CLIMATE
POLICY
INITIATIVE

Taking Stock of International Contributions to Low Carbon, Climate Resilient Land Use in Indonesia

Angela Falconer
Skye Glenday

February 2016

A CPI Working Paper

Acknowledgements

The authors would like to thank the development partner officials and Indonesia land use finance experts who generously contributed their time in 2015 to provide their perspectives, as interviewees or reviewers of the draft paper. While the former remain anonymous, expert reviewers included Johan Kieft, Sonny Mumbunan, Sherry Panggabean, Gita Syahrani and Suzanty Sitorus. Many thanks also to CPI colleagues Barbara Buchner, Jane Wilkinson, Guntur Sutiyono, Jessica Williams and Juliano Assuncao, for your excellent inputs and review. We are also extremely grateful to Elysha Rom-Povolo and Tim Varga for their excellent communications and design work.

The authors would also like to thank again the international development partners who contributed to the Indonesia Landscape study survey and requests for clarification during 2013-4. That project and this follow up study would not have been possible without the support of the Indonesian Ministry of Finance and the financial support of the Norway Agency for Development Cooperation (NORAD). The views expressed in this report are those of the authors and do not necessarily reflect the views of all experts consulted, the Ministry of Finance, or NORAD.

Descriptors

Sector	Climate Finance	
Region	Indonesia	
Keywords	Climate Finance, Indonesia, Development Partners	
Related CPI Reports	The Landscape of Public Climate Finance in Indonesia	
Contact	Angela Falconer	angela.falconer@cpivenice.org
	Skye Glenday	skye.glenday@cpi-indo.org

About CPI

Climate Policy Initiative is a team of analysts and advisors that works to improve the most important energy and land use policies around the world, with a particular focus on finance. An independent organization supported in part by a grant from the Open Society Foundations, CPI works in places that provide the most potential for policy impact including Brazil, China, Europe, India, Indonesia, and the United States.

Our work helps nations grow while addressing increasingly scarce resources and climate risk. This is a complex challenge in which policy plays a crucial role.

Executive Summary

Indonesia has a key role to play in meeting climate stabilization targets, with its high contribution to global land use, forestry, peatland, and agriculture emissions. The Indonesian government has set emissions reduction targets of 26% below business as usual by 2020, scaling up to 29% by 2030, and increasing their overall ambition to 41% with international support. The international community therefore has the opportunity to have a large impact.

The international community is already supporting changes in Indonesia's land use sector, contributing USD 323 million climate finance in 2011, with 17.7% of that going to land use (Ampri et al. 2014). However questions remain around the effectiveness of these efforts.

This paper discusses the role of international development partners[1] in financing mitigation and adaptation actions in the land use sectors in Indonesia. We evaluate what progress has been made to date, what challenges have been met, and what opportunities lie ahead to effectively support Indonesia, reflecting on the value add that development partners bring to the domestic picture. We provide an in-depth sectoral analysis based on international development partner data collected for the *Indonesian Landscape* (Ampri et al. 2014), supplemented by a literature review, and expert interviews.

Key Findings

International development partners are funding climate actions in land use, but their support is dwarfed by domestic funds for these sectors. The *Indonesian Landscape* tracked USD 486 million of finance going to the agriculture and forestry sectors in 2011 but just 12% (USD 57 million) was from international development partners, while the bulk (USD 429 million) was from the Indonesian government.

Most international finance is bilateral and channeled by a small group of international entities. Ten bilateral partners, including for example USAID and Norway, delivered around 88% of international finance disbursed to land use sectors in 2011. The remaining 12% came from multilateral organizations and funds.

Most international development partner finance was delivered through contractors or international groups as opposed to through Indonesian government or local organizations. We estimate that approximately 85% of international development partner finance for forestry and agriculture in 2011 was delivered through managing contractors, international governments, international NGOs, international development banks, international universities and UN organizations. While this approach is often favored to minimize bureaucratic government processes and guard against fiduciary risk, in some cases this may minimize the development impact of the actions on government and other target groups on-the-ground. It may also limit the total volume of finance that can be delivered, as it is split between multiple smaller scale mechanisms.

International land use climate finance deployed in Indonesia is dominated by grants. The international land use support that we capture was delivered entirely in the form of grants, apart from concessional loan projects financed by the International Fund for Agricultural Development. These loan finance projects may provide useful lessons for how public finance can be invested to leverage private sector investment and promote sustainable agriculture value chains, including in key sectors such as oil palm.

Land use activities supported by international development partners have focused thus far on capacity building and strengthening enabling environments. We classify 48% of international disbursements in land use in 2011 as 'indirect' activities, including training, institutional development, systems development, research, strategy and policy advice aimed at creating the enabling environment for emissions reductions or resilience improvements. They mostly support strengthened timber legality, developing MRV systems, sustainable forest management, and spatial planning. 'Direct' implementation (emission reducing or resilience improving) activities accounted for 13% of disbursements. These include ecosystem rehabilitation, as well as management of fire, and protected areas to a lesser extent. A further 39% of disbursements had both indirect and direct components, largely for training related to ecosystem rehabilitation and sustainable agriculture.

Since 2011, the major international partners have put increased emphasis on supporting sustainability of agriculture supply chains. So far this work is largely focused on dialogues and building an evidence base

1 We define 'international development partners' as institutions outside of Indonesia. These include bilateral donors such as the United Kingdom Climate Change Unit and bilateral and multilateral development finance institutions such as Kreditanstalt für Wiederaufbau (KfW) and the World Bank.

(studies), but many related, direct implementation activities are also getting started on the ground. There has also been some recent re-emphasis on agroforestry and community forestry, recognizing the potential for such projects to be locally beneficial, albeit usually small-scale, and to capitalize on the increasing body of local and international civil society and scientific community knowledge in this area.

International development partners' focus on capacity building and enabling environments is in line with Indonesia's needs

We find that Indonesia has persisting weaknesses in its enabling environment that impede efficient land use investments (Lee and Pistorius 2015; Seymour et al. 2015; Lawson et al 2014). This points to the need for sustained attention in this area. Persisting issues include: lack of comprehensive and consistent spatial information including on concessions, licenses, and permits; lack of recognition of customary land rights; conflict over land rights and illegality in land use; limited capacity of institutions and human resources; and lack of political support and corruption.

International development partners' focus on supporting indirect enabling environment activities is therefore well directed. Support helps to improve information, transparency, and governance, to tackle illegality, and allocate and manage land more efficiently. Such activities are challenging and do not always provide such visible results as implementation activities, but they have the potential to unlock significant streams of future public and private investment in land use. While such activities generally fall within the domain of the Indonesian Government, international partners can help to stimulate action, boost capacity, and provide best practice examples from other contexts.

Nonetheless, parallel support is needed to further scale up direct implementation activities that can help develop sustainable agriculture and agro-forestry value chains, support ecosystem restoration, and produce sustainable livelihood options for rural communities. Such support will help implementation activities scale up as the enabling environment is strengthened, providing proof of concept and also helping to push forward linked reforms in governance and regulation.

To increase the effectiveness and scale of international cooperation, stakeholders will need to work together to address implementation challenges

Development partners and their counterparts face numerous practical cooperation challenges and there is room for systematic improvements to increase effectiveness and disbursements. Challenges include: inconsistent, fragmented or unclear reporting and regulatory requirements; complex application procedures and safeguards; staff changes, which mean capacity building and outreach are continuous activities; duplication of donor efforts; insufficient understanding of risk or unrealistic delivery timelines; lack of ownership or incentives where money is not channelled through Indonesian organisations; and slow approval processes. Furthermore, there is a mismatch between the short-term project approach and political cycles that determine development cooperation agendas, and long-term objectives and delivery timeframes for the necessary changes in the land use sector.

There are mixed opinions on the influence and effectiveness of international support in the land use sectors in Indonesia. Efforts in recent years to explore new and more efficient ways to cooperate and increase aid effectiveness, such as the Indonesia-Norway results-based agreement and Indonesia Climate Change Trust Fund (ICCTF), have thus far encountered hurdles, and have yet to deliver at the envisaged scale or pace.

Ways forward

Implementation of the Paris Agreement will require ongoing, concerted efforts by all countries, including well-targeted support from international development partners to support delivery of the ambitions set out in Indonesia's intended nationally determined contribution. Important lessons can be taken from current international contributions to support low carbon, climate resilient land use in Indonesia to strengthen efforts going forward.

1. **Development partners and the Government of Indonesia need to coordinate more systematically to reform regulations and improve systems.** The Indonesian government is providing the largest share of climate financing in the land use sector. However, our research shows that there are capacity gaps. In addition, development partners are not currently channeling much of their finance to the government. Working in closer alignment with the government will be critical to overcoming

challenges, reforming regulations, and improving systems for more effective finance overall. Two opportunities for coordination include:

a. Working together to form a vision for land use that is cross-ministerial, cross-jurisdictional, and cross-donor, and away from current silos. This vision can help minimize duplication and maximize reach; and

b. Creating a comprehensive public database of international development partner activities and associated annual disbursements to enhance development partner and practitioner coordination and cooperation, and therefore effectiveness. We recommend establishment of a streamlined, simplified, and standardized reporting system and database, managed by the Government of Indonesia, with modalities for international organizations to update information regularly.

2. **Development partners can make adjustments to their programs to improve effectiveness. Four opportunities to improve effectiveness are:**

   a. Provide support for land use projects over extended durations. Several findings highlight this need, including the current, low levels of disbursement, the experience drawn from international fund set up, and the challenges experienced by large program implementations, such as the Kalimantan Forest and Climate Partnership (Rosenberg and Wilkinson 2013). Longer support can enhance impact, provide sufficient time to build partner capacity, implement activities on the ground, and deliver desired results. In essence, development partners should work to delink their funding from the shorter-duration political cycles of donor governments.

   b. Take care during project inception to prepare full risk assessments and realistic implementation plans that are understood by all relevant parties. Careful and participatory planning can facilitate smooth implementation.

   c. Aim to provide systems and outputs that can quickly transfer data and information to new officials, given frequent rotation of responsibilities.

   d. Involve Indonesian local academic or civil society advisors in development programs to help manage knowledge and develop stronger relationships with government partners.

3. **Development partners can build up the capacity of Indonesian organizations and explore innovative public private funding partnerships in order to leverage greater finance and impact, for example by:**

   a. Assisting Indonesian institutions meeting accreditation requirements to access international funds. Support is needed to build capacity of prospective Indonesian institutions (governmental and external) on safeguards, fiduciary standards, and on operating policies and procedures.

   b. Forging public private partnerships involving state-owned enterprises and reputable foundations and local NGOs.

   c. Streamlining administrative requirements and offering support to potential local implementing organizations (e.g. academic or civil society organizations) / on financial management, proposal preparation, and program management. This would help a larger pool of local actors to access finance at scale.

CONTENTS

1. Introduction

Land use plays an important role in climate goals. Forests and forest soils hold carbon stock, and therefore deforestation has become a key focal point for those working to keep climate change within safe levels. In fact, some experts estimate that halting tropical deforestation entirely could make up 25-35% of the needed actions to address climate change, globally (Goodman and Herold 2014). In addition, agriculture contributed around 11% of GHG emissions in 2012 (WRI 2015). Of course not all of these emissions can be avoided, as we need the resources that forests and agriculture provide us, but these resources can be used more efficiently. This will require adjustments to current investments and business models, supported by appropriate public policies, regulation and financial incentives. As such, public and private, national and international actors all have a role to play.

Indonesia deserves particular attention given its expansive tropical forests and peat soils. In 2012, 44% of global land use and forestry emissions came from Indonesia, surpassing even Brazil at 29% (WRI 2015). Recent fires in Indonesia in 2015 further highlight the importance of peatland management in addressing emissions from the land use sector.

1.1 Focus of this paper

Building on The *Landscape of Public Climate Finance in Indonesia* (*Indonesian Landscape*) (Ampri et al 2014), this paper seeks to investigate in more detail the contribution of international development partners to financing mitigation and adaptation actions in the land use sectors in Indonesia. We aim to understand what progress has been made, what challenges have been met, and what opportunities lie ahead to effectively support Indonesia to achieve its emission reduction and adaptation goals for the land use sectors in line with the Paris Agreement.

This paper analyses the contribution of international development partners in support of Indonesia's land use mitigation and adaptation goals

We do so by analyzing and categorizing the forestry and agriculture mitigation and adaptation activities international development partners have financed in recent years, and the financial instruments and disbursement channels they have used. To interpret data collected on climate finance disbursements, we draw on development and climate finance literature and expert interviews.

