

# 10

## Climate Governance and Decentralization in Indonesia

MONICA DI GREGORIO AND MOIRA MOELIONO

### 10.1 Introduction

Indonesia represents an interesting case for analysis of the relationship between multi-level governance and climate governance for three main reasons. It is a highly decentralized country; it is a major contributor to land-based greenhouse gas emissions; and it is extremely vulnerable to climate change. The chapter first provides a broad overview on Indonesia's climate governance in the context of decentralization, and then focuses on sub-national governance of climate change mitigation in the land use sector, the largest contributor to greenhouse gas emissions in the country.

Indonesia illustrates key advantages of highly decentralized polity structures. Political autonomy has facilitated sub-national climate action through direct engagement of provinces with transnational climate initiatives, and the multiplicity of forums for policymaking has allowed certain provinces to champion sub-national engagement in climate change policy. Decentralization has also facilitated experimental policies in the form of innovative sub-national jurisdictional approaches to climate action in the land use sector. At the same time, though, peculiarities of the decentralization approach in the land use sector have led to perverse incentives that hamper forest-based climate change mitigation action. Drawing on in-country expertise and interviews with provincial government officials from ten highly forested provinces, this chapter explores the relations between national and provincial governments in the processes of forest-based climate change mitigation.

### 10.2 Climate Change and Land Use Emissions in Indonesia

As a tropical archipelago with a large population chiefly dependent on agriculture, Indonesia is particularly vulnerable to climate change, due to both sea level rises and worsening of extreme weather events leading to the increased frequency and

intensity of floods, droughts, and landslides (ICCSR 2009). El-Niño events and carbon rich peatland compound risks of increased emissions from forest fires due to droughts and to human- and climate-induced soil disturbance (Sloan et al. 2017). Climate change has already led to increased food insecurity (Boer and Subbiah 2005).

In 2014 Indonesia became the sixth largest greenhouse gas emitter in the world, and the largest forest-based emitter, due largely to conversion of forest into agriculture (WRI 2020). Since the 1990s, land-use change and forestry has emitted three to four times as much greenhouse gases as the energy sector. Rainforests remove atmospheric carbon and are major stores of carbon, so disturbances lead to release of carbon. Indonesia still contains the third largest tropical rainforest area after Brazil and the Democratic Republic of Congo, but it had one of the highest rates of deforestation worldwide of around 0.7 per cent between 1990 and 2015. Since 2016, primary forest loss has been declining (Global Forest Watch 2020). Forest conversion is the highest priority for mitigation action and requires an integrated approach across forestry and agriculture (Di Gregorio et al. 2017).

Carbon emissions by province reveal differences in levels and sources suggesting the need for distinct jurisdictional approaches to reduce emission reductions. The two very highest emitting provinces are in Sumatra (North Sumatra and Riau) and their emission are more than double over any other Indonesian province. They are followed by East Java and Central Kalimantan and a number of other outer island provinces (Utami et al. 2016). The main source of emissions also differs across provinces. In the more extensive but less populated outer islands, land use change and forestry largely outstrip any other source. In highly populated regions, such as Java, energy production tops the charts.

Forest conversion into agriculture is driven largely by oil palm expansion. Indonesia supplies nearly 50 per cent of palm oil worldwide; demand is predicted to increase and will contribute to drive deforestation in the absence of improved sustainable practices (Schebek et al. 2018). The pressure on forests and the extent and rate of conversion differs across regions. The highest emitting provinces in Sumatra contain the most extensive areas of oil palm plantations. Central and West Kalimantan follow, with some of the highest rates of deforestation and contain a mix of extensive oil palm areas closer to the coast and large tracts of natural forest inland. Finally, Papua and West Papua are among the lowest emitting provinces, contain the most intact areas of primary forest, and are at the early stages of deforestation.

### ***10.2.1 Climate Change Mitigation Commitments in the Land Use Sector***

Indonesia developed its first National Action Plan Addressing Climate Change (RAN-PI) in 2007, the same year it hosted the 13th UNFCCC Conference of

Parties (COP) in Bali. COP13 led to the inclusion of avoided deforestation as a carbon sink approach to account for greenhouse gas reductions. The resulting incentive mechanism of REDD+ (Reducing Emissions from Deforestation and forest Degradation) entails that developed countries compensate developing countries for carbon sequestration in tropical forests. In 2009 President Yudhoyono announced Indonesia's pledge to reduce greenhouse gas emissions by 26 per cent from business-as-usual (BAU) by 2020 and up to 41 per cent subject with international support.

