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The Landscape of Public Climate Finance in Indonesia

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An Indonesian Ministry of Finance & CPI Report

Descriptors

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Foreword from the Chairman of the Fiscal Policy Agency of the Republic of Indonesia

Indonesia has already taken significant actions to respond to the threats posed by climate change. In 2009, Indonesia's Climate Change Sectoral Roadmap set a strategic vision for responding to emerging climate challenges in important sectors of the economy. In the same year, the Ministry of Finance's Green Paper set out concrete fiscal and economic strategies for mitigating climate change in Indonesia. Building on these strategies, Indonesia's ambitious commitment to reduce emissions by 26%, or 41% with international assistance, was formalized in late 2011 through the Presidential Regulation on the National Action Plan on Reducing Greenhouse Gas Emissions (RAN-GRK). Indonesia is not only taking steps to reduce emissions, but it is also paving the way to address climate change adaptation through its National Climate Change Adaptation Action Plan (RAN-API) that is currently being finalized and will help build resilience to climate impacts across the country.

Building resilience and decoupling emissions from economic growth will require mobilization of public and private climate finance from key actors to deliver significant expenditure and investment to support development of a more sustainable economy. It will also require development of mechanisms that value and preserve precious ecosystems for the benefit and wellbeing of current and future generations of Indonesians.

Various fiscal policy measures have been regulated to facilitate the transition towards a more sustainable production system in forestry, energy, industry and other sectors. To guarantee more sustainable management of forests, the Indonesian Government has not only extended the moratorium of new forest concessions, but also developed a mandatory timber product verification system and established a special REDD+ Agency. Several feed-in tariffs and tax incentives have also been put in place to encourage the development of renewable energy and energy efficiency, and all are being reviewed regularly to ensure their effectiveness. The Indonesia Investment Agency (PIP) has also been given a special mandate to finance investments on renewable energy and energy conservation.

Previously, the Mitigation Fiscal Framework, completed in 2012, provided initial guidance about opportunities for improving the delivery of public climate finance to support implementation of the RAN-GRK. This *Landscape of Public Climate Finance in Indonesia*, conducted in partnership with Climate Policy Initiative, takes a further step forward, providing the most comprehensive inventory of public climate finance undertaken in Indonesia to date. The study breaks new ground by analyzing disbursements of climate finance from national and international sources on a comparable basis, and provides preliminary insights on important local government and state-owned enterprise climate finance flows. As such, the study establishes a baseline for climate finance against which we will be able to build on and measure progress in meeting our national goals.

From this report we can already see that domestic public finance is playing a crucial role in achieving Indonesia's green economy goals, complemented by international finance. However, it identifies important opportunities to increase the effectiveness of climate finance – these are already being acted on by the Ministry of Finance through our program of work to design and pilot systems for green budgeting and for the tagging of climate finance to improve reporting and tracking.

The Indonesian Government is committed to integrating climate change action into our economic and development planning, as we believe a green economy is Indonesia's best strategy to ensure long term prosperity. Our goal is for an Indonesia that is pro-growth, pro-job, pro-poor and pro-environment. This report is an important contribution to achieving these goals, as it provides a strong foundation for understanding how climate finance is flowing in Indonesia, which will help us to identify and to address both opportunities and barriers to building a sustainable green economy.



**Dr. Andin Hadiyanto, Chairman of Fiscal Policy Agency
Indonesian Ministry of Finance**

Note from the Executive Director, Climate Policy Initiative

Now in its third edition, Climate Policy Initiative's Global Landscape of Climate Finance has established an important benchmark for calculating global climate finance flows. In this Landscape of Public Climate Finance in Indonesia, we have applied the global framework and methodology to map climate finance flows in a developing country for the first time.

How Indonesia pursues its economic growth and development goals will have global significance. Indonesia is one of the world's emerging economies, and the largest economy in South East Asia. It is the world's fourth most populous country, one of the largest emitters, and home to some of the most important remaining tropical rainforests and peatlands.

Indonesia has shown international leadership in committing to ambitious targets to reduce emissions and developing a national plan for building resilience to unavoidable impacts of climate change. However, funding the necessary transformations in how Indonesia produces food and fuel, and moving toward resource-efficient, low-carbon and climate-resilient models, will be an immense challenge. There are some important opportunities to scale up the availability of finance from both public and private sources, and to make investment in a green economy an attractive proposition.

The 2013 *Global Landscape* highlights that public money sits at the center of the global climate finance system. This report echoes this finding, with the Government

of Indonesia contributing around two-thirds of public climate finance in 2011. Likewise, the 2013 *Global Landscape* highlighted the important role of public money in building enabling environments. This report again reflects this finding, with 75% of Indonesian domestic climate finance supporting the development of important policy frameworks and other enabling environments, suggesting that Indonesia is making good progress in establishing the frameworks and mechanisms it needs to underpin green growth. At the same time, there is good alignment of climate finance disbursements with Indonesia's future priorities areas and highest emitting sectors.

Significant tracking difficulties inhibit our understanding of the complete picture of climate finance in Indonesia, particularly in terms of ability to quantify spending on adaptation, and understand the important roles of the private sector and local governments. The Government of Indonesia, along with its international development partners, has already started work to address some of these challenges.

CPI is committed to working with the Indonesian government to help understand how to prioritize valuable public resources and incentivize scaled up private participation. We commend the Government of Indonesia for its sustained efforts to address climate change and move towards a green economy. It has been a pleasure working with the Ministry of Finance to prepare this study and we hope it provides a useful contribution to current policy discussions.



Thomas C. Heller, Executive Director

Climate Policy Initiative

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Executive Summary

Indonesia's desire to drive economic growth and reduce climate risk is reflected in the sweeping policy reforms it has introduced in recent years to meet targets announced in 2009 to reduce greenhouse gas emissions. It is aiming for a reduction of 26% on business as usual levels by 2020, or of 41% with international support.

Public policy and finance will play a crucial role in meeting these targets. International and domestic public actors are now scaling up investment, and different levels of Indonesian government are setting up frameworks to incentivize the private finance that will undoubtedly also be required. Understanding which public actors are investing, through which instruments, what they are investing in, and for what reasons, is therefore essential. By identifying what is already happening on the ground in Indonesia through this report, we provide a baseline against which to measure progress and plan scale up. We also reveal investment patterns that allow us to pinpoint where the biggest barriers and opportunities are.

The Landscape of Public Climate Finance in Indonesia, conducted by the Indonesian Ministry of Finance's Fiscal Policy Agency and Climate Policy Initiative (CPI) breaks new ground. It is the first time CPI has undertaken a landscape in a developing country. It is valuable both as an overview of public climate flows in Indonesia, and an insight into the significant methodological challenges in tracking and collecting this information.

At least IDR 8,377 billion (USD 951 million) of climate finance from public sources was disbursed in Indonesia in 2011. This figure of 2011 expenditure falls below Indonesian government estimates of the level of annual finance required by 2020 to meet emission reduction targets. However, both domestic and international public flows are expected to grow in the next few years as comprehensive national policies on climate change mitigation (RAN-GRK) and adaptation (RAN-API) are fully implemented.

Domestic Public Climate Finance

National public resources sit at the center of Indonesia's climate finance landscape. In 2011, the Government of Indonesia contributed by far the largest share, disbursing at least IDR 5,526 billion (USD 627 million) or 66% of public climate finance, through budget transfer instruments.

The bulk of domestic climate finance (almost 75%) supported essential "indirect" activities, such as policy

development, research and development, establishment of measuring, reporting and verification systems, and other enabling environments. These activities will drive the future scale up and effective allocation of finance by laying the foundation for "direct" mitigation projects. The Government of Indonesia's focus on indirect activities makes sense given its role in developing and implementing policies and frameworks to stimulate direct investments. With the RAN-GRK framework only introduced in late 2011, high spending rates on indirect activities was to be expected in this period while national policy frameworks were established, but could be expected to reduce in the medium term.

In terms of indirect activities, most support was targeted at the forestry sector (73%), with another 10% targeted at agriculture and 7% focused on energy. This focus aligns with the fact that a high percentage of Indonesia's emissions come from the land sector. Finance for direct mitigation was also targeted to some of the highest emitting sectors, including transport (35%), waste and waste-water (26%), agriculture and livestock management (27%), and energy (10%). However, to date, little finance for direct mitigation has flowed to forestry and land use. Direct adaptation finance went mostly to disaster risk management.

In 2011, the principal instrument used to transfer money from the state budget was budget expenditures (IDR 5,975 billion or USD 678 million). This amount included international money received by central government and channeled directly into the state budget. These flows were disbursed mainly to central government ministries and agencies (97%), with expenditures to local governments making up a very small proportion. Despite the fact that most climate actions will need to be implemented at the local level, available information indicates that there are blockages to the smooth flow of domestic climate finance to local government. Urgent work is needed to understand how to support timely, efficient and effective scale up of public climate finance at the provincial and district level.

In addition to budget transfers, the central government made investments, mostly through equity participation in state-owned enterprises (not estimated in this study) and revolving funds (IDR 1,266 billion or USD 144 million) to support projects and activities that generated revenues. However, only IDR 30 billion were disbursed out of the revolving funds to project activities in 2011. This gap between financial transfers into the revolving funds and realized disbursements suggest they are not

currently operating as intended. Further work is needed to understand why, and what improvements might unlock flows.

International Public Climate Finance

International development partners added significantly to domestic public resources by contributing an estimated IDR 2,851 billion (USD 324 million) to public climate finance flows. The majority (68%) of international climate finance went to fund direct mitigation and adaptation projects happening on the ground. A large share of this (55%) went directly to state-owned enterprises and the private sector (mostly in the form of loans). The remaining 32% of international public climate finance went to support indirect activities by central and local governments (e.g. policy development) and organizations involved in capacity and knowledge building, including private consultancies, international organizations and NGOs.

International resources were split almost evenly between grants and loans. Loans went to support infrastructure projects with direct mitigation and adaptation benefits (e.g. a geothermal power plant, and a drainage rehabilitation project), while grants were directed to building enabling environments and other forms of readiness. Disbursements were lower than commitments reflecting challenges for development partners operating in Indonesia and for the Government of Indonesia to absorb resources at scale or pace.

Alignment of Climate Finance with National Priorities

Overall, domestic and international public finance resources appeared to be well aligned with Indonesia's future policy needs and priority sectors. The sectoral focus of mitigation activities in 2011 was already closely aligned with emerging national level plans, such as the RAN-GRK. Some of the most emission intense sectors benefit from the highest share of direct and indirect climate finance, including forestry (41%), energy (19%), agriculture and livestock management (10%), transport (9%), and waste and waste water (7%). As early finance flows favor indirect actions such as policy development and enabling environments, this preference suggests Indonesia is positioning itself well to scale up action in the most important sectors.

Recommendations

Taking into account these high-level findings, we offer the following recommendations:

Opportunities to increase the flow of climate finance into projects

- **Designing a dedicated instrument to link national government climate plans and sub-national expenditures may accelerate delivery of flows to Indonesia's regions.** National public resources have the potential to drive and impact the future effectiveness of the overarching system. Central and local governments can play complementary roles - policy is decided at the national level, while outcomes are delivered and tracked locally. In this respect, readiness at subnational level is an important issue. The bulk of future climate actions will need to be implemented at the local level, but there are challenges in disbursing funding to regions to support climate activities, and currently, no dedicated instrument or mechanism.
- **Indonesia's public financial management framework provides a foundation for ensuring that international public grants and loans support country-led priorities.** In 2011, international development partners directed the bulk of their spending at priority sectors, clearly trying to align support with Indonesia's priorities. However, most international climate finance was disbursed through non-government actors (68%) and was often not reported appropriately within the Ministry of Finance system. As such, the Indonesian Government had limited scope to oversee how and where international climate finance was directed. Reporting international climate finance through the existing governance framework would enable the Ministry of Finance to better direct international finance to support priority sectors.
- **Designing emerging multilateral funds to effectively link both developing countries' climate change priorities (including Indonesia's) on one side and funders' objectives on the other may help to scale up multilateral flows.** Our analysis shows that in 2011, bilateral finance (which made up 90% of international flows) flowed more readily in Indonesia than multilateral finance, suggesting partner countries' respective interests were better aligned. Ongoing efforts to finalize governance arrangements for the Green Climate Fund (GCF) may benefit from a closer examination of bilateral governance frameworks

and lessons they may offer for the new international climate funding framework.

Opportunities to Improve Climate Finance Tracking

There are multiple opportunities to improve how climate finance is tracked and reported in most sectors and at most levels of activity. Efforts are already underway to strengthen current reporting systems. Based on our experience with tracking climate finance in Indonesia we highlight the following measures that could support efforts to raise the level and standard of reporting, and help to more comprehensively track flows:

- **Detailed guidance on how to determine what activities are climate specific, particularly in relation to adaptation.** This challenge is not unique to Indonesia. However, urgent work is required to clarify definitions and how they should be applied at the activity level in Indonesia. In the absence of such guidance, our study showed that key actors were unable to verify potentially large amounts of climate specific finance.
- **A single national system or database for systematically collating comparable information from the full spectrum of actors.** Such a system would greatly increase the comparability of information on climate finance, and also enable the Ministry of Finance to direct different finance flows more effectively.
- **Clearer, more detailed, and more readily accessible guidelines to explain existing and emerging reporting requirements, including simplified and consistent reporting templates.** Further simplification and training on reporting requirements for all actors would lower barriers to accurate reporting. Tailored guidelines would be especially beneficial for international development partners and local government, where it is currently most challenging to track expenditure and its impacts.

Methodological Issues

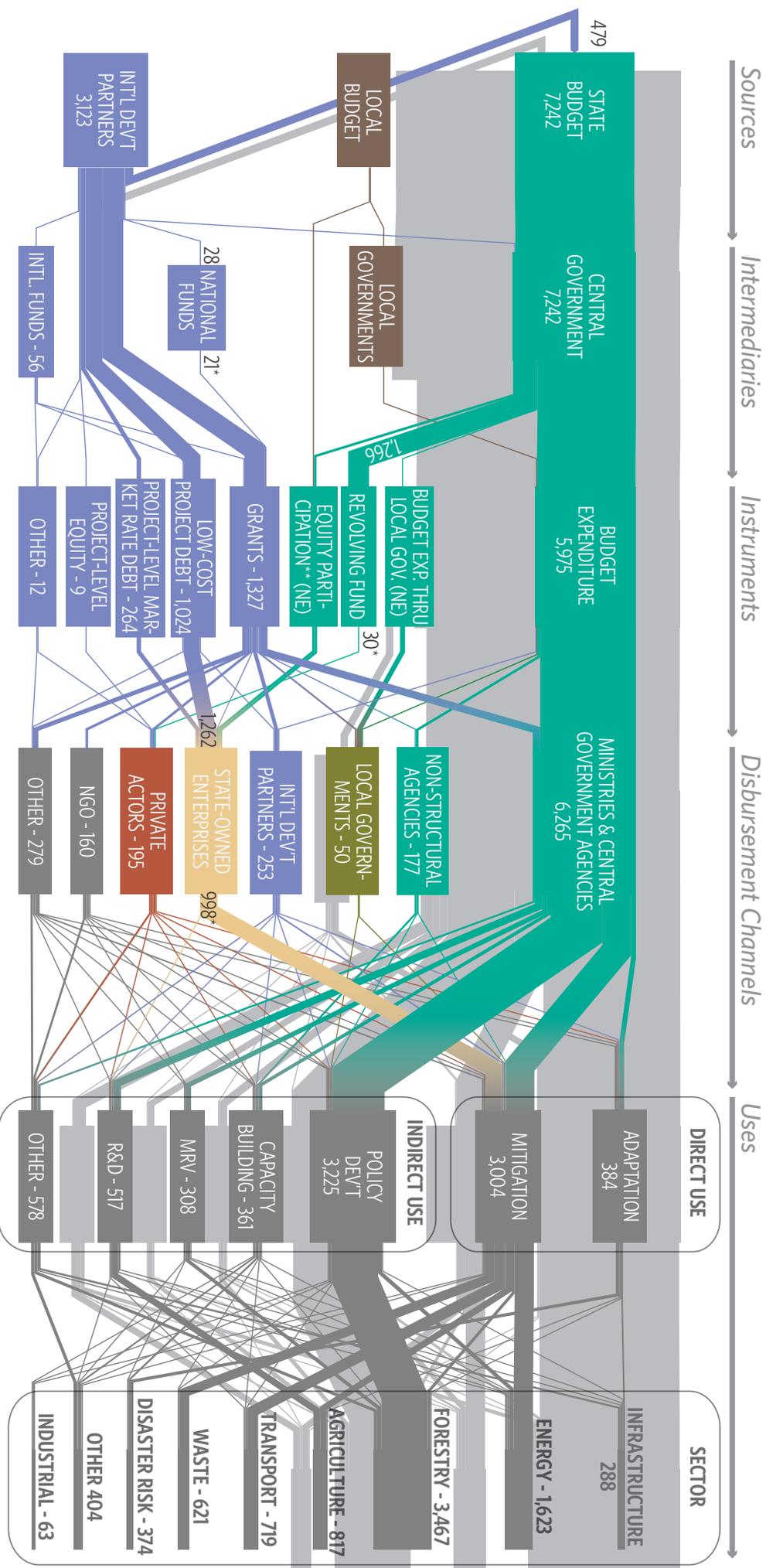
Understanding the significance of our findings on public finance flows in Indonesia we must also highlight three crucial limitations:

- We anticipate the introduction of the national action plan for climate change in late 2011 and roll out to the sub-national level will stimulate an increase in climate-specific finance in the coming years. Our study is focused on the year 2011 because it was the most recent year for which a comparatively comprehensive data set on public spending was available for all actors, and as such also provides a useful baseline for future similar studies.
- The scope of our study captures only the public part of the overarching climate finance and hence, only part of total climate finance flows in Indonesia. CPI's Global Landscape of Climate Finance reports confirm that private finance contributes a majority of total climate finance flows, a situation that may also be the case in Indonesia. One study by the Pew Environment Centre estimated more than USD 1,000 million of investment in clean energy assets in Indonesia in 2011.
- Although this study makes significant inroads in coding state budget for climate action, building on and expanding the Ministry of Finance's Mitigation Fiscal Framework (MFF), we were unable to verify a large volume of public climate flows that may be highly relevant. This was largely due to challenges in classifying certain development activities as climate specific. In particular, the uncertainty regarding adaptation activities is very significant, reflective of a larger global issue in tracking adaptation versus development finance. In total, we identified, but were unable to verify, approximately IDR 10,008 billion (USD 1,136 million) that may be contributing to climate outcomes.