The paper is structured as follows:

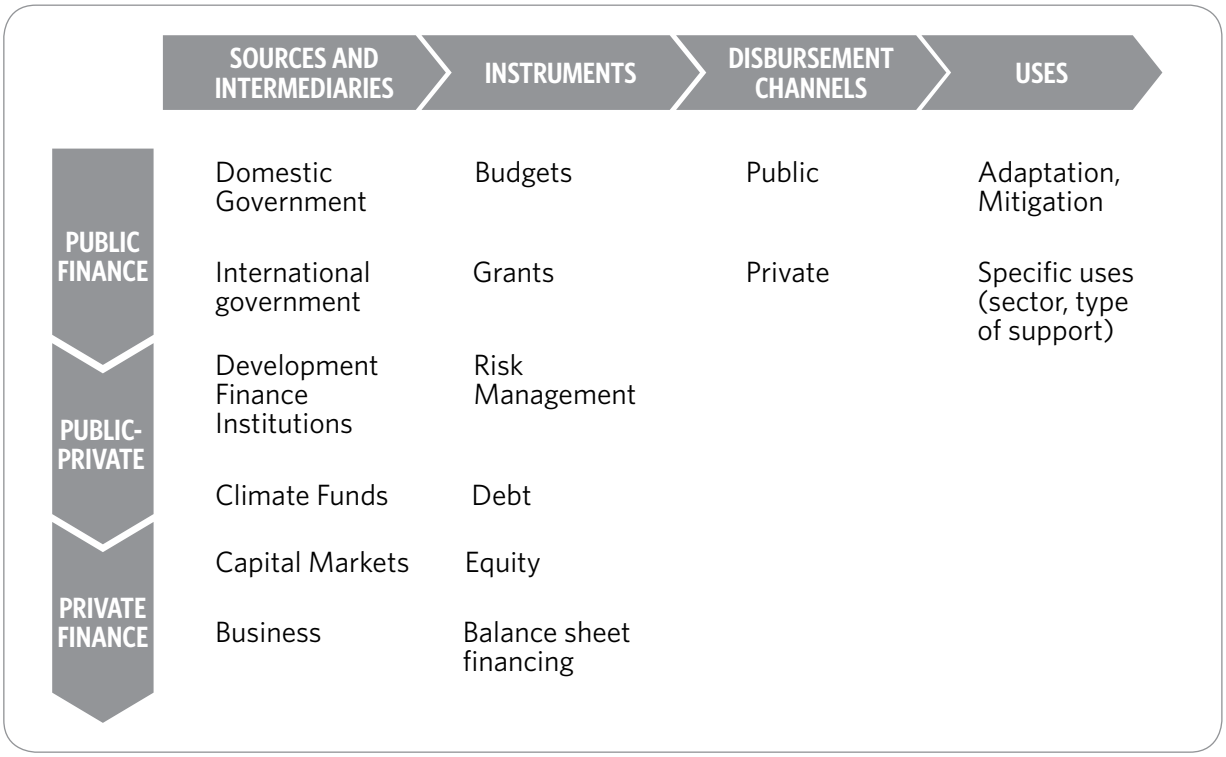
- **Section 2** details our analytical approach
- **Section 3** provides a brief overview of the Indonesian land use context and financing needs
- **Section 4** then presents the main findings from the data analysis, identifying the key actors and financial instruments used, and activities financed.
- **Section 5** reflects on the challenges faced by international development partners and their Indonesian counterparts working in the land use sectors.
- **Section 6** provides conclusions and recommendations regarding international development partner cooperation in the land use sectors in Indonesia.

2. Approach

The analysis presented in this paper uses the "landscape of climate finance" analytic framework developed through Climate Policy Initiative's Landscape of Climate Finance reports (see Buchner et. al 2011a, 2011b, 2012, 2013, 2014, 2015; Ampri et. al, 2014; Juergens et. al, 2012) whereby selected climate finance flows are mapped out visually for the latest year for which data is available. As shown in Figure 1, the approach maps the lifecycle of finance flows along the horizontal access, identifying the sources of finance, who intermediates and disburses the finance and what financial instruments they use and finally what mitigation or adaptation activities money is spent on. The vertical access instead moves from public to private actors and instruments. The landscape framework allows us to have a good overview or 'snapshot' of *who is investing* in emissions reduction and climate resilience efforts around the world or in a particular country, through *what instruments*, and *what they are investing in*. By identifying what is already happening on the ground, the landscape approach can provide a baseline against which to measure progress toward economic and environmental goals and plan scale up. It also reveals investment patterns that pinpoints where the biggest barriers and opportunities lie. A landscape approach can also help international partners and governments identify the best ways for tailoring international support to complement domestic efforts and improve coherence across a range of actors. The framework does not show the revenue sources for domestic government nor the revenue transfers which occur across different levels of government. Falconer et al. 2015a and Mafira and Sutiyono 2015 explore aspects of revenue collection, allocation, and distribution, and their impacts on land use in detail.

This paper provides a 'deep dive' sectoral analysis of international development partner data collected for the *Indonesian Landscape* (Ampri et al. 2014), including information on 69 agriculture and forestry projects reported by 15 of the biggest international development partners operating in Indonesia. Basic project information (donor agency, project name, sector, financial instrument, recipient, and channel) and the disbursement value for 2011 was collected for these projects as part a survey carried out for the *Indonesia Landscape*.[2] Data also includes disbursements

Figure 1 The Climate Finance Landscape framework



Source: Buchner et al. 2011a, 2011b, 2012, 2013, 2014, 2015.

2 For the forestry and agriculture sectors, our data includes the following

from two international climate funds.[3] Reported data was supplemented with additional information on project objectives and implementation partners taken from publicly available project documentation where available. We also put our data in context of surrounding years using 2010-2013 data on donor commitments from the OECD's Creditor Reporting System (CRS) database.

Additionally, this paper was informed by a literature review and a series of seven telephone interviews carried out between August and September 2015 with development partners and Indonesia land use finance experts. The interviews were carried out on an anonymous basis, and hence insights are not attributed in the paper. The interviews were structured around the following key questions, which are explored in this paper:

1. To what extent does current international development partner support in the forestry and agriculture sectors fit with Indonesia's needs?
2. What type of international development partner support adds most value in the land use sectors in Indonesia?
3. What challenges do international development partners and the Government of Indonesia face to realizing effective contributions? What systematic improvements could help overcome these issues?
4. What contribution from international development partners would be most effective going forward?

partners: AusAID, EU, Germany's BMUB, KfW, GIZ, JICA, Netherlands, Norway, UK, USAID, IFAD, IFC, UNDP, UNEP and FAO. Additionally partial information for the following organizations is included based on information from Indonesia's state budget: ITTO, ACIAR and Korea Forestry Service. Our data also includes additional unnamed donors for which data has been extracted from the Indonesian state budget, with appropriate checks to avoid overlap with other data sources.

3 The UN-REDD Program and the International Fund for Agricultural Development (IFAD). International climate fund information was sourced from climatefundsupdate.org plus fund literature and surveys.

3. The context for land use finance in Indonesia

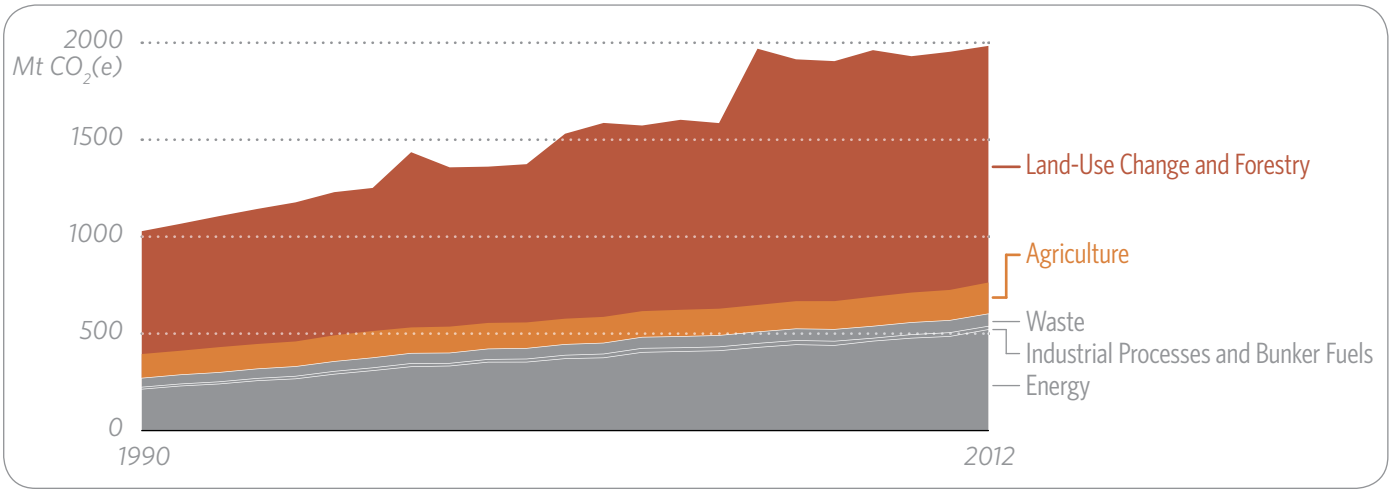
3.1 Indonesia's land use emissions and deforestation trends

Land use change, forestry, and agriculture comprise the bulk of Indonesia's greenhouse gas (GHG) emissions, accounting for 70% of total emissions in 2012 (Figure 2).[4]

The primary driver of Indonesia's land sector emissions is agriculture expansion - in particular on peat land[5] either through subsistence or commercial farming, and even more specifically, oil palm, timber plantations and logging, as well as, to a lesser extent, mining, infrastructure and urban expansion (Abood et al., 2014; Lawson, 2014, Hosonuma et al. 2012). 2015 has seen unprecedented emissions from forest and peat fires in Indonesia, with emissions from fires alone expected to reach around 1750 MtCO2-eq.,[6] which is almost equal to Indonesia's total GHG emissions from all sectors in 2012.

Tackling these emissions drivers is critical to achieving global and domestic climate change goals. As discussed further below, there are opportunities to reduce the pressure on forests and high carbon peat lands by increasing agricultural productivity, as well as by implementing strict regulations to appropriately protect high value forest and peat ecosystems. However, without law enforcement, tenure security, and development of local livelihoods, agriculture productivity improvements could risk increasing deforestation given high productivity and profit potential (Busch et al. 2015). These opportunities would necessitate changes to current legal designations for land use and concessions, as well as improvements in business models and agricultural practices (CPI 2014).

Figure 2 Indonesia's GHG emission trends by sector



Source: WRI 2015

Notes: The data presented in Figure 2 suggest that emissions may have stabilized in 2006 after a huge jump in 2005-6. But other studies show forest loss rates continued to rise during 2000-2012 at the highest rate globally, peaking in 2011-2012 (Hansen et. al 2013). While, the 2013 update of the same dataset shows a halving of forest loss in 2012-2013, the 2013-2014 data shows it is not yet clear if this is the start of a downward trend or not.(Sizer 2015; Weisse and Petersen 2015).

4 2012 is the latest available year for comprehensive, international standard data at the time of writing the report. This data is for net emissions, including carbon sequestration by forests and other land uses.

5 While emissions vary greatly from year to year depending on farming practices and weather conditions (e.g. El Nino), peat land generally generates the bulk of the Indonesian emissions while they cover 10% of the total land surface. One interviewee suggested that restoring degraded peat land (around 6-7 million ha), would therefore allow Indonesia to meet its GHG reduction targets.

6 http://www.globalfiredata.org/updates.html

3.2 Indonesia's emission reduction targets, plans, and policies

Through the 2015-2019 National Mid-Term Development Plan (RPJMN), the new Indonesian government reaffirmed Indonesia's commitments to reduce GHG emissions by 26% by 2020.[7] The Government subsequently announced an extended goal to reduce emissions by 29% by 2030 through the submission of Indonesia's intended nationally determined contribution (INDC) in the lead up to the Paris Climate Conference.[8] Indonesia is striving to realize these reductions while achieving broader sustainable development and economic goals, aiming to meet economic growth targets of 7% on average over the same period. The Ministry of Finance's 2014 Green Planning and Budgeting Strategy has cautioned that spending on green priorities will have to rise from current levels of around 1% to 3.8% by 2025 to maintain 7% economic growth target levels, otherwise economic growth is likely to drop to 3.5% due to losses associated with climate change and degradation of natural resources (MoF 2014). Given the important contribution of land use to both Indonesia's emissions and economic growth, as well as high vulnerability to climate impacts, transitioning to low carbon climate resilient land use is a key challenge for the Government of Indonesia (GoI) and its development partners. Achieving this goal will require changes in regulation and policy incentives, supported by domestic public budgets and international financial support where appropriate. Indeed, Indonesia's National Action Plan on Reducing Greenhouse Gas Emissions (RAN-GRK) expects 88% of emission reductions for the 26% target to come from forests and peat land (Table 1).