In 2011 Indonesia passed a moratorium on deforestation in primary forest and peatland, which became permanent in 2019 (InPres6/2017). The main National Action Plan for the Reduction of Greenhouse Gas Emissions (RAN-GRK), which indicates forests and peatland as main target for emission reductions, was also released in 2011 (PerPres 61/2011). Provincial level plans (RAD-GRK) followed. The RAN-GRK Secretariat at the Ministry for National Development liaises with the provinces on greenhouse gas emission reductions, follows reviews, monitoring and reporting, and in 2019 developed the guidelines for the Provincial Low Carbon Development Plans.

The 2016 Indonesia's National Determined Contribution (NDC) extended the deadline and revised the mitigation commitment to 29 per cent emission reductions and 41 per cent with international support, against a 2030 BAU scenario of 2.87 GtCO<sub>2</sub>e (GOI 2016; Wijaya et al. 2017). The 2020 NDC confirms the target and indicates 2060 as the net zero target date. It revised the per cent contribution coming from forest emission reductions to 24.5, and the per cent from the energy sector to 15.5. It also committed to forestry becoming a net carbon sink by 2030 (Ibun Aqil 2021). Sectoral mitigation targets are clearly specified in various national regulations. They include the restoration of 5.5 Mha of degraded land between 2015 and 2019; the restoration of 2.4 Mha of peatlands in seven priority provinces in Sumatra, Kalimantan, and Papua; and the allocation of 12.7 Mha to community social forestry by 2020 (BAPPENAS 2014; InPres 6/2017 2017; PerPres 1/2016, 2016).

By December 2021, official MoEF figures suggested that 4.7 M of social forestry areas had been allocated (MoEF 2021). Expected emission reductions in forest and land use by the 2030 deadline for BAU is 650 MtCO<sub>2</sub>. They are expected to cost 77 billion IDR – much cheaper than energy-based reductions, and deliver 1.5 times the emission savings. There is little question that, at least on paper, forestry and land use are the low hanging fruit to reach emission reduction at the least possible cost (MoEF 2018a). In 2018 in a bid to leverage private climate finance, the Indonesian government introduced the first green bonds to carbon markets in 2018, and a draft of a presidential decree on carbon pricing was released in 2021. At the same time, the targets need to be understood within the

context of major economic development plans, which include a planned expansion of oil palm and forest plantations and mining in Kalimantan (ROI 2011).

### 10.3 Changing Features of Decentralization in Indonesia: From Decentralization to Recentralization

Indonesia has undergone distinct phases in terms of decentralization and recentralization processes and the level of devolution is not uniform across sectors. Below we present the major shift since democratization. At the time of President Suharto Indonesia was considered one of the most centralized of nations (Butt 2010). After Suharto's fall in 1998, Indonesia embarked on an extensive democratization and decentralization process, which has been labelled as quasi-federalist (Bertrand 2007). Overall, there are five levels of government in Indonesia, consisting of the national government; thirty-four Provinces (*propinsi*); close to 500 districts (*kabupaten/kota*); followed by sub-districts (*kecamatan*); and villages (*desa/kelurahan*). Because of concerns that devolution to provinces might strengthen pre-existing secessionist movements in Aceh and Papua,<sup>1</sup> the 1999 regional autonomy law devolved most powers to the then-292 district governments. This resulted in a very unusual type of decentralization, where 3rd tier district governments enjoyed much greater autonomy than 2nd tier provincial governments (Ferrazzi 2000). A scramble for the creation of new districts ensued, leading to a 50 per cent increase within a decade (Pierskalla 2016).

Regional autonomy brought direct elections of heads of district government, the creation of local legislative assemblies, increasing fiscal transfers and increased local responsibility for public services (Lewis 2013). Political decentralization is extensive with the first three tiers of government all having elected heads of government and legislative assemblies. Second and third tier governments have broad autonomy to legislate in matters not reserved for central government and are responsible for public administration and investments, policing, infrastructure, health, education, the labour force, small and medium enterprises, development planning, agriculture and land management, and the environment.<sup>2</sup> However, whenever a regional law conflicts with a national law, the latter prevails. Central government can also invalidate laws on national interest grounds and decisions on local budgets, and taxes and spatial planning require central approval (Butt 2010).