THE LANDSCAPE OF PUBLIC CLIMATE FINANCE IN INDONESIA IN 2011 - IDR 8,377 BN TOTAL



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Notes: Figures are indicative of annual flows for 2011. All data presented relates to disbursements or movements of finance between actors in 2011. Flows are expressed in IDR billions and rounded to produce whole numbers; and as such values might not add up. We show finance that we could identify clearly as climate-specific as "solid" flows. The diagram captures upfront capital investment costs for low carbon and climate resilient activities, plus activities that indirectly support mitigation or adaptation, such as policy development, capacity building, setup of MRV systems, or research and development. We only track upfront investments and not lifetime inflows. There is significant uncertainty around how much climate-specific finance is being disbursed from the state budget to support indirect activities in particular. We represent the full range, including the band of uncertainty (up to an additional IDR 10,008 billion), in the diagram as a "shadow," reflecting the scale of climate-specific finance and portion of potentially relevant finance that we could not verify. * We included movements of finance between actors where we know they happened (ICCTF, Geothermal Risk Mitigation Fund, Eximbank), although there were not disbursements to projects in 2011. ** Equity participation is comparable to what we call balance sheet financing in the global landscape.

1. Overview and Objectives

1.1 Introduction

In 2012, annual global climate finance flows reached approximately USD 359 billion – far short of estimated needs (Buchner et.al, 2013). Now in its third edition, Climate Policy Initiative's *Global Landscape* study is helping policy makers to understand how public resources and money can support mitigation and adaptation efforts, enabling increased action on low-carbon, climate-resilient development. *The Landscape of Public Climate Finance in Indonesia (Indonesian Landscape)* applies the CPI framework to a developing country for the first time. It aims to inform ongoing efforts by the Government of Indonesia to understand how climate finance is flowing through the economy, and the areas on which it could focus to improve effectiveness going forward. This is achieved by mapping the life cycle of flows, from sources through to intermediaries, instruments, disbursement channels, and final uses.

Climate Policy Initiative (CPI) conducted this Indonesian Landscape study in partnership with the Fiscal Policy Agency of the Indonesian Ministry of Finance (MoF). It draws a comprehensive picture of **public climate finance** flows in Indonesia by compiling the best available data on public finance from a range of national and international sources. Importantly, owing to difficulties accessing sufficient, comparable, and reliable data, we have excluded private sector flows from the scope of our inquiry (see section 2, 'Methodological Approach').

Our principal questions are:

- How much public climate finance is flowing through the Indonesian economy?
- Which organizations or agencies are providing

and/or managing the delivery of climate finance?

- What financial instruments and mechanisms are being used?
- What mitigation and adaptation activities does the finance support?

This study neither assesses the scale of finance required to achieve Indonesia's emission reduction targets,¹ nor whether finance is being used effectively. Likewise, it does not assess the extent to which international climate finance commitments, made in the context of multilateral negotiations, are being met, or otherwise.² The *Indonesian Landscape* establishes a baseline of information that aims to inform future analysis about whether finance is being used effectively. Its findings equip policy makers with information to help understand how to increase climate finance flows from domestic and international sources.

Section 2 outlines our methodology and explain key definitions and methods for gathering and analyzing data.

Section 3 summarizes the legal and regulatory framework that governs public climate finance in Indonesia.

Section 4 describes the public climate finance landscape in Indonesia in 2011 and provides more detail on the roles key actors play across the life cycle, including the central government and international development partners, as well as local government, and state-owned enterprises.

Section 5 concludes with our key findings and some action points for Indonesian and international policy makers.

1 Indonesia's financing needs were assessed in Indonesia's first Mitigation Fiscal Framework (MoF, 2012).

2 This report presents estimates of annual disbursements that are not readily comparable to commitments, which are often multi-year or not specific to one single recipient country. Definitions of climate finance associated with commitments are also variable.

1.2 Contextualizing Indonesia's climate change challenges

Indonesia has significant climate change mitigation and adaptation opportunities and challenges. As one of the world's major global emitters,³ Indonesia has potential to contribute substantially to global efforts to reduce greenhouse gas emissions. Recognizing this, Indonesia made important national commitments in 2009 to reduce greenhouse gas emissions by 26% against business-as-usual levels by 2020, or by up to 41% with international assistance. Indonesia is striving to realize these reductions while achieving broader sustainable development and economic goals, aiming to meet an economic growth target of 7% on average over the same period.

Indonesia's mitigation commitments are defined in Presidential Regulation 61/2011, which details a National Action Plan on Reducing Greenhouse Gas Emissions (RAN-GRK). The RAN-GRK comprises 50 categories of policies or actions in five key sectors, including agriculture, forestry and peat lands, energy and transportation, industry, and waste management. Indonesia's political and governance system is highly decentralized, and, as a result over the past two years, the Government of Indonesia has undertaken an extensive process to develop regional implementation plans (RAD-GRK) that translate national plans to the provincial level (see Box 2).

Complementing these national and provincial plans, the Indonesian Government has also developed and begun to implement a range of policies and incentives to support a nationally appropriate transition to a low-carbon economy. These include policies to support fuel switching, renewable energy, and sustainable land use (see Box 5).

Work has also started to clarify Indonesia's climate finance needs, and to track planned expenditures from the state budget. In 2012, the Government published the Mitigation Fiscal Framework (MFF)⁴ in which the MoF estimated that the cost of actions in forestry and peat lands, energy, and transportation sectors consistent with reaching the 26% by 2020 emission reduction target, might reach between IDR 100,000 billion and IDR 140,000 billion (USD 10,719 million and USD 15,007 million) per year in 2020.⁵ Prior to the MFF, Indonesia's National Council on Climate Change (DNPI) estimated that an additional IDR 168,300 billion (USD 18,040 million) in domestic and international finance would be required in 2020, to achieve the difference between the 26% and 41% emissions reduction goals (DNPI, 2009). Both estimates were derived using broad assumptions and may not reflect final costs. However they provide a sense of the scale of Indonesia's overarching climate finance challenge and highlight the importance of spending available flows effectively and efficiently.

Indonesia also faces significant challenges building climate resilience and managing unavoidable climate impacts. As an archipelago of more than 17,000 low-lying islands with an economy based on natural resources, much of Indonesia's land mass is highly vulnerable to climate impacts. To respond to this challenge, the Government of Indonesia has developed and is currently finalizing a National Action Plan on Climate Change Adaptation (RAN-API) which will provide a blueprint for building resilience in four main areas: economic (food and energy), social and livelihoods, ecosystems, and special areas (urban and coastal). To date, Indonesia's finance needs for adaptation have not been estimated comprehensively.

3 WRI (2013) estimates that Indonesia was the 7th largest emitter (including LULUCF) in 2010 with emissions of 1,170 MtCO₂e.

4 The MFF was developed in the context of the Climate Public Expenditure and Institutional Reviews (CPEIRs) which have been carried out in a number of Asian countries, initially with support from UNDP and UNEP (Aid Effectiveness, 2014).

5 The estimate relates to indicative annual costs in 2020, expressed in 2012 prices. Conversion from IDR to USD was calculated using 2012 average exchange rate from oanda.com. This total amount is to support the 26% nationally supported target. Additional international funding will be required to go beyond the 26% commitment. The Indonesian Government estimates that 93% of the emissions reductions implemented by the RAN-GRK to support the 26% target will be delivered in the forestry, peat land, energy, and transportation sectors. See MoF (2012).

2. Methodological Approach

2.1 Definition of climate finance and framework for tracking the life cycle of flows

This report builds on the definitions, methodologies, and framework developed in CPI’s *Global Landscape* reports (Buchner et al., 2011a, 2012, 2013). In the absence of an internationally acknowledged definition of ‘climate finance’, we quantify climate finance flows by applying a **technical definition of ‘climate-specific finance’**.

This definition excludes a broader set of ‘climate-relevant’ capital flows that may reduce emissions, but may also contribute to emissions growth.⁶ CPI applies this definition across all *Landscape* reports to capture finance flows that aim specifically to reduce emissions or build climate resilience. OECD and multilateral development bank approaches, as well as lessons from previous *Landscape* studies and other peer-reviewed work, inform the definition. For a summary list of activities included in this definition, see Box 1 below.

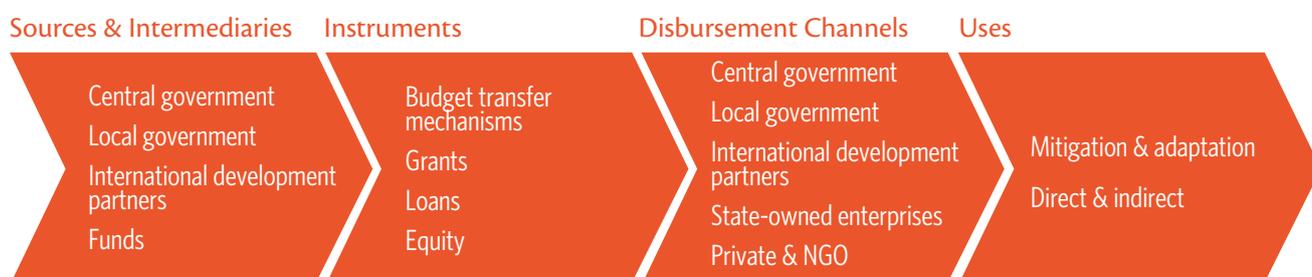
We also highlight and report a large range of uncertainty for some flows that may be climate-specific but that we have not been able to verify. This is mostly because work is ongoing by Indonesia to develop detailed definitions of climate actions under the RAN-GRK (for mitigation) and the RAN-API (for adaptation). In the case of central and local government expenditures to support adaptation, the level of uncertainty is very significant. This is reflective of a larger global issue in tracking adaptation versus development finance (see Box 3). Figure 3, Indonesian Public Climate Finance Flows or the ‘climate spaghetti’ diagram reflects this range of uncertainty as a grey shadow, and we discuss it where significant throughout this report.

Building on this definition, we categorize flows along their life cycle, from sources to intermediaries and the financial instruments used to manage and deliver finance, through to final sectoral uses (see Figure 1). This approach captures information about:

This approach captures information about:

- **Sources.** We quantify money flowing into Indonesia from international development partners, and money that originates domestically from Indonesia’s national budget;
- **Intermediaries.** These are the organizations that facilitate the disbursement of flows for various reasons, including their established expertise, legal requirements, and the need to pool resources or benefit from economies of scale. In Indonesia, public intermediaries are sometimes known as **executing agencies** and often coordinate projects, manage implementing agencies, and report on climate finance. They include line ministries, government agencies, international development partners, national and international funds, and local governments;
- **Instruments.** These are the actual means of supporting climate projects and making finance available. Given the scope of this study is focused on public finance, we capture only the narrow range of instruments used by public actors to move finance from international sources and the state budget to a range of actors and uses. Domestic actors make **budget transfers** within government, provide **equity** to state-owned enterprises,⁷ and make **investments** via revolving funds. International actors deploy a combination of **loans, grants, and equity**. While budget transfers are not considered an instrument in CPI’s *Global*

Figure 1: Conceptual overview of the Landscape of Public Climate Finance in Indonesia



6 This latter set is typically referred to as ‘climate-relevant finance’. See Corfee-Morlot et al, 2009, Buchner et al, 2011b, and Clapp et al, 2012 for more in-depth definition and discussion.

7 Equity participation is comparable to what we call balance sheet financing in the CPI Global Landscape of Climate Finance

Box 1: Climate-specific finance: a summary of sectoral coverage

MITIGATION

Includes climate-specific finance associated with renewable energy, energy efficiency (demand side), energy (transmission and distribution lines), agriculture and livestock management, forestry and land use, transport modes resulting from modal shift, waste and waste water, industry (process emissions only), fugitive emissions; and

Excludes climate-relevant finance associated with large hydro, fuel switching to less carbon intensive fossil fuels,¹ road network expansion for traffic reduction, supply-side energy efficiency, e.g. efficiency improvements to fossil fuel fired power plant. We also exclude manufacturing and R&D costs for energy technologies due to the risk of double counting (total investment figures and embedded value chain costs).

ADAPTATION

Includes agriculture and livestock management, forestry and land use, infrastructure and coastal protection, and disaster risk management.

See Annex B for a more detailed list of activities.

- 1 Activities such as fuel switching are important policies to support Indonesia's transition to a green economy in the short and medium term. While acknowledging their importance in a transitioning to a low-carbon economy (see Box 5 'Indonesian policy incentives for climate mitigation and adaptation'), CPI's definition of climate finance excludes 'climate-relevant finance', including fuel-switching, because it may contribute to emissions and also because of difficulties related to calculating emissions baselines. While we expect a significant amount to be spent on such activities, we were not able to quantify the flow since we did not receive any feedback during our bilateral consultations.

Landscape of Climate Finance (Buchner et al. 2011a), domestic government budget plays a central role in national landscapes of public finance, and we therefore explore in detail how budget is distributed within the *Indonesian Landscape*;

- **Disbursement channels.** These are the organizations and mechanisms used to implement climate finance in Indonesia. Within Indonesia they are sometimes known as **implementing agencies**, and include central and local government agencies, state-owned enterprises, national or international non-governmental organizations (NGOs), and private actors; and
- **Uses.** This category refers to 1) the sectors receiving climate finance, including both mitigation and adaptation activities; and 2) whether the spending contributes directly to emission reductions and climate resilience outcomes through projects on the ground, or indirectly, by supporting the development of the

frameworks and capacity essential to underpin action including policy development, research and development, establishment of measuring, reporting and verification systems, and other enabling environments.

2.2 The scope of the Indonesian Landscape

This study provides a snapshot of the magnitude and nature of public climate finance in Indonesia as it was in 2011 - the latest possible year where comparable disbursement data was reliably available from public data sources at the international, national, and local levels covered by the study. It will be important going forward to track annual disbursements and expenditure on an ongoing basis, so that trends can be analyzed, and anomalies can be understood.

The data in this report represents 2011 **expenditures, financing and disbursements rather than cumulative pledges or commitments**.⁸ For government expenditure, we use realized (not budgeted) expenditure data on a cash, not accrual, basis. Likewise, we only capture primary investment flows, movements of finance

8 Low-cost debt is captured as gross, and not net flows, due to difficulties calculating the latter.

between actors,⁹ and grants that were disbursed in 2011. By focusing on how much finance actually flowed, rather than how much was planned or promised, we aim to identify any blockages in the system. We do not capture previous years' movements of finance, commitments or pledges, through funds or otherwise.

Throughout this study we limit the scope of our analysis to **public climate finance** for some important reasons:

- This is the first time the organization and life cycle of public climate finance in Indonesia has been comprehensively mapped. It was challenging to identify comparable and reliable public finance data, particularly given extensive decentralization and significant international funding, and to understand the multiple roles of many actors in the finance system that has undergone recent development.
- There is no systematic tracking of private finance in Indonesia. This is consistent with well documented challenges associated with tracking private climate finance, in particular in the global context (Buchner et al., 2013).
- Public resources are currently focused on developing enabling environments, and developing and testing approaches to mitigation and adaptation. Such activities are likely to encourage increased private investment in coming years.

By providing a snapshot of the **landscape of public climate finance flows in 2011, this study provides a useful baseline to measure changing investment patterns and progress going forward**, and to map the evolving relationship between public and private finance, and whether public resources are being spent wisely.

We do not include public money spent on the revenue side of budgets to support clean energy investments (e.g. tax breaks, feed-in tariffs) in our mapping. Such support generally pays back investment debt or equity. Including it in addition to investment expenditure

⁹ In some cases, our landscape tracks movements of finance between actors that are considered disbursements by one organization, but were not disbursed through to the final recipient in 2011. For instance, we were able to identify a budget transfer into the Ministry of Finance's Risk Mitigation Geothermal Fund in 2011, but no disbursements to projects occurred during that year. Similarly, we identified a loan disbursed from a multilateral development bank to a state-owned enterprise in 2011 for an energy efficiency program but no onward lending was provided from the state-owned enterprise to the intended final recipients. Throughout the *Indonesia Landscape* we show such movements of finance between actors as inflows but do not map any outflow.

calculations would constitute double counting. Such policy incentives are, however, of fundamental importance and future studies should aim to understand the extent to which they incentivize low-carbon and climate-resilient investment by the private sector in Indonesia. See Box 5 for further discussion on the contribution of policy incentives.

2.3 Data

The *Indonesia Landscape* aims to compile the best available data on climate finance in a comparable way. In addition to using and building upon existing data sources and tracking efforts, we conducted primary data analysis and surveys, interviews, and focus group discussions with experts and officials. We encountered many challenges during this year long exercise, including:

- Lack of clear or common definitions;
- Difficulty determining which budget items are climate specific;
- Lack of centralized dataset on climate finance;
- High variability in granularity, format and categorization of data; and
- Lack of clear guidance and coordination on reporting of climate finance.

Our analysis focused on four main actors which feature prominently throughout the lifecycle of climate finance in Indonesia. Below, we summarize the approach for data collection for each of these actors.

Central government: Building on the approach and results of the MFF, we analyzed the Government of Indonesia's State Budget for the 11 line ministries most relevant for climate change. These are the Ministries of Agriculture; Forestry; Energy and Mineral Resources; Environment; Transport; Industry; Public Works; State Owned Enterprises, Maritime Affairs and Fishery; Health; and the Agency of Meteorology, Climatology and Geophysics.¹⁰ We marked the climate mitigation and adaptation activities and outputs listed in the 2011 budget realization data for each ministry, using the definition of climate finance presented above. Due to difficulties determining which budget items are climate specific, we conducted a series of bilateral consultations with ministries over a period of six months to confirm or clarify our initial hypothesis (see Annex H for a list

¹⁰ We assume that further government agencies implement climate-relevant activities, which would need to be included in future climate finance tracking efforts.

of bilateral meetings).¹¹ We also held two focus group discussions with these ministries to share our approach and present our preliminary results.

Local government (including provincial, district and municipal governments): We identified local government flows using a two-step approach. First we reviewed Ministry of Finance data detailing central government transfers to local government budget summaries for 2011.¹² However the high level of aggregation prevented an in-depth analysis on climate-specific flows, and allowed us to make only preliminary findings about factors that might influence local government climate finance flows nationwide.

To build a more detailed understanding of the situation on the ground, we conducted a survey of one province, Central Kalimantan, which we selected due to the significant land-use and forestry challenges in the region, the high level of international development partner activity, and the fact that it was Indonesia's first REDD+ pilot province. We compiled 2011 realized budget data from the provincial government, two districts (Kapuas and Kotawaringin Timur) and one municipality (Palangka Raya) based on the climate-specific activities we marked in their budgets. We then verified findings and figures with the respective local government officials, facilitated by each region's planning department (BAPPEDA). Owing to large variations in detail of data available, we offer our findings as a preliminary analysis of the kinds of finance that local governments might receive or generate, and the types of instruments and disbursement channels they may commonly use.

State-owned enterprises (SOEs): There are no comprehensive data sets on SOEs' investment activities. We therefore conducted a literature review to capture

the nature (if not magnitude) of SOEs' climate finance activities. The literature review draws on databases of Bloomberg New Energy Finance on renewable energy projects (BNEF, 2013) and UNEP/ Risø on Clean Development Mechanism projects (UNEP Risø Centre, 2013), as well as the sustainability, annual and financial reports of a selection of 46 state-owned enterprises deemed to be potentially significant in terms of climate financing, given their role in implementing clean energy projects or due to their emissions intensive activities. We also interviewed officials from the Ministry of State-owned Enterprises.

International development partners: We conducted a literature review to assess the commitments of international development partners, and the commitments and disbursements of international climate funds. Since there is no centralized public information available on international development partner disbursements, we surveyed 25 bilateral and multilateral development partners identified in the literature as the main contributors of climate finance in Indonesia and asked them to provide data on 2011 climate finance disbursements in Indonesia. We received 18 responses. Partial data for a further five development partners was gathered from Government of Indonesia State Budget data.

BAPPENAS and the Ministry of Finance collect information reported by international development partners. However, we found these data sets did not comprehensively capture the full spectrum of development partner disbursements and did not use them as the primary data set for our study of international public sources. We did use Ministry of Finance data to estimate the share of international climate finance being channeled through Government of Indonesia systems however (see Sections 4.1 and 4.3).

11 For practical reasons, where budget lines were not clearly climate-specific, we further explored only those activities with a value of more than IDR 1 million.

12 This included the Dana Alokasi Khusus (DAK), Dana Bagi Hasil Dana Reboisasi (DBH-DR), local grants, deconcentration and co-administration funds.

3. Governance of Indonesia's Public Climate Finance

- The laws and regulations that regulate and administer climate finance flows are complex and not well understood by most actors, particularly local and international actors. Clearer, publically available guidelines and streamlined and consolidated reporting requirements could close significant information gaps and reveal opportunities for more targeted and effective delivery of climate finance.
- Important national climate and financial governance policies introduced during and after 2011, such as RAN-GRK, RAD-GRK and RAN-API, are likely to encourage increased climate action and investment; comprehensive incorporation of these plans into broader development planning and the budget cycle offer significant opportunity to target national and international climate finance appropriately.

The laws and systems that govern the allocation, management, and reporting of climate finance determine whether it flows effectively and transparently from international and national sources, through to actors and actions on the ground. They also determine if climate finance complements broader economic development and growth strategies.

The size and diversity of Indonesia's population and the moves to strengthen regional autonomy since 1998 makes public finance governance in Indonesia particularly complex. The governance of public finance involves not only the central government, but more than 500 local governments and a large number of international development partners. Our analysis shows some challenges that arise in coordinating the allocation and monitoring of different sources of funds given the high number of central, local and international actors involved. Identifying and understanding blockages in the flow of public climate finance, and consequent opportunities to strengthen governance arrangements, is important to enable Indonesia to effectively govern and scale up finance. This section sets out how public finance governance arrangements function in Indonesia and highlights opportunities to improve their effectiveness. We do not discuss applicable laws and regulations in detail, but list and describe them briefly in Annex D.

The following sections should be seen in the context of Indonesian policy makers' moves to reform and strengthen the public financial governance system to

improve transparency and accountability following the economic crisis in the late 1990's (Blöndal et al. 2009). The MoF has also recently commenced a series of budget process reforms, including the introduction of a Medium-Term Expenditure Framework and Performance-Based Budgeting. These new mechanisms, and a planned new budget mitigation tagging system (MoF, 2014), will enable a multi-year budgeting cycle and better enable the government to track and assess outcomes to inform the planning and budgeting process

3.1 Governance of domestic public finance

- Inclusion of climate action plans such as the RAN-GRK, RAD-GRK and RAN-API in the broader national and local planning process, starting from the next medium term development plan (2015 - 2019), will help to effectively link plans to budgets and accelerate implementation of climate activities.
- Ensuring climate finance flows effectively to the local level will be of central importance to meeting Indonesia's goals, as this is where the bulk of climate actions need to occur. Further work is needed to assess whether existing mechanisms can be used or adapted to channel finance to the local level at the scale and pace required, or if a new instrument or mechanism is needed.

Aligning state budget expenditures with national planning priorities and local implementation, and comprehensive incorporation of climate actions in the annual, medium and long-term development planning process will ensure budgets are allocated to support climate action

A centralized planning and budgeting process with close links to development planning governs the allocation of domestic public finance from the state to central government agencies and ministries. This budget allocation process requires agencies and ministries to make yearly budget requests (RKA-KL) taking into account: (1) annual work plans (RKP) that are based on long-term (RPJPN) and National Mid-Term Development Plans (RPJMN), (2) preparation guidelines issued by the National Development Planning Agency (BAPPENAS), and the MoF, including notional budget ceilings and (3) macro-economic framework and fiscal policy principles discussed by Government and Parliament in mid-May until end of June in the Preliminary Discussion of the Forthcoming Budget.

Development priorities are set out in Indonesia's National Mid-Term Development Plans (RPJMN). The 2009 - 2014 Mid-Term Development Plan highlighted 'environment and natural disasters' as one of 11 national development priorities. Following the announcement of Indonesia's mitigation targets in October 2009, work was undertaken to develop the National Action Plan for Reducing Greenhouse Gas Emissions (RAN-GRK), which was released in late 2011. In parallel, the Government of Indonesia developed the National Action Plan for Climate Change Adaptation (RAN-API), a draft of which was released in 2012. The RAN-API contains the action plan for adaptation of priority sectors and cross-sectors and strengthens endeavors on mitigation that have been formulated in the RAN-GRK. Through the iterative planning and budget cycle, climate-relevant activities have already started to be included as part of subsequent annual work plans. The government plans to more comprehensively incorporate the RAN-GRK and RAN-API into the next RPJMN (2015 - 2019). This means that agencies and ministries will need to take climate action goals into account when making budget requests, and allocations.

Specialized revolving funds and national equity participation offer potential for delivering climate finance

Once budgets have been allocated and budget transfers

made, central agencies, ministries and local government are responsible for managing and reporting on budget implementation. A suite of laws passed in 2003/2004 aimed to improve transparency, accountability and oversight of public finance by mandating financial reporting and audit requirements, and establishing parameters for long-term investment. Among improvements, these clarified two primary mechanisms for the government to make direct investments in a range of activities, including climate change, using, via equity or payable notes:

1. **Revolving funds** can be established to channel part of the state budget into funds that can be used to finance specific activities without any fiscal year restrictions. They are replenished through revenue generated from their investment activities and are considered an "un-separated" asset - meaning they form part of the budget cycle whereby money is reported but not transferred to the Treasury. They are managed by special working units (Satuan Kerja, Satker) or public service agencies (Badan Layanan Umum, BLU) established under technical agencies in line ministries responsible for administering the activities. The Reforestation Fund is one such example. See Sections 4.1 and 4.3 for further discussion of revolving funds relevant for climate change.
2. **State-owned enterprises (SOEs)** operating under the oversight of the Ministry of State-owned Enterprises, with a few exceptions,¹³ and are supported either through full or majority government equity participation. They can operate in a variety of sectors including the financial, manufacturing, energy, and transport sectors. SOEs are considered "separated" assets and are neither part of the budget cycle, nor the government's institutional structure. Indonesia's SOEs fall into three categories:
 - Perseroan Terbuka, or publicly listed companies which have been publically offered;
 - Perusahaan Perseroan, or limited liability companies where the government owns at least 51%; and
 - Perusahaan Umum (Perum), or companies that are wholly owned by the state.

13 PT PT Sarana Multi Infrastruktur (persero) (SMI), PT Indonesia Infrastructure Finance (IIF); and PT Penjaminan Infrastruktur Indonesia (PII) are exceptions, which fall under the full or majority responsibility of the Ministry of Finance.

Box 2: Provincial plans can help target increased flows of climate finance to the local level

Under the RAN-GRK, provincial governments are required to develop aligned regional action plans (RAD-GRK). The provincial government reports on the implementation of the RAD-GRK twice a year to the Ministry of Home Affairs, Ministry of Planning, and the Ministry of Environment, through the BAPPEDA. Provincial governments have varying levels of authority to decide how and what activities to implement depending on the sector in question. These are grouped into three categories, which determine the level of authority.¹ They are:

- Isolated sectors, such as waste management, where the provincial government has full responsibility including developing a business-as-usual (BAU) baseline, and implementing mitigation options.
- Open sectors (e.g., industry and transportation), where the provincial government has limited responsibility to set the BAU and select mitigation options (as these have been set by the central government). In this case, provincial government must provide baseline data, implement mitigation activities, and report.
- Mixed sectors (i.e. agriculture, and forestry and peat lands), where it is difficult to delineate provincial and central government authority or responsibility, so that close coordination between the two levels of government is required during implementation.

Given most direct climate action needs to occur locally on-the-ground, the RAD-GRK are the primary mechanism via which Indonesia's national climate mitigation goals will be implemented. As such, ensuring they are comprehensively integrated into the annual development planning and budgeting processes will be critical to ensure that they receive the required level of climate finance from domestic and international sources.

1 Governor of Central Kalimantan Regulation No. 36/2012 on RAD-GRK

See Section 4.4 for further discussion of SOEs' climate finance activities.

Governance arrangements and national plans devolve most responsibility for implementation of climate activities to local governments. Decentralization of central government authority over the past decade has devolved oversight of all but six government work areas¹⁴ to local governments.¹⁵ A number of public services must now be financed and delivered by local governments. Aside from 26 obligatory work areas assigned to provincial and district/municipal governments, local governments are also allowed to undertake other discretionary activities.¹⁶ Taken together, these obligatory and discretionary activities cover sectors that are highly relevant for mitigation

and adaptation, such as environment, spatial planning, development planning, public works, forestry, industry, transportation, energy and mineral resources. Furthermore, all 33 Indonesian provinces have been developing their own Local Action Plans to reduce greenhouse gas emission (RAD-GRK). These plans translate national plans to the provincial level and will include a range of province specific mitigation and adaptation actions (see Box 2 below for an example from Central Kalimantan).

The devolution of responsibility to local governments incurs significant increased costs that need to be managed in local budgets, but until recently, local governments have had few possibilities to raise local revenues.¹⁷ This means that they remain highly

14 According to Law 22/1999—later revised by Law 32/2004—all but 6 government affairs—national defense, foreign policy, justice, security, monetary and fiscal policy, and religious affairs—are devolved to sub-national governments.

15 Throughout the report we use the term 'local government' to refer to all levels of 'sub-national government' including both provincial and district/municipality governments.

16 These are outlined by Government Decree 38/2007

17 Previously, under Law 34/2000, sub-national government taxing authority was limited to a few minor taxes, while the central government collected and shared the most potentially productive ones—property and personal income taxes (Talierto, 2005). Law 28/2009 stipulates that the central government devolve its authority to collect Acquisition Levy on Right of Land and Building (BPHTB) and Urban and Rural Land and Building Tax (PBB-B2). Several sub-national governments have already started to collect the PBB-B2 since 2011, but the remaining will only do so from 2014.

dependent on transfers from the central government¹⁸ (Green, 2005; Lewis & Oosterman, 2009; Eckardt & Shah, 2006).

Transfers from the state budget to local government are made through a range of mechanisms.¹⁹ None of these mechanisms were designed with climate change objectives in mind though some have relevant earmarking (see Annex F for further details). Section 4.2 provides preliminary analysis of the mechanisms' actual or potential effectiveness in transferring climate finance to local actors. Further study would help to assess whether the mechanisms can be adapted, or whether new ones are needed to support RAD-GRK objectives.

3.2 Governance of international public finance

- Reporting requirements for international finance introduced by the Ministry of Finance in 2011 are not widely implemented or understood. Clearer, more detailed and accessible guidelines explaining reporting requirements would be a useful first step.
- Streamlining of reporting processes for international development partners to different government actors would help increase transparency, helping to align interests and facilitate flows.

Climate finance provided by international development partners is subject to Indonesian laws.²⁰ These regulate the provision of international grants and loans,

18 This was particularly true at the district/municipality level. In 2011, district/municipality government spending comprised 28% of total Government of Indonesia spending, yet only 8.7% of its revenues were own-source revenues. The bulk of revenue—roughly 71.6%—comes from balancing funds transferred by the central government (MoF data, 2011).

19 Mechanisms include Deconcentration Funds (Dana Dekonsentrasi), Co-Administration Funds (Dana Tugas Pembantuan), General Allocation Grants (Dana Alokasi Umum DAU), Specific Allocation Grants (Dana Alokasi Khusus DAK), Revenue-Sharing Funds (Dana Bagi Hasil DBH) and Local Grants (Hibah Daerah). Note, however, that Deconcentration Funds and Co-administration Funds are not transferred through local budgets. They are part of central agencies and line ministries' budgets but implemented by local government. See Glossary.

20 International climate finance is also subject to monitoring and reporting under various international mechanisms, e.g. the OECD and various international conventions including the UNFCCC.

including for climate finance, under the oversight of the Minister of Finance (MoF) and establish mechanisms for reporting their delivery. The Government of Indonesia issued a revised regulation in 2011²¹ that permits finance to be channeled through or outside the Treasury but requires all international actors providing grants and loans to report to the MoF as part of state budget reporting regardless of whether the funds flow through the Treasury or other mechanisms outside of government. It aims to provide greater flexibility to deliver grants and loans through various actors and mechanisms and greater oversight by the MoF to track expenditure and effectiveness. It also established different kinds of reporting mechanisms and requirements for different kinds of grants and loans. Our data collection and analysis shows that this regulation has not yet been widely implemented or understood.

For instance, grant finance is commonly categorized by international development partners as 'on' or 'off' Treasury and 'on' or 'off' budget to denote where it is accounted for and whom is responsible for its management.²² However, this categorization is not consistent with what is required under the revised 2011 regulation. Rather than being categorized as 'on' or 'off' budget and Treasury, under the 2011 regulation grants are classified against two categories:

- 'Planned' or 'direct'. **Planned grants** are transferred by international actors into the Indonesian State Treasury system before being passed to government agencies. All other forms of grants are **direct grants** meaning they go directly from the development partner to the government agencies which have reporting requirements to the Treasury as part of MoF's revenue recognition mechanism. Loans are always planned in nature.
- **Grants are then also classified as: a) cash, b) goods and services or c) securities.** Cash grants can be transferred to the government with unlimited scope to determine how the funding

21 Government Regulation 10/2011 on 'The Procedure of Making Foreign Loans and Receiving Grants'.

22 The term 'on-Treasury' commonly refers to direct contributions by international development partners to the state budget. These should properly be classified as 'planned, cash grants or loans' under the revised 2011 law. Alternatively, funding can be disbursed directly to financial intermediaries/disbursement channels in which case they are not counted as part of the state budget (commonly referred to as 'off' Treasury, correctly called direct grants). Commonly, international development partners refer to finance not transferred to central or local government actors as 'off-budget'. This is technically incorrect. Instead all finance should form part of the state budget upon reporting on through the revenue recognition process.

is used, or they can be earmarked for a specified purpose.

Under this regulation and classification system, all grants provided to Indonesia by international development partners are considered a part of the state budget, and no grant finance should be classified as 'off-budget', as in fact occurs frequently. While finance cannot stay off-budget, the date that money is registered as part of the state budget varies according to type of grant. For cash grants, funding becomes part of the state budget following the revenue recognition process at the time when it is transferred from the foreign donor. For the other forms of grants, the money is detailed in budgetary records when the grant is fully spent. Following the 2011 regulation, there appears to be some confusion among the actors about who (development partners or central agencies and ministries) is required to report on the expenditure. Under MoF processes, this should be reported by the relevant Indonesian agency through the revenue recognition process at the time when the parties involved sign the handover delivery certificate. As reporting requirements did not appear to be well understood, we observed low compliance with them and significant differences between information held by

the Ministry of Finance on international development partner funding, versus survey information submitted by the development partners themselves.

3.3 National trust funds

Since a new 2011 regulation, foreign and national grant funding may also be delivered through national trust funds that are established by Indonesian central government line ministries, with the agreement of Bappenas and MoF. The Indonesia Climate Change Trust Fund (ICCTF) was the first such trust fund to be established under this regulation in 2013. Line ministries may establish trust funds, but require joint agreement from the Minister of Finance and the Minister for Planning to do so. A board of trustees and a national trust fund manager must also be appointed. Ministries, multilateral institutions, NGOs, national enterprise agencies, and foreign financial institutions are all eligible to act as fund managers of these national trust funds. The board of trustees may disburse funding to line ministries, regional government, NGOs, and private sector actors. Allocations to activities should be guided by mid-term development plans and the trust fund grant objectives. We consider National Trust Funds in further detail in Section 4.1.

4. The Public Climate Finance Landscape

- In 2011, at least IDR 8,377 billion (USD 951 million) in public climate finance was disbursed in Indonesia. 66% of disbursements originated from national sources, while international sources contributed 34%.
- Although 2011 public climate finance expenditure is significant, finance from public and private sources will need to be increased in future years to meet Indonesia's emission reduction targets.
- Most finance was delivered through domestic budget expenditure (71%), complemented by loans (12%) and grants (16%) from bilateral development partners.
- In 2011, the Indonesian government implemented the majority of climate actions and activities (77%), while State-owned enterprises also played an important role in implementation (12%). International development partners, private sector, NGOs and others were responsible for the minor share of implementation (approx 2-3% each).
- Around 60% of the total climate finance supported 'indirect activities' or the establishment of enabling environments to support future climate action. Policy development accounted for the majority of this indirect spending (IDR 3,225 billion /USD 366 million).
- Around 40% of the total climate finance went to 'direct' mitigation and adaptation actions on the ground. IDR 3,004 billion (USD 341 million) supported mitigation, while at least IDR 384 billion (USD 44 million) went to adaptation.
- There is significant uncertainty around the total amount of public climate finance spent in 2011. We identified an additional IDR 10,008 billion (USD 1.136 billion) that supported key development activities, which may also have contributed to climate outcomes, and particularly to adaptation outcomes. However, we could not estimate or verify the climate-specific share of this development finance.
- Some of the most emission-intense sectors benefit from the highest share of climate finance, including forestry (41%), energy (19%), agriculture and livestock management (10%), transport (9%), and waste and waste water (7%).

This landscape study tracks the lifecycle of climate finance through the lens of a small but critical group of actors. We find that domestic actors especially, play multiple roles throughout the lifecycle of flows in Indonesia, and act as sources, intermediaries and disbursement channels. The overlap in roles is in part a product of implementing the governance requirements described in the previous section, and the real-life complexity of the landscape and lifecycle of public climate finance flows in Indonesia. In this first detailed exploration of the lifecycle of climate finance in Indonesia, we organize our analysis by focusing on pivotal actors in the landscape in their role as both providing and intermediating or disbursing finance throughout its lifecycle. We explore which financing

instruments and mechanisms they use, how they deliver finance, and for what end uses.

Figure 3, The Indonesian Public Climate Finance Flows diagram (also known as the 'climate finance spaghetti diagram') illustrates the landscape of public climate finance flows in Indonesia along their life cycle for the year 2011. The width of the arrows in the diagram represents the relative volume of the flows. Local governments' and state-owned enterprises' flows are presented without quantification since our case study analysis for these components did not allow for a comprehensive estimation. Figure 2 provides a more simplified overview of the main sources, instruments, disbursement channels and sectors of climate finance identified in the study.

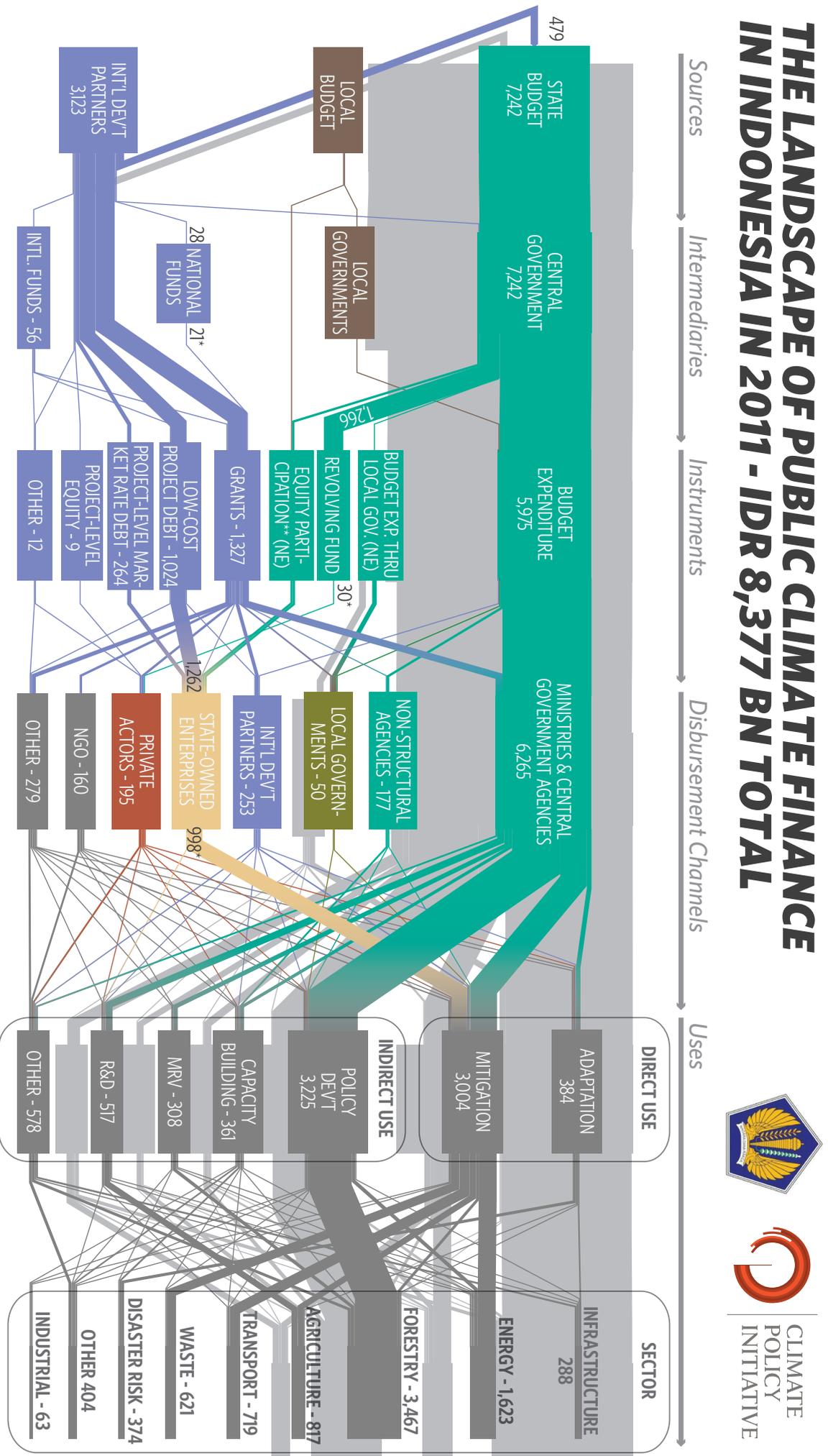
Figure 2: Simplified breakdown of public climate finance flows in Indonesia in 2011



Source: Study team analysis of budget data and international development partner survey

Note: Flows are expressed in IDR billions and are rounded to produce whole numbers, and as such may not add up. We exclude movements of finance between actors which did not result in disbursements to projects.

Figure 3: The Landscape of Public Climate Finance in Indonesia in 2011



Notes: Figures are indicative of annual flows for 2011. All data presented relates to disbursements or movements of finance between actors in 2011. Flows are expressed in IDR billions and rounded to produce whole numbers; and as such values might not add up. We show finance that we could identify clearly as climate-specific as "solid" flows. The diagram captures upfront capital investment costs for low carbon and climate resilient activities, plus activities that indirectly support mitigation or adaptation, such as policy development, capacity building, setup of MRV systems, or research and development. We only track upfront investments and not lifetime inflows. There is significant uncertainty around how much climate-specific finance is being disbursed from the state budget to support indirect activities in general, and adaptation activities in particular. We represent the full range, including the band of uncertainty (up to an additional IDR 10,008 billion), in the diagram as a "shadow," reflecting the scale of climate-specific finance and portion of potentially relevant finance that we could not verify. * We included movements of finance between actors where we know they happened (CCTF, Geothermal Risk Mitigation Fund, Eximbank), although there were not disbursements to projects in 2011. ** Equity participation is comparable to what we call balance sheet financing in the global landscape.

Box 3: Uncertainty in our estimates of climate finance flowing through Indonesian state budget in 2011

There is significant uncertainty about how much money the state and local budgets actually disburse to support climate change action in general, and adaptation actions in particular. We illustrate the impact of this uncertainty in the climate finance spaghetti as a 'grey' shadow that represents the possible upper bound of total public climate finance flows. We could not verify this upper bound largely due to lack of clear and sufficiently detailed definitions that made it difficult to determine which budget items are climate specific.¹

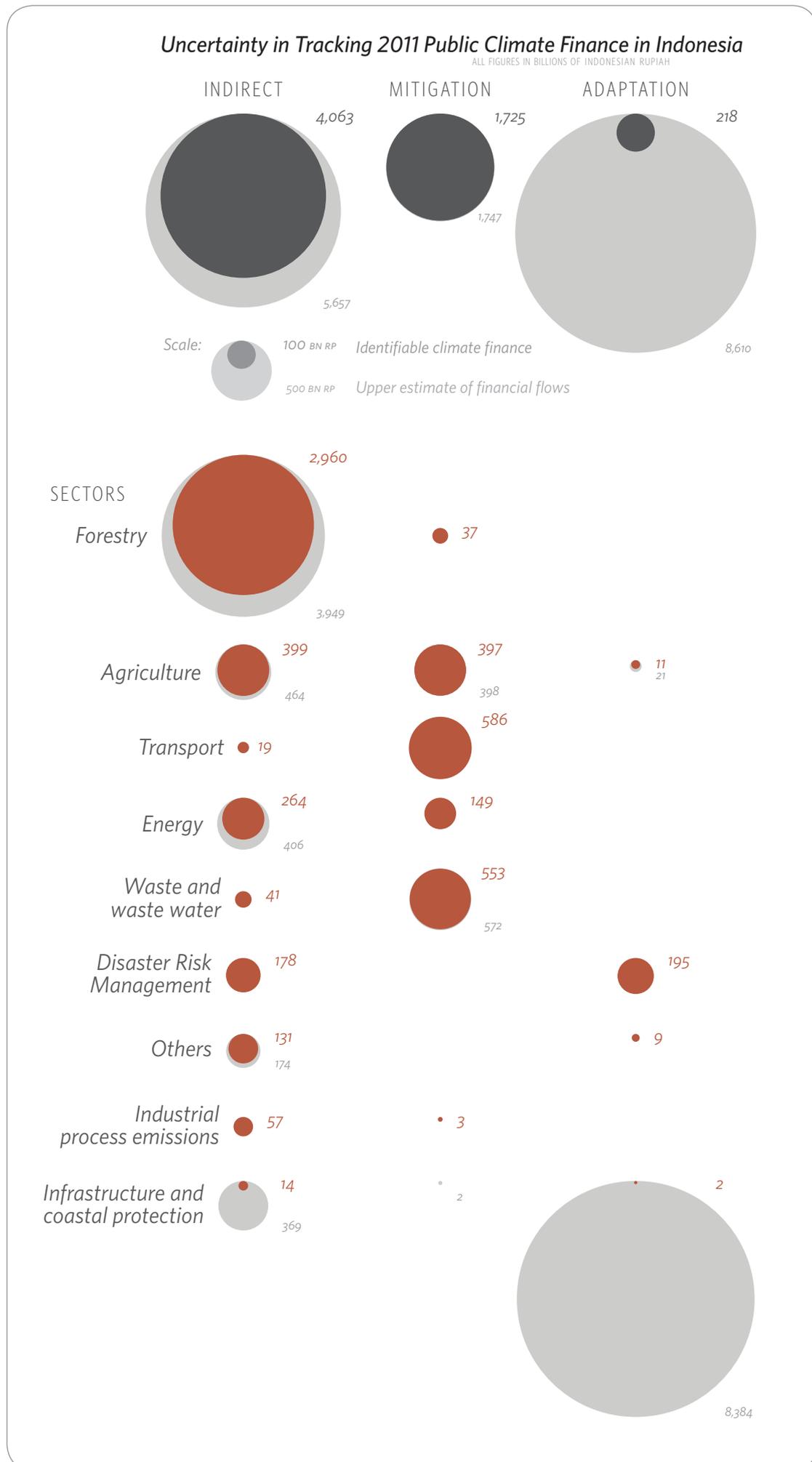
With respect to state budget expenditure for mitigation, we identified but could not verify around IDR 22 billion (USD 2 million), related to direct actions targeting agriculture and waste, and waste water sectors. Meanwhile, we identified but could not verify IDR 1,594 billion (USD 181 million) of disbursements that supported indirect activities such as policy development, R&D and monitoring systems, mostly related to forestry and infrastructure development.

For adaptation, the uncertainty is greater still. We identified IDR 8,392 billion (USD 952 million) worth of development activities that may be contributing to climate outcomes. The majority of funding included in this upper bound relates to development infrastructure, such as improving environmental infrastructure of settlements, water supply and-resources management, irrigation networks, coastal protection, or dam inspection. These actions have climate benefits, but we have been unable to quantify the climate-specific portion of funding.²

Figure 4 highlights those sectors and uses that are most affected by questions of uncertainty.

- 1 The RAN-GRK and RAN-API frame how climate finance is currently being defined in Indonesia. Therefore, some ministries were hesitant to identify the climate specific actions in their budget according to the CPI definition of climate finance. They preferred their numbers to be in line with what they reported to Government of Indonesia, even if that excluded activities that had a climate co-benefit already in 2011. In addition, neither the RAN-GRK nor RAN-API were in effect in 2011 so ministries did not want to apply them retrospectively. Additionally, where ministries' planning departments were interested in applying the RAN-GRK and RAN-API definitions, this was not always easy to do, as generally only the ministries' technical departments know the budget activities in sufficient detail to allow them to be easily match definitions with activity components.
- 2 The Government of Indonesia is currently developing a new budget tagging system. As a result we did not estimate the climate-specific shares of some climate-applicable activities, in part because we did not want to pre-empt upcoming government decisions on how activities might be scored. We note that the CPEIR has already pioneered an approach to budget marking that provides a basis for monitoring change. Our marking system was more conservative, and therefore excluded some activities that might have been included under the CPEIR. Because we could not calculate climate-specific shares, our range of uncertainty includes the whole cost of activities that potentially provide climate specific outcomes.

Figure 4: Uncertainty in our estimates of climate finance flowing through Indonesian state budget in 2011



Source: Study team analysis of budget data

Note: Flows are expressed in IDR billions and are rounded to produce whole numbers, and as such may not add up.

4.1 Indonesian central government

- The central government's state budget is the largest source of climate finance. In 2011, it contributed an estimated IDR 5,526 billion (USD 627 million) or 66% of public climate finance flows in Indonesia.
- The Indonesian government is not only a source of climate finance, but also plays important roles throughout the life cycle of flows. The central and local governments are the disbursement channels for 97% of public climate finance transferred through Indonesia's state budget.
- Central government disbursements focused on the highest emitting sectors including forestry, land use, agriculture and energy. 73% went to enabling environments while 27% paid for direct actions.

The state budget is the main source of public climate finance in Indonesia

In 2011, the central government distributed IDR 7,242 billion (USD 822 million) of public climate finance out of the Indonesian state budget. Of this total, IDR 6,005 billion /USD 681 million was ultimately disbursed to end uses (see Annex C on how this study builds on previous efforts of Ministry of Finance's Mitigation Fiscal Framework (MFF)). Approximately IDR 1,237 billion (USD 140 million) was transferred to various intermediaries or fund instruments to support climate projects that were under development in 2011, but was not ultimately disbursed to an action or activity within the same year.²³ We examined these 'blocked' amounts and some of the factors that prevented their disbursement in 2011, throughout the subsequent sections.

Out of the IDR 6,005 billion (USD 681 million) that was ultimately disbursed, approximately IDR 5,526 billion (USD 627 million) originated from domestic sources (see Figure 5) representing, 66% of total public climate finance flows in Indonesia in 2011, while around IDR

479 billion (USD 54 million)²⁴ originated from funding transferred by international sources to the Indonesian Treasury. We highlight the international source of this inflow but to avoid double counting, treat all subsequent disbursements as purely domestic flows originating from the state budget.²⁵

Central government agencies play key roles as intermediaries and disbursement channels

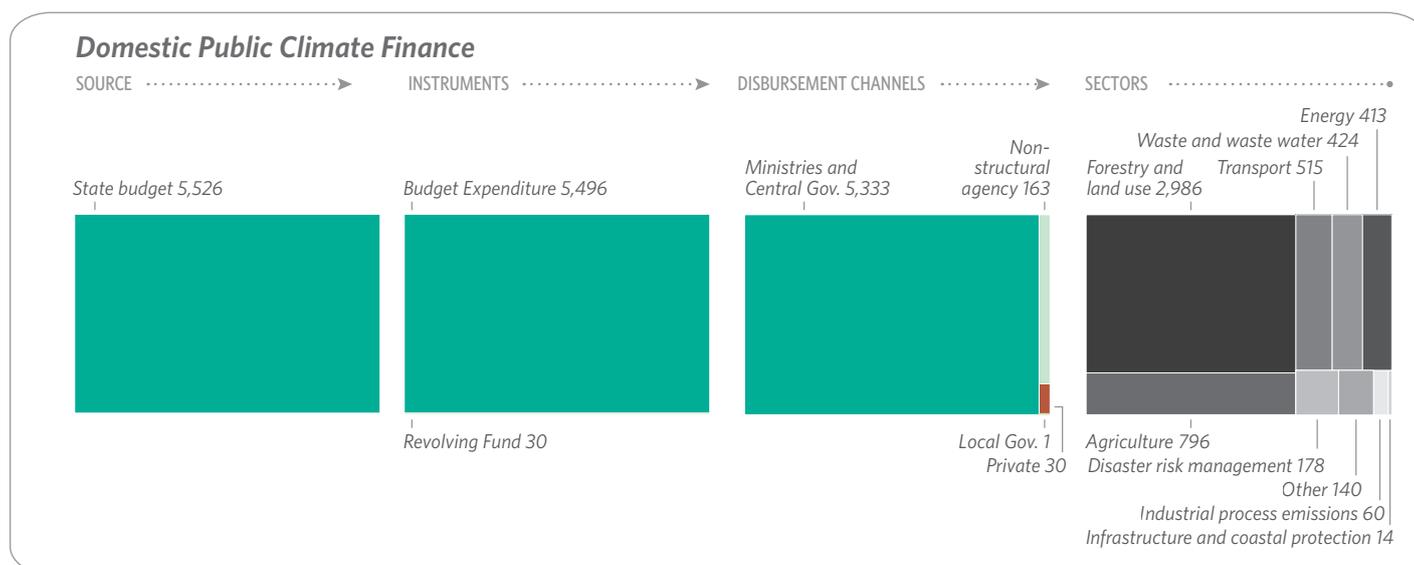
In 2011, **central government line ministries and agencies** played key roles as intermediaries (or executing agencies), and received the vast majority (97%) of climate finance that flowed out of the state budget. '**Non-structural agencies**',²⁶ such as the National Council on Climate Change (DNPI) and the REDD+ Taskforce, also had important policy roles relating to climate change in 2011.²⁷ However, expenditure by DNPI and the REDD+ Taskforce (via UKP4) were a small share of climate finance, together totaling around IDR 163 billion (USD 18 million). Most of this supported policy development, capacity building, and institutional development.²⁸ Less detailed reporting requirements make it difficult to comprehensively capture non-structural agency activities and disbursements. Further analysis is needed to identify the true magnitude of non-structural agencies' efforts, including DNPI, the REDD+ Taskforce and others.²⁹

Line ministries allocate part of their budget to **local**

- 24 This does not necessarily match international development partner reporting on their climate finance spending since Indonesian regulation on reporting of international climate finance means some finance will be reported in future years rather than the year in which it was disbursed from the international development partner (see Section 3 for more details).
- 25 See Governance Chapter for explanation of how international finance is transferred to the Indonesian Treasury.
- 26 Non-structural agencies are institutions established outside of state branches (executive, legislative, and judicial) with the aim of improving government performance and service delivery, as well as implementing urgent tasks (State Secretary, 2011).
- 27 DNPI receives its operating budget via budget expenditure from the Ministry of Environment, while UKP4 receives its operating budget via budget expenditure from the State Secretary. In our calculation we include the total state budget transfer to UKP4, which covers the whole operation budget of this non-structural agency without differentiating between the deputies in the unit (following the principle of a flat organization). Ideally, we would have included only the climate-specific activities for monitoring and control of climate change initiatives and sustainable development.
- 28 In 2011, international actors provided further funding for the implementation of climate-specific projects, which was not channeled via the state budget (IDR 14 billion or USD 2 million).
- 29 Other relevant non-structural agencies which we were unable to assess include: National Coordinating Agency for Spatial Planning; Development Support Agency of Water Supply System; National Energy Board; National Water Resources Council; and Interdepartmental Committee on Forestry.

23 We account for the amount of climate finance for these projects when we speak about transfers from sources, but exclude them when we speak about disbursements to sectors or uses. See Glossary.

Figure 5: Domestic Public Climate Finance Flows in Indonesia



governments to execute measures locally. As a consequence, local governments acted as executing agencies for a small share of climate-specific projects financed directly by the state budget (IDR 1 billion/ USD 0.1 million). State budget expenditure transferred to the regions through Deconcentration and Co-Administration Funds (see Glossary) potentially supported the implementation of a range of mitigation and adaptation activities and actions, in particular related to agriculture and livestock management, forestry, and infrastructure and coastal protection. However, we could not estimate which activities were climate-specific given the large number and variation between activities spread across 33 provinces and 491 districts/ municipalities. (See Section 4.2 for further discussion).

Budget expenditures were the most important instruments for public climate finance

In 2011, by far the largest proportion of state budget flows for climate finance (IDR 5,496 billion/ USD 624 million) were disbursed via **budget expenditures** into climate-specific, non-revenue generating programs and activities.³⁰ The majority went to **indirect activities**, and in particular to **policy development** (IDR 3,117 billion/ USD 354 million). We also identified disbursements to

30 This number excludes loans and grants (IDR 479 billion/ USD 54 million), which international development partners transferred through the state budget. There are difficulties quantifying the overall share of the state budget that was channeled via equity participation to state-owned enterprises as budget investment, let alone the climate-specific share of this amount. Future in- depth work would help to correct the identified balance between climate-specific budget expenditure and investment.

support the establishment of measurement, reporting and verification (MRV) systems (IDR 285 billion/ USD 32 million) and research and development (IDR 402 billion/ USD 46 million), but highlight that further analysis examining the comparably low scale of climate finance directed to these capital-intensive activities is recommended.³¹

As noted in Section 3, the central government is able to direct **budget investments** to projects and activities that generate revenues via **equity participation in state-owned enterprises** (see Section 4.4 below) and **revolving funds**. We could not track the climate-specific share of equity participation in 2011 since we lacked data on state owned enterprises’ climate investment, but we did identify climate finance related to the Reforestation Fund and the Geothermal Revolving that was likely climate-specific. We estimate that approximately IDR 1,266 billion (USD 144 million) was transferred out of the state budget into these funds in 2011.

- **The Reforestation Fund, via the Forest Development Account, operates as a revolving fund. It is designed to incentivize private**

31 In the Indonesia Public Climate Finance Diagram 2011, we show a range for policy development activities as we faced difficulties to verify the climate-relevant share of development activities such as watershed management, sustainable forestry management, forest extension, and dam safety. The range for MRV-related activities is due to difficulties in identifying the climate-specific share of forest inventory/ spatial data/ monitoring/ thematic mapping in the forestry sector and pest management in the agricultural sector. The range for R&D activities is due to difficulties in identifying the climate-specific share of activities (e.g. forest seed development, water resources R&D) and double-counting problems (where we did not receive verification from ministries we excluded activities to avoid double-counting).

Box 4: National funds

National climate funds currently represent a minor part of the landscape, but have the potential to play an increasing role if proposed trust funds, and in particular the planned fund for REDD+, become operational. In 2011, the only relevant fund operating in Indonesia was the Indonesia Climate Change Trust Fund (ICCTF), which is designed to channel investment to climate change mitigation and adaptation activities.¹ The ICCTF is currently in the process of transitioning to a national trustee (UNDP is the current interim trustee). In 2011, the ICCTF disbursed IDR 21 billion (USD 2 million), out of total fund capitalization of USD 11 million. Line ministries and governmental agencies received funding to support a range of forestry, capacity building, and institutional development activities. Total funding available to and disbursements from the ICCTF were modest. A significant increase in funding via the ICCTF is not anticipated until governance arrangements with a national trustee are finalized. Following appointment of a national trustee, prospective funders will likely need to conduct due diligence of governance arrangements prior to investment. Additionally, an increased pipeline of eligible activities would be required to accelerate the flow of finance via this mechanism. In the first phase, the ICCTF supported a small, targeted set of pilot activities and a key lesson was the significant need for capacity building of project implementers. As such, an increase in the number of supported projects would require significant capacity building across the spectrum of actors eligible to receive funding and implement projects.²

- 1 Through Ministerial Regulation Bappenas No. 3/2013, the ICCTF was established as a national trust fund in accordance with law 80/2011. It was capitalized with IDR 28 billion /USD 3 million in grants from three international development partners (UK, Australia, and Sweden). It commenced operations in 2010 and is governed by a steering committee led by BAPPENAS. Line ministries are eligible to submit mitigation and adaptation project proposals for funding by the ICCTF.
- 2 UNDP (2012)

sector investment in the forestry sector³² and is managed by the Forest Development Funding Center (*Pusat Pembiayaan Pembangunan Hutan* or P3H) under the Ministry of Forestry.³³ **In 2011, the Forest Development Funding Centre disbursed loans of around IDR 30 billion (USD 3 million)** to communities or private companies to establish community forests (*Hutan Tanaman Rakyat* or HTR), or invest in industrial forest plantations (*Hutan Tanaman Industri* or HTI).³⁴ Compared to the initial capitalization (IDR 5,000 billion/ USD 555 million), disbursement to date has been very small. Challenges at the central government level include delays in setting up regulation and disbursing revolving funds. At local district level, there were delays in granting the requisite approval and designations of project sites.

We were unable to track whether the projects funded by these loans attracted additional co-funding from bilateral, multilateral, or commercial bank lenders. However, we note that the experience of other revolving funds, for example, in the water and sanitation sector, suggest there is high potential to leverage significant amounts of additional capital (Barr et al., 2010).

- **The Geothermal Revolving Fund** is designed to finance the development of geothermal power plants through public private partnerships (MFF 2012),³⁵ and is managed by the Government Investment Agency (PIP). Investments are disbursed from the Indonesian Treasury to the Government Investment Agency, for the purpose of mitigating cost risks associated with exploration and to increase the feasibility of geothermal projects. In 2011, IDR 1,237 billion (USD 140 million) was transferred from the state budget to the Geothermal Revolving Fund

- 32 The fund was established jointly by the Minister of Forestry and the Minister of Finance in 2007 under Minister of Finance Decree No. 121/PMK.05/2007 concerning the Opening of the Forest Development Account and the Initial Placement of Reforestation Funds in the Forest Development Account as described in (Barr et al., 2010).
- 33 P3H is incorporated as a "Public Service Unit" (Badan Layanan Umum or BLU). Public service units are a relatively new type of legal entity reportedly designed to provide public services in a semi-commercial manner (CIFOR 2010).
- 34 Both of these activities support forest product production, which might help to reduce illegal logging and deforestation.
- 35 Ministry of Finance Regulation No. 178/PMK.05/2011 and Ministry of Finance Decree Number 286/KMK.011/2011 regulate the procedure and finance of the Geothermal Revolving Fund.

Box 5: Indonesian policy incentives for climate mitigation and adaptation

A range of fiscal incentives introduced as early as 2006, but in particular from 2010 onwards, is designed to encourage renewable energy development.¹ They include **tax reductions** for renewable industries, including on import duties, VAT, and corporate income tax. Several specifically apply to upstream geothermal activities.

Subsidies, particularly for fuel and public transport, are used heavily in Indonesia, though many of these subsidies were designed with development rather than with climate goals in mind. Accounting for these incentives as climate-specific finance is difficult as they also support activities that may increase greenhouse gas emissions. For example, while some separate geothermal incentives exist,² many fiscal incentives for the geothermal industry also apply to oil and gas activities.

Indonesia, like many countries, faces challenges overcoming the legacy of **fossil fuel subsidies**³ and is committed to gradually phasing them out while supporting the shift to cleaner fuels (Whitley, 2013). For example, the Ministry of Finance reports that, between 2008 and 2012, the Government of Indonesia spent IDR 5,500 billion (USD 624 million) on its Kerosene-to-LPG program (MoF, 2012). It also contributed IDR 300 billion (USD 34 million) in 2011 to subsidize the Trans-Jakarta public transportation system, and allocated IDR 5300 billion (USD 601 million) in 2012 for other tax subsidies designed to stimulate climate change mitigation activities, mainly for geothermal and biofuel activities (see Annex D for a list of relevant policies activities in 2011 identified by the study team).

Despite Indonesia's high percentage of land-use emissions, few fiscal policy incentives exist to incentivize climate-resilient agriculture, forest-protection, or reduced land use emissions.

- 1 In 2006, Indonesia introduced a renewable energy target of 17% contribution from renewable sources in the national energy mix by 2025 (up from current level of 5-6%).
- 2 For example, a proposed tariff ceiling and Geothermal Fund. See Sections 3 and 4.3 for further discussion of government investment funds for geothermal and reforestation and the government's investment vehicle Pusat Investasi Pemerintah (PIP).
- 3 Global Subsidies Initiative (GSI) estimated oil and gas production subsidies in Indonesia to be approximately \$1.8 billion in 2008 while consumer subsidies were far greater, estimated at \$14 billion by IEA (cited in Whitley, 2013). In 2011, the latest year for which data was available, IEA reported fossil fuel consumption subsidies in Indonesia of \$15.7 billion while IMF reported fossil fuel subsidies of \$21.8 - 39.2 billion (pre- and post-tax) (Whitley, 2013). To put this in context, IEA (2013) estimated that fossil fuel subsidies in 2011 reached approximately USD 523 billion for developing and emerging economies alone. By way of comparison, the same study estimated global renewables subsidies of USD 88 billion, including USD 20-22 billion for biofuels.

(Wahjosoedibjo 2012). However, our analysis was unable to identify any disbursements to projects in 2011 (see Box 8: Challenges in investing in geothermal development in Indonesia).

In the lead up to and since the introduction of the RAN-GRK in 2011, Indonesia has introduced a number of specific **policy and fiscal incentives** aimed at encouraging investment in climate actions. We do not estimate the value of flows on the revenue side (e.g. subsidies) to avoid double counting issues (see 'Methodological Approach' in section 2). However, we do explore some of the key policy incentives qualitatively in Box 5.

Most domestic climate finance supported policy development in the forestry sector

The sectoral focus of mitigation activities in 2011 was already closely aligned with emerging national level plans, such as the RAN-GRK, and some of the most emission-intense sectors benefit from the highest share of climate finance. Early finance flows favor indirect actions, such as policies and enabling environments, with IDR 4,046 billion (USD 459 million) or 73% of central government climate finance disbursements going to indirect activities. Most support was targeted at the forestry sector (73%), with another 10% for agriculture and 7% focused on energy. Within the forestry sector most climate finance was directed at policy development activities (IDR 2,755 billion/ USD 313 million), out of which 90% were spent on two activities:

Planning, Implementation, Institutional Development and Evaluation of Watershed; and Development and Management of National Parks.³⁶ This focus on indirect activities suggests Indonesia is positioning itself well to scale up action in the most important sectors.

Compared with support for indirect activities, we identified only relatively modest support for direct mitigation activities from central government sources (IDR 1,480 billion/ USD 168 million). The proportion of direct activities is likely to increase in coming years following the introduction of the RAN-GRK and RAN-API. However, at the earliest this will be visible in 2013, as the 2012 budget had already been determined at the time of the RAN-GRK's release. In 2011, 99% of total direct activities supported mitigation, with only 1% going towards adaptation. Direct mitigation actions targeted key sectors, including transport (35%), waste and waste-water (26%), agriculture and livestock management (27%), and energy (10%). Notably, while state budget expenditure for indirect mitigation activities in the forestry sector was high, expenditure for direct activities in the forestry sector was relatively modest (IDR 31 billion/ USD 4 million).

Opportunities to improve climate finance tracking

Our analysis showed that there is a need for detailed guidance on how to determine what activities are climate specific, particularly in relation to adaptation. It was challenging for central government line ministries and agencies to identify climate specific finance in activities financed by the state budget. This challenge is not unique to Indonesia. However, urgent work is required to clarify definitions, including in-depth dialogue with technical areas in line ministries to determine how they can be applied at the activity level within the state budget. Work is already underway to start this process through both the RAN GRK Secretariat and MoF pilot budget tagging system. In the absence of such guidance, our study showed that central government line ministries and agencies were unable to verify potentially large amounts of climate specific finance.

36 These activities were already identified as climate specific by the team that developed "Indonesia First Mitigation Fiscal Framework" (MoF, 2012). However, we classified both activities as policy development, since (a) most envisaged outputs related to planning, guidelines, reports, or documentation, and (b) we were not able to verify a more detailed classification with the Ministry of Forestry.

4.2 Local governments

- While a lack of data prevented an accurate estimation of the amount of climate finance being allocated or disbursed by local governments, our analysis suggests it is likely very low. Understanding why climate finance is not flowing at the local level will be essential to unlock and speed up implementation of climate activities.
- Comprehensive budget tagging, centralized and streamlined reporting, and tailored delivery instruments, could support more effective local finance flows.

Local governments are important for the successful implementation of climate activities, but currently play limited roles and receive limited climate finance

Local governments³⁷ are potential sources of climate finance, as well as important users of state budget flows to implement climate activities on the ground. In 2011, total local government expenditure across all sectors of the economy, at IDR 518 trillion (USD 59 billion), accounted for approximately one third of total Indonesian budget expenditures. This increases to one half if central government subsidies and interest payments are excluded from the calculation.

Local demand for climate finance is increasing, and local governments have growing responsibility to implement the activities set out in RAD-GRK and future adaptation implementation plans. To ensure climate finance has direct impacts and reaches its intended uses, work is urgently needed to understand how finance flows to local governments could be increased and delivered more effectively. This includes examining how existing instruments could be adapted to ensure money is transferred and spent effectively, considering whether new instruments are needed, and developing and implementing simplified and tailored systems to track and report finance flows.

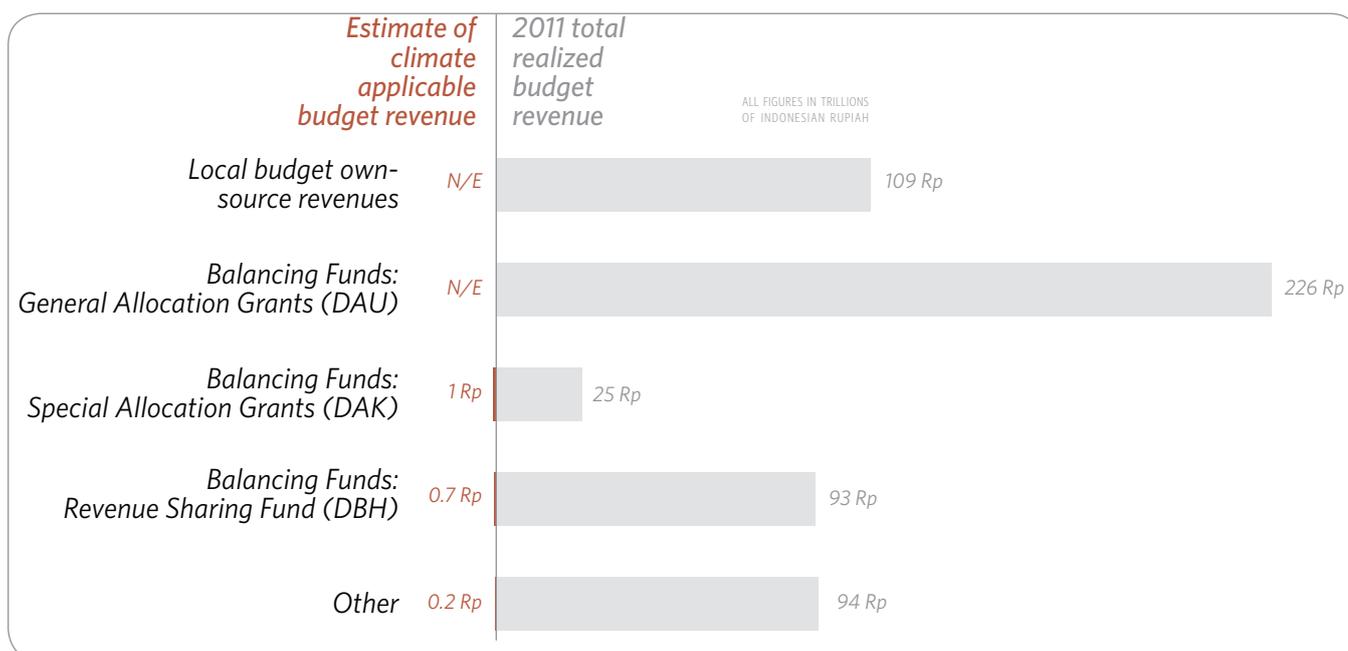
We could not calculate the share of local government

37 Throughout the report we use the term 'local government' to refer to all levels of 'sub-national government' including both provincial and district/municipality governments. In 2011, there were 33 provincial and 491 district/municipality governments in Indonesia.

budget expenditures directed to support climate-specific activities due to significant data gaps and definitional questions, and therefore do not estimate the value of local flows or show them in the climate finance diagram (Figure 3). We did however identify sufficiently disaggregated data on local government budget revenue³⁸ to enable indicative estimates of how much finance province and district governments allocated to climate-applicable sectors.³⁹

Figure 6 shows that compared to the total budget revenue the preliminary indicative estimate of the climate-applicable share is small (0.4%). However, the table highlights public finance mechanisms that might already be used to deliver climate finance. This broad analysis suggests that there is a large potential for scaling up climate finance via these existing mechanisms.

Figure 6: Indonesia local government budget revenues in 2011 – sources and estimates of climate applicable finance



Sources: Data on realized local revenue, as well as disbursements of the specific allocation grants and local grants from the central government to the regions are obtained from DG Fiscal Balance, Ministry of Finance. For more detail see Annex F.

Note: * A description of each mechanism and details of how we estimated climate applicable spending is provided in the Glossary and Annex F. We note that estimated amounts are indicative only and might include disbursements that an in-depth application of our methodology would likely classify as climate-relevant (that is, directed to activities that might also result in increased emissions), and would therefore be excluded from any final calculation of climate finance flows.

38 While the scale of budget expenditure describes how much money flowed out of a local budget, numbers on budget revenue show how much money was raised by local governments including from taxes or financial transfers within the country. In 2011, total local government budget revenue reached IDR 547 trillion (USD 62 billion) and differed only slightly from budget expenditure reaching IDR 518 trillion (USD 59 billion). Note however that these numbers include double-counting related to transfers between local governments. They correspond to total expenditure realization for 523 local governments in 2011 (data missing for one region).

39 We refer to *climate-applicable* sectors as those sectors that we assume have a high potential for mitigation or adaptation actions. This does not equate to our definition of climate finance which we quantify by applying a technical definition of 'climate-specific finance' which excludes a broader set of capital flows to sectors where emission reductions or increases are possible (see Section 2.1).

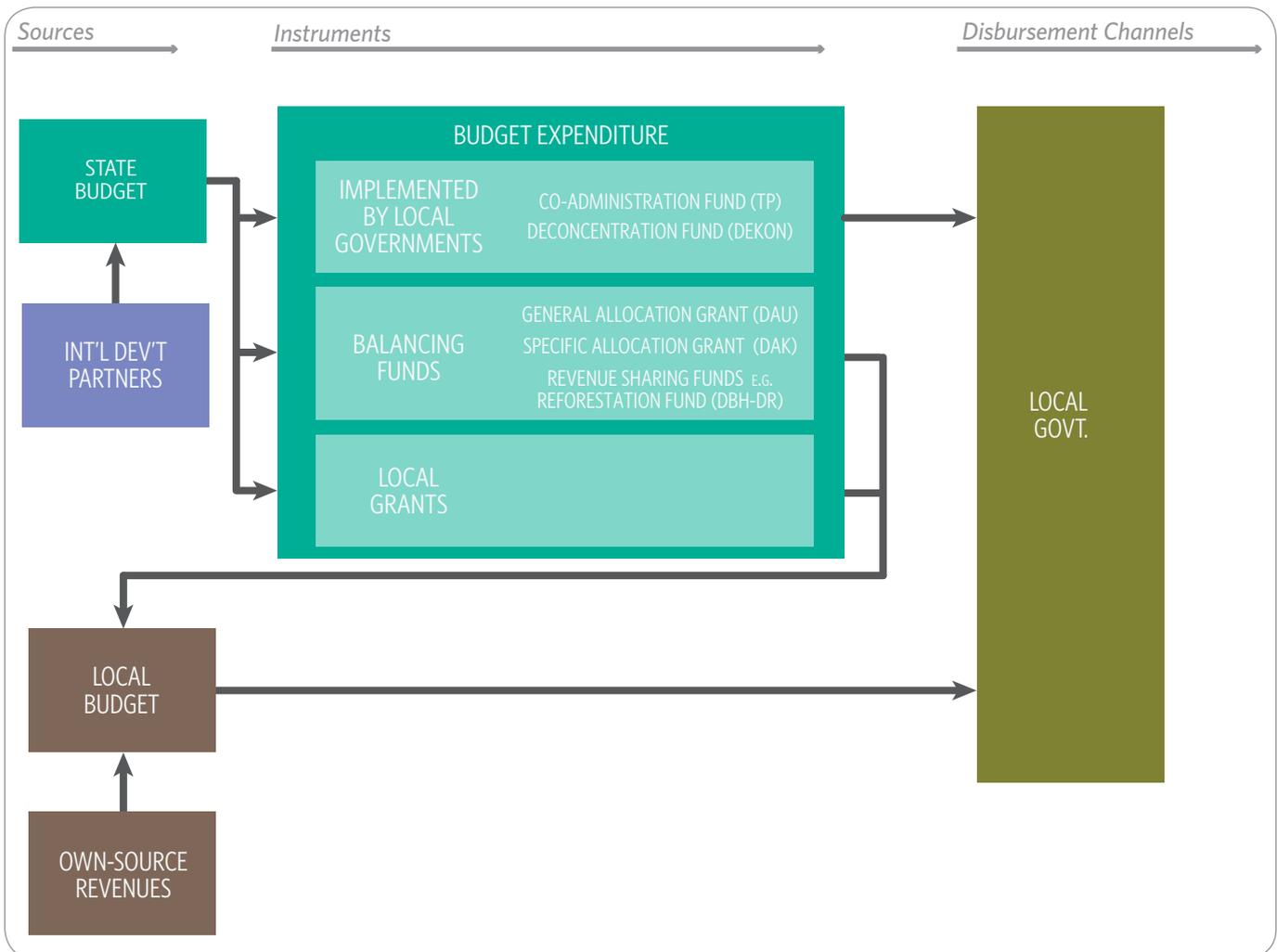
Case Study from Central Kalimantan

For this case study the variation in data prevents an accurate estimation of the amount of climate finance being spent by local governments. In the absence of detailed national-wide data on local government climate finance expenditure, the study team conducted a case study to obtain a snapshot of the life cycle of local government climate finance in Indonesia. We gathered 2011 realized budget data from different levels of local government including the provincial government of Central Kalimantan and three districts/municipalities (Kapuas, Kotawaringin Timur, and Palangka Raya).⁴⁰

We found significant variation in the budget data provided by local governments. This variation highlights

challenges that need to be addressed when designing and implementing systems to track local climate finance flows. As such and since definitions and policy frameworks are still under development at the local level, we focused on identifying activities that could clearly be marked as climate-specific, such as reforestation activities, use of renewable energy, and use of compost or organic fertilizer in agriculture. We did not therefore consider activities with potential relevance or co-benefits e.g. broader development activities. Given various methodological difficulties encountered in carrying out the case study, we thus stress that our estimates must be treated as indicative only (see Section 2.4 for more information on the approach).

Figure 7: Range of instruments currently transferring central government funds to local governments



40 In addition, the representatives of the district of Pulang Pisau participated in bilateral meetings and provided highly detailed data, which we were unfortunately unable to analyze within the timescale of the project. We hence excluded the district of Pulang Pisau from the case study.

We found that only a small share of the available budget resources were spent on climate activities to date. Understanding why this is so will be essential to unlock and speed up implementation of activities on the ground. Sampled local governments disbursed at least IDR 20 billion (USD 2 million) of domestic climate finance in 2011 (see Table 1). This number corresponds to roughly 0.4% of their total resources. We observed a wide range in volumes of climate finance across districts, the municipality and the province. Further analysis is needed to determine the reasons for this variation including whether:

- effectiveness in utilizing existing budget transfer mechanisms varies between province and districts;
- differences stem from the implementation mandates of provinces and districts; or
- differences stem from different needs or economic structures in different districts/ municipalities e.g. Kotawaringin Timur focuses on adaptation, which is hard to assess, while Kapuas has a strong focus on forestry which can be tracked more easily.

VARIOUS SOURCES AND INSTRUMENTS DELIVER CLIMATE FINANCE TO LOCAL GOVERNMENTS

As illustrated in Annex F and Figure 7, local governments finance their expenditure through own source revenues as well as a range of different instruments including:

- state budget transfers, which do not form part of the local budgets but are disbursed by local governments acting as implementing agencies (Co-Administration/ Deconcentration Fund),
- state budget transfers, which form part of the local budgets (General/ Specific Allocation Grants, Revenue Sharing - Reforestation Fund), and
- local grants, which comprise finance from international sources and the state budget.

Table 1 shows the value of budget resources in the sampled regions that contributed to climate finance.

Non-earmarked sources contributed 84% of climate finance (IDR 16.52 billion/ USD 1.87 million) to sub-national government budgets in 2011. These included General Allocation Grants and local budget own source revenues. Since local governments have the authority to decide how non-earmarked sources of finance are used, the high share of climate finance originating from these

Table 1: Estimates of climate-specific finance in a selection of Central Kalimantan local governments (IDR billion/ USD million), 2011

TYPE OF INSTRUMENTS USED TO TRANSFER CLIMATE FINANCE FROM DIFFERENT SOURCES	TOTAL (IDR BILLION)	TOTAL (USD MILLION)
From State Budget implemented in regions	1.82	0.21
• Co-Administration Fund (TP)	0.05	0.01
• Deconcentration Fund (Dekon)*	1.77	0.20
From Local Budget	18.19	2.06
Non-earmarked sources (incl. local budget own-source revenue, General Allocation Grant)	16.52	1.87
Balancing funds	-	-
• Specific Allocation Grants (DAK)**	0.43	0.05
• Revenue Sharing -Reforestation Fund (DBH-DR)***	1.24	0.14
Local grants (Hibah Daerah)	0	-
Total	20.01	2.27

* not applicable in districts/ municipality

** applicable in provinces only for a few specified sectors in particular years

***not applicable in provinces

sources suggests that there may be potential for local governments to direct more non-earmarked resources towards climate finance actions and activities.⁴¹

In 2011 earmarked funds delivered at least 16% (IDR 3.49 billion/ USD 0.40 million) of climate finance implemented in the sampled regions, split almost equally between those state budget transfers that become part of the local budget (ie. the Balancing Funds) and those that do not (ie. Deconcentration and Co-Administration Funds).

To scale up climate finance at local level it will be important to consider the potential role that earmarked funding mechanisms, such as the Revenue Sharing - Reforestation Fund, might play at local level, and to identify why disbursements are very low. Funds transferred to the local budget in a given year, but not disbursed, remain in local reserves and are available for budget allocation in following years. We do not know the scale of the total cumulative resources currently in the reserves. In 2011, a new allocation of IDR 23 billion (USD 3 million) was transferred from the Revenue Sharing - Reforestation Funds to the sampled local governments. From the total reserves held at the local level, sampled local governments allocated IDR 43 billion (USD 5 million) to projects. However, only IDR 1 billion (USD 0.1 million) was disbursed from one local government from the planned IDR 43 billion. Had the planned IDR 43 billion been disbursed, this would have tripled the estimated total volume of climate finance spent by our sampled local governments in 2011 (from IDR 20 billion to IDR 62 billion).

Other earmarked sources such as the Specific Allocation Grant (IDR 0.43 billion / USD 0.05 million), and the Co-Administration fund (IDR 0.05 billion / USD 0.01 million) played a minor role in delivering climate finance from central to local actors. Nevertheless, their potential role in leveraging local climate finance should not be dismissed, as recipient local governments are obliged to provide a matching grant of at least 10% to support the implementation of the stipulated activities.

41 Mumbunan, et al (2012) also argues for the use of the General Allocation Grant as an ecological transfer instrument from the central to provincial level. His reasons being that such unconditional grants allows regions greater autonomy to allocate resources according to their needs and priorities—instead of the central government's that is more likely to happen with specific-purpose grants like Specific Allocation Grants. Yet he acknowledged that "given the lump-sum nature of the General Allocation Grant, the degree of effectiveness in attaining a specific expected outcome depends considerably on the province under discussion."

Our analysis did not identify any international climate finance flows to local governments where climate finance is most needed. This may suggest a need for improved tracking of international development partner activities at the local level, or a need to adapt instruments or mechanisms to better facilitate the transfer of international climate finance to local government (via central agencies, as explained in section 3) to support local climate action plans. Although there were at least 5 international development partner projects taking place in Central Kalimantan in 2011,⁴² according to state budget reporting, no international grants were transferred to local government management in 2011. These projects covered a broad range of activities including land use and REDD+ demonstration projects, ecosystem rehabilitation, as well as conservation campaigns. It is possible that the projects were not included in 2011 state budget reporting since some forms of international funds are generally reported at the conclusion of the project (see section 3). A review of the projects in place however suggests that development partners themselves, or local NGO organizations, typically served as the executing agency for projects while NGOs or universities acted as implementing partners. Accordingly, local government officials may have had limited knowledge or oversight about the level of funding disbursed in their jurisdiction or the types of activities financed. As discussed in section 3, improved tracking could be realized through enhanced guidelines and implementation of existing legislation.

LOCAL CLIMATE FINANCE SPENDING WENT TO DIRECT MITIGATION ACTION IN THE FORESTRY AND ENERGY SECTORS

In terms of the types of activities funded, local spending is mostly aimed at direct mitigation (83%), with the remaining share used for indirect activities (17%). Use patterns vary across regions, with some heavily investing in direct mitigation activities (Kapuas) while others are focused on indirect activities (Kotawaringin Timur). We were unable to identify any climate finance for adaptation actions in 2011, likely due to difficulties identifying applicable activities. This is indicative of uncertainty at the national and international levels as previously discussed in this report.

42 Kalimantan Forest and Climate Partnership (KFCP), The Lamandau Wildlife Reserve REDD+ Project, The Lamandau River Wildlife Reserve (LRWR) forest conservation and community development project, Asian Peat land Forest Project (APFP), Partnership for Governance Reform - Forest Governance Reform

Overall, the bulk of climate finance disbursed by local governments in our sample went to the forestry sector, followed by renewable energy.⁴³

- Most of the district/municipality budgets financed climate-specific activities in the forestry sector (IDR 9 billion / USD 1 million), while the province focused spending toward renewable energy (IDR 6 billion / USD 0.7 million).
- Most of state budget flows (Co-Administration/ Deconcentration Fund) went to finance agriculture and renewable energy at the district level, and to forestry at the provincial level.

These figures reflect the **different authorities of local actors, suggesting that districts, municipalities and provinces play distinct, but complementary roles.**

Districts have responsibility for managing resources, such as forestry, located within district boundaries, while provincial governments play a key role in managing cross-district activities such as energy infrastructure.

STRENGTHENING MECHANISMS TO TRANSFER FINANCE FROM DOMESTIC AND INTERNATIONAL SOURCES TO LOCAL GOVERNMENTS MAY ACCELERATE IMPLEMENTATION OF CLIMATE ACTIONS IN INDONESIA

Central and local governments can play complementary roles - policy is decided at the national level, while outcomes are delivered and tracked locally. In this respect, readiness at the local level is an important issue. While lack of data prevents an accurate estimation of the amount of climate finance being allocated or disbursed by local governments, our analysis suggests it could be very low. The bulk of future climate actions will need to be implemented at the local level, but there are challenges in disbursing funding to regions to support climate activities, and currently, no dedicated instrument or mechanism. Understanding why climate finance is not yet flowing at sufficient scale to the local level will be essential to unlock and speed up implementation of climate activities in Indonesia.

⁴³ The possibility of selection bias should be noted with care, as activities in these sectors are most easily identified as climate-specific, whereas activities in other sectors may have been identified as more development-oriented and thus excluded from this calculation due to our conservative approach that we took.

4.3 International development partners

- In 2011, international development partners contributed an estimated IDR 2,851 billion (USD 324 million) or 34% to public finance flows in Indonesia. Bilateral partners delivered around 90% of this amount. In contrast, multilateral partners and international climate funds contributed a minor share (4%).
- Disbursements were significantly lower than commitments, reflecting challenges for development partners in delivering finance and the Government of Indonesia in absorbing finance at scale and pace.
- Most loans flowed to state-owned enterprises as low-cost project debt. Grants flowed to a mix of private consultancies, international organisations, NGOs and other organizations involved in capacity building activities.
- 17% of international climate flowed through the Indonesian state budget in 2011, highlighting an important opportunity to link international public finance with national systems and to support country-led priorities.
- There are opportunities to improve how international resources are tracked and targeted to meet Indonesia's low-carbon and climate resilient development goals.

Bilateral partners contributed the vast majority of finance, with multilateral partners and international climate funds playing a minor role

In 2011, 22 **international development partners** provided IDR 3123 (USD 354 million) in public climate finance to Indonesia. Of this, IDR 2,851 (USD 324 million) actually flowed to end-users and represented 34% of total public climate finance disbursed in 2011 in Indonesia.⁴⁴ This

44 Hereinafter, disbursed data relates to only those disbursed amounts that funded activities and does not include an IDR 264 billion loan which we know represented a financial transfer between different actors in the landscape but has not yet been disbursed to end users. We acknowledge that our estimates likely include other disbursements into the public finance system that may not have reached end recipients in the year 2011.

includes contributions by 12 bilateral and 6 multilateral development partners that responded to our survey,⁴⁵ plus disbursements to projects from four **international climate funds** totaling IDR 68 billion (USD 8 million).⁴⁶

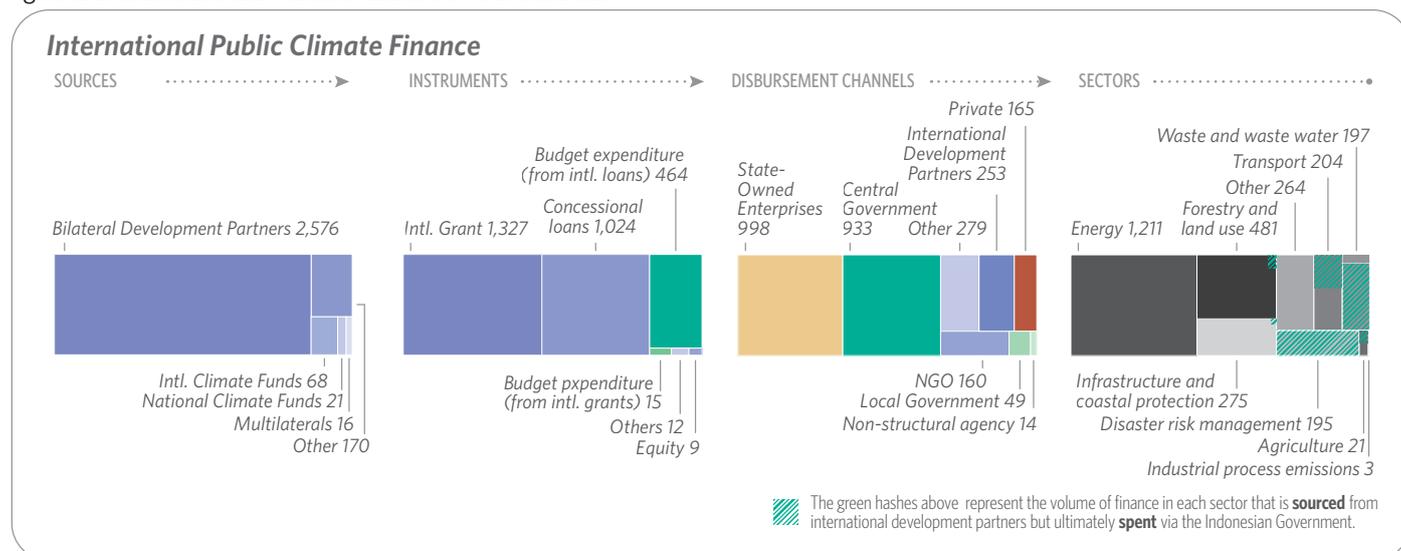
As shown in Figure 8, 90% of finance from international development partners originated as **bilateral assistance**, with most overseen jointly by international development partners and partner Indonesian central government ministries. This allowed the Indonesian government to guide implementation of these activities in line with national strategies and priorities. Multilateral partners and international climate funds, in contrast, provided just 4% of the international finance captured in the study.

International climate funds represented a minor part of the landscape in 2011. This is not surprising, as many emerging funds were still in the startup phase, including the Forest Carbon Partnership Facility, Forest Investment Program (FIP) and the Clean Technology Fund (CTF). The main funds operating in 2011 for which we captured disbursements were the International Fund for Agricultural Development (IFAD) (IDR 26 billion / USD 3 million), the Global Environment Facility (GEF) (IDR 24 billion / USD 2.7 million) and United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (UN-REDD) (IDR 18 billion / USD 2 million). Finance from climate funds was managed by multilateral organizations, including International Finance Corporation, United Nations Industrial Development Organization (UNIDO), World Bank, Food and Agriculture Organization of the United Nations (FAO), United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP). Of the total IDR 68 billion (USD 7.7 million)

45 The following development partners provided information via a survey conducted for this study: AFD, AusAID, Danida, EU, Germany's BMUB, KfW, GIZ, JICA, Netherlands, Norway, UK, USAID, ADB, IFAD, IFC, UNDP, UNEP and FAO. See Annex H for further details. In addition, *partial* information for the following organizations is included based on information from Indonesia's state budget: ITTO, ACIAR, JBIC, Korea Forestry Service and UNIDO. International climate fund information was sourced from climatefundsupdate.org and fund literature. We also include additional unnamed donors for which we extracted data from the Indonesian state budget, with appropriate checks to avoid overlap with other data sources. No survey response was received from World Bank, Chinese or Korean development agencies. BAPPENAS reporting suggests that disbursements by Korea to climate change related projects could have been as high as USD 143 million in 2011 we could not confirm these expenditures and the instruments used (e.g. loans or grants) during this study.

46 These international climate funds were the Global Environment Facility (GEF), the Forest Investment Program (FIP), the UN-REDD Program and the International Fund for Agricultural Development (IFAD).

Figure 8: International Public Climate Finance Flows in Indonesia



provided by international climate funds, more than IDR 11 billion (USD 1.2 million) was channeled via state budget transfers.⁴⁷ Most of the finance (IDR 44 billion / USD 5 million) was directed at activities in the land use, forestry, and agriculture sectors (spread across adaptation and mitigation actions), with IDR 23 billion targeted to renewables and energy efficiency projects.

International partners provided grant finance to support the development of enabling environments and low-cost debt to support investments

Finance disbursed by international development partners was almost evenly split between low-cost project debt (IDR 1,488 billion / USD 169 million) and grant finance (IDR 1,343 billion / USD 152 million). This reflects an equal balance in efforts to implement projects that directly reduce emissions, as well as those that develop enabling environments for future investments. Most development partners used grants, while only five development partners, mainly development banks (ADB, AFD, JICA, KfW and JBIC), provided loans. Loans were few in number (9), but high in value. 99% of loans disbursed went to support direct action (85% mitigation; 14% adaptation), with the majority implemented by state-owned enterprises through infrastructure projects in the energy sector.⁴⁸ Grants were larger in number (197), but on average lower in value. 69% of grants supported the establishment of important enabling environments

47 In Figure 3, for visual simplicity we depict only IDR 56 billion (USD 6.4 million) flowing out of international funds and IDR 11 billion (USD 1.2 million) as part of international development partners' flow to the state budget.

48 A single loan represented 62% of the total value of loans captured in our analysis and funded a geothermal power plant.

(readiness activities - including capacity and knowledge development, training, background studies to inform policy development, among others). Development partners provided an additional IDR 9 billion (USD 1 million) as equity for biocarbon projects.⁴⁹

The findings detailed above suggest a tracking and accounting issue in assessing disbursements from loans versus grants, as we can observe that infrastructure loans are front-loaded rather than spread out over time as is usually the case for grant assistance. Our findings also suggest that public loans mainly finance direct action, in particular projects that create revenues, while grants generally support activities that do not create revenues, but provide important enabling environments for a low carbon transition.

International climate finance was disbursed through a broad range of different actors

It was difficult to track international climate through to its end point (see Box 7: Challenges in reporting and tracking international climate finance below) because of multiple overlaps between executing and implementing agencies that manage and coordinate flows. Our analysis reveals three main groups of actors involved in disbursing international climate finance, with the largest portion (41%) disbursed through state-owned enterprises and private actors, 35% disbursed through central and local governments, and the remaining 24% disbursed through international partners, NGOs and other organizations such as universities.

49 An additional IDR 264 billion (USD 30 million) of market rate debt for investment in energy efficiency by small to medium enterprises is not included in our total disbursement figures since this was a financial transfer between different actors that has not yet been disbursed to end users.

Box 6: International development partners’ climate finance disbursements are well below commitments

There is no comprehensive database to track disbursed amounts versus commitments. However several estimates (see table below) suggest that cumulative climate-related financial commitments in the early 2000s from international development partners are in the range of USD 3100 to 7600 million. In contrast, disbursements in 2011 totaled USD 324 million. Most pledged finance relates to a small number of high value loans and international climate funds (Tänzler and Maulidia, 2013), many of which are suffering long delays in disbursement. At least one- the Climate Change Policy Loan - has been discontinued early as part of President Susilo Bambang Yudhoyono’s decision in late 2010 that there should be no more loans for climate change (IGES, 2013; Simamora 2010).

While it is methodologically difficult to compare cumulative commitments spanning multiple years and annual disbursements, disbursements appear to be considerably lower than expectations, suggesting significant barriers exist in the system, including challenges for both development partners in delivering finance and for the Government of Indonesia in absorbing international climate finance at scale or pace.

Anecdotal information from development partners and Indonesian partners suggest common bottlenecks that could be addressed or better managed include: legal difficulties associated with unclear land ownership; licensing and permitting delays; the need for lengthy stakeholder consultation and capacity building processes; delays owing to activities being first of a kind demonstration projects which involve learning-by-doing; complex and challenging regulations and administrative requirements; difficulty applying safeguards (both Indonesia’s and those of partners); and slow approval processes.

SOURCE AND COVERAGE	TIME PERIOD	CUMULATIVE COMMITMENTS
Rizal (2013) - 13 bilateral and multilateral donors	2010-2020	IDR 68,000 billion (USD 7600 million)
Fachrival (2013) - 13 bilateral and multilateral donors	2010-2013	IDR 53,000 billion (USD 5900 million)
Tänzler and Maulidia (2013)	Not defined	IDR 28,000-48,000 billion (USD 3100 - 5300 million)
Brown and Peskett (2011)	2007 - 2015	IDR 39,000 billion (USD 4400 million)
OECD CRS database (2013), cumulative commitments of the 11 highest contributing bilateral donors ¹	2008-2011	IDR 32,000 billion (USD 3600 million)

¹ Based on overall cumulative donor commitments from 2002 to 2011.
 Note: Figures have been converted from USD to IDR using the average exchange rate for 2011 to give an indication of magnitude of flows in IDR.

Box 7: Challenges in reporting and tracking international climate finance

Improved the tracking and monitoring of international climate finance could help the Government of Indonesia more effectively direct and manage these flows. Of the IDR 2,851 billion (USD 324 million) disbursed by international development partners in 2011, we estimate that around 17%, or IDR 479 billion, was transferred into the Indonesian Treasury to be managed as part of the state budget. Most of the remaining 83% flowed through non-government actors (including international development partners, NGOs, SOEs and the private sector). Money transferred through the Indonesian Treasury became part of comprehensive reporting requirements while the Ministry of Finance's ability to track the remaining was often impaired.

2012 Ministry of Finance data suggests that reporting of international finance provided by development partners to Indonesia increased (total development finance, not just climate-specific finance). This may in part reflect the application of more detailed regulations issued in 2011 (see Section 3). However, initial analysis of 2011 and 2012 data sets on international finance provided by the Ministry of Finance indicate that challenges remain in applying some accounting categories and terminology to the internationally supported activities. More detailed, publically available guidance with clear and common definitions and reporting formats could potentially assist international partners to report their disbursements in a timely and comparable way to the Ministry of Finance. This would enable the Government of Indonesia to better target international climate finance to complement domestic finance.

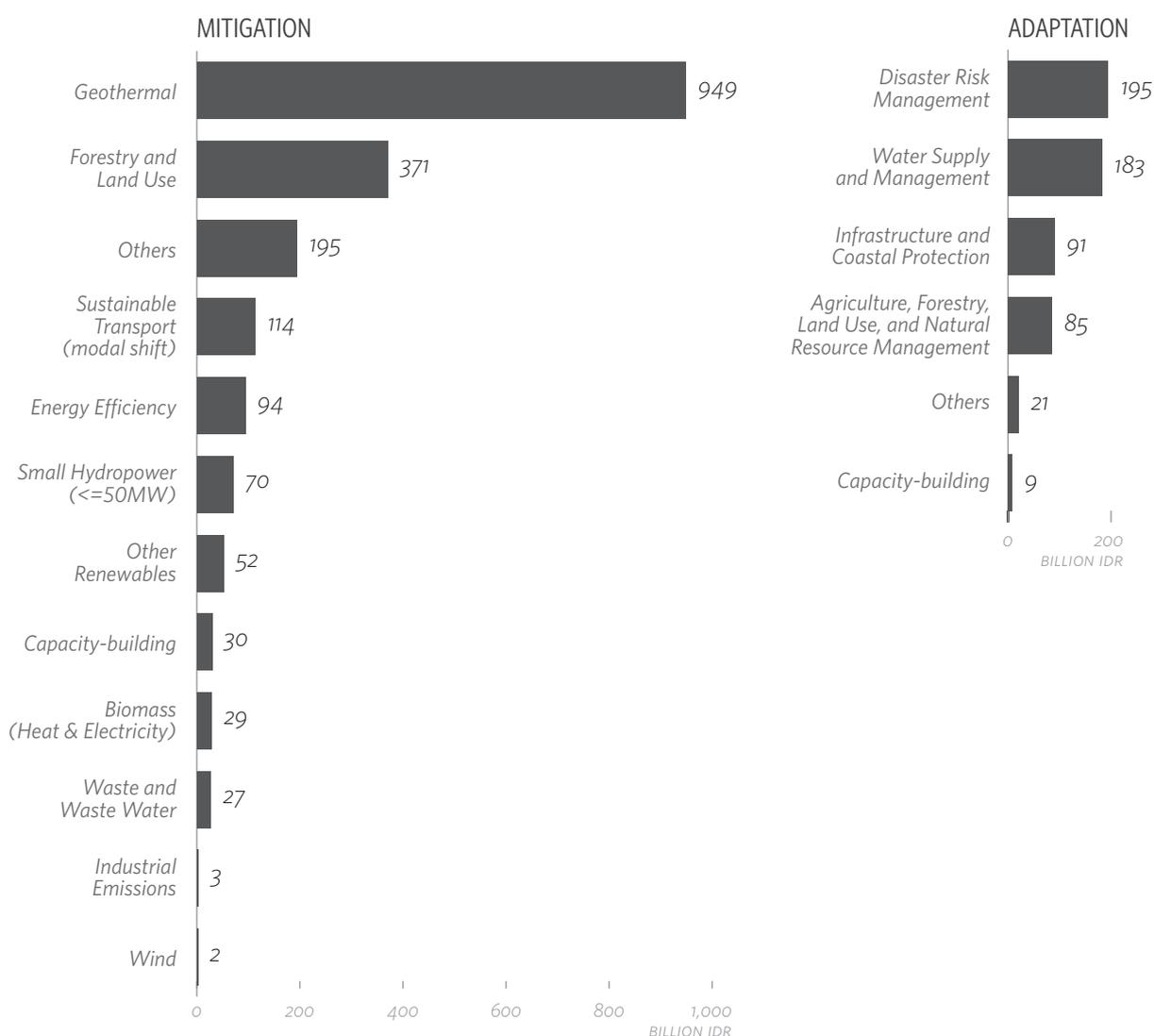
The majority of international climate finance supported direct mitigation actions in the energy sector

68% of overarching international climate finance flows (IDR 1,908 billion / USD 217 million) were disbursed to support direct actions. Of this, 80% (IDR 1,533 billion / USD 174 million) supported direct mitigation and 20% (IDR 374 billion / USD 42 million) supported direct adaptation. 32% of international climate finance supported indirect activities.

As illustrated in Figure 9 below, most mitigation climate finance was spent on energy while significant amounts also went to forestry and land use, waste and waste water and transport. On the adaptation side most finance was spent on disaster risk reduction, and infrastructure and coastal protection, while forestry and land use and agriculture were also important recipients.

Following on from the challenges involved in identifying adaptation activities and estimating associated flows transferred through the state budget (as introduced earlier in Box 3), we identified some additional international finance, transferred into the state budget, as potentially providing climate-relevant outcomes, mainly for infrastructure and coastal protection activities. However, the climate-specific share of this finance could not be verified and is therefore not included in our estimates of international development partner contributions. While some international development partners have established approaches for defining and tracking adaptation, it is possible that others responding to our survey of climate finance did not include development activities that have climate benefits.

Figure 9: Final uses of international climate finance (IDR billion)



Box 8: Challenges in investing in geothermal development in Indonesia

A number of international development partners have engaged with Indonesian government state-owned enterprises since the 1970s to support the development of Indonesia's vast potential for geothermal energy, estimated in 2008 by the World Bank at about 27 GW. Progress has been slow (Polycarp et al., 2013) as shown by the low installed capacity (1200 MW, of which only 260 MW was installed in the last decade), and a large number of projects continue to drag out after many years (see Annex G). Difficulties that have been encountered include:

1. Lack of a level playing field for geothermal versus other fossil fuelled generation: subsidies for fossil fuels remain despite concerted efforts to phase them out; power purchase agreements have to be negotiated on a case by case basis with the state utility and obligations to buy renewable electricity and feed-in tariffs are not yet stable;
2. Lack of management, planning, tendering, and technical capacity in national and local government as well as in the nascent industry itself;
3. Complex and bureaucratic permitting processes;
4. Lack of access to finance due to high costs and high (perceived) risks; and
5. Reluctance to invest in exploration given various real and perceived risks.

In recent years the Government of Indonesia has created a more favorable legal and financial environment for geothermal energy. In particular they prepared a national roadmap and pricing regulations, decentralized licensing, and now allow the private sector to develop geothermal. In 2012, the government also introduced a feed-in tariff for geothermal electricity of up to USD 0.19/kWh, but discussions are ongoing on further revisions to the tariff structure, and to a large extent the feed-in tariff offsets fossil fuel subsidies. However regulations have also been put in place to increase retail electricity tariffs, which should help to level the playing field for renewables. State-owned enterprises can also more easily lend from commercial banks and international capital markets since Indonesia's investment grading has been upgraded.

International partners have provided project finance for geothermal power plants, as well as policy and institutional support, technical support for high cost exploration and feasibility and environmental studies. The Clean Technology Fund (CTF) has pledged USD 400 million for geothermal development in Indonesia, and in 2011 approved a USD 575 million project to expand capacity in the Ulubelu and Lahendong geothermal fields.¹ In 2013, a revised Investment Plan for CTF in Indonesia was prepared, reallocating CTF resources from public to the private recipients. In some cases, the Clean Development Mechanism also seems to have been an important supporting instrument for geothermal projects.

In 2011, the Ministry of Finance set up the Risk Mitigation Geothermal Fund with government funding of IDR 1,237 billion to help mitigate the risk involved for private developers of geothermal in Indonesia. However, funds have not yet been disbursed due to issues around the legal status of the managing entity, the PIP (Pusat Investasi Pemerintah).

Sources: Polycarp et al. (2013); CPI review of selected SOE activities (see Chapter 4.4); CIF (2014); CTF (2013); Baker and McKenzie (2012).

¹ The Ulubelu Geothermal Project Unit III & IV is of 110MW capacity and was originally, announced by Pertamina in 2006. It is expected to cost USD 326.2m and will have contributions from Pertamina (USD 140.2m), IBRD (USD 108.5m) and CTF (USD 77.5m). The Lahendong Geothermal Project Unit V & VI is of 40MW capacity, was commissioned in 2012 and cost USD 191.9m with contributions from Pertamina (USD 105.9m), IBRD (USD 50.2m) and CTF (USD 35.8m). As of 30 June 2013, no funds had yet been disbursed.

4.4 State-owned enterprises

- State-owned enterprises (SOEs) play an important role delivering public goods and services such as electricity generation, roads and telecommunications.
- Although we were not able to estimate their total contribution to climate finance in 2011, our study already highlights that they have an important role in implementing climate actions
- Existing corporate social responsibility obligations could also be leveraged to encourage increased and more targeted investment of SOE climate finance.

SOEs are potentially important investors and implementers of climate action

SOEs have significant potential as sources of climate finance in Indonesia for three main reasons. First, they may invest in climate-specific activities either as part of their core business (such as developing renewable power generation) or for operational reasons (such as implementing energy efficiency measures as cost saving measures). Second, many SOEs voluntarily carry out corporate social responsibility activities, and profit making SOEs are subject to regulations (some mandatory, others voluntary) that already direct some flows to climate-specific outcomes and could be leveraged further. Third, SOEs' commercial orientation may shed light on some of the barriers to investment faced by private actors not captured by this study.

SOEs may already be delivering a small amount of climate finance through Corporate Social Responsibility activities

By law, all profitable SOEs operating in Indonesia are required to allocate 2% of their net profits to Community Development & Partnership Programs (Program Kemitraan Bina Lingkungan or PKBL).⁵⁰ These include assistance for nature conservation and helping victims of natural disasters. In 2011, SOE disbursed IDR 14,600 billion (USD 1,657 million) for the PKBL, IDR 3,600 billion (USD 409 million) of which went to the environment component (Kompasiana, December 2012).⁵¹

50 SOE Law No. 19/2003 and Ministry of SOE Decree No. Per-05/MBU/2007
51 Kompasiana. 2012

In addition, Social and Environmental Responsibility obligations (Tanggung Jawab Sosial dan Lingkungan or TJSL)⁵² include environmental protection activities. However, publically available information is sporadic and incomplete, making it difficult to assess the extent to which obligations were being implemented, or finance flows generated.

In 2011, the Ministry of State Owned Enterprises held the majority share of 140 companies, which generated a net profit of IDR 122,000 billion (USD 13,845 million),⁵³ suggesting that if complied with, PKBL and TJSL contributions could reach quite significant sums. We could not however identify the climate-specific share of either the PKBL or TJSL spending. Maulidia and Jauhari (2014), suggest that SOEs tend to invest more in physical infrastructure projects and community development in the surrounding area rather than climate-specific activities.

To shed more light on the climate specific share of SOE investment, we conducted a literature review of 46 SOEs⁵⁴ (see section 2), which together contribute almost 75% (IDR 101,000 billion / USD 11,462 million in 2012) of SOE's total profit.⁵⁵ Among their publicly available reports we found that in 2011 under PKBL, 14 SOEs spent at least IDR 73 billion (USD 8 million) on nature conservation. Additionally, 10 SOEs spent IDR 12 billion (USD 1 million) on disaster relief. In the environmental conservation area,⁵⁶ data on CSR spending was available for just four SOEs, which between them spent a total of IDR 21 billion (USD 2 million) in 2011.

However, we were unable to determine what share of these sums may have been climate-specific. Indonesian policy makers and consultants that we interviewed for our study predict that total amounts invested in climate-applicable activities as a result of CSR are low. Nonetheless, interviewees indicated that policy makers could increase the level of climate-specific investment by SOEs by revising policies to more effectively target CSR programs in the future. Conversely, investments made for core business or operational improvement

52 Limited Liability Company Law No. 40/ 2007

53 Ministry of State Owned Enterprises (2014)

54 Including 10 publicly listed companies, 33 limited liability companies and 3 wholly owned companies

55 Ministry of State Owned Enterprises (2014)

56 CSR activities (mandated or otherwise) reported in SOE documentation include tree planting, sustainable forestry, waste management, water desalination, small scale renewables, energy efficiency, energy audits, land rehabilitation, high productivity rice farming, biogas, emissions monitoring etc. SOEs do not generally quantify their expenditure on such activities.

reasons are expected to be much higher. Such investments would include, for example, a utility investing in a geothermal power station (in the case of a core business investment) or a manufacturer improving the energy efficiency of an industrial process (in the case of operational improvements). Indeed, our analysis of international development partners contributions already highlights SOEs role as an important implementer of climate action in Indonesia, whereby the disburse 35% (IDR 998 billion / USD 113 million) of all international climate finance disbursed in 2011.

Investments made to meet core business and operational requirements provide the best potential to support climate activities

There is limited data available on SOE investments in core business and operational requirements in 2011. However, our literature review found many SOEs were initiating programs to reduce their emissions and invest in clean technologies, particularly related to low-carbon

energy generation from geothermal, small hydro, waste, biomass, and bioethanol. CDM seems to have been an important supporting instrument for some programs. Our literature review identified examples of clean energy projects, however, in many cases, projects encountered significant delays and obstacles (see Box 8 on the geothermal experience for instance). State-owned banks are also actively developing new funds and programs to support green lending.⁵⁷ See Annex G for a detailed summary of examples of SOE activity captured by our literature review.

Given the sectors in which they invest (e.g. infrastructure, energy and commercial forestry and agriculture), their need to meet core business and make operational efficiency improvements, growing CSR activities and existing regulations, there appears to be significant potential to leverage SOE's interests to help increase resources to support climate mitigation and adaptation.

⁵⁷ Information found in particular for BNI, BRI and Bank Mandiri.

5. Conclusions

This is the first comprehensive analysis of the landscape of public climate finance flows in Indonesia, from sources of finance (international and domestic) through intermediaries to instruments, disbursement channels, sectors and final uses. The study provides a baseline from which to measure progress and plan scale up, highlighting barriers and opportunities for investment. It also gives an insight into the complexities of the public finance system in Indonesia and the methodological challenges of tracking public finance.

Key findings

At least IDR 8,377 billion (USD 951 million) of climate finance from public sources was disbursed in Indonesia in 2011. This figure of 2011 expenditure falls below Indonesian government estimates of the level of annual finance required by 2020 to meet emission reduction targets. However, both domestic and international public flows are expected to grow in the next few years as comprehensive national policies on climate change mitigation (RAN-GRK) and adaptation (RAN-API) are fully implemented.

The prominent role of Indonesian domestic public climate finance in the 2011 landscape highlights the importance of domestic resources as drivers of scaled up climate action and investment. The Government of Indonesia provided 66% of public climate finance in Indonesia in 2011 while international development partners provided the remaining 34%. The Indonesian government plays a central role delivering climate finance at all stages of the life cycle, including by implementing the majority of climate activities (77%).

National budget transfers, along with loans and grants delivered through bilateral partnerships, delivered the bulk of climate finance flows. National and international funds, revolving funds, and multilateral partnerships currently deliver low volumes of climate finance. However, these mechanisms may have considerable potential to scale up.

Local governments have an important role to play in ensuring climate activities are implemented locally where they need to occur. While lack of data prevents an accurate estimation of the amount of climate finance being sourced or disbursed by local governments, our analysis suggests it could be very low. Understanding why this is so will be essential to unlock additional climate finance flows and increase implementation of activities on the ground.

National and international finance appears to be well aligned with Indonesia's national mitigation priorities.

The bulk of domestic climate finance (almost 75%) was disbursed to support what we refer to as 'indirect activities', including the development of important policies and enabling environments. These will be essential foundations for future action to address climate change within Indonesia. Importantly, more than 70% of domestic finance targeted at indirect activities went to the forest sector, a major source of Indonesia's emissions. In overarching terms, the majority of public climate finance was targeted at the land (51%) and energy (19%) sectors, the two main emitting sectors within the Indonesian economy. The focus of investment in indirect activities in the main emitting sectors suggest that Indonesia is getting ready to scale up action where it is needed most, in line with mitigation priorities already identified in their national action plan (RAN-GRK).

Significant tracking difficulties inhibit our understanding of the complete picture of climate finance in Indonesia. Adaptation finance is particularly challenging to track. Additional finance of IDR 10,008 billion (USD 1,136 million) was identified as potentially relevant finance that is supporting broader development goals, and may have some climate benefits. Mitigation finance is relatively easy to classify, however, separating what constitutes adaptation and what constitutes development is more challenging, particularly given Indonesia's joint economic and environmental goals. The bulk of the uncertainty (IDR 8,392 billion / USD 952 million) related to activities that may have adaptation benefits, particularly in the infrastructure sector.

Policy recommendations

Comprehensive reporting and tracking of climate finance will improve efforts to monitor and target climate finance flows; there are significant opportunities to improve reporting and tracking of climate finance in Indonesia. The Ministry of Finance has already commenced work to develop a system to tag climate finance within the state budget that it hopes to start piloting in the near future. Lessons from data analysis that was conducted as part of this study will be shared to support this pilot system. A budget tagging system will be an important step to improve reporting and tracking, strengthening the ability of policymakers to manage and target domestic finance resources more effectively.

Other opportunities to improve reporting and tracking include the development of a single national database that tracks climate finance from all public actors, including central, local and international government actors. Currently, reporting and tracking is managed by many different ministries. Having one central system that encouraged different actors to collect, compile and standardize information would increase comparability and help to provide a more comprehensive picture for policymakers, allowing them to more appropriately direct the different streams of climate finance flows.

Clearer, more detailed and accessible guidelines explaining reporting requirements would also help the different actors to report appropriately, particularly in the case of international development partners and local governments. Through our data collection efforts, we observed that reporting from development partners and local governments was often not uniform. In large part, this appeared to be owing to varying interpretations of what kind of reporting was required at what point in time. Simplified guidelines setting out requirements for annual reporting would likely promote more consistent reporting and improve information available to policymakers making decisions on how to target climate finance. In the case of international development partners, this would also help to ensure that support is country-led.

One way to address the uncertainty around climate finance is through the development of clearer definitions of what constitutes climate finance in general, and adaptation finance in particular. Central government and international development partners informed us that they often found it challenging to apply emerging definitions to their activities, suggesting that developing a system that applies these definitions to real actions rather than in the abstract, will be important. A more comprehensive and practical understanding of climate finance that covers both mitigation and adaptation, will enable policymakers to determine whether money is being effectively delivered across the full spectrum of climate priorities.

Building readiness among local governments presents a key opportunity to support scaled up climate finance and action. While the bulk of future climate actions will need to be implemented at the local level, there are challenges in disbursing funding at the scale required to regions. This appears partly to result from capacity challenges that will require both financial and technical support to overcome, as well as some challenges in transferring finance from central to local governments, for climate-specific activities. Our local government

case study highlights that there are a range of transfer mechanisms for transferring funding from the central to local government. However, these mechanisms are not climate-specific. Further analysis is needed to consider how existing financing mechanisms could be used or adapted to more effectively support climate activities at the local level, or whether there is a need to develop additional climate-specific regional transfer mechanisms.

Research needs

More work is needed to understand where the best opportunities lie for Indonesia, along with its international partners, to improve the flow of public climate finance in line with targets to reduce emissions by 26%, or by 41% with international support.

Further analysis is required to evaluate specific instruments, such as national and international funds, revolving funds, multilateral partnerships, local transfers, and national equity participation, to determine what is currently inhibiting the flow of finance and how these instruments might be strengthened to support different end uses.

There are also opportunities to increase the flow of international finance, by improving the rate of disbursement compared to commitments. Further investigation including specific case studies could help to clarify anecdotal information about challenges on both the supply and demand side, and low disbursements of multilateral climate finance, to understand how blockages and bottlenecks might be overcome. This could also help inform the design of emerging funds like the GCF.

The private sector, and in particular the domestic private sector, is a cornerstone of climate finance in both developed and developing countries. While this study did not analyze private climate finance, Pew Environment Centre estimated that around USD 1,000 million of private money was invested in Indonesia in 2011 (Pew Environment Centre, 2012). This figure may not capture the true magnitude of private climate finance, but even this estimate alone would double this study's baseline of climate finance currently available in Indonesia. From our study, we also see that State-owned Enterprises (SOEs) can play an important role delivering climate finance flows that are linked with public goods and services such as electricity generation, roads and telecommunications.

Further in-depth analysis of the private landscape and how it links with the public climate finance

landscape will be a focus of the next phase of analysis by the Indonesian Fiscal Policy Agency and Climate Policy Initiative. This will be challenging, as there are significant and well-documented issues associated with tracking private investment flows. However, targeted analysis would help to clarify the potential of corporate

actors, households, project developers, institutional investors, commercial financial institutions, and private funds, to contribute investment toward climate actions, and how public resources might be directed to unlock their enhanced participation.

6. Glossary of Terms⁵⁸

BALANCING FUNDS	<i>Dana Perimbangan</i> —funds derived from state budget revenues that are allocated to local governments under the decentralization framework. See Annex F for more information.
BUDGET TRANSFER	Instrument to deliver climate finance, refers to transfers of climate finance via the state budget.
CLIMATE FINANCE	Defined in CPI landscape reports as finance flows that aim specifically to reduce emissions or build climate resilience.
CO-ADMINISTRATION	The assignment of tasks from the central to the local and/or village government with the obligation to report and account for the assigned tasks.
CO-ADMINISTRATION FUNDS	<i>Dana Tugas Pembantuan</i> —are similar to deconcentration funds, but can be allocated to both provinces and districts/municipalities, to finance spending on physical activities, such as procurement of goods, land, buildings, equipment and machinery, roads and irrigation. Funds transferred under the Co-Administration framework do not become part of the local budget/APBD.
DEBT	For consistency with CPI's <i>Global Landscape of Climate Finance</i> , the <i>Landscape of Public Climate Finance in Indonesia</i> diagram includes the instruments 'low cost project debt' and 'project level market rate debt'. In practice, the Indonesia landscape tracks one particular form of debt, that is loans. The term debt includes not only loans and applies more broadly, to financial instruments used mostly by the private sector e.g. bonds, credit facilities
DECENTRALIZATION	The transfer of governance authority from the central government to autonomous regions to regulate and administer government affairs.
DECONCENTRATION	The delegation of authority from the central government to the provincial governor as a representative of the central government.
DECONCENTRATION FUNDS	<i>Dana Dekonsentrasi</i> — state budget implemented by the provincial governor as the representative of the central government, to finance non-physical activities that fall within central government authority e.g. planning coordination, facilitation, technical assistance, training, counseling, supervision, guidance, and control. Does not include funds allocated to central government vertical agencies in the regions. . Funds transferred under the deconcentration framework do not become part of the local budget (APBD).
DISTRICT/MUNICIPALITY	Districts and municipalities are both second tier sub-national governments in Indonesia, beneath the province. Districts and municipalities, however, possess greater autonomy compared to the province. The difference between the two lies in the different size as well as demographic and economic characteristics.
FLOW	Movement and disbursement of climate finance (Bahasa Indonesia: pembiayaan). We categorize flows along their life cycle, from sources (Bahasa Indonesia: pendanaan) to intermediaries and the financial instruments used to manage and deliver finance, through to final sectoral uses.
GENERAL ALLOCATION GRANTS	<i>Dana Alokasi Umum (DAU)</i> - part of the Balancing Funds, a block grant sourced from state budget revenues transferred to local governments with the purpose to reduce fiscal capacity gaps across regions under the decentralization framework. DAU are transferred monthly from central to local governments. 10% of total DAU are allocated to provinces while 90% are allocated to districts. ¹ See Annex F for more information.
LOCAL BUDGET	<i>Anggaran Pendapatan dan Belanja Pemerintah Daerah (APBD)</i> — the local government annual financial plan; discussed and agreed upon by the respective local government and local parliament, and determined by the local regulation.
LOCAL GOVERNMENT	Throughout the report we use the term 'local government' to refer to all levels of 'sub-national government' including both provincial and district/municipality governments
LOCAL BUDGET EXPENDITURE	The scale of local budget expenditure describes how much money flowed out of a local budget.
LOCAL BUDGET REVENUE	Numbers on budget revenue show how much money was raised by local governments including from taxes or financial transfers within the country.
LOCAL GRANTS	<i>Hibah Daerah</i> — local revenues that can originate from the central government, foreign development partners, or other domestic partners, and transferred to the local level via an on-granting mechanism. ²

58 Definitions of the different instruments to channel resources from the central to local governments are adapted from the World Bank (2012) translation of Law 33/2004.

MOVEMENT	Movement or transfer of climate finance from the account of one party to the account of another party. We note that although the first party might consider the moved funds as disbursed, we differentiate them from actual disbursements in this report unless they reached the final stage of the climate finance life-cycle and were spent on uses/ sectors. We also differentiate between movement of climate finance and transfer of climate finance, which - according to the terminology widely used in Indonesia - refers to state budget transfer.
NATIONAL BUDGET	<i>Anggaran Pendapatan dan Belanja Negara (APBN)</i> - is Indonesian government's annual financial plan; lists revenue and expenditure plan for the state fiscal year (January 1 to December 31); approved by the Indonesian House of Representatives
OWN-SOURCE REVENUE	<i>Pendapatan Asli Daerah</i> —locally earned income levied based on local regulations, and in accordance with the legislation. <i>See Annex F for more detailed explanation.</i>
PROVINCE	The highest tier of sub-national governments in Indonesia. Provinces comprise of districts and municipalities.
PUBLIC SPENDING	Public expenditure (support for projects and activities that do not generate revenues) and public investment (support for projects and activities that generate revenues; instruments are revolving funds or equity participation)
REVENUE-SHARING FUNDS	<i>Dana Bagi Hasil (DBH)</i> - part of the Balancing Funds, aims to redistribute revenue coming from selected taxes and natural resources across levels of governments, with a higher proportion going to the resource-originating district/municipality Some types of DBH stipulate how resources should be spent, such as the DBH Dana Reboisasi (Reforestation Fund), while others do not. <i>See Annex F for more information.</i>
REVENUE-SHARING REFORESTATION FUND	<i>Dana Bagi Hasil Dana Reboisasi (DBH-DR)</i> - a type of Forestry Revenue-Sharing Fund which redistributes Reforestation Fund payments from timber concession-holders across levels of governments to finance the rehabilitation of degraded land and forests. <i>See Annex F for more detailed explanation.</i>
SPECIFIC ALLOCATION GRANTS	<i>Dana Alokasi Khusus (DAK)</i> - part of the Balancing Funds, a block grant sourced from state budget revenues transferred to local governments to primarily finance specific local activities that align with national priorities set by line ministries. Although DAK is earmarked to fund capital expenditure, some routine operational expenditure is allowed. Local governments must contribute a 10% matching grant. A component of the Balancing Fund. <i>See Annex F for more information.</i>

1 Government Regulation No.55/2005.
2 For planned grants according to UU 17/2003 , UU 33/2004, and later complemented by PP 2/2012- granting mechanism still to be developed for direct grants.

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About PKPPIM

The Centre for Climate Change Financing and Multilateral Policy (PKPPIM) was established in 2011 within the Fiscal Policy Agency of the Ministry of Finance, Republic of Indonesia. The centre performs functions such as formulating policy recommendations, as well as analyzing, evaluating, coordinating, implementing and monitoring climate change financing related issues. The centre also deals with economic and financial cooperation within the G20 and other multilateral forums.

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