In what Halimanjaya and Maulidia (2014) call "a period of enormous experimentation and innovation with institutional arrangements in response to climate change" (p.2), the Government of Indonesia has implemented some important policies in recent years that aim to reduce emissions from land use sectors. In 2011, a two-year moratorium on new concessions in primary natural forest and peat land areas was introduced and has since been twice renewed (TLS 2015). While it has been criticized for having several loopholes, the moratorium is estimated to have reduced emissions by several percentage points since it was enacted.[9] The government has also introduced its own Indonesia Sustainable Palm Oil standard, although experts point out that the standard may require some strengthening to deliver the desired sustainability outcomes.[10] Finally progress has also been made towards creating "Onemap," a database bringing together land use, land tenure, and other spatial data to help overcome land title disputes. This progress may have contributed to the downturn in 2013 in tree loss, however, much more needs to be done to turn this into a stable downward trend (Dharmasaputra and Wahyudi 2014, Sizer et al. 2015, Seymour 2015).

Table 1 Emission reduction targets stipulated in the RAN-GRK to reach a 26% reduction

SECTOR	Gt CO_2(e)	% TOTAL
AGRICULTURE	0.008	1%
FOREST AND PEAT LAND	0.672	88%
ENERGY AND TRANSPORT	0.038	5%
INDUSTRIAL	0.001	0%
WASTE	0.048	6%
Total	**0.767**	**100%**

7 The RPJMN incorporates Indonesia's target announced in 2011 to reduce emissions by 26% against business as usual by 2020. This was regulated as part of their National Action Plan to Reduce Greenhouse Gas Emissions (RAN GRK) through Presidential Regulation 61/2011. A National Action Plan on Climate Change Adaptation (RAN-API) has also been developed.

8 Indonesia's Environment and Forestry Minister announced that this target would be extended to 29% for 2030 (Christina 2015), as part of its as part of its INDC submitted to the UNFCCC on 24th September: http://www4.unfccc.int/submissions/INDC/Published%20Documents/Indonesia/1/INDC_REPUBLIC%20OF%20INDONESIA.pdf. The INDC has been met with some criticism for its lack of ambition and data transparency (http://www.greenpeace.org/international/Global/international/briefings/forests/2015/Indonesia%20INDC%20Briefer.pdf; http://www.wri.org/blog/2015/09/indonesia's-draft-climate-plan-indc-good-start-improvements-necessary-success; http://climatepolicyinitiative.org/2015/09/28/indonesias-indc-a-step-forward-or-a-missed-opportunity/).

9 To evaluate the probable effectiveness of the forest moratorium, Busch et al. (2015) estimate that emissions from deforestation from 2000 to 2010 would have been 2.5-6.4% lower if the moratorium had also been in place in those years. They demonstrate that the moratorium would have been more effective had it applied also to existing (not just new) concessions and to areas outside of concessions and protected areas. In addition to those concerns, the moratorium has also been criticized for not covering secondary forests, for a slow start (which allowed concessions to be given out before the regulation was enacted) and for changes in land designations and for strategic exemptions allowed (Busch et al. 2015, Murdiyarso 2011).

10 The ISPO was designed by the Ministry of Agriculture and is mandatory for all growers, unlike RSPO which is voluntary. However the environmental and social standards in ISPO have been evaluated as lower or less clear in many cases (see Yaap and Paoli 2014).

Most recently, private sector commitments have further added to the momentum toward achieving sustainable development goals, including commitments to reduce the impact of agricultural commodities on deforestation, through the Kadin-led Indonesia Palm Oil Pledge (IPOP) and related industry commitments to zero deforestation by 2020. However, it remains to be seen how companies will fulfill their pledges, and what influence other government policies will have, positive or negative, such as the CPO Crop Estate Fund which is, inter alia, set to subsidize palm oil derived biofuels[11] and palm oil research and development. At the end of 2015, the Ministry of Agriculture launched the multi-stakeholder Indonesia Palm Oil Platform (InPOP) to coordinate existing initiatives and actors working on palm oil sustainability.

3.3 Indonesia's climate finance needs

If first estimates of financial needs and disbursements for climate change are in the right range, much more public and private, domestic and international finance is needed to help Indonesia reach its emission reduction targets and prepare for or respond to climate impacts.[12] In 2012, the Ministry of Finance (MoF), in its first Mitigation Fiscal Framework, 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 11 - 15 billion) per year in 2020 (MoF, 2012).

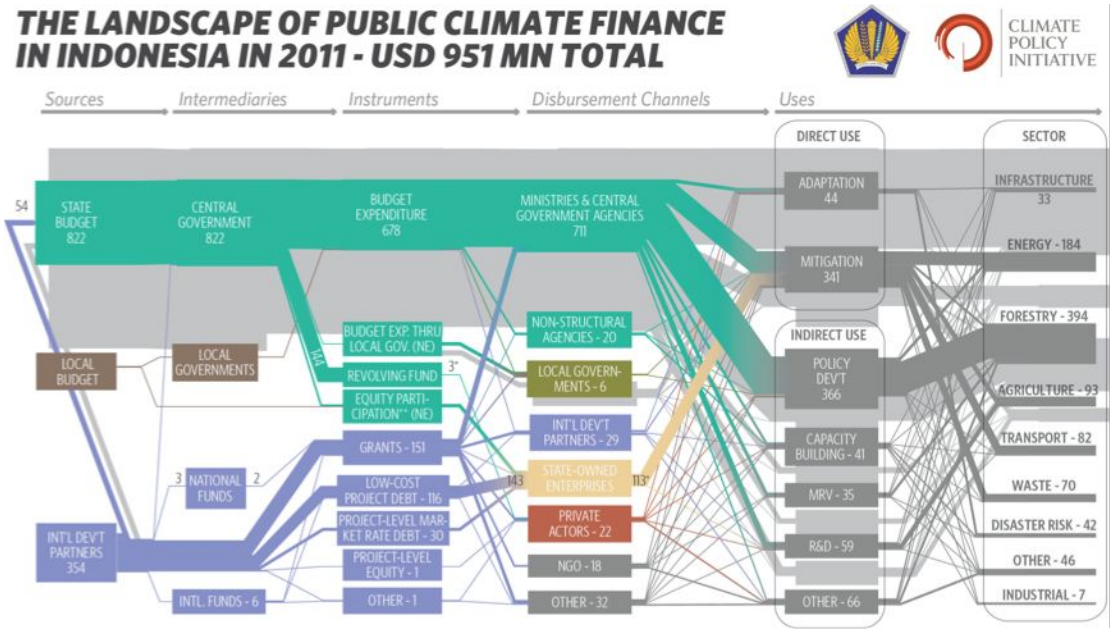
Meanwhile, the *Landscape of Public Climate Finance in Indonesia* (*Indonesian Landscape*) (Ampri et al 2014), found that IDR 8,377 billion (USD 951 million) of climate finance was disbursed from public sources in Indonesia in 2011. Just over half (USD 486 million) was in the agriculture and forestry sectors, showing relatively good alignment with the principal emission sources (Box 1). Spending from public sources alone was however a factor of 10-15 below estimated annual needs by 2020 to achieve the 26% target. Therefore, leveraging private finance and a significant and well-targeted scale-up of public climate finance will be required over the short term.

11 Presidential Regulation No. 61/2015. Prior to the regulation, GoI was already covering state owned Pertamina's losses resulting from biofuel blending mandates.

12 Indonesia's finance needs for adaptation have not been estimated comprehensively.

Box 1: The Landscape of Public Climate Finance in Indonesia

The *Landscape of Public Climate Finance in Indonesia* study was carried out by the Fiscal Policy Agency of the Indonesian Ministry of Finance (MoF) in partnership with Climate Policy Initiative (CPI). The study provides a comprehensive snapshot of the life cycle of public climate finance flows in Indonesia, from sources through to intermediaries, instruments, disbursement channels, and final uses. It helps to identify bottlenecks and opportunities to improve the effectiveness of climate finance going forward. It compiled the best available data on public finance from a range of national and international sources. Due to data difficulties, private sector flows were excluded from the scope of the study but flows of finance involving state-owned enterprises and commercial businesses and banks are expected to be an increasingly important component. While a lack of data also prevented an accurate estimation of the amount of climate finance being allocated or disbursed by local governments, case study analysis suggested flows were likely, at the time, very low.



The Government of Indonesia disbursed at least IDR 5,526 billion (USD 627 million) or 66% of public climate finance in 2011, through budget transfer instruments, to all sectors. International development partners contributed an estimated IDR 2,851 billion (USD 324 million) or 34% to all sectors. 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). The majority of international finance for mitigation was spent on energy while significant amounts also went to forestry and land use, waste and wastewater 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.

Source: Ampri et al. 2014

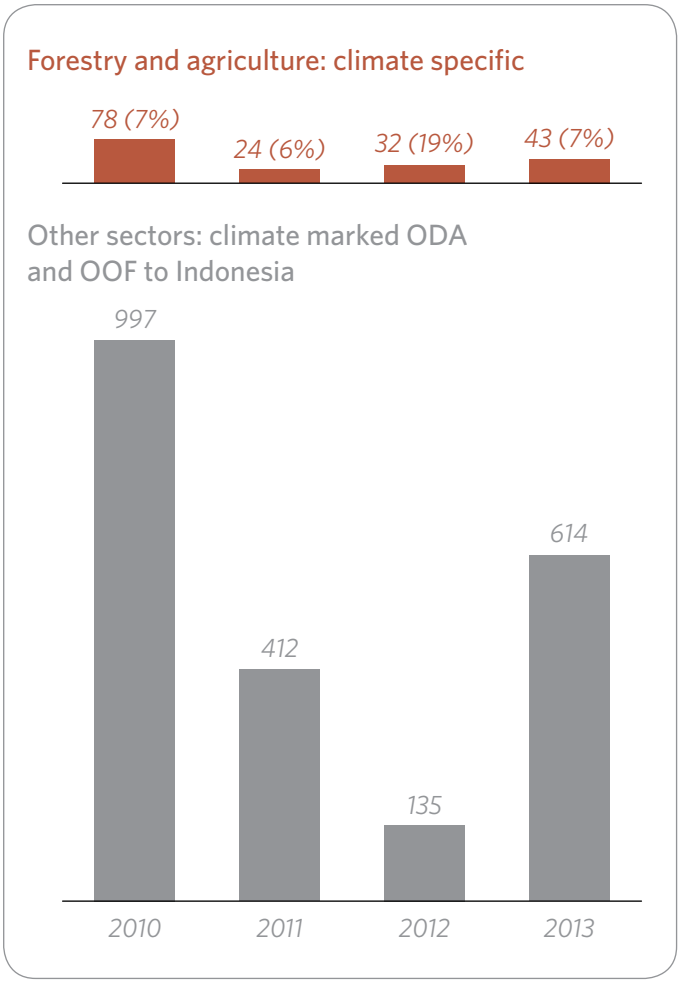
4. The landscape of international land use climate finance in Indonesia

In the agriculture and forestry sectors, international partners provided just 12% (USD 57 million) and the Government of Indonesia 88% (USD 429 million) of finance in 2011, as tracked in the *Indonesia Landscape* (Box 1). Indeed, international partners' 2011 *disbursements* in land use sectors were a small portion of their overall financing; just 17% of their finance was spent on forestry and land use and 0.7% on agriculture and livestock management. Data on development partner *commitments* for 2010-2013 shows a similar trend, with commitments in the forestry and agriculture sectors averaging around 10% of total commitments (Figure 3).

Given the importance of land use to emissions and sustainable development goals outlined in the previous section, these relatively low figures are surprising.

Several factors may explain the comparatively low levels of expenditure by key international development partners in the land sectors, including the prominence of grant finance, which tends to be lower value and slower to implement, as well as various implementation challenges. The remainder of this section and section 5 explore these issues in more detail, first in section 4 by reviewing the nature of current land use climate finance (actors, instruments, types of suport and activities supported), as a basis for understanding the added value of international development partners, before section 5 discusses some implementation challenges faced by development partners and their counterparts in greater detail.

Figure 3 International climate finance commitments to forestry and agriculture in Indonesia compared to other sectors (USD million)



Source: OECD 2015

4.1 Actors delivering and managing international land use climate finance

4.1.1 MAJOR DONORS

Between 2010 and 2013, Norway, Germany, Australia, and Japan committed most financing, while the European Union, the United Kingdom and United States have also been key partners supporting agriculture and forestry mitigation and adaptation activities in Indonesia (Figure 4). The UK refocused its aid program in Indonesia on climate change three years ago, with a particular focus on forestry and land use as well as energy (DfID, 2014).

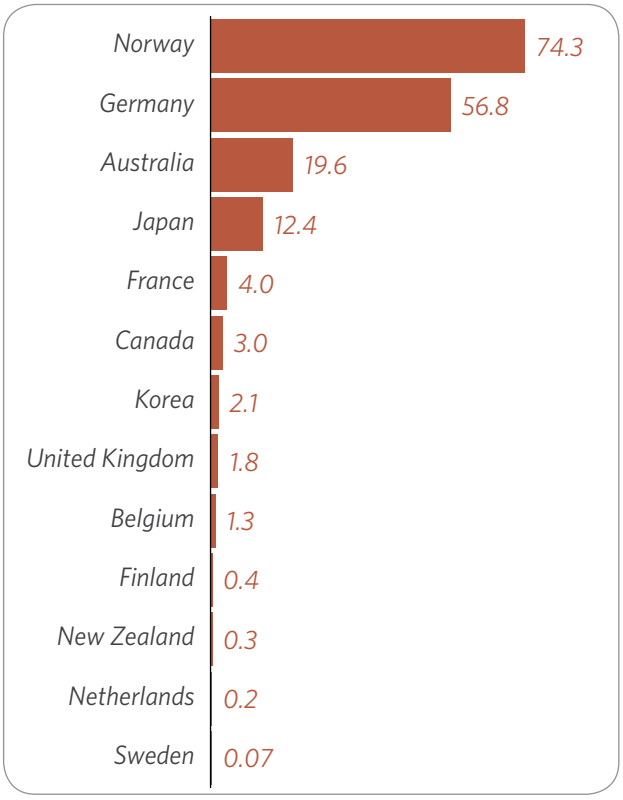
4.1.2 BILATERAL VS. MULTILATERAL DONORS

Bilateral partners including e.g. the Australian and Norwegian governments, delivered around 88% of international finance disbursed to land use sectors in 2011, with multilateral partners and international climate funds[13] each contributing a minor share (12%). These figures may suggest that bilateral partners have had more success in building deeper climate change cooperation with the Government of Indonesia than multilateral organizations and funds, to date. Indeed, some bilateral development partners, such as Australia, Germany, Japan, and the UK, have provided Indonesian ministries with national experts that work collaboratively with and provide advisory support to the Indonesian Government over periods of years.

Bilateral and multilateral development partners tend to collaborate closely with one or more line ministry, with the most common implementation partners for land use programs being the Ministry of Environment and Forestry, although others have partnerships with ministries such as Ministry of Home or Social

13 Including UN-REDD, IFAD, the Forest Investment program, IFC and ITTO.

Figure 4 Cumulative climate-mitigation and adaptation Overseas Development Aid and Other Official Flow commitments in the agriculture and forestry sectors in Indonesia, 2010-2013 (USD millions)



Source: OECD 2015

Affairs, Ministry of Finance, or regional governments. Government partners tend to sit on program/project steering committees[14] and help form country partnership strategies, but funding is typically not physically transferred through government budgets. In fact, only 5% (IDR 22 billion or USD 2.5 million) of agriculture and forestry international climate finance flowed through the Indonesian state budget in 2011, compared to 17% for all international finance. This is likely due to the lower proportion of loans for forestry and land use, which are always transferred through the Indonesian State Treasury system before being passed to government agencies. In contrast, grants made direct to government agencies only have to be reported to the Treasury as part of the Ministry of Finance's revenue recognition mechanism. However, for 2011, reporting in MoF systems was patchy, with just IDR 63 billion (USD 9.6 million or 16%) of international finance in the agriculture and forestry sectors reported (Ampri et al. 2014).

Donors and the government of Indonesia have been looking for new and more effective ways to cooperate and increase aid effectiveness including funds to pool resources and speed up disbursement. International climate funds disbursed very small sums of finance in 2011. While they have played an important role in building up REDD+ readiness in recent years and are gradually transitioning to implementation activities, they have encountered many challenges and are yet to deliver at the scale or pace expected (Box 2).

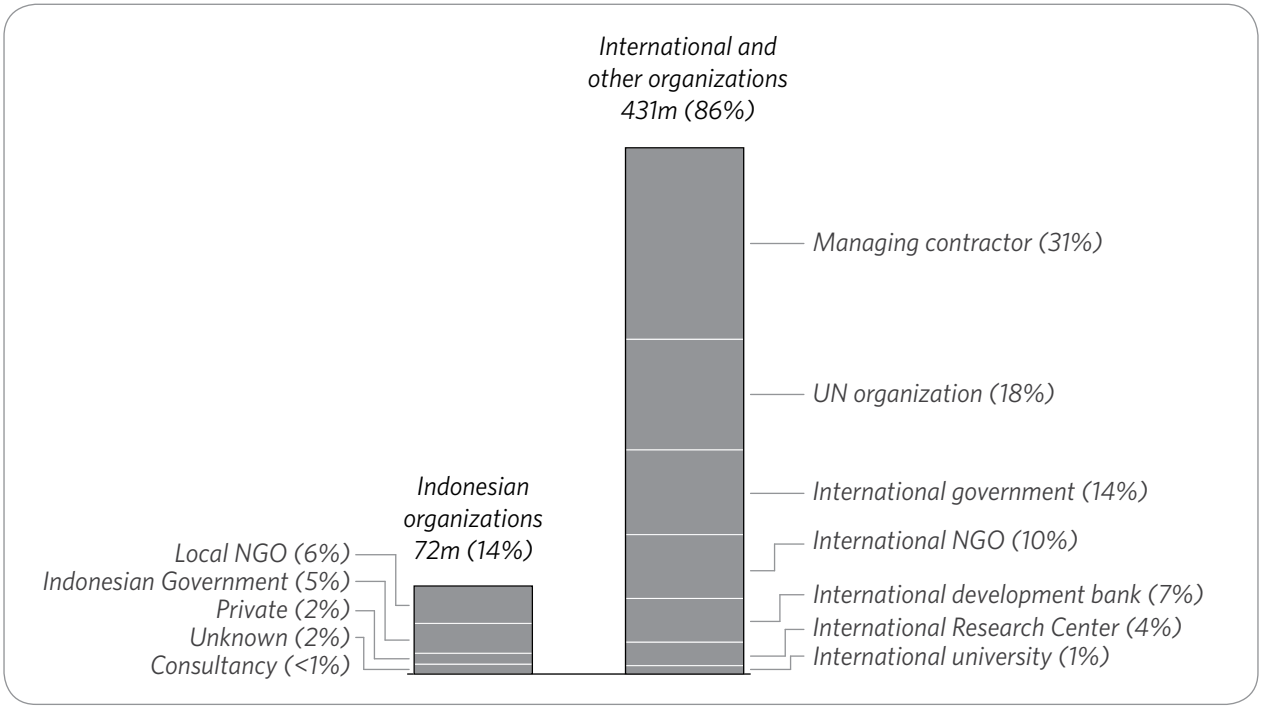
4.1.3 IMPLEMENTING AGENCIES

In terms of implementing agencies, while some close donor-Indonesian institution collaborations are in place, based on a desktop review of publicly available documentation, we estimate that approximately 85% of international development partner finance for forestry and agriculture in 2011 was delivered through managing contractors, international governments, international NGOs, international development banks, international universities, and UN organizations, as opposed to Indonesian government or organizations (Figure 5).

This may in some cases minimize the impact of the actions on Government and other target groups on the ground in Indonesia (worst case, "reports left unread on shelves" as one interviewee put it, or as another interviewee put it, "like a drop on a hot stone, it doesn't touch how the government does business"). It may also limit the volume of finance that can be delivered since donors have limited in-country capacity to closely oversee programs, which often require close management of stakeholder relations as well as technical and financial aspects. But international development partners chose to use international organizations and consultants partly due to concerns about their ability to adequately monitor funding managed by government or other Indonesian agencies, and avoid misappropriation risk. In other cases, it is also because the government is reluctant to accept funding from development partners.

14 Steering committees, one interviewee explained, typically include representatives from the main relevant ministries and meet twice per year to agree on annual work plans, planning and implementation, and budgets.

Figure 5 Lead implementing organization type



Source: authors' interpretation based on publically available project documentation.
Note: we aimed to identify the type of organization that managed the finances of projects and was mainly in charge of the project implementation and direction. In reality, most projects have a decision-making structure involving key government partners and stakeholders, while beneficiaries are varied and multiple.

Box 2: International and domestic funds' experience in Indonesia

Our survey of 25 donors picked up only two funds that were actively disbursing in 2011: UN-REDD, which disbursed USD 2.1 million in 2011 through FAO, UNDP, and UNEP; and the Indonesia Climate Change Trust Fund, which disbursed IDR 21 billion (USD 2 million), only part of which was for agriculture and forestry programs. The International Fund for Agricultural Development (IFAD) was also disbursing significant sums, but is discussed separately in the next section. Other important funds for the land use sectors in Indonesia include the Forest Investment Program (FIP) and the Forest Carbon Partnership Facility (FCPF); however, country plans for these funds were still under development in 2011.

The focus and status of each of these funds is reviewed briefly below. Overall, funds in Indonesia have played an important role to date in building up REDD+ readiness but have yet to prove themselves as models for channeling scaled up expedited sustainable land use finance. Elaborate requirements on reporting, application procedures and safeguards through these funds have made transaction costs high and mean that projects take a long time to get off the ground. Furthermore, establishing governance structures has been challenging and time consuming. FCPF and FIP have been criticized for slow and onerous internal processes, and the FIP for lack of innovation away from business as usual forestry activities or sustainable forest management (CFU, 2015). In addition, merging country and multi-lateral development bank safeguard systems has been a challenge (FIP 2015). Going forward, several funds are however now moving towards implementation and scale up phases.

UN-REDD's national program in Indonesia is now closed after three years of operation and USD 5.4 million of total disbursements. Activities were focused on REDD+ 'readiness', i.e. building capacity at national and sub-national levels on policies, regulatory frameworks, community rights and building MRV systems and Reference Emission Levels. *(continued on next page)*

The **Forest Investment Program** is aimed at "phase 2" REDD+ mechanism activities including piloting investment models for REDD+, building institutional strength and regulatory reforms aimed at building capacity and experience to move to Phase 3, results based payments. Indonesia expressed interest in the FIP in 2010 and the FIP investment plan for Indonesia was endorsed at the end of 2012. To-date, however, the first three projects are not yet approved and are likely to start only in 2016. The projects are aimed at Forest Management Units and will work on community forestry (with ADB and WB) as well as strengthening forest enterprises (via a concessional loan with IFC), with funding totaling USD 68 million. A USD 750 000 Dedicated Grant Mechanism for Indigenous Peoples and Local Communities (implemented by IBRD) has already been approved however.

The **FCPF Readiness** preparation grant for Indonesia totals USD 3.2 million of which USD 2.6 million had been disbursed by mid-2014. The original grant is aimed at supporting the development of a national REDD+ strategy, national and sub-national reference scenarios and a forest monitoring and carbon accounting system. An extension of USD 5 million has been requested to continue readiness work particularly at the sub-national level. Despite progress made under FCPF readiness on the REDD+ strategy implementation, capacity building and REDD+ awareness, it has been noted that "further improvement and development on key component of the REDD+ readiness are still needed, i.e. reference scenarios, MRV system and benefit sharing mechanism, and SESA/ESMF." (WB 2014, p.3)

The **FCPF Carbon Fund** is designed to provide payments for verified emission reductions from REDD+ programs to countries that have progressed on foreseen readiness components. Indonesia was invited into the Carbon Fund pipeline in 2014 and is now in the process of revising its Emission Reduction Project Idea Note submitted in October 2014.

The **ICCTF** is a national fund set up in 2009 and implemented by Bappenas, with initial donor funding amounting to USD 11.4 million. The fund moved to a national trustee, Bank Mandiri in 2014, and has recently received additional pledges from various international donors as well as an allocation from the national budget. So far the fund has supported just a handful of projects, including one implemented by the Ministry of Forestry (a wood pellet manufacturing facility and demonstration plots) and another by the Ministry of Agriculture (focused on training related to MRV of emissions from peat and sustainable management approaches), with a total approved budget of USD 4.8 million and disbursement of USD 1.9 million as of September 2013. The fund also has a small grants program, which is funding projects on community forestry and the development of public private partnership models for climate smart agriculture. However, the fund has been slow to approve and disburse funds and failed to pass the Adaptation Fund accreditation process. One interviewee remarked on the need for Bappenas to 'let go' of the fund and allow it to operate independently, particularly now there is a national trustee in place. The fund is now in the process for Green Climate Fund accreditation, which brings hope that the fund's operating procedures will improve as a result.

Since 2010, efforts have been underway to develop another national fund focused on land use emissions, as part of the financial architecture foreseen under the Indonesia-Norway agreement. Laterally known as **FREDDI** (Funding Instrument for REDD+ Indonesia), the set up phase encountered a number of challenges and is yet to be established.

Sources: FCPF 2014, Brady 2015, ODI/HBF 2014, CIF 2015, Halimanjaya et al. 2014, ICCTF 2014a, ICCTF 2014b, WB 2014.

4.2 Instruments channeling international land use climate finance

International land use support is delivered almost entirely in the form of grants. In contrast to the even split of financial instruments used across the *Indonesian Landscape* (Box 1), finance in the agriculture and forestry sectors was 93% grants. Commitments reported in the OECD CRS database for 2010-2013 for all sectors show a similar picture: forestry and agriculture ODA (official development assistance) is provided *only* in the form of grants while ODA overall is dominated by loans (66-99%).

IFAD was the only international financial institution that reported on concessional loan financed projects in the agriculture sector in our survey, including projects which started in the early 2000s and may therefore provide useful lessons on the role of public finance to support economically viable sustainable agriculture investment opportunities (Box 3). It should be noted, however, that the Government of Indonesia has in

Box 3: Lessons from concessional loan projects in the agriculture sector

In 2011, IFAD disbursed USD 2.7 million in concessional loans to three sustainable agriculture projects in Indonesia, described below. While these projects were primarily agriculture and development projects, they had climate change co-benefits. All projects are "central government projects," with the Agency for Food Security (AFS) of the Ministry of Agriculture (MOA) as the Lead Project Agency, with responsibility for project implementation delegated to the local governments.

These loan programs demonstrate that projects involving agricultural productivity improvements, livelihood development, and infrastructure can be supported by loans due to the increased revenues generated alongside sustainable approaches. Other land use activities that generate revenues could also be suitable for loan financing.

The **Rural Empowerment and Agricultural Development Programme in Central Sulawesi (READ)** aimed to raise incomes and improve livelihoods by improving agricultural production through sustainable agricultural technologies and practices, developing rural enterprises, facilitating access to markets, and developing road and water infrastructure. The program included the creation of a revolving fund for poor farmers who want to make investments. USD 21 million of the USD 28 million program costs were covered with loans, implemented from 2006 to 2014. Investments in key agricultural commodities such as cacao, rice, coconut, and vegetables, along with non-farm enterprise activities were made. The revolving fund was used to purchase improved seed varieties, tractors and threshers, and to build infrastructure to improve agricultural productivity including farm roads, irrigation systems, land drainage and crop-drying facilities. The revolving fund was oversubscribed leading IFAD to recommend building more linkages with the formal banking sector. During the program, a partnership was forged with Mars, the global confectionary manufacturer, for cocoa farmer training.

The **Post-Crisis Programme for Participatory Integrated Development in Rainfed Areas (PIDRA)** was also aimed at supporting agriculture productivity improvements, infrastructure development, community development, and sustainable livelihoods. Loans were used for agriculture, trading, education, livestock, and microenterprise development. Incremental income benefits were achieved via an increase in high-value crops and reorganized selling structures, as well as through other non-agricultural activities.

The **Smallholder Livelihood Development Project in Eastern Indonesia (SOLID)** is active in in the provinces of Maluku and North Maluku and aimed at diversifying the sources of household food supply, adding value to food crops through local processing and marketing, and facilitating links between producers and markets. The project also aims to provide small-scale rural infrastructure to improve agricultural productivity. The project is worth USD 70 million over 7.5 years with loan financing from IFAD to the value of USD 50 million, grants of USD 1 million from IFAD and USD 5 million from GEF and a USD 15 million contribution from the Government of Indonesia.

Sources: IFAD 2011a, 2011b, 2013, 2015.

the past been against loans for climate change, most notably terminating the Climate Change Policy Loan prematurely in 2010.

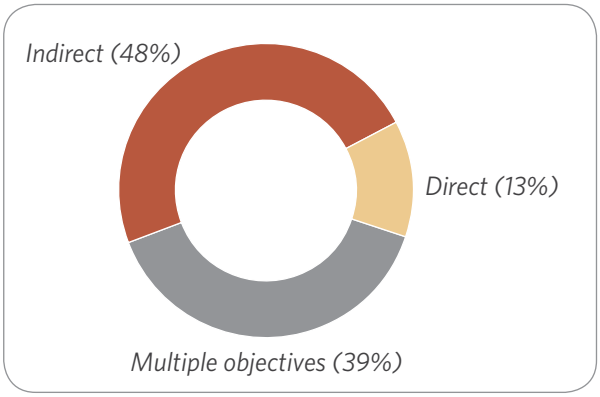
4.3 Land use activities supported by international land use climate finance

4.3.1 DIRECT VS. INDIRECT ACTIVITIES

As shown in Figure 6, we classify 48% of international disbursements in land use in 2011 as 'indirect' activities. These activities include training, institutional development, systems development, research, strategy and policy advice aimed at creating the enabling environment for emission reductions or resilience improvements (see Annex 1 for full definitions of support types), also known as "Phase I readiness" activities in the context of REDD+ mechanisms envisaged under the UNFCCC negotiations.[15] We identified just 13% of disbursements aimed at 'direct' implementation (emission reducing or resilience improving) activities including conservation and sustainable agriculture activities. However, a further 39% of disbursements had both indirect and direct components - usually achieved through small demonstration elements.

15 UNEP 2011; Streck et al. 2009

Figure 6 Direct vs indirect land use climate finance activities supported by international development partners in 2011 (% of monetary value)



Source: authors' assessment based on review of project documentation where available.

The dominance of grants for indirect activities in 2011 reflects Indonesia's high level of need for 'readiness' support during that time.

While there have been attempts by Norway, in particular, to roll out results-based approaches to land use finance in Indonesia (Box 4), there is also an evident need for input finance in Indonesia, for the time being:

Development partners would like to work on direct implementation or demonstration projects on the ground at the regional level, but line ministries often block this, driving how assistance is planned and what

Box 4: Transitioning from indirect to direct activities: Indonesia-Norway Agreement

There is a desire among some donors of climate finance and development finance more generally to move away from upfront or indirect payments and towards pay for performance for direct, demonstrated climate outcomes. An example of this is provided by the 2010 Indonesia-Norway USD 1 billion agreement, which Indonesian officials viewed as "a departure from previous models of [development] cooperation" largely because it built trust and left autonomy for Indonesia to decide how to implement the requirements of the agreement (Seymour et al. 2015). Despite some positive interim outcomes under this partnership, transition to planned direct pay for performance actions is still ongoing.

Seymour et al. 2015 provide an evaluation of the successes and challenges encountered under the Agreement, characterizing it as a good example of "non-payment for non-performance" since, in the absence of demonstrated emission reductions, the USD 800 million foreseen for Phases 2 and 3 has not yet been channeled. Seymour et al. suggest that it may have accelerated the pace of change compared to what would have happened without the prospect of large payments for performance. They give credit to the Agreement for providing heightened national and international visibility, as well as increased transparency on forest and land cover data under the national "One Map" initiative. While President Joko Widodo has folded the REDD+ Agency into the new Ministry of Environment and Forestry, he has committed to maintaining the forest moratorium and continued cooperation with Norway. It also still remains to be seen whether Indonesia will create an independent funding mechanism for REDD+, which has thus far proved too politically challenging.

donors fund/work on, generally asking for studies, workshops etc. This may also be driven by the fact that projects implemented at the field level are relatively management intensive for line ministries. A few donors such as Australia through the Kalimantan Forests and Climate Partnership, the US through Indonesian Forestry and Climate Support (IFACS), and now the Lestari project and Norway have managed to work in the regions, on the ground, in some cases by housing their programs strategically with specific ministries, but with large capacity building and research elements built in to their programs.

4.3.2 FINAL USES

Of international land use finance captured in the Landscape, 83% was directed at mitigation activities, with just 17% of finance going to adaptation.

Support provided by international development partners fell into several key categories (see Table 2). Indirect support was focused on governance-related activities including strategy, policy, and institutional development, mostly in support of timber legality, developing MRV systems, sustainable forest management, and spatial planning issues. Finance for direct activities was mostly focused on ecosystem rehabilitation, as well as fire management, and protected areas to a lesser extent. Support with multiple objectives was focused on training, particularly related to ecosystem rehabilitation.

Since 2011, the major international partners have shifted the focus of their land use support, putting increased emphasis on supporting sustainability of agriculture supply chains, working with public and private actors as well as civil society actors. Donors are working to support ISPO and IPOP e.g. as well as working with companies involved in agricultural commodity value chains on conflict resolution and pathways to build more sustainable, high productivity agriculture.

While oil palm is increasing fast in some eastern provinces in Indonesia, it is still less prevalent and as such, there is an opportunity to also increase support for development of sustainable supply chains in other crops and commodities across Indonesia, e.g. cocoa, rice, rattan, and traditional rubber. Overall, the development cooperation in Indonesia on land use started by working on agroforestry and community forestry and some support is starting to go back in that direction.

Table 2 International land use climate finance in 2011 by activity focus

SECTOR	IDR BILLION	% TOTAL
DIRECT	**65**	**13%**
ECOSYSTEM RESTORATION	49	77%
FIRE MANAGEMENT	6	10%
PROTECTED AREAS	7	11%
SUSTAINABLE FOREST MANAGEMENT	2	3%
INDIRECT	**242**	**48%**
INSTITUTIONAL DEVELOPMENT	65	27%
OTHER	17	7%
RESEARCH	44	18%
STRATEGY AND POLICY DEVELOPMENT	70	29%
SYSTEMS DEVELOPMENT	31	13%
TRAINING	16	6%
MULTIPLE OBJECTIVES	**196**	**39%**
RESEARCH	5	2%
SUSTAINABLE FOREST MANAGEMENT	5	2%
TRAINING	**192**	**98%**
ECOSYSTEM RESTORATION	134	68%
SUSTAINABLE AGRICULTURE	47	24%
SUSTAINABLE FOREST MANAGEMENT	11	5%
Total	**503**	**100%**

5. Implementation challenges

This section discusses the challenges international development partners and their counterparts face in a) comprehensively tackling the drivers of land use emissions and b) working together efficiently and effectively.

5.1 Moving from enabling environments to implementation

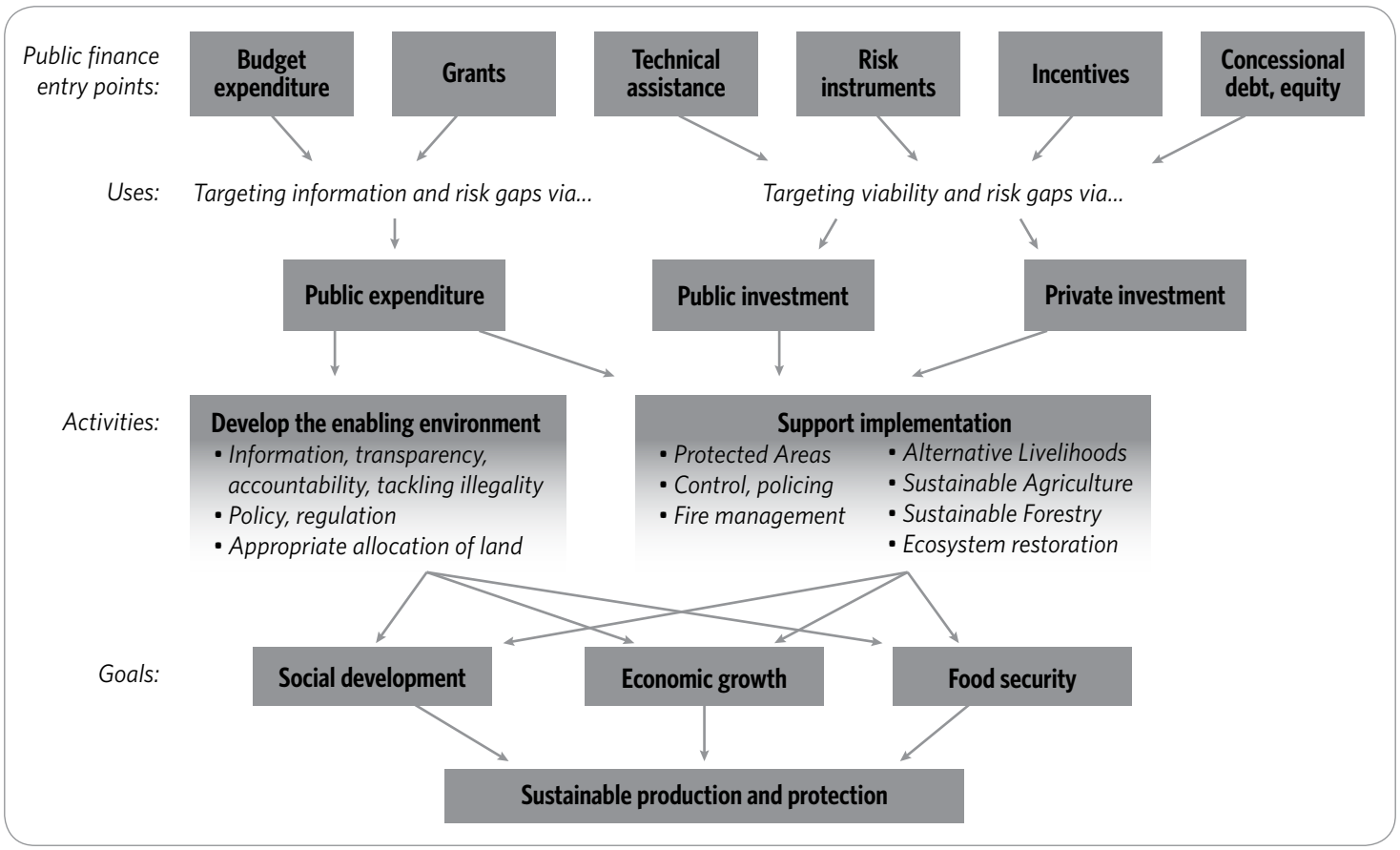
In the long run, to achieve sustainable, socially-inclusive economic and development goals, direct implementation will need to be scaled up, including sustainable agriculture and forestry, ecosystem restoration, and sustainable livelihoods. Some of these activities are potentially revenue generating, and hence can be funded through a redirection of private investments, if initially supported by public investment to overcome gaps in information, risk, and viability (see Falconer et al. 2015b). Figure 7 maps these entry points.

In the short term, however, international partner support will be most cost effective when focused primarily on building the enabling environments necessary to mobilize private finance. This includes improving information, transparency, and governance to promote more efficient use of land resources (CPI 2014, Falconer et al. 2015b).[16] We detail the specific challenges in Section 5.2, but, in summary we find that the enabling environment for land use investments is still very weak in Indonesia. It requires urgent and fundamental structural improvements. Expert interviews repeated this finding again and again, and the literature also repeatedly echoes this sentiment (e.g. Shames et al. 2014, Lee and Pistorius 2015, WB 2014).

While enabling environment activities might seem to be the domain of the Government of Indonesia, international partners may be well placed to provide backing. They can help financially support and accelerate government activities that are not covered by the national budget. Further, international partners

16 Other enabling environment activities include capacity building for closing public and private actors' knowledge gaps; developing, implementing and monitoring climate policies to remove technical, legal and administrative barriers to investment; R&D; law enforcement; land-use/spatial planning and mapping; building measuring, reporting and verification systems; and developing demonstration projects. Occasionally, individual project developers or businesses are willing to bear these costs if they feel that it could give them an advantage in a new market, but they are more regularly addressed by the public sector. In some cases, they can also help to reveal revenue streams and demand.

Figure 7 Entry points for domestic and international public financing to support sustainable land use and economic development goals



may be able to support civil society organizations to help overcome inter-ministerial blockages. While progress has been slow to-date in realizing essential REDD+ building blocks such as an MRV system (WB, 2014) or REDD+ funding mechanism, casting some doubt over the influence of international support (Lee and Pistorius [2015] also mention some opposition to external support: "within Indonesia, critics view REDD as an imposition of international priorities at the expense of domestic interests." [p.36]), progress has been made to build awareness on REDD+ issues and possible solutions. This progress now needs to be put into action with appropriate instruments and mechanisms: development partners need to work more closely with government, on reforming regulation and backing good government proposals. This closer coordination will need to be demand-driven rather than driven by a donor agenda, and it will also need to be supported by high-level political commitments**.** This calls for decisive and coherent expression of needs from the Government of Indonesia to development partners as a group to specify how they can add most value, then it is down to development partners to coordinate effectively to deliver government requests.

In addition to activities to address implementation barriers and strengthen enabling environments, parallel funding must also support direct implementation to develop sustainable agriculture and agro-forestry value chains, ecosystem restoration, and sustainable livelihood options for rural communities. It will take some time for investment in enabling environments to be improved and large-scale investments to start flowing. Meanwhile, support for direct implementation can contribute to reducing emissions, building expertise, and delivering good examples in the short term, if on a relatively small scale. Approaches that combine improvements in agricultural productivity and protection of natural capital at jurisdictional scale hold promise when all relevant actors are involved - development partners can help to support and coordinate such efforts (CPI 2014).

5.2 Enabling environment challenges

There are several weaknesses in the enabling environment that need further attention. These weaknesses include lack of availability of comprehensive and consistent spatial information including on concessions, licenses and permits; lack of recognition of customary land rights; conflict over land rights and illegality in land use; limited capacity of institutions and human resources; and lack of political support and corruption.

According to one interviewee, for plantation owners the lack of reliable spatial information on land designations and the inadequate, and inconsistent, administration of land designations results in land uses contrary to spatial plans. This issue continues to limit efficient use of land resources. The One Map[17] initiative has made considerable progress to consolidate and harmonize information, but more remains to be done. One big task is to integrate information on overlapping permits. . This can cause considerable delays and high costs[18] (Rahman, 2014; Cabello and Farhat, 2013). Further, many companies have made zero deforestation commitments, but effectively implementing these commitments requires alignment between the location of company concessions and government regulations on spatial planning, and potentially land swaps at scale. As yet, there is no framework to comprehensively enable business and government to work together to achieve this more efficient allocation of land. A database on licensing across ministries and levels of government may be a first step forward to addressing both issues.

The lack of clarity on land ownership, including recognition of the customary land rights of local people is increasingly leading to conflicts over who has the right to use, protect, or benefit from particular areas of land. According to one interviewee, for plantation owners, the cost of conflict resolution can be 25-50% of operating costs – costs which are not accounted for in formal financial accounts. Unaddressed, land conflict will continue to inhibit innovation and undermine the business case for investment in sustainable, high productivity agriculture and forestry. Indeed Castrén et al. 2014 identify a country's investment environment and level of governance as one of the key factors considered by investors in sustainable forest management,[19] and therein, the authors identify that secure and risk–free land tenure is paramount.

Illegality in the land use sectors is another issue that needs to be addressed to create a more level playing field for sustainable investments. Lawson et al. (2014)

17 Responsibility for One Map lies with the Geospatial Information Agency (BIG). Further development of One Map, especially on thematic or land designation maps through various working groups, is coordinated by the Coordinating Ministry for Economic Affairs (Kemenko Perekonomian) according to Act No. 4/2011. Cross-ministry collaboration will be a considerable challenge.

18 One equity investment captured in our 2011 disbursements survey was for a peat swamp forest conservation investment set to generate emission reduction credits but the initiative has still not got off the ground due to delays in obtaining long term concessions and emission reduction rights.

19 This would equally apply to any sector that deals with large land holdings.

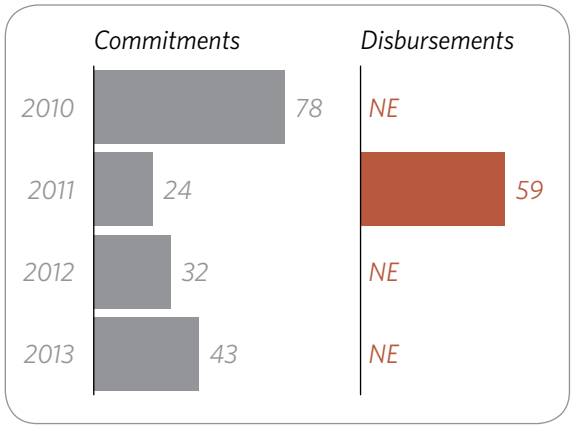
estimated that approximately 80% of deforestation in Indonesia between 2000 and 2012 was due to commercial agriculture, and that approximately 80% of this deforestation was illegal in some way. Illegal actions included converting forest without necessary permits, using fire to clear forest, clearance of forest on deep peat, improper issuance of licenses, absence of environmental impact assessments, and forest clearance outside license boundaries. In addition, tax avoidance and evasion, and unofficial payments are also thought to be widespread (Falconer et al., 2015a). Increasing transparency and legality in commercial agriculture, and incorporating smallholders in this process is a key prerequisite for increasing sustainability of production.

Several international development partners are supporting programs to strengthen governance to address this issue. The establishment of the Forest Management Units, a process which many donors have and will be supporting, may also help to strengthen forest governance since it requires all forest areas to be gazetted.

5.3 Development cooperation challenges

Ampri et al. (2014) showed that overall international partner disbursements in 2011 were considerably lower than commitments, suggesting some significant barriers in the system, including challenges for both development partners in delivering finance and for the Government of Indonesia in absorbing international climate finance at the scale and pace needed. While this trend does not appear to play out in the forestry and agriculture sectors (Figure 8) due to the high proportion of grants in finance delivered, annual commitments and disbusements to the land use sectors are low in Indonesia compared to international contributions to other sectors.

Figure 8 International development partner climate finance in the Forestry and Agriculture (USD millions)



Note: NE = Not Estimated
Sources: OECD 2015 and Ampri et al. 2014. Note: Commitment data for 2010 is for 9 donors, 2011 for 9, 2012 for 11 and 2013 for 8. Disbursement data for 2011 is for 9 donors plus 2 additional agencies and 3 funds.

Common challenges for development partners and their counterparts include: inconsistent, fragmented, or unclear reporting and regulatory requirements; limited government engagement; complex application procedures and safeuards with few organizations who meet donor standards; staff changes, which mean capacity building and outreach are continuous activities; duplication of donor efforts; insufficient understanding of risk or unrealistic delivery timelines; lack of ownership or incentive where money is not channelled through Indonesian organizations; and slow approval processes. Furthermore, there is a mismatch between the short term project approach and political cycles that determine development cooperation agendas, and long-term objectives and delivery timeframes for the necessary changes in the land use sector.

Clearer reporting requirements and simpler application procedures from donors, as well as easing of regulatory requirements by the government, could reduce transaction costs, particularly for smaller or lower capacity organizations. As discussed in section 4.1, multilateral cooperation and funds have so far delivered less support than bilateral cooperation. The differences in disbursements may in part be due to more bureaucratic processes both internally and externally in some multilateral organizations, which are answerable to multiple donor governments at an organizational level, and sometimes also at a project, program, facility, or fund level.

Different donors have different reporting requirements, and this means that recipients of pooled financing must dedicate time to understanding administrative requirements of multiple donors, often having to rewrite reports multiple times. Some foundations are providing training to local civil society organizations to help with this. However, these difficulties are also mirrored on the regulatory side. Halimanjaya and Maulidia (2014) recount the difficulties encountered by the US Millennium Challenge Account in Indonesia, an innovative approach that worked directly with local governments on poverty reduction and environmental goals, but which faced long delays due in part to procurement difficulties. Regulatory issues even led the project to propose several revisions to regulations. Blockages were due to strict procurement procedures for implementing agencies, management and transfer of state-owned assets.

Overall, the complexity of reporting and regulation may mean smaller organizations have trouble getting involved, a trend corroborated by the fact that most international support is from bilateral partners as opposed to multilateral partners.

Strong data and information systems, longer project timescales and use of established local organizations can help increase the chances of project success. Working with multiple layers of government at the national and regional level can also present a significant challenge for many development partners, leading to high transaction costs and long lag times between conceptualization and implementation of activities. Government election cycles and high turn-over of government officials also slow down the progress of development activities, whereby capacity building and efforts to ensure local ownership may need to be restarted multiple times within a multi-year development program. Development partners thus have to be flexible and should aim to provide systems and outputs that can quickly transfer data and information to new officials. This also stands true for development partners, which also experience staff turn-over and could benefit from strong data and information systems. Development partners should also consider extending projects over longer timeframes to accommodate such delays. Supporting Indonesian civil society organizations can help to maintain personal relationships and trust, which are particularly important in Indonesia. It is also important that projects are registered by governments at all levels, and linked to government priorities.

The Government of Indonesia can coordinate better on development partners' activities to ensure duplication is minimized or avoided. Donor crowding or duplication of efforts is an ongoing risk, sometimes driven by agendas of respective development partners and at other times by poor coordination on the part of line ministries. There have been several formal and informal attempts at donor coordination on land use issues in Indonesia since 2008, but more systematic and meaningful coordination is urgently needed. This coordination should involve all relevant line ministries and donors. Coordination would also help to manage "boom and bust cycles" as donors look for opportunities to have greater impact for example, recently donors have focused more effort on palm oil rather than timber concessions as the former has become more profitable.[20]

A multi-stakeholder-led process may hold most promise for success given that efforts led by any one party, even the President, have not always cut through entrenched divisions:

"Indonesia's REDD+ efforts had strong presidential support under President Yudhoyono but not widespread buy-in across the many relevant ministries and governmental institutions. Confusion that led at times to competition regarding the responsibilities of the former REDD+ agency vis-à-vis the Ministry of Forestry, caused delays, and such institutional coordination issues continue as the new government undergoes a restructuring process" (Lee and Pistorius 2015, p.20).

Improved information on international development partner activities can help donors coordinate their support. While donors technically have a responsibility to report on their activities to Bappenas, governance rules are not clear and reported information is not made publically available in a user-friendly form. Various international databases exist to track donor projects, e.g. OECD CRS, REDDX, the REDD+ desk, but information is often out of date and lacks detail on specific activities, financing, linkages to government processes, outcomes, and documentation. GIZ, UNORCID and BP REDD+ have each initiated or planned to initiate such efforts in the past, but they have not been sustained. Given that donor and government officials change relatively frequently, a database would be very useful to help avoid overlaps and help understand which partners have particular capabilities and resources in different areas of work. The UK's development tracker[21] and the US Foreign Assistance[22] websites are good examples of portals for development aid projects and could serve as a model for similar portals within recipient countries, such as Indonesia.

Building the institutional capacity of the Indonesian Government and other organizations to meet donor financial management standards will enable these groups to play a greater role in directly receiving and managing development finance, and help to achieve impacts at scale. As discussed in section 4.1, most international support is channeled through international organizations, not through the Indonesian government or Indonesian organizations. International development partners can help support Indonesian institutions, such as state owned enterprises and foundations, to meet accreditation requirements for global funds such

20 "Some sources estimate that oil palm is over 10 times more profitable than pulpwood plantations." (Castrèn et al. 2014, p. 32).

21 http://devtracker.dfid.gov.uk/ Note however that not all projects could be found in the database.

22 http://beta.foreignassistance.gov

as the Green Climate Fund and the Adaptation Fund, which Indonesia has not yet succeeded in accessing directly. More support is needed to build capacity on Environmental and Social Governance (ESG) systems and safeguards, fiduciary standards, and on operating policies and procedures, e.g. procurement. While building this capacity consumes resources and creates delay in starting projects, it is important to achieving impact at scale.

Support is also needed to build the capacity of local organizations to be able to receive funds and implement projects. Most if not all projects depend on local experts and organizations to implement their projects. There is often a limited pool of suitable local organizations as they find it difficult to comply with donor reporting standards and procedures, for example donors want reports in English and multiple funding estimates for procured goods or services – this is not always practically possible. Simplifying and reducing administrative requirements and offering support to potential grantees on financial management, proposal preparation, program management, etc. can help broaden capacity. Local organizations are also crucial to ensuring successful implementation of projects and continuity of activities after projects close, to ensure progress made is sustained, but they need to be funded to continue their work. A lot of capacity is built up in local NGOs during development partner projects that can be used after projects are closed.

6. Conclusions

This paper has discussed the role of international development partners in financing mitigation and adaptation actions in the land use sectors in Indonesia, evaluating what progress has been made to date, what challenges have been met, and what opportunities lie ahead to effectively support Indonesia, reflecting on the 'value add' development partners bring to the domestic picture.

International development partners' 'value add'

The current focus of international development partners, supporting indirect enabling environment activities, is well targeted. We find that the enabling environment (policy, institutional and regulatory frameworks) for investments in land use in Indonesia remains weak. Thus, international development partners' focus on supporting indirect, enabling environment activities is well founded, at least for the short-term. Support for such activities can help to improve information, transparency, and governance, to tackle illegality, and to help allocate and manage land more efficiently. Improved enabling environments will provide the structural support for a more robust investment climate for sustainable and efficient land use activities, removing risks and barriers to direct activities. In particular, improving spatial information is key to reducing conflicts, delays, and enabling good resource planning, allocation, and management decisions. Meanwhile improving legality and transparency are essential prerequisites to increasing sustainability and social inclusion. Such activities are challenging and do not always provide such visible results as implementation activities, but they have the potential to unlock significant streams of future public and private investment, as well as social benefits.

Parallel support to public and private actors as well as civil society organizations is also needed to address the barriers facing direct implementation activities such as sustainable agriculture and agro-forestry value chains, ecosystem restoration, and sustainable livelihood options for rural communities. Such support will help implementation activities get started as soon as the enabling environment is right, or even before, in the form of early demonstration activities and also to push reform in governance and regulation.

Ways forward

1. **Development partners need to work in partnership with the Indonesian government, at national and regional levels, to reform regulations and improve systems.** High-level political commitments and backing (from the Government of Indonesia at all levels national and local, and from development partners) is critically important.

2. **Development partners and government need to coordinate more systematically to minimize duplication and maximize reach.** Development partner coordination should be driven by the Government of Indonesia and seek to drive forward a new ambitious vision and implementation pathway, which is cross-ministerial, cross-jurisdiction and cross-donor, away from the current silos. The division of responsibilities between Ministry of Finance and the Indonesian Development Planning Agency (Bappenas) also needs to be clearer, as, at present, donors are often left confused as to who is actually responsible for overseeing aspects of development cooperation.

3. **The Government of Indonesia should establish a comprehensive database of international development partner activities and associated annual disbursements, which would enhance development partner and practitioner coordination and cooperation, and therefore effectiveness.** This study has highlighted the difficulty of obtaining an accurate and up-to-date overview of donor activities and disbursements in Indonesia. The level and type of information provided by development partners to the Indonesian Government is currently highly variable. On the flip side, development partners find Indonesian reporting requirements unclear and difficult to observe. We recommend establishment of a streamlined, simplified, and standardized reporting system and database, managed by the Government of Indonesia with modalities for international organizations to update information regularly. The database should store information on both active and completed projects, activity classifications and details as well as data on volumes of finance committed and disbursed annually. It should be publicly available to maximize transparency and utility for all stakeholders.

4. **Development partners should aim to provide support over extended durations, delinking funding from donor government shorter-duration political cycles, to enhance impact, providing sufficient time to build partner capacity, implement activities on the ground and deliver desired results.** Land use projects involve multiple phases, including establishing local systems, building effective partnerships with local communities and governments, and rehabilitating or sustainably managing ecosystems. These activities are challenging to conclude within the common 3-5 year timeframes of development programs. During project inception, care should also be taken to prepare full risk assessments and realistic implementation plans that are understood by all relevant parties.
5. **Development partners have to be flexible, aligned with evolving Indonesian Government priorities at national and regional levels, and aim to provide systems and outputs that can quickly transfer data and information to new officials**. Involving Indonesian local academic or civil society advisors in development programs can help manage knowledge and develop stronger relationships with government partners.
6. **Development partners can assist Indonesian institutions to meet accreditation requirements for international funds and explore innovative public private funding partnerships to leverage substantial additional sums of finance**. This may also help to address challenges posed by shorter-term international programs, by enabling longer run, more stable support. Interviewees suggested state-owned enterprises and reputable foundations or local non-governmental organizations could play a role in building and delivering longer-term programs, possibly backed by trust funds to hold and disburse finance. Support is needed to build capacity of prospective Indonesian institutions (governmental and external) on safeguards, fiduciary standards and on operating policies and procedures.
7. **Development partners can help local organizations to build capacity to implement programs and sustain efforts after development support ends.** Local organizations are crucial to ensuring successful implementation of projects and continuity of activities after projects close, but the pool of local organizations that comply with international development partner standards is currently relatively limited. Streamlining administrative requirements and offering support to potential grantees on financial management, proposal preparation, and program management would help a larger network of local actors to access finance at scale.

Abbreviations

ADB: Asian Development Bank

AFS: Indonesian Agency for Food Security

CPO: Crude Palm Oil

CSO: Civil Society Organization(s)

ESMF: Environment and Social Management Framework

FAO: Food and Agriculture Organization

FCPF: The Forest Carbon Partnership Facility

FIP: Forest Investment Program

FREDDI: Funding Instrument for REDD+ Indonesia

GEF: Global Environment Facility

GIZ: Deutsche Gesellschaft fur Internationale Zusammenarbeit

GoI: Government of Indonesia

IBRD: International Bank for Reconstruction and Development

ICCTF: Indonesia Climate Change Trust Fund

IDR: Indonesian Rupiah

IFACS: Indonesian Forestry and Climate Support

IFAD: The International Fund for Agricultural Development

IFC: International Finance Corporation

InPOP: Indonesia Palm Oil Platform

IPOP: Indonesia Palm Oil Pledge

ISPO: Indonesian Sustainable Palm Oil Foundation

MoA: Ministry of Agriculture

MoF: Ministry of Finance

MRV: Measuring, Reporting and Verification

ODA: Official Development Assistance

OECD CRS: The Organization for Economic Co-operation and Development Creditor Reporting System

OOF: other official flows

PIDRA: Post-Crisis Programme for Participatory Integrated Development in Rainfed Areas

RAN-GRK: Indonesia's National Action Plan on Reducing Greenhouse Gas Emissions

UN-REDD: The United Nations Program on Reducing Emissions from Deforestation and Forest Degradation

UNORCID: United Nations Office for REDD+ Coordination in Indonesia

READ: Rural Empowerment and Agricultural Development

SESA: Strategic Environmental and Social Assessment

SOLID: Smallholder Livelihood Development Project in Eastern Indonesia

UNFCCC: United Nations Framework Convention on Climate Change

UNDP: United Nations Development Program

UNEP: United Nations Environment Program

WB: World Bank

References

Abood S, Lee J, Burivalova Z, Garcia-Ulloa J, Koh L. 2015. Relative Contributions of the Logging, Fiber, Oil Palm, and Mining Industries to Forest Loss in Indonesia. Conservation Letters, January/February 2015, 8(1), 58–67.

Ampri I, Falconer A., Wahyudi N., Rosenberg A., Ampera B., Tuwo A., Glenday S., Wilkinson J. 2014. The Landscape of Public Climate Finance in Indonesia. An Indonesian Ministry of Finance and CPI report. Available at: http://climatepolicyinitiative.org/publication/landscape-of-public-climate-finance-in-indonesia-3/

Brady, M. 2015. Presentation "FIP-Indonesia: progress update" given at FIP Pilot Countries Meeting. Available at: http://climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/4%20Presentation%20FIP-Pilot%20Countries%20Meeting%202015%20-%20Update%20Indonesia_draft%20230615.pdf

Buchner B., Brown L., Corfee-Morlot J. 2011a. "Monitoring and Tracking Long-Term Finance to Support Climate Action", OECD, COM/ ENV/ EPOC/IEA/SLT(2011)3.

Buchner B, Falconer A, Hervé-Mignucci M, Trabacchi C, Brinkman M. 2011b. "The landscape of climate finance". Venice: CPI. Available from: http://climatepolicyinitiative.org/europe/publication/the-landscape-of-climate-finance/

Buchner B, Hervé-Mignucci M, Falconer A, and Trabacchi C, 2012. "Global Landscape of Climate Finance 2012". Venice: CPI. Available from: http://climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2012

Buchner B, Hervé-Mignucci M, Trabacchi C, Wilkinson J, Stadelmann M, Boyd R, Mazza F, Falconer A, Micale V. 2013. "Global Landscape of Climate Finance 2013". Venice: CPI. Available from: http://climatepolicyinitiative.org/publication/globalland-scape-of-climate-finance-2013/

Buchner B, Stadelmann M, Wilkinson J, Mazza F, Rosenberg A, Abramskiehn D. 2014. "Global Landscape of Climate Finance". Venice: CPI. Available from: http://climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2014/

Buchner B, Trabacchi C, Mazza F, Abramskiehn D and Wang, D. 2015. "Global Landscape of Climate Finance". Venice: CPI. Available from: http://climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2015/

Busch J, Ferretti-Gallona K, Engelmanna J, Wright M, Austin K, Stollec F, Turubanovae S, Potapove P, Margonoe B, Hansene M, and Baccini A. 2015. Reductions in emissions from deforestation from Indonesia's moratorium on new oil palm, timber, and logging concessions. PNAS. Available at: www.pnas.org/cgi/doi/10.1073/pnas.1412514112

Cabello M and Farhat M. 2013. The political economy of deforestation. Available at: http://www.opml.co.uk/sites/default/files/Growth%20in%20Indonesia_The%20political%20economy%20of%20deforestation.pdf

Castrén, Tuukka, Marko Katila, Karoliina Lindroos, and Jyrki Salmi. 2014. Private Financing for Sustainable Forest Management and Forest Products in Developing Countries: Trends and drivers. Washington, DC: Program on Forests (PROFOR).

Christina, B. 2015. News article: "Indonesia to pledge to make deeper emission cuts by 2030", September 2 2015. Reuters. Available at: http://www.reuters.com/article/2015/09/02/us-indonesia-carbon-pledge-idUSKCN0R215Q20150902

Climate Investement Funds (CIF). 2015. FIP SEMI-ANNUAL OPERATIONAL REPORT. Dated May 27, 2015. Available at: http://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/FIP_14_3_FIP_SAR_Rev_1.pdf

CPI. 2014. Fact Sheet: The Production & Protection Strategy in Indonesia. Available at: http://climatepolicyinitiative.org/publication/fact-sheet-the-production-protection-strategy-in-indonesia/

DfID. 2014. Operational Plan 2011-2016 UK Climate Change Unit (UKCCU), Indonesia. Updated December 2014. Available at: http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/389252/Indonesia-UKCCU.pdf

Dharmasaputra M and Wahyudi A. 2014. The Impact of Payment-for-Performance Finance on the Political Economy of Deforestation in Indonesia. CGD CLIMATE AND FOREST PAPER SERIES #9.

Falconer, A., Mafira, T., Sutiyono, G. 2015a. Improving Land Productivity through Fiscal Policy: Early Insights in the Palm Oil Supply Chain. Jakarta. Climate Policy Initiative.

Falconer A., Parker C., Keenlyside P., Dontenville A., and Wilkinson J. 2015b. Three tools to unlock finance for land-use mitigation and adaptation. Available at: http://climatepolicyinitiative.org/publication/three-tools-to-unlock-finance-for-land-use-mitigation-and-adaptation/

FAO. 2015. www.fao.org/forestry/sfm/en/

FCPF. 2014. FOREST CARBON PARTNERSHIP FACILITY (FCPF) ELEVENTH CARBON FUND MEETING, Resolution CFM/11/2014/2, "Selection of Indonesia's Emission Reductions Program Idea Note into the Pipeline." Available at: https://www.forestcarbonpartnership.org/sites/fcp/files/2014/october/Resolution%202%20Indonesia%20ER-PIN%20provisional%20rev.pdf

GIZ. 2015. "A winding road – preparing national institutions for access to the GCF"

Goodman R. and Herold M. 2014. Why Maintaining Tropical Forests Is Essential and Urgent for a Stable Climate. CGD Working Paper. Available at: http://www.cgdev.org/sites/default/files/CGD-Climate-Forest-Paper-Series-11-Goodman-Herold-Maintaining-Tropical-Forests.pdf

Halimanjaya A, Maulidia M. 2014. The coordination of climate finance in Indonesia. ODI. Available at: http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9333.pdf

Halimanjaya A, Nakhooda S and Barnard S. 2014. The effectiveness of climate finance: a review of the Indonesia Climate Change Trust Fund. ODI. Available at: http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8898.pdf

Hansen, M, Potapov P, Moore R, Hancher M, Turubanova S, Tyukavina A, Thau D, Stehman S, Goetz S, Loveland T, Kommareddy A, Egorov A, Chini L, Justice C, Townshend R. 2013. High-Resolution Global Maps of 21st-Century Forest Cover Change. SCIENCE VOL 342.

Harris N et al. 2012. Baseline map of carbon emissions from deforestation in tropical regions. Science 336(6088):1573–1576.

Herold M, Angelsen A, Verchot L, Wijaya A and Ainembabazi J. 2012. A stepwise framework for developing REDD+ reference levels. In Angelsen A, Brockhaus M, Sunderlin W and Verchot L (Eds). 2012. Analysing REDD+: challenges and choices. Available at: http://www.cifor.org/publications/pdf_files/Books/BAngelsen1201.pdf

Hosonuma N, Herold M, De Sy V, De Fries R, Brockhaus M, Verchot L, Angelsen A and Romijn E. 2012. An assessment of deforestation and forest degradation drivers in developing countries

ICCTF. 2014a. ICCTF annual report 2014. Available at: http://icctf.or.id/App_ClientFile/a1780ed9-591c-4352-aff5-4763a3283033/Assets/ICCTF%20Annual%202014-English.pdf

ICCTF. 2014b. ICCTF Business Plan 2014-2020. Available at: http://icctf.or.id/App_ClientFile/a1780ed9-591c-4352-aff5-4763a3283033/Assets/AAAIcctf%20Bussiness%20Plan%202014-2020.pdf

IFAD. 2011a. SMALLHOLDER LIVELIHOOD DEVELOPMENT PROJECT (SOLID) IN MALUKU AND NORTH MALUKU. DRAFT PROJECT DESIGN REPORT. Available at: http://www.ifad.org/operations/projects/design/102/indonesia.pdf

IFAD. 2011b. PIDRA Project Completion Digest. Available at: http://operations.ifad.org/documents/654016/69e36056-ef9e-4930-837b-73340f6a6fb4

IFAD. 2013. Supervision Report for READ programme. Available at: http://operations.ifad.org/documents/654016/bca9cf50-4717-45cf-832b-1a66c4345812

IFAD. 2015. Website information on READ. Accessed August 2015. Available at: http://operations.ifad.org/web/ifad/operations/country/project/tags/indonesia/1258/project_overview

Juergens I, Amecke H, Boyd R, Buchner B, Novikova A, Rosenberg A, Stelmakh K, Vasa A. 2012. "The landscape of climate finance in Germany". Berlin: CPI. Available from: http://climatepolicyinitiative.org/publication/german-landscape-of-climate-finance/

Lawson S, Blundell A, Cabarle B, Basik N, Jenkins N, and Canby K. 2014. Consumer Goods and Deforestation: An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations. Earth Trends. Available at: http://www.forest-trends.org/documents/files/doc_4718.pdf

Lee, D. and Pistorius, T. 2015. THE IMPACTS OF INTERNATIONAL REDD+ FINANCE. September 2015. Available at: http://www.climateandlandusealliance.org/en/Impacts_of_International_REDD_Finance/

Luttrell C et al, "The Political Context for REDD+ in Indonesia: Constituencies for Change," Environmental Science and Policy 35, 2014, 67-75.

Mafira T and Sutiyono G. 2015. Improving Land Productivity through Fiscal Policy: A Framework for Analysis. A CPI Report.

MoF (Ministry of Finance). 2012. Indonesia First Mitigation Fiscal Framework. In support of the National Action Plan to Reduce Greenhouse Gas Emissions. Jakarta: Government of Indonesia, Ministry of Finance. Available from: http://www.climatefinance-developmenteffectiveness.org/sites/default/files/documents/04_12_14/Session_2/CPEIR_country_reports/Indonesia_MFF_report.pdf

MoF (Ministry of Finance). 2014. Green Planning and Budgeting Strategy for Indonesia's Sustainable Development 2015–2020, Jakarta: Fiscal Policy Agency, Ministry of Finance.

Murdiyarso, D., Dewi, S., Lawrence, D. and Seymour, F. 2011 Indonesia's forest moratorium: a stepping stone to better forest governance? Working Paper 76. CIFOR, Bogor, Indonesia. Available at: http://www.cifor.org/publications/pdf_files/WPapers/WP-76Murdiyarso.pdf

Overseas Development Institute (ODI) and Heinrich Böll Foundation (HBF). 2014. "Climate funds update database" [Internet]; [accessed August 2015]. London; Washington DC: ODI/HBF. Available from: http://www.climatefundsupdate.org

OECD. 2015. OECD CRS database. Accessed August 2015. Available at: https://stats.oecd.org/Index.aspx?DataSetCode=CRS1

Rahman Y, Hartati C, Maulana M, Subagiyo H, Putra A (Eds.). 2014. LAND AND FOREST GOVERNANCE INDEX : The Performance of Local Governments in Land and Forest Governance in Indonesia (A Case Study of Nine Districts). Available at: https://asiafoundation.org/resources/pdfs/LandandForestGovernanceIndex.pdf

Rosenberg, A. and Wilkinson, J. 2013. Demonstrating Approaches to REDD+ Lessons from the Kalimantan Forests and Climate Partnership (KFCP). Venice: Climate Policy Initiative. Available from: http://climatepolicyinitiative.org/wp-content/uploads/2013/11/SGG-Case-Study-Lessons-from-the-Kalimantan-Forests-and-Climate-Partnership.pdf

Seymour F. 2015. Blog: Reducing Indonesia's Deforestation Rate: A Glass Half-Full. Available at: http://www.cgdev.org/blog/reducing-indonesia%E2%80%99s-deforestation-rate-glass-half-full

Seymour F, Birdsall N and Savedoff W. 2015. The Indonesia-Norway REDD+ Agreement: A Glass Half-Full. CGD Policy Paper 56. Available at: http://www.cgdev.org/publication/indonesia-norway-redd-agreement-glass-half-full

Shames S, Clarvis M, and Kissinger G. 2014. Financing Strategies for Integrated Landscape Investment: Synthesis Report, in Financing Strategies for Integrated Landscape Investment, Seth Shames, ed. Washington, DC: EcoAgriculture Partners, on behalf of the Landscapes for People, Food and Nature Initiative.

Sizer N, Petersen R, Anderson J, Hansen M, Potapov P and Thau D. 2015. Blog: "Tree Cover Loss Spikes in Russia and Canada, Remains High Globally." April 02, 2015. Available at: http://www.wri.org/blog/2015/04/tree-cover-loss-spikes-russia-and-canada-remains-high-globally

Tropical Landscapes Summit. 2015. Final Report. Available at: http://www.summit2015.org/report/item/load/130_976c8e1f3bde15445891b30298e72167

UNEP. 2011. UN-REDD Programme Strategy 2011-2015. Available at: http://www.unep.org/forests/Portals/142/docs/UN-REDD%20Programme%20Strategy.pdf

Weisse M and Petersen R. 2015. Brazil and Indonesia Struggling to Reduce Deforestation, Global Forest Watch blog dated September 3 2015. Available at: http://blog.globalforestwatch.org/2015/09/brazil-and-indonesia-struggling-to-reduce-deforestation/#more-2641

World Bank (WB). 2014. Grant Reporting and Monitoring (GRM) Report for period 07/01/2013 to 06/30/2014. Available at: https://forestcarbonpartnership.org/sites/fcp/files/2014/september/Indonesia%20GRM%20FY2014%20Recipient%20Executed.pdf

WRI. 2015. CAIT Climate Data Explorer. Washington. Available at: http://cait.wri.org/historical

Yaap B and Paoli G. 2014. A Comparison of Leading Palm Oil Certification Standards Applied in Indonesia: Towards Defining Emerging Norms of Good Practices. Available at: http://daemeter.org/new/uploads/20140505064302.Daemeter_Comparison_of_Palm_Oil_Certification_Standards_FullReport_Eng.pdf

Annex 1: Typology of activities and definitions

TYPE	DEFINITION
DIRECT	**ACTIVITIES THAT RESULT IN GHG EMISSION REDUCTIONS OR IMPROVED RESILIENCE TO CLIMATE IMPACTS IMMEDIATELY OR IN THE SHORT TERM, OR VIA DIRECT RESULTS-BASED PAYMENTS (HEROLD ET AL. 2012)**
Ecosystem restoration	Restoration, rehabilitation, reforestation, afforestation, peat land management
Protected areas	Legally recognized public areas or privately protected areas.
Sustainable forest management	Managing forests to increase their benefits, including timber and food, to meet society's needs in a way that conserves and maintains forest ecosystems for the benefit of present and future generations (FAO 2015).
Sustainable agriculture	The management and conservation of the natural resource base, and the orientation of technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations. Such development... conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable (FAO 2015).
Fire management	Control, prevention and management of fire in natural environments
INDIRECT	**FORMS OF CAPACITY BUILDING OR TECHNICAL ASSISTANCE AIMED AT CREATING THE PRE-CONDITIONS FOR FUTURE GHG EMISSION REDUCTIONS OR IMPROVED RESILIENCE TO CLIMATE IMPACTS**
Training and outreach	Provided to farmers, foresters, or government officials that is not expected to result in an immediate impact on emissions or resilience. Information/best practice sharing, workshops and conferences. Training on inter alia, community conflict resolution, timber legality and sustainable forest management.
Institutional development	Governance support, support to develop financial or budget management, law enforcement support, support to eliminate corruption related to illegal logging e.g.
Systems development	Systems for measuring reporting and verifying GHG emissions and land cover change, including via satellite imagery. Systems for fire detection, prevention and management.
Research and analysis	Including studies and data/information collection on the topic of spatial planning, land tenure, biodiversity, governance and legality, financial incentives, forest management practices, commercial forestry, sustainable agriculture, community based forestry approaches
Strategy and Policy development	Project or program development, support to implement timber licensing agreement, to develop new local or national plans and strategies on e.g. low carbon development, spatial planning.