Fiscal decentralization has resulted in an overall increase in public investment spending towards social goods at the local level (Pal and Wahhaj 2017), although being somewhat limited as revenue collection remain centrally managed. Funds are transferred to 2nd and 3rd tier governments through a 'general allocation grant' indexed according to population and poverty levels. In practice, overlapping and conflicting legislation and practices across governance levels are extremely

common (Butt 2010). However, decentralization was neither accompanied by sufficient resources and capacity building for local governments to effectively deliver public goods and substantially promote economic development, nor by sufficient central government capacity to monitor local implementation effectively (Nasution 2016). In practice, however, local government retained a very high level of authority for a unitary state (Bertrand 2007; Shair-Rosenfield et al. 2014).

Major revisions to regional autonomy introduced in 2014 shifted many major functions from district to province. Provinces gained oversight over district governments restoring the first-second-third tier government hierarchy and reversing the decentralization to districts. Environmental responsibilities in the mining, forestry, maritime affairs, and fishery sectors were moved from district to provincial level. At the same time central authorities introduced new administrative penalties for mismanagement leading to the potential dismissal of heads of regional governments, imposing increased central control over all lower tier governments. Provincial governments are only responsible for implementing and assessing policies, expressed as ‘educating, supervising, monitoring and evaluating and facilitating’ (UU23/2014), while policy formulation in those sectors was recentralized. District level forestry and mining offices have been closed as responsibilities shifted to the province and central ministries. The 2021 law on job creation (Law 11 2021), also called the ‘Omnibus Law’, underpins further centralization. Intended to facilitate business development at the regional level, it recentralized the allocation of land use permits.

#### **10.4 Climate Governance in the Context of Decentralization**

Climate change governance evolved in this changing context of decentralization and recentralization. After outlining the main responsibilities of the central, provincial, and district jurisdictional levels, we present some major instances of horizontal and vertical competition, then illustrate how distinct levels of decentralization in the forestry and agricultural sectors leads to perverse incentives that hamper forest-based climate change mitigation processes.

##### ***10.4.1 Central Government Climate Change Architecture in the Land Use Sector***

Recentralization tendencies have affected most sectors including climate change. In the central government, a number of departments share responsibilities around climate change policymaking, while provincial governments are involved mainly in implementation. The Ministry of Environment and Forestry (MoEF), and its Directorate General for Climate Change, have a major national climate change

mandate. The ministry has a coordination role around environmental matters, but is also a line ministry for forestry, which leads to inconsistencies and diverging interests within the ministry. With respect to land use, most climate related work focuses on forest-based mitigation. While the three highest levels of government have shared mandates on the environment, forestry is much more firmly under central control of the ministry, and even more so since the 2014 recentralization drive. Recentralization processes are particularly relevant in the forestry sector. Recently, these are also driving further deforestation. First, a 2020 MoEF regulation permits clearing of forest for large scale food estates allowing the reassignment of forest areas to ‘forest areas for food security’. Second, the 2020 Omnibus Law and associated MoEF regulations remove the requirement to maintain at least 30 per cent of any watershed and island territory as forest lands. In this way, the MoEF reasserts its control over state forest lands – the most extensive land classification in Indonesia. In contrast, the Ministry of Agriculture has a very minor role, being responsible for mainstreaming climate change into agriculture and developing climate-smart solutions. Its main focus is on climate change adaptation.

The coordination Ministry of National Development Planning (BAPPENAS) has the mandate to mainstream climate change into development planning and oversees provincial climate change plans and reporting. It is also responsible for the national level Nationally Appropriate Mitigation Actions, which facilitate access to multi-lateral funding, as well as for national adaptation and mitigation policy plans and their implementation. The ministry has a major climate policy integration role, both horizontally, working primarily on implementation in close collaboration with all sectoral ministries, and vertically, across governance levels. Further, the Ministry of Finance has responsibility for the overall budget and has been claiming a mandate over any form of payments related to climate change, including benefits-sharing mechanisms. It controls the Environment Fund Management Agency (BPDLH), which is responsible for the management of multi- and bi-lateral climate finance (Pham et al., 2021). Infights between the MoEF, BAPPENAS, and the Ministry of Finance on who has jurisdiction on climate change responses has been evident from the start as they compete for control over the climate change agenda. In practice, the former two have overlapping climate mandates, which are not clearly reconciled (Di Gregorio et al. 2017). The Ministry of Foreign Affairs also plays a key role – particularly in relation to global climate change processes under the UNFCCC, because the majority of the climate change related funding comes from international sources.

Given the cross-sectoral nature of climate change, most of the ministries work through multi-sectoral platforms (Di Gregorio et al. 2017). The first national committee on Climate Change and Environment was established in 1992 and

included three inter-ministerial working groups led by the Agency for Meteorology, Climatology, and Geophysics, the Ministry of Environment, and the Ministry of Agriculture. Under the Yudhoyono presidency the DNPI included seventeen ministries and seven working groups, as did the REDD+ Task Force and the REDD+ agency. BAPPENAS National Coordination Team on Climate Change has a similar multi-agency set up (Di Gregorio et al. 2015). During Yudhoyono's tenure, the president's Delivery Unit for Development Monitoring (UKP4) had a major supervisory role across all government ministries. Notably, none of the joint committees include sub-national agencies.

#### ***10.4.2 Provincial and District Level Climate Change Planning and Implementation***

Provincial level and district level governments are involved in local climate change policy development and implementation. By 2013, all thirty-four provinces had developed and enacted, through governor's regulation, their Local Action Plans for Greenhouse Gas Emissions Reductions (RAD-GRK). Such progress was largely achieved first with the support of the National Climate Change Council, and later the guidance of BAPPENAS, as well as with international programmes. Yet, provincial plans remain vague and contain contradictory aims, with mineral and natural resource development plans not being reconciled with climate mitigation aims (Wijaya et al. 2017).

BAPPENAS oversees the local mitigation action plans and its regional branches are responsible for implementation. Provinces have also developed REDD+ Provincial Action Plans. The earlier REDD+ district level strategies were repealed following the 2014 regional autonomy changes, effectively ending any district autonomy on REDD+ policies and shifting control over climate change to the provinces. Aceh, West Sumatra, Jambi, South Sumatra, West Kalimantan, East Kalimantan, Central Kalimantan, Papua, and West Papua developed their REDD+ plans with the support of the REDD+ Agency. By 2019, eleven out of thirty-four Provinces had provincial REDD+ strategies, and five had established ad hoc provincial levels REDD+ Working Groups (Papua, Riau, East Kalimantan, and South Sumatra) or Joint Secretariat in South Kalimantan (Ekawati et al. 2019). For REDD+ implementation there are four key policy features to be developed in addition to the provincial REDD+ strategy itself: provincial reference levels, monitoring, reporting, and verification, safeguards, and benefit sharing mechanisms. So far, most provinces have only developed their reference level. Yet, monitoring, reporting, and verification is necessary for carbon accounting, and safeguards and benefit-sharing institutions are crucial to reduce trade-offs between climate change mitigation and livelihoods and to enhance transparency (Ekawati et al. 2019).



### ***10.4.3 Decentralization and Perverse Land Use Incentives Undermining Forest-Based Mitigation***

Policy actors responsible for land use decisions play a key role in climate change policy outcomes in Indonesia, given that land use change is the main source of greenhouse gas emissions and the main target for emission reductions. Two-thirds of the Indonesian territory, 120.6 million ha, was classified as ‘forest area’ in 2017 – designated as ‘permanent forest’, although 28 per cent of state forest land is actually not forested and 8 per cent of forest is located outside of this classification. State forest land is divided in production (68.8 mill ha), protection (29.7 mill ha), and conservation forest (22.1 mill ha in 2017) (MoEF 2018b).

In 2014 regional autonomy law shifted responsibility for the management of production and protection forest from district to provincial government and retained conservation forest management under central government authority. As a consequence, district governments lost any authority over forestry decisions, and provincial governments now manage forests through the Forest Management Units (FMUs) established by the ministry. FMUs have long been the MoEF’s preferred approach to manage the state forest estate, because they maintain substantial central control over allocation and uses of forest lands. This leaves local government mainly responsible for residual planning and implementation (Sahide et al. 2016). Indeed, FMUs are the main instrument the ministry uses to secure rights to forest areas (Nugroho 2014), and are therefore fundamental means of state territorialization (Peluso and Lund 2011). In practice, however, only fifty-three FMUs had an approved Long Term Forestry Management Plan in 2016 (Santoso et al. 2019). Only a small number of FMUs are fully operational in terms of staff and activities, and many face institutional and capacity constraints. Overlapping claims across levels of government and between the state and local farmers remain largely unresolved (Jodoin 2017). Thus, many FMUs remain such on paper only, with social forestry and REDD+ projects operating in ignorance of existing FMU areas.

Social forestry represents a very small percentage of official management schemes, and in 2017 only 4.1 per cent of the forest estate was in fact managed by local communities (Damarjati 2018). The MoEF simplified social forestry projects’ application processes in 2016, with the aim of facilitating achieving social forestry targets. Issuing of permits remains centralized under the Directorate General for Social Forestry, with FMUs having only a supporting role. Thus, the acceleration of social forestry programmes is occurring with limited devolution to forest users. While the MoEF interacts with NGOs implementing the schemes, local community engagement lags behind, resulting in communities benefiting only limitedly from social forestry designations (Suharjito and Wulandari 2019). One of the social



forestry schemes, *hutan desa*, has contributed slightly to avoided deforestation between 2010 and 2015; however, deforestation rates fluctuated from positive to negative across the years (Santika et al. 2017). In addition, the total area of *hutan desa* and other social forestry schemes remains a very small fraction of the state forest lands. Finally, new MoEF regulations in line with the 2021 ‘Omnibus Law on Job Creation’ (Law 11/2020) allow for the first time the participation of the private sector in social forestry schemes, which would in practice privatize the management of some schemes. There is also evidence of alliances between MoEF and districts against further devolution, such as resistance against the establishment of customary forests (*hutan adat*), which fall outside state forest areas (Sahide et al. 2016). Further alliances have emerged between provinces and central government against decentralization of forest management to districts. This also means that districts experiencing overlapping claims to forest land have no authority to solve related conflicts. In practice, the MoEF uses tactics reminiscent of a divide-and-rule approach to retain central control over forestry (Sahide et al. 2016).

That said, the level of decentralization or recentralization is not uniform, as districts try to maintain the autonomy they enjoyed in previous decades and political alliances across government levels lead to a whole variety of outcomes locally. Further, the Indonesian indigenous movement, which supports devolution of forests to indigenous communities, has become a major political player in decentralization processes and has achieved significant legal victories in the constitutional court (Sahide and Giessen 2015).

Land outside forest lands remains administered by the Land Agency. Much of this land, classified as ‘land for other uses’ (APL) is devoted to agricultural use and district governments have extensive control over these areas. They are responsible for issuing land use licences, while provinces are responsible for areas that span across more than one district (Irawan et al. 2019). Consequently, district governments have very strong incentives to lobby the MoEF to release land from the state forest estate to ‘land for other uses’. This combination of centralized control over state forest land and decentralized control over agricultural land, leads to perverse incentives whereby local government has a strong interest in accelerating conversion of forests into agriculture, which drives deforestation. Thus, district governments play a crucial role in emissions from forest conversion, yet they are hardly involved in climate change decisions. It is within this context of shifting autonomy from districts to provinces and attempts by the MoEF to retain central control of forests that the innovative sub-national developments to forest-based mitigation have emerged. Below we present the analysis of jurisdictional approaches to REDD+ and assess the complex national–local relations that underpin them.

## **10.5 Decentralization, Forest-Based Mitigation, and Jurisdictional Approaches to Climate Change**

### ***10.5.1 REDD+ and the Rationale for Jurisdictional Approaches***

At the 2005 UNFCCC COP meeting in Montreal, Papua and Aceh – two Indonesian provinces that have special regional autonomy status – pushed for the introduction of a new global forest-based mitigation mechanism, later known as REDD+. Other forest-rich provinces supported the mechanism in the hope that it would help to finance forest conservation policies and low-carbon emission development.

To be effective, REDD+ requires a nested approach – in other words a substantial integration of activities and monitoring across levels of governance. In particular, a nested approach facilitates verification of carbon accounting to avoid double counting of emission reductions (Pedroni et al. 2009; Wertz-Kanounnikoff and Angelsen 2009; Wunder et al. 2020). A jurisdictional approach to REDD+ integrates efforts within subnational jurisdictions to deliver emission reductions and co-benefits across the whole territorial boundaries (Boyd et al. 2018). In practice, jurisdictional approaches are led by sub-national governments – province or district in Indonesia – and should include integrated land use plans, and carbon monitoring, reporting, and verification at the scale of the jurisdiction. It is considered a useful step to facilitate climate policy integration within jurisdictions and make it easier to control leakage of carbon emission, which occurs when greenhouse gases are displaced elsewhere instead of being suppressed (Irawan et al. 2019). On paper, a decentralized political structure should facilitate nested approaches leading to effective climate governance. Below, we investigate both opportunities and challenges in REDD+ implementation from the perspectives of leading provinces and assess them within the context of Indonesia's decentralized governance system. After presenting the main developments in jurisdictional approaches, we investigate GCFTF's role in facilitating provincial level jurisdictional approaches to REDD+ in the next sections. The analysis is based on interviews with GCFTF's delegates from Indonesian provinces, its secretariat, and supporting organizations undertaken between 2017–18 and the analysis of climate change policy documents.

### ***10.5.2 Jurisdictional REDD+ in Indonesia***

In Indonesia jurisdictional approaches to REDD+ were introduced in 2008. The World Bank and The Nature Conservancy were the first to support district level REDD+ jurisdictional approaches (Fishbein and Lee 2015), while forest-rich

provincial governments started to engage in provincial level jurisdictional approaches through the Governors Climate and Forest Task Force (GCFTF). GCFTF is a transnational climate change governance initiative that brings together sub-national governments interested in soliciting international funding for jurisdictional implementation of REDD+ and associated Low Emission Development (LED). Seven forest-rich Indonesian provinces – West, Central, East and North Kalimantan, Papua and West Papua, and Aceh – are part of the thirty-eight-member transnational network (Di Gregorio et al. 2017). Funding for jurisdictional approaches comes primarily from multi-lateral sources and to a much smaller extent from the private sector. In 2009, The Nature Conservancy established the first district level jurisdictional REDD+ project in Berau district in East Kalimantan. In 2014, after the revision of the regional autonomy law, it started to build stronger linkages at provincial level, supporting the East Kalimantan Green Growth Compact, which brings together 150 partners to tackle landscape challenges, and collaborating with the Provincial Council on Climate Change (Hovani et al. 2018). The REDD+ national strategy discusses the role of pilot provinces, but not specifically jurisdictional approaches. Central Kalimantan became the first REDD+ pilot province in 2011, with efforts concentrating at provincial level. In 2020 the World Bank's Forest Carbon Partnership Facility agreed to support jurisdictional REDD+ in the province of East Kalimantan through its Carbon Fund, while the Bio Carbon Fund supported the jurisdictional scheme in Jambi province. District level REDD+ jurisdictional schemes have been underway in Kapuas Hulu and Kubu Raya in West Kalimantan with the support of GIZ, NICFI, and UNDP. Finally, Unilever's private scheme supports sustainable sourcing of palm oil in Central Kalimantan (Seymour et al. 2020).

The drive towards jurisdictional approaches to address climate change started largely outside of the national climate change policy processes through the collaboration between sub-national governments and international and domestic non-state actors. Over time, the discourse shifted from purely REDD+ jurisdictional approaches to broader Low Emission Development (LED) approaches – although in practice the focus remains largely confined to forest-based mitigation (Di Gregorio et al. 2020; Seymour et al. 2020). GCFTF supports primarily provincial level jurisdictional approaches, which fit well the latest legal provisions on regional autonomy. That said, district level jurisdictional initiatives can be accommodated within these.

After just over a decade of REDD+ readiness activities in Indonesia, the first performance-based payments for emissions reduction were agreed in 2020. In May that year Norway approved a payment of US\$56 million for emissions reductions achieved between 2016 and 2017. In August the Green Climate Fund approved a further US\$103.8 million for the years 2014–16. The funds are managed centrally

through the Environmental Fund Management Agency (BPLDH) established in 2019, which is also responsible for evaluating and approving submission of proposals for funding, including from sub-national governments or non-state actors. A substantial amount is earmarked to extend and enhance social forestry (US\$47 million) and FMUs (US\$47 million), while the rest supports Indonesia's broader REDD+ architecture (Yong 2020). As social forestry and FMUs are subject to substantial central control by the MoEF and are managed and implemented through its provincial offices, the MoEF is likely to have access to substantial funding. Still, at present it remains uncertain how exactly the funds will be disbursed across levels of governance, across different actors, and how they will contribute to the funding of jurisdictional REDD+ schemes at provincial or district level. We do know, though, that part of the performance-based REDD+ payments will support three pilot provinces of Aceh, West, and Central Kalimantan to implement deforestation-free agriculture (GCFTF 2021; Seymour et al. 2020).

### ***10.5.3 The Scramble for Control Over the REDD+ Policy Mandate at National Level***

Within the national government, REDD+ is considered a 'national plan with regional implementation' (Ekawati et al. 2019). It is thus similar to the largely recentralized sectoral approach in forestry, and reflects attempts on the part of the MoEF to retain control of climate change policy decisions related to land use and associated budget lines. A clear indication on the part of the MoEF to claim the mandate to control forest-based mitigation policy has been evident since the very beginning. The MoEF used its power to challenge and ultimately change the organizational climate change and land use policy architecture.

Under the Yudhoyono presidency, and in line with Norway's pressure, the climate change policy mandate fell under the semi-independent entities of the National Council on Climate Change (DNPI), the REDD+ Task Force, and later the REDD+ Agency, who held the mandate for climate change and land use policy development. The office of the president had strong oversight on integration of REDD+ in ministerial policies and action plans through the president's Delivery Unit for Development Monitoring (UKP4). The ministries, in particular the Ministry of Forestry, strongly contested being side-lined from major REDD+ policy decisions and lobbied for control over the climate change policy mandate. In practice, the Ministry of Forestry already had a very strong influence on the national REDD+ policy domain (Brockhaus and Di Gregorio 2014) through its control over forest land. And it used FMUs and social forestry as a means of further strengthening its territorial control. With the election of Widodo to president in 2014, the tables turned and ministries regained full control over

climate policy, as the semi-independent REDD+ agencies and UKP4 were dismantled. The merger of the Ministry of Forestry and Ministry of Environment the same year consolidated the control under the newly established Directorate General of Climate Change of the MoEF.

The increased interest of the Government of Indonesia in carbon finance denotes a major intention to raise international private funds to fund REDD+ activities. The national government aims to control carbon finance centrally, and in 2017 the MoEF contacted forest licence holders indicating that they could not independently engage in carbon trading activities (Pham et al. 2021). Further, the 2020 presidential decree draft states that only designated organizations (the BPD LH, the Steering Committee of Carbon Pricing, the MoEF, and connected agencies) would be authorized to engage and manage carbon markets. There are already organizations, including Ecosystem Restoration Concessionaires, that engage in voluntary carbon markets, and if the decree is adopted it will affect their ability to directly engage in such transactions (MMIA 2020; Pham et al. 2021). At the same time, there are also important countervailing tendencies that push for a more decentralized approach to climate policies, such as the push on the part of the GCFTF for jurisdictional approaches to be largely under the control of provincial governments.

#### ***10.5.4 The Governor's Climate and Forests Task Force and Jurisdictional REDD+***

For the first decade of its existence GCFTF was largely a transnational network that facilitated information sharing, capacity building, and target setting among its thirty-eight sub-national jurisdictions across ten countries. Its main aim was to solicit international funding for provincial level jurisdictional REDD+ as well as broader Low Emission Development. California's membership denotes the attempt to link REDD+ to future sub-national carbon markets. At present, however, REDD+ funding opportunities are mainly realized through overseas development aid (Angelsen 2017). In 2020, Norway agreed to fund the implementation of jurisdictional approaches pledging 25\$ million to be managed by the UNDP (Di Gregorio et al. 2020). This infusion of funds has increased the relevance of GCFTF to national climate change interests.

According to Indonesia's provincial delegates, the GCFTF enhances the opportunities for provinces to engage in climate change action in a number of ways. It provides opportunities for provincial government to pursue a bottom-up governance approach to climate action that draws on the vision of governors themselves, and it helps both to put and to keep the climate change and forest on the provincial policy agenda. It also strengthens the visibility of provinces as

climate change leaders, raising the profiles of provinces at the national level. Finally, GCFTF also facilitates interactions among the various Indonesian provinces that are engaged in forest-based climate change mitigation. All Indonesian provincial GCFTF member governments value the platform's contributions around these functions.

### *10.5.5 Provincial Governments' Visions on Climate and Forest*

Provinces' visions on climate and forests revolve largely around achieving sustainable development outcomes through green growth, illustrating a clear ecological modernization approach, in which forest conservation and greenhouse gas emission reductions go hand in hand with economic development opportunities. The final aim is to enhance economic benefits and improve local standards of living. Among the ten provinces, only West Kalimantan included the aim of reducing greenhouse gas emissions themselves at the core of its vision for climate and forests. East Kalimantan and West Papua put more emphasis on the practical aim of leveraging carbon offset finance. Only two provinces, Aceh and West Papua, highlighted that the final aim of improving forest management and reducing emissions is to provide benefits for local communities. Thus, there is a clear discrepancy between the global REDD+ discourse that aims to reduce emissions, and the visions of provinces, which put much more emphasis on economic co-benefits. At the global level, REDD+ climate discourse includes safeguards that are limited to avoid detrimental effects on livelihoods, while the REDD+ national strategy includes the creation of additional benefits for local people's welfare in the main scope of REDD+ alongside emission reductions. Thus, the global, and to some extent also the dominant national REDD+, discourse differs from that of the provinces, which have a stronger focus on local economic development objectives.

According to delegates, the main challenge that provinces face in achieving their vision for climate and forest is the pressure from the drivers of land use change in terms of the conversion of forest into agriculture – in particular plantation agriculture – and to a smaller extent mining. They suggest that the latter in particular is largely driven by powerful national level actors. The new Omnibus Law and the MoEF regulation on food estate in forest areas also suggest that national level drivers are becoming more dominant. Papua and West Papua are the only provinces to mention poverty as being a major driver of deforestation, and lack of institutional capacity and weak community participation as major challenges. Thus, despite the general adoption of ecological modernization ideas, provincial governments are much more aware and concerned than national and global actors about real trade-offs between achieving economic development and environmental sustainability.

### ***10.5.6 Relations between the National and Provincial Governments***

Although predominantly a global platform, delegates indicate that GCFTF creates visibility for provincial governments at national level. As an example, with GCFTF's support West Papua was able to organize a meeting bringing together all seven Indonesian member provinces and the MoEF, providing an opportunity to showcase provincial interests and efforts, enhance the visibility, and consequently the influence of provinces on national climate action. The main challenges mentioned by provincial delegates in terms of national–provincial relations are national level resistance to jurisdictional approaches; major bureaucratic burdens imposed by national government; and the misalignment of policy goals between national and provincial visions. National resistance takes shape in many different forms.

Provincial delegates – in particular those from the provinces with special status – denounce the lack of autonomy in relation to institutions around climate change as a major challenge. Others, however, also indicated that a higher level of autonomy, such as would exist in a federal system, might translate in more competition among federated entities and diverging policy agendas that might lead to lack of alignment across jurisdictional approaches. A main challenge to develop and implement jurisdictional REDD+ approaches at provincial level was uniformly identified by all delegates as insufficient funding. Limited resources, in particular extremely limited environmental budgets, constrain the ability of provinces to take climate action.<sup>3</sup> Any large-scale funding has to go through central government institutions, and delegates talked about the bureaucratic burden of the disbursement process, and the high levels of uncertainty about the level of funding for provinces. In Indonesia, as in many other REDD+ countries, there is an institutional vacuum that is reflected in the lack of rules on the distribution of REDD+ benefits across jurisdictional levels, which fuels uncertainty and leaves decisions largely at the discretion of central government.

It also seems that GCFTF fills functions left vacant by national government in a number of areas. First, it facilitates linkages between provinces and international donors. In a well-functioning multi-level governance system, central government should facilitate such linkages. Instead, several Indonesia provinces indicated that GCFTF played an important role in facilitating direct contact with Norway and the World Bank, which are major funders and supporters of jurisdictional approaches. Second, it facilitates interactions across the various Indonesian provinces. GCFTF has assigned coordinators for countries such as Indonesia, that have a number of member provinces. This also comes with a budget for joint activities as prioritized by the provinces. Delegates suggest that such joint activities build and strengthen in-country blocks of like-minded jurisdictions, which enhances their power in subsequent interactions with national government. Third, GCFTF has helped provinces connect



to private sector actors willing to fund jurisdictional initiatives. For example, the GCFTF Indonesia coordinator facilitated Unilever's connection with Central Kalimantan government, which is the first public-private climate initiative on smