existing at the national level for the actions – although not all programmes have their sources of funding and implementing agencies sorted (appendix 4). Feedback coming from ministries and agencies also cited how implementation of development plans towards SDGs are quite well-planned with supervision of Bappenas.

The next challenge for the implementation of development plans towards SDGs at the national level is then the lack of instituted mechanism to ensure cooperation among the state and non-state actors as well as among the ministries and agencies at the national level. Although the RPJMN and the RAN have instituted the implementing agencies, they did not institute mechanisms to ensure cooperation between the actors. The multi-stakeholder integration as outlined in RAN still has no policy mechanism that governs cross-sectoral management among implementing agencies. The absence of such a mechanism might lead to a lack of collaboration between decision-makers to resolve the cross-cutting issues at the operational level.

B. Sub-national level planning

Having the SDGs mainstreamed into subnational level planning is equally important. With a substantial degree of decentralization in development and fiscal planning, many public services relevant in achieving the SDGs rely on the actions of the subnational government. For instance, based on the 2020 APBN, the national government transfers 60 per cent of the total education budget to the subnational government, and 47 per cent of the total infrastructure budget. The development of fiscal transfer from the central government is going further, not limited to district level but until the village level.

Each province has its own development plan (RPJMD) but it is formulated at the latest six months after a new governor is elected. Since the SDGs has only been formally integrated into Indonesia's development plans with the Presidential Decree No. 59/2017, many provinces which have not started their new governmental cycle are yet to plan an SDGs-focused RPJMD. With the RPJMD still not aligned with the SDGs, it is hard for local governments to plan the action plan (RAD) for the SDGs.

Although not all provinces and cities/regencies have planned an SDGs focused RPJMD along with the RAD, some have. In doing so, each region applies inclusive, participatory and transparency principles involving all stakeholders. Each region also receives support from the regional coordination team (TKD) in the form of guidelines, metadata, and direct training and assistance to ensure the SDGs are well implemented in the regional planning (Bappenas, 2017a). As a result, per mid-2019, 19 out of 34 provinces in Indonesia have released their RAD, including South Kalimantan, Gorontalo, and South Sulawesi. Other provinces and cities/regencies experiencing delay are also working in releasing their RAD by undergoing workshops and training from the national government.

Other than formulating and implementing RAD, some regions also work on their own initiatives, helping Indonesia to achieve the SDGs along the way. For instance, Takalar Regency in South Sulawesi is tackling the issue of high maternal mortality rate in line with Goals 3 and 5. In Takalar, the local government started running *Kemitraan Bidan dan Dukun* (KBD) programme in 2007. The programme calls for traditional midwife or *dukun beranak* to help pregnant women in the postpartum period rather than during birth. The programme also calls for modern trained midwife to help during birth. The programme has succeeded in reducing maternal mortality rate by 2012. The programme is an illustration of how local initiatives created to suit local needs are also needed to help achieve the SDGs.

However, a challenge comes from the level of autonomy of the regional government which may result in the lack of policy coherence between the one implemented at the national level to the one at the sub-national level. Although the level of autonomy of the regional government in regards to the national government is defined by Law No. 23/2014, at the moment, there is no mechanism to ensure the vertical coherence of the policy guaranteeing the efforts to achieve the SDGs. Furthermore, there is a challenge in planning and budgeting capacity at the sub-national level in which regional government would not have the same instruments as the national government and may experience more obstacles in receiving financing for SDGs related projects.

C. From planning to policies

For SDGs implementation, it is important to understand how planning translates to policies. This section briefly examines Indonesia's progress and remaining challenges for selected SDGs and cross-cutting thematic areas.

Access to quality social services

In addressing unequal living standards across regions, Indonesia has conducted some programmes to enhance health and education provision. In the health sector, there are geographical disparities in terms of access between Indonesian regions, especially across islands. Papua is considered to have the lowest percentage of subdistricts with a health centre, recording the national minimum of 64 per cent, compared to four provinces (West Nusa Tenggara, DKI Jakarta, Bali, and DI Yogyakarta) with 100 per cent, meaning that every subdistrict has at least one health centre. Moreover, many health centres in Indonesia have poor quality service provision. According to WHO Health System Review in 2017, the beds to population ratio for hospitals and Puskesmas in Indonesia remains below WHO standards and below regional peers.

Policy response includes the provision of health insurance, public health facilities improvement (especially maternal and child health facilities), and conditional cash transfers. A deeper discussion of health insurance provision should be interlinked with the Universal Health Coverage (UHC) implementation in Indonesia. On a scale of 0-100, Indonesia recorded 39 in the UHC Index, much lower than Singapore and Malaysia, which reached 95 and 65, respectively (Barber and others, 2017). In response, the National Social Security System (SJSN) now covers the National Health Insurance (JKN) and the Indonesian Health Card (KIS). To reduce maternal and child mortality rates, the government established Universal Childbirth Care Programme (Jampersal) integrated with the SJSN and Minimum Service Standards (MSS) for medical standardization of birth delivery facilities. To increase public health utilization, the government conducted Conditional Cash Transfers through Programme Keluarga Harapan (PKH) or Family Hope Programme targeting poor and vulnerable families, the programme aimed to improve maternal and child health.

In the education sector, there is limited access to schools and uneven distribution of qualified teachers in rural areas. Indonesia is trying to tackle the issues of fulfilling access to education, improving the quality of teaching and learning, vocational education and skills for improved employment, and increasing the one-year pre-primary education. In the past years, there have been slight improvement in enrolment rate, although children of poorer families seem to participate significantly less in higher education compared to children of richer families. The national government continues to transfer grants to schools through School Operational Assistance (BOS), to students through Smart Indonesia Card (KIP), and to local governments to build schools through the Special Allocation Fund (DAK). In addition, the Indonesian government tried to improve the quality of learning by mandating teachers to take certifications, establishing movements to get teachers together, and more.

Despite such efforts, according to triennial OECD report on PISA score, the reading performance of Indonesian students declined from 392 (2015) to 371 (2017), levels which are far lower than the OECD global average of 487. Meanwhile, in 2017, the Indonesian students scored 379 and 396 in mathematics and science, respectively. While this is an improvement from 386 and 403 in in 2015, both scores remain below the OECD average of 489. In response, the new Minister of Education has established new programmes to enhance Indonesian student competency on learning and linking to the labor market through the innovative policy named *Merdeka Belajar* (freedom of learning). The main objective is to give education institutions greater independence and focus on improving the learning process, instead of administrative things such as the complex process of existing accreditation system. The policy encourages innovation of learning method, giving opportunity to students at all levels to experiencing real-world problems and solutions.

Balancing economic development with environmental and climate imperatives

Indonesia's recent growth has been focused on unsustainable sectors, especially mining, fossil-based energy, agriculture, and forestry. Economic transformation has to be balanced by environment-based policies. Indonesia has its own challenges to foster environment-friendly economic growth. For instance, closing coal-fired power plants is an ideal move to save environment, but difficult due to long-term contract and increasing electricity demand. Fortunately, at least in 2018 the government stopped constructing new coal-based power plant, and policies were focused on developing a sustainable power plan. One of the concrete examples is that for Goal 13, RAN SDGs targets a reduction of greenhouse gas emissions in Nestle Panjang power plant, Lampung, through main material replacement for boiler engine fuel from coal to pulp coffee, shell oil palm and wood pellets.

Moreover, the government of Indonesia has set out to move towards green economy through a new paradigm, the Low Carbon Development Initiative (LCDI), launched in 2017. It proposed development pathway where progress is not only measured by GDP growth, but also environmental sustainability, resource efficiency, and social equity. It calls for some intermediate actions that can deliver better growth, such as advancing a transition to renewable sources of energy and away from coal, full enforcement of forest, palm oil, mining, and peatland moratoria, and increasing land productivity by 4 per cent per year.

Indonesia has been committed to realizing sustainable environmental economic growth through new programmes related to energy, sustainable landscape, and special economic zone. The planning of energy sector covers energy security, energy infrastructure expansion, increase on the use of renewable energy, and decrease on energy subsidies. The National Energy Policy aims to increase the draw of all energy from renewable resources, from 16 per cent (2019) to 23 per cent (2025). The planning of sustainable landscape is stated in RPJMN to reach food, water, and energy security by preserving the ecosystem using a ‘landscape approach’. Special economic zones are built based on the economic potential of natural capital and ecosystem services, supporting the government and business innovation in traditional economic growth targets such as job creation and commodity exports.

On Goal 13, the national government tried to standardized the strategy to reduce the risk of national disasters and have detailed policies in the field of forestry, agriculture, energy, industry, transportation and waste management as the fields are impactful towards the climate. Some interesting efforts to point out are the Indonesia Climate Change Trust Fund as a way to reduce greenhouse gas emissions, and implementation of the Disaster Risk Reduction Strategy in line with the Sendai Framework.

II. Integrating SDGs into budget and financing process

For SDG implementation, it is important that national planning and policy priorities are translated into the budget and financing processes in a concrete and meaningful manner. The government has identified the majority of the required fund for implementing SDGs in Indonesia. In the RAN SDGs, the budget is specified at the activity level, along with the name of the implementor as well as the source of fund. Some information that has still not been figure out are left empty or marked (appendix 4). There are two categories of sources: state budget and non-state budget (table 3).

Table 3. RAN programmes and sources of funding

No.	Programme type	Sources of funding
1.	Government Programmes (elaborated in Matrix I)	APBN, APBD
2.	Non-government Programmes (elaborated in Matrix II)	Socio-religious funds, Corporate Social Responsibility, Non-State Budget Investment Financing (PINA), Public-Private Partnerships (KPBU), financing through capital market and money market, sustainable finance through financial institutions, debt swap to SDGs mechanism, impact investing mechanism, crowd financing, and innovative funding of blended finance.

To ensure conformity between planning and budgeting, the government issued Government Regulation No. 17 of 2017 on **Synchronization of National Development Planning and Budgeting**. The regulation proposes "money follows programme" paradigm in which synchronization is implemented in three frameworks. Firstly, the *financing framework* promotes an integration of financing sources from central budget, regional budget and non-state funding. Secondly, the *regulation framework* promotes synergy among agencies and stakeholders to set regulations that facilitate the achievement of national development targets. Lastly, the *public service and investment framework* promotes coordination between government and private sector. In line with these frameworks, the government recognizes the need for financing strategies in achieving the SDGs. As proposed in the SDGs Roadmap, there are four key objectives to be achieved: strengthening the quality of budget, deepening resource mobilization, scaling up private sector investment, and establishing SDGs financing hub.

Consequently, Bappenas plans to establish SDGs financing hub with a mandate to channel innovative funding sources to achieve the SDGs. It mainly focuses to reach and **coordinate financing sources from the national budget (APBN), business, and non-profit actors**. The business sources include banking sectors, financial and stock markets, FDI and domestic investors and CSR, while the non-profit actors include zakat, philanthropy, and crowdfunding. It also calls upon business sector to cooperate with the government though Public-Private Partnership (KBPU) and Non-state Budget Investment (PINA).

Private participation is important. According to Bappenas (2018), the Government of Indonesia realizes the importance of private participation in accelerating infrastructure development in Indonesia, especially considering the limitation of government in funding the infrastructure needs. Based on an estimation of infrastructure funding needs in 2015-2019, the government is only able to fulfil 41 per cent of total infrastructure funding needs, which is about IDR 4,796 trillion in total. Approximately 37 per cent of the funding gap is expected to be fulfilled through cooperation with private sector. The private participation, however, is expected not only to fill the funding gap but also to share knowledge and experience in the development, operation, and management of qualified infrastructure services. To that end, the Government of Indonesia has committed to continuously improve and innovate in increasing investment attractiveness and to assure that the involvement of private sector is not hampered.

A. State budget

As Indonesia's development planning has been aligned to help achieve the SDGs, the state budget, which comprises of APBN (national) and APBD (subnational), has also been designed to fund programmes and activities that would help achieve the SDGs (see example in appendix 4). To emphasize the linkage, the government has listed **programmes and activities in RAN** –created in regards to the RPJMN – **which requires funding from the APBN**. For instance, in Matrix I of RAN which elaborates the programmes and activities run by the government for SDGs (Matrix II of RAN being the other part which elaborates programmes and activities run by non-government), a programme to develop housing infrastructure as a part of Goal 6 requires IDR124,885,000,000 from the APBN.

It is important to note that RAN was created during an on-going administrative period and thus state activities and budget in RAN follows the 2015-2019 RPJMN. This implies that no new activity is added and budgeted for specific SDG targets. However, having learned from the previous period, the government has prepared the 2020-2024 RPJMN with more adjustment to support SDGs. The SDGs secretariat under the Bappenas is currently working on a document titled "SDGs in the 2020-2024 RPJMN" which will be published in late 2020.

The programme mentioned above along with the other programmes in Matrix I of RAN are not merely programmes with direct linkage to the SDGs. According to BPK's investigation, the APBN-funded programmes listed in RAN are the ones prioritized in the RPJMN, meaning that those programmes would be prioritized even in conditions when state revenue is lower that targeted (BPK, 2018). With state budget designed to fit SDGs-based national planning, the next step would be to ensure that the budget is well allocated for SDGs-prioritized programmes. In other words, there needs to be a system to trace the implementation, monitoring, and evaluation process of the SDGs focused programmes funded by the state budget. To do so, the government implements **budget tagging** programmes. These initiatives exist to help track the budget with impact towards overall efficiency and climate control, yet none exist to specifically track which budget point contribute to certain goal of the SDGs. Nonetheless, the existing budget tagging systems are helpful in tracking overall budget effectiveness and contribution.

KRISNA is a system released by Bappenas in 2018 in association with the Ministry of Finance and the Ministry of Administrative and Bureaucratic Reform to integrate data on planning and budgeting at the national and sub-national level. This system is a development from Ministry of Finance's **ADIK** which was released first in 2016 for budget tagging. The tagging is conducted by the respective ministries at the output level, at the ministry level detailed workplan and budget (RKA-K/L) stage.[3] The system enables thematic tagging from relevant ministries relating to education, health, gender responsive budgeting, infrastructure, South-South and Triangular Cooperation, climate change adaptation, and climate change mitigation. KRISNA also has a tagging system towards President Jokowi's 2014-2019 Nawacita. The tagging classification is evolving following the priorities of the government, which results in a risk of no assurance of systematic and parallel classification of SDGs framework. Up to 2018, SDGs programmes were not explicitly mentioned in the state budget. The absence of a SDG-consistent tagging mechanism means that there is no check-and-balance between five-year SDGs funding specified in the SDGs

[3] The budget nomenclature level from the highest (general) to the lowest (detail): programme, activity, output, component. There is no detail SOP who should do the tagging in each ministry. The MoF conduct a review of the tagging result by the ministries. The new improvement made when the tagging is conducted at the Renja K/L (planning) stage, the previous stage before RKA-K/L.

RAN and the state budget. SDGs tagging should be enabled in KRISNA, but issues remain as KRISNA only enables tagging at the output level while SDGs also require tagging at the process level.

The budget tagging is a good initiative to **help assess budget effectiveness**, although it is currently not directly related to evaluate how well the budget has been utilized to help achieve the SDGs. Nonetheless, as the SDGs are incorporated in RPJMN, its implementation shall refer to *Government Regulation No. 39 of 2006 on Control and Evaluation Procedures for Development Plan Implementation*, which was established to monitor, evaluate, and report programmes implementation by state actors. Furthermore, reporting on budget utilization for SDGs programmes funded by the State Budget shall refer to *Law No. 17 of 2003 on State Finances* and *Law No. 1 of 2004 on State Treasury* where every ministry/agency is a reporting entity that is required not only to carry out accounting processes but also submitting accountability report. Each is mandated to report financial statements, which are consolidated in the Central Government Financial Statement (LKPP). The information above shows that there are mechanisms to assess the progress of national programmes which incorporate SDGs. However, the lack of coherence in the tagging/labelling system causes difficulties in monitoring and evaluating the consistency of SDGs fund allocation across RPJMN, SDGs RAN, and the State Budget. Until now there is no formal publication made by the government showing the tagging result. One exception is the forthcoming publication of the Ministry of Finance on public climate finance, which includes the result of the budget tagging for the climate mitigation and adaptation from 2016-2018. Appendices 5a and 5b shows the result of the climate budget tagging.

At the local government level, the initiation of tagging the budget has been made voluntarily by several provinces and districts. The local government has its own budget system and classification that are different with central government. Interestingly, the tagging guidelines developed by the Ministry of Finance in collaboration with the WWF[4] for local governments has different criteria from what has been done by the central government. Local budget tagging focuses more on the green economy priorities, that include six clusters: (1) conservation of natural resources; (2) agriculture; (3) energy and industry; (4) transportation and spatial planning; (5) health and education; and (6) disaster management. The local governments are encouraged to linking the tagging with the performance indicator of emission reduction.

Despite of the lack of coherence in tagging/labelling of SDGs on government budget, prior to the SDGs commitment, Indonesia has established constitution to secure the budget allocation for education and health sector in central and local government budgets (APBN and APBD). According to Law on Health No. 36 of 2009, it is stated that 5 per cent of government budgets must be allocated for the health sector. Meanwhile, according to Law on Education No. 20/2003, funding for education is earmarked on 20 per cent of central and local government budgets.[5] Then, for fiscal decentralization, Law on Central and Local Fiscal Balance No. 33 of 2004 mandates that 26 per cent of national domestic revenue must be allocated as General Allocation Transfer Fund (DAU) in order to equalize the fiscal capacities across regions. These efforts were in line with the government goal to reduce poverty and inequalities across regions, since these two issues remain as major concerns of development in Indonesia post 1998 crisis. Because of these measures, SDGs related-funding in the field of health, education, and some others can be guaranteed, although the monitoring and evaluation process with budget tagging can be improved.

[4] Source: https://d2d2tb15kqhejt.cloudfront.net/downloads/buku_pedoman_penandaan_anggaran_hijau.pdf.
[5] This includes teachers' salary, which account for 60 per cent of the total budget allocated for education in 2019.

Despite low utilization of the tagging result in the budget planning particularly to support the *spending better* objective, the budget tagging is fully recognized in the issuance of **sovereign green sukuk** (green Islamic bond) launched in 2018. Green Sukuk is a sharia-compliant bond, where all of the proceeds go exclusively to finance or re-finance green projects that contribute to mitigation and adaptation of climate change as well as preservation of biodiversity. This issuance amounted to $1.25 billion in 2018, is for 5 years with 3.75 per cent coupon, and places Indonesia as the first sovereign green sukuk issuer in the world. The issuance of this bond is guided by the Green Bond and Green Sukuk Framework, reviewed by CICERO (2018), one of the world's leading green bond reviewer. The Government issued retail sukuk at affordable prices to encourage financial inclusion (UNDP, 2018).

Green Sukuk and Green Bonds provide funds for climate and environmental projects which targets are particularly stated on Goal 6 (Clean Water and Sanitation), Goal 7 (Affordable and Clean Energy), Goal 9 (Industry, Innovation and Infrastructure), Goal 11 (Sustainable Cities and Communities, Goal 13 (Climate Action). Green projects had to passed assessment based on certain qualitative and quantitative study on project's environmental impact (see appendix 3). The **green project classification** follows the regulation released by the Financial Service Authority (OJK) through POJK 51/2017. The green classification become the first green taxonomy released by the government body. However, further effort still needed to develop solid green project classification agreed and used nationwide.

B. Non-state budget

As the government alone will not be able to cover the SDG financing needs, it engages and calls upon stakeholders from non-government organizations and civil sources. They were invited to report any activities planned for upcoming years which support the achievement of SDGs. The data were then tabulated in RAN with similar format as in state budget identification.

The non-state budget involves all the funding from non-APBN and non-APBD. The fund includes socio-religious funds, Corporate Social Responsibility (CSR) funds, Non-State Budget Investment Financing (PINA), Public-Private Partnerships (KPBU), financing through capital market and money market, sustainable finance through financial institutions, debt swap to SDGs mechanism, impact investing mechanism, crowd financing, and the innovative funding of blended finance. Such funds are identified and accommodated in the Matrix II of RAN (table 3). The contribution of non-state budget mainly covers the funding for non-governmental activities (see example in appendix 4).

With the size of global Islamic finance assets projected to increase by 72 per cent between 2016 and 2022, Indonesia is now an up and coming force in **Islamic finance**. Indonesian economy is growing and the potential of impact investment, philanthropy and religious giving are increasing. There is a growing interest on how new forms of capital can be channelled to unlock private financing by exploring partnerships with domestic banks on Islamic micro-finance, including revolving funds. Other forms of Islamic finance, including waqf and sukuk can help achieve the SDGs. Specifically, there could be potential alignment between zakat and the SDGs, given their aligned principles on alleviating poverty and hunger and reducing inequality by redistributing wealth.

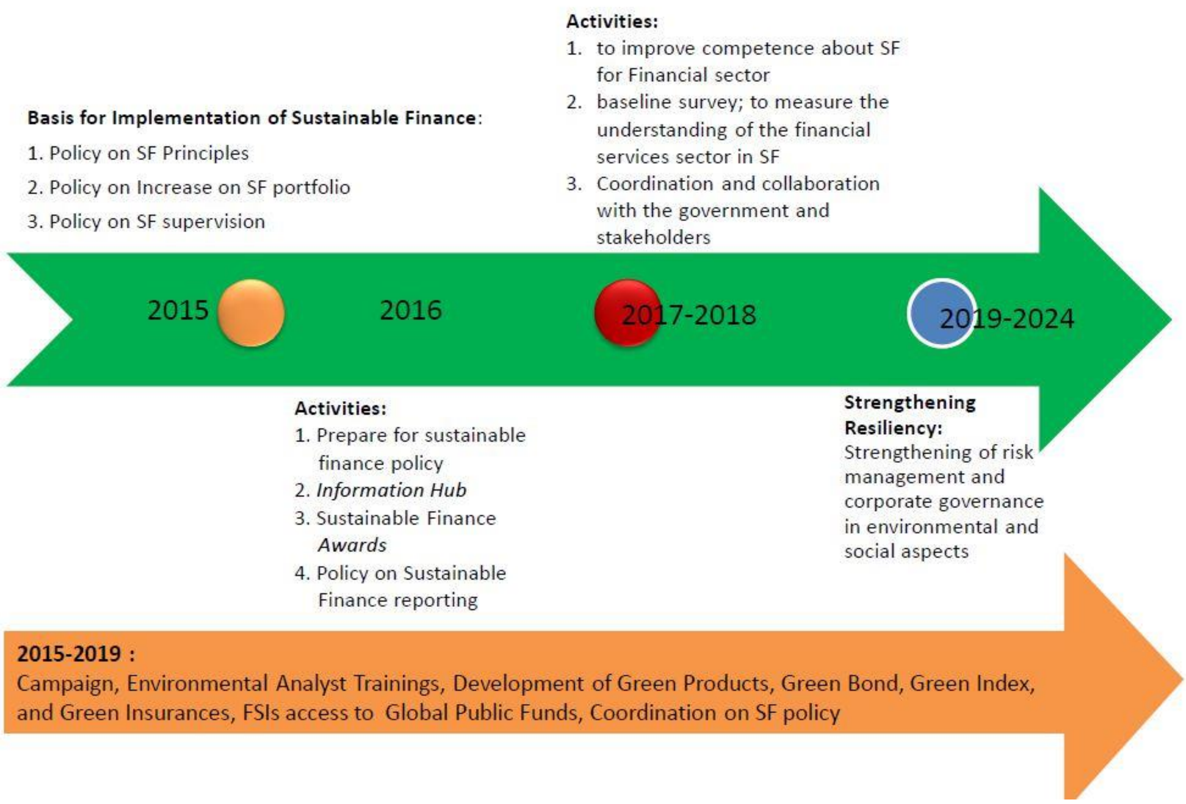
The Government of Indonesia is encouraging public and private sector issuers to contribute towards its mitigation and adaptation targets by issuing **green bonds**. Since the green bonds regulation released in 2017 by OJK, not only the government issued the green sukuk, the private sector also participating in issuing green bonds. PT SMI's green bond will be an IDR 3 trillion green programme bond with a maximum emission value of IDR 1 trillion in the first phase of 2018 (World Bank, 2018). In addition to that, OCBC NISP released USD 150 million of green bonds in 2018 followed by USD 200 million of sustainable bonds in 2020. BRI, a state-owned bank also issued a USD 500 million of sustainable bonds in 2019.

PINA is a non-government budget **equity financing**. All projects that included in PINA Finance Scheme had to passed assessment based on certain qualitative and quantitative study on project's economic and social impact. Additionally, it must be related to national development objectives (RPJMN). PINA Center for Private Investment, a unit under the Ministry of National Development Planning (Bappenas) undertakes a strategic role in facilitating the project financing and enable any debottlenecking of financing process for Indonesia's infrastructure development. Pipeline projects are ranging from different sectors such as connectivity, energy, strategic industries and plantations, as well as housing. In conclusion, PINA has contributed to SDGs Goal 7 specifically for affordable energy and Goal 9 specifically for infrastructure. However, it is not clear if the assessment for PINA projects also included evaluation for potential trade-off with environmental quality. Since its foundation in 2017, PINA Center for Private Investment has successfully facilitated USD 3.3 billion for 11 projects across sectors by end of 2018.

At the same time, **international public finance** is important. According to GCF (2020), Indonesia has only two projects approved with total financing US$ 200 million. The GCF approved projects are Indonesia Geothermal Resource Risk Mitigation Project and Climate Investor One. Both of these projects are proposed by accredited entities, PT SMI. These projects are providing financing to develop renewable energy projects in regions with power deficits to reduce energy costs and CO2 emissions.

In terms of **domestic private finance**, the OJK established the **Sustainable Finance Roadmap** in 2014 as the master plan for Indonesian financial services to develop sustainable financing system (figure 2). The Roadmap contains two implementation stages, 2014-2019 and 2020-2024. The OJK is currently developing the second stage of the roadmap, with a more inclusive consultation process compared to the first stage, and close coordination with other main stakeholders such as Ministry of Finance and Bappenas to ensure the implementation of sustainable finance in line with the achievement of the SDGs.

Figure 2. Sustainable Financing Roadmap



Source: OJK (2020).

Sustainable finance encourages financial institutions to fund social and environment-friendly projects, such as greenhouse gas reduction, deforestation, and renewable energy substitution and microfinance.[6] In addition to that, they are urged to develop environmental and social risk management (ESRM). At the early phase, many banks were quite reluctant to implement this policy. However, since the roadmap was released in 2014, eight national banks participated in the First Mover (pilot project) and more in the Second Mover (forthcoming), as banks internalize better the benefit of adopting sustainable finance to reduce the overall business risks. The OJK has issued the regulation POJK 50/2017 as the guidelines in implementing sustainable finance. Starting 2019, large banks have to publish sustainability report and in 2022 it will be compulsory for all banks and listed companies. Banks must also report their yearly plan to implement sustainable finance, such as their adoption to ESRM and the growth of green financing.

Sustainable finance has brought SDG financing to the next level. OJK reported that two banks and one non-bank financial institution has issued green bonds about US$ 669 million, in addition to US$ 3.3 billion in government's green bonds. Through SDG Indonesia One, there has been US$ 2.5 billion blended finance commitment for SDGs. Commercial banks' green financing has grown 14 per cent from 2016 to 2018, amounted to IDR 137 trillion, most of which went to three sectors: sustainable agriculture, renewable energy, and efficiency energy. Going forward, the OJK, in collaboration with Bappenas, could evaluate several indicators that examine internal capabilities to propose new indicators that properly measure the level of implementation. Fiscal and non-fiscal

[6] At the early stage of the adoption of sustainable finance, the growing mindset is more on green projects rather than social-impact projects.

incentives could be also given to promote the adoption of sustainable finance policy by financial institutions.

Sustainability reports published by the private companies become important inputs to evaluate the contribution from the private sector in achieving the national target of SDGs. The working groups in the SDGs secretariat used to contact actors listed in the RAN and collect the SDGs implementation report, but this was not optimal due to the limited resources. They are now working to create a reporting platform which is easy to access and has proper template that cover green taxonomy or criteria. As they have engaged with OJK and BEI, the sustainability report most likely adopts the guideline that has been established by OJK. Furthermore, Bappenas' planned SDGs financing hub will coordinate financing sources from the national budget (APBN), business, and non-profit actors.

III. Agenda for reform

Based on the above assessment, this section provides three suggestions – integrated planning, performance-based budgeting, and innovative financing – for the consideration of policy makers with a view to accelerating SDG progress in Indonesia.

A. Integrated planning

The SDG Goals and targets are interrelated with each other. Understanding the interlinkages among the goals and between the targets is critical for integrated governance and policy coherence and for prioritizing least-cost options in implementing the SDGs. A study by Le Blanc (2015) suggests that thematic areas covered by the SDGs are well connected among one another and that the SDGs as a whole are a more integrated system than the MDGs were, which may facilitate policy integration across sectors. The study found that two of the proposed goals, SDG 12 on sustainable consumption and production (SCP) and SDG 10 on inequality, provide critical connections among other goals and make the SDGs more tightly linked as a network. Because of these connections, agencies concerned with a specific goal (e.g. education, health, economic growth) will have to take into account targets that refer to other goals).

Policies could focus on the core targets that can effectively enhance the achievement of the other targets. Using Social Network Analysis, Zhou and Mionuddin (2017) presented an integrated analytical framework of SDG interlinkages between targets. The study found that Target 2.3 (double agriculture productivity), Target 2.4 (build sustainable food production systems), Target 6.1 (universal access to safe drinking water), Target 6.2 (universal access to sanitation and hygiene), Target 7.1 (universal access to energy) and Target 9.1 (develop resilient infrastructure) are the most influential targets in the network in terms of having wider connections with other targets, being important intermediates bridging unconnected targets, and placing at strategic positions.

Policy makers and agencies should pay more attention on these targets as they bring multiplier effect on other targets. The importance of interlinkages is mentioned in the SDGs Roadmap, although, the RPJMN does not specifically prioritize those targets. For instance, despite targets 2.3 and 2.4 identified as being crucial, the matrix programme in the SDGs RAN does not specify any programme nor activity that can support achieving the targets. For targets 6.1 and 6.2, some programmes are specified, such as water management, disease mitigation, and settlement infrastructure management. For target 7.1, the government has acceleration programme on community-based renewable energy and advocation policy on renewable energy development. These imply that the government has partially accommodated interlinkages and integrated approaches. Targets with unspecified programmes should be addressed in future planning.

Furthermore, the government should consider driving up an interlinkage programme that address multiple objectives of SDGs. An example is Programme Keluarga Harapan (PKH), a conditional cash transfer programme that provides financial assistance that aims to: "(a) to reduce current poverty and (b) to improve the quality of human resources among poor households" (Alatas, 2011). Based on its description, this programme is relevant to several SDG goals: No Poverty (Goal 1), Good Health and Well-Being (Goal 3), Quality Education (Goal 4), and Reduced Inequalities (Goal 10). Cahyadi and others (2018) shows that the programme had cumulative impacts on the targeted households in their child health and education investment, represented by substantial decrease in stunting and increased school enrolment rates for primary and secondary school-aged children. Moreover, birth delivery using trained health professionals and facilities increased which indicates improved health behaviour. However, the findings showed that the PKH does not have any increases in beneficiary households' current consumption which mean there is no poverty reduction effect. The programme is more likely to reduce the intergenerational transmission of poverty.

B. Performance-based budgeting

Financing gap is normally addressed in two ways: generate more funding and spend better. The former is addressed in the next subsection. The latter is discussed here in the context of Performance-Based Budgeting (PBB), which entails an evaluation of public expenditure efficiency and effectiveness by linking the funding and the results of public sector organizations. It has long been introduced in Indonesia through Government Regulation No. 21 of 2004 whose implementation is carried out by the National Internal Auditor (BPKP). It requires budgeting process to have performance indicator, cost standard, and performance evaluation for all programme and activities. As most SDG implementation are carried out in the RPJMN, they follow PBB as regulated. Nevertheless, there is still room for improvement, particularly in optimizing budget tagging for linking the target achievement and budget allocation.

Quantifiable indicators, budget tagging, and prioritization are important elements in implementing PBB. RAN GRK on climate change mitigation presents a good example of how proper indicators can lead to better budget implementation. Some of the targets are translated into the measure of greenhouse gas reduction, allowing actors to analyse the activities that contribute the most to the goal. More importantly, it allows them to calculate budget-target ratio and identify the activities which fits 'value for money' paradigm. Much work remains to be done to put the relevant, measurable and coherence indicators of budget with the SDGs at the output level budgeting system.

For SDG-related programmes, the progress on determining quantifiable indicators has been promising as explained in the previous sections. However, in obtaining data for those indicators, the government faces some challenges, including technical issues and coordination among agencies. Furthermore, there is still inadequate information regarding the budget allocation for the specific SDGs programmes.

As previously mentioned, Indonesia's main tagging system called KRISNA has yet to integrate tagging for process and tagging for output. Furthermore, information is still scattered across several documents and can only be assessed comprehensively if there are sufficient information from various ministries implementing SDG related the programmes. There are some encouraging examples, however. Aside from KRISNA, one clear example is finance tracking and reporting system by the Ministry of Finance, which legally requires seven other ministries to implement budget-tracking system for climate mitigation activities through the Finance Ministerial Decree No. 136/PMK.02/2014.

One issue with KRISNA is that it specifies tagging at the output level while many indicators in SDGs are formulate at the programme and activities level. To address this, Directorate of Development Budget Allocation in Bappenas is developing tagging mechanism on the allocation for programme and activities related to SDGs that are proposed in the 2020-2024 RPJMN.

C. Innovative financing

Despite having the national development planning and implementation on the right track towards SDGs, Indonesia, like many other countries, is experiencing a financing gap which prevents the achievement of SDGs. Like in many parts of the world, the issue with financing SDGs in Indonesia is not that not enough funds exist but that the existing funds are not channelled towards achieving the SDGs. The government can scale up and initiate new instruments to provide new channels for the non-state actors to mobilize their funds towards sustainable investments. Exploring new instruments would support government's existing effort on sustainable finance.

Innovative instruments the government can scale up or initiate include the green sukuk/bond, the blue bond and the social impact bond. These market instruments are especially vital in engaging non-state actors in sustainable development. Non-state actors such as foreign investors are large contributor of capital flows in developing countries like Indonesia. The **green sukuk/bond** can be used to finance "Eligible Green Projects" which refers to projects which promote an environmentally sustainable economy such as green buildings, sustainable agriculture, waste-to-energy and waste management. In Indonesia, PT SMI under the Ministry of Finance has kickstarted the green bond market. Although at present the bond does not fully attract green investor, it works as a means to provide financing for green and SDG related projects. If Indonesia were to follow the sustainable investing trend in more developed countries such as Japan, Canada and New Zealand, green sukuk/bond is needed as one of the main tools to finance sustainable development.

Similarly, the **blue bond** is also used to provide financing environmentally sustainable projects but in the maritime setting. The blue bond is useful particularly in maritime nations like Indonesia and countries in the Pacific to better use the existing marine resources. The **social impact bond** mechanism can also be used to achieve certain social outcomes alongside financial return. While the green sukuk/bond and blue bond can mostly be used to finance environmentally sustainable infrastructure and industry, the social impact bond can be more effectively used for social projects, meaning that the two can complement each other as means to finance SDGs.

There are also other reforms such as the phasing out of environmentally perverse fossil fuel subsidies and implementation of explicit price on carbon. The idea is to use fiscal instruments to shape market incentives to move towards low carbon economy. Indonesia has increased the prices of gasoline, electricity, and diesel, and recycled some of the savings as compensation package for the poor. Going forward, to further disincentivise brown activities, the government should consider to implement fiscal instruments such as the carbon tax and the natural resource-based tax. **The carbon tax** is one imposed on the carbon content of fossil fuel or other carbon emitter activities. It can be used to earn more financing while disincentivizing the use of carbon-based energy which would further reduce the financing needed to tackle carbon-related environmental issues in the SDGs. The discourse has been around in Indonesia for more than a decade, yet the implementation still attracts a lot of debate as the tax might affect marginal groups and the reluctant from carbon-related industry.

Despite the challenge of determining the right carbon pricing scheme, carbon pricing could be a promising instrument to generate revenues to finance SDGs related investment as well as an effective tool for changing production and consumption patterns towards a low carbon economy. In 2017, Indonesia passed the ‘Government Regulation on Environmental Economic Instruments’ that provides a basis for ETS implementation; this regulation sets a mandate for an emissions and/or waste permit trading system to be implemented by 2024.

One of the potential natural resource-based tax to be imposed is the **fisheries tax**. In 2018, the fisheries sector contributes about 2.3 per cent of Indonesia’s GDP, but generates only 0.22 per cent of total PNBP (license and production-based tax) revenues. Therefore, an effort should be made to achieve both objectives of generating revenue while ensuring the sustainability of marine resources. At the moment, listed taxpayers in the fisheries sector are limited while level of catch affected by the sustainability of the industry is becoming a prominent issue.

With the new SDGs-conscious sources of financing, the government can also have **ecological fiscal transfer (EFT)** system implemented, especially for subnational needs aligned with conservation efforts. The government could upscale the existing Specific Allocation Fund (DAK) that relates to environment (e.g. DAK Lingkungan Hidup), Local Incentive Fund (DID), and Village Fund (Dana Desa). All of these fiscal transfer schemes have accommodated environmental aspects and indicators at some degree. The other potential ecological fiscal transfer schemes are transfer from province to district (TAPE) and transfer to district to sub-district (TAKE), that has been implemented in some regions such as North Kalimantan Province and Jayapura District.

Another instrument the Indonesian government can explore is the **Sovereign Wealth Fund** (SWF). The SWF has been implemented by countries worldwide to manage the revenue and surplus coming from natural resources as to result in more returns. SWF in Indonesia has been a discourse for quite some time as nation-wide implementation is still faced with obstacles. Given the context of SDGs, the concept of SWF may be used **at a sub-national level** to manage funds coming from local natural resources projects. For instance, the Musi Banyuasin Regency in South Sumatera with their natural resource industry may implement the SWF concept to better manage the revenue coming from their natural resources. SWF is very important as a mechanism to smoothing the transition of the region from natural capital-based growth to physical and human capital-based growth.

At the national level, the government has set up the **Environmental Trust Fund** (BPDLH) as the institution to manage funds, including generating revenue from carbon tax, environmental-related penalty and CSR and funding environmental-related projects/activities such as incentivizing renewable energy. At the same time, the Ministry of Finance and PT SMI established an integrated platform of the **SDG Indonesia One** to encourage blended finance attract funding particularly from the private sector. With respect to climate finance, a potential funding source is the Green Climate Fund (GCF). As earlier noted, Indonesia currently has only one Accredited Entities to channel the fund and only two GCF projects approved. The public and the private sectors must address barriers which hinder potential project funding from GCF.

In more developed markets such as Japan, Canada, and Australia – all three being members of the Global Sustainable Investment Alliance (GSIA), **sustainable investing** plays a big role in the financial market, indicating the sustainability of existing projects and the willingness of the investors to participate in green projects. Therefore, it is hoped that, as Indonesia is working towards achieving sustainable finance, the non-state actors would join in the right track.

IV. Conclusion: lessons from Indonesia

Since the Presidential Decree No. 59 in 2017, Indonesia has spent substantial time and energy to establish a solid and cohesive policy framework for integrating the SDGs at the national and subnational levels. Indonesia has also engaged all stakeholders in supporting SDG implementation which reaches communities at the grassroots level.

Indonesia is a large archipelago country consisting of 34 provinces, 416 districts, and 98 municipalities. Given such geographical and structural condition, Indonesia has to face the challenge of both vertical and horizontal policy coherence in mainstreaming the SDGs. Further work is needed to enhance policy coherence through clear institutional arrangements, roles and responsibilities, and accountability.

Moreover, Indonesia must be innovative to overcome the limited capacity to fund SDG agendas. Involving non-state actors is key to addressing financing gaps. Indonesia has galvanized funds from a variety of financing sources, including from philanthropic organizations, the business sector and new innovative financial instruments. The SDG implementation coordinator team plays an important role in opening and maintaining channels of communication to foster collaboration among state and nonstate actors. Some sectoral barriers must be broken to enhance inclusive ways of working.

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Appendices

Appendix 1. Alignment of SDGs Global and National Targets

Pillar/Goal	Global target	National target	National priorities
Social (1,2,3,4,5)	47	25	- Poverty eradication - Improve welfare - Enhance food security - Smart and Health Indonesia Programme - Protection of children, women, & marginalized group
Economy (7,8,9,10,17)	54	30	- Energy security - Acceleration of manufacturing industry - Improve labor competitiveness - Building national connectivity - Well-balanced development - Implementation of free and active foreign policy
Environment (6,11,12,13,14,15)	56	31	- Water security - Housings and residential development - Climate change, adaptation, and mitigation - Development of marine-based economy - Protection of natural resources, environment, and disaster management - Conservation and sustainable use of biodiversity
Law and governance (16)	12	8	- Improve quality protection - Enhance law enforcement - Foster transparent and accountable government
Total	169	94	

Source: Bappenas (2019).

Appendix 2. Example of SDGs targets

Goal	Global target	National target	Implementing agencies
1. To end poverty	1. In 2030, to reduce at least half the proportion of men, women and children of all ages, living in poverty in all dimensions, accordingly by national definition	1.1 Reducing poverty rates at in 2019 to be 7-8 per cent (2015: 11.13 per cent).	Ministry of Sectoral Coordinator of Human Development and Culture; Ministry of National Development Planning / Bappenas; Ministry Finance; Ministry of Social Affairs; Ministry of Villages, Underdeveloped Regions, and Transmigration; Ministry Education and culture; Ministry of Religion; Provincial Government; District government
	2. To implement national system of social protection for all, including the poor group and the susceptible in 2030	2.1 Increasing the coverage of National Social Protection Program, becomes a minimum of 95 per cent at 2019.	Ministry of Sectoral Coordinator of Human Development and Culture; Ministry of National Development Planning/ Bappenas; Ministry of Finance; Ministry of Social Affairs; Ministry of Helath; Provincial Government; District government
		2.2 Increasing the percentage of recipients of basic needs assistance in 2019 to 17.12 per cent (2015: 14.84 per cent).	Ministry of Sectoral Coordinator of Human Development and Culture; Ministry of National Development Planning / Bappenas; Ministry Finance; Ministry of Social Affairs; Ministry of Villages, Underdeveloped Regions, and Transmigration; Ministry Education and culture; Ministry of Religion; Provincial Government; District government

Appendix 3. Eligible project for Green Bond and Green Sukuk

Eligible Green Projects must fall into at least one of the following sectors:

Renewable energy	• Generation and transmission of energy from renewable energy sources: include offshore and onshore wind, solar, tidal, hydropower, biomass and geothermal • Research and development of products or technology ("R&D") for renewable energy generation, include turbines and solar panels
Energy efficiency	• Improvement of the energy efficiency of infrastructure, which results in an energy consumption of at least 10 per cent below the average national energy consumption of an equivalent infrastructure • Research and development of products or technology ("R&D") and their implementation that reduces energy consumption of underlying asset, technology, product or system(s); including LED lights, improved chillers, improved lighting technology, and reduced power usage in manufacturing operations
Resilience to climate change for highly vulnerable areas and sectors/ disaster risk reduction	• Research leading to technology innovation with sustainability benefits • Food security • Flood mitigation • Drought management • Public health management
Sustainable transport	• Developing clean transportation systems • Transportation network upgrade to higher climate resilient design standards
Waste to energy and waste management	• Improving waste management • Transforming waste to renewable energy source • Rehabilitation of landfill areas
Sustainable management of natural resources	• Sustainable management of natural resources which substantially avoids or reduces carbon loss / increases carbon sequestration (through planting of new forest areas and/or replanting of degraded areas, the use of drought / flood / temperature resistant species). • Habitat and biodiversity conservation (through sustainable management of land use change, sustainable management of agriculture/fisheries/forestry, protection of coastal and marine environments, pest management
Green tourism	• Developing new tourism areas in line with Green Tourism Principles

	• Optimization of supporting infrastructure to support sustainable tourism (i.e. water treatment, energy efficiency) • Developing tourism resiliency against climate change risk
Green buildings	• Developing green buildings in line with Greenship developed by Green Building Council Indonesia ("GBC Indonesia"), which contains six categories: • Appropriate Site Development • Energy Efficiency and Conservation • Water conservation • Material & resources cycle • Air quality & leisure air (water indoor health & comfort) • Building & environment management
Sustainable agriculture	• Developing sustainable agriculture management and methods, such as organic farming, less pesticides, Research and Development ("R&D") on climate resilient seeds, and energy efficient on agriculture • Subsidy mechanism for agriculture insurance

Source: Ministry of Finance (2020).

Appendix 4. Examples of RAN activities, allocated budget, sources of funding and the implementing agencies

RAN Programs are mainly divided into two matrices: Matrix I for Government Programs funded by the APBN and APBD and Matrix II for Non-Government Programs. Each program is attached to certain SDG, comprises of several activities and further assigned with allocated budget, sources of funding and the implementing agencies when the information is available.

No.	Activity	Allocated budget	Sources of funding	Implementing agencies
1.	SDG 2 – Increasing the Production of Chilli and Shallots	IDR6,626,900,000,000	APBN, APBD	Ministry of Agriculture
2.	SDG 5 – Increasing the Data Availability on Gender and Children	IDR500,000,000	APBN	Ministry of Women's Empowerment and Child Protection
3.	SDG 17 – Training of Gugus Kendali Mutu for Timor Leste	*TBD*	APBN	Ministry of Industry
4.	SDG 7 – Education on Solar Energy for Remote Society	IDR311,000,000	Donation	Lazismu, TNP2K, Beseipae, Kopernik, Bappeda TTS
5.	SDG 14 – Education and Assistance for Waste Management in the Community with 3R Principle	*TBD*	Internal	Yayasan Unilever Indonesia, Yayasan Artajaya, Yayasan Rumah Pelangi, LPYT, Persada, Yayasan Lohjinawi, Wehasta, Spektra, Bali Wastu Lestari, Ecco Walibar, Yayasan Peduli Negeri
6.	SDG 15 – Increasing the Capacity on the Conservation, Management, and Restoration of Mangrove and Wetlands Ecosystem	*TBD*	*TBD*	Wetlands International Indonesia

Appendix 5a. The Result of climate budget tagging 2016-2018

Year	Budget for mitigation action in IDR trillion [A]	Budget for adaptation action in IDR trillion [B]	Proportion of [A+B] to the total budget
2016	72.4	NA	3.6%
2017	95.6	NA	4.7%
2018	72.2	37.5	4.9%

Source: Ministry of Finance (2020).
Note: Budget tagging for adaptation started in 2018.

Appendix 5b. The allocation of climate budget tagging 2016-2018

Ministry	Mitigation			Adaptation			*Co-Benefit*	
	Output	Budget allocated		Output	Budget allocated		Anggaran	
KPUPR	32	Rp	38 572.2	100	Rp	35 521.4	Rp	11 812.4
KEMENTAN	8	Rp	442.1	3	Rp	231.2	Rp	
KESDM	25	Rp	2 597.8	4	Rp	350.9	Rp	
KLHK	48	Rp	2 179.9	13	Rp	1 122.8	Rp	
KEMENHUB	16	Rp	16 595.6					
KEMENPERIN	7	Rp	28.0					
BPPT				6	Rp	37.1	Rp	
BIG				5	Rp	7.3	Rp	
BMKG				4	Rp	139.1	Rp	
KKP				5	Rp	87.4	Rp	
TOTAL	**136**	**Rp**	**60 415.7**	**140**	**Rp**	**37 497.2**	**Rp**	**11 812.4**

Source: Ministry of Finance (2020).
Notes:

KPUPR	Ministry of Public Works and Public Housing
KEMENTAN	Ministry of Agriculture
KESDM	Ministry of Energy and Mineral Resources.
KLHK	Ministry of Environment and Forestry
KEMENHUB	Ministry of Transportation
KEMENPERIN	Ministry of Industry
BPPT	National Research and Innovation Agency
BIG	Geospatial Information Agency
BMKG	Meteorology, Climatology, and Geophysical Agency
KKP	Ministry of Marine Affairs and Fisheries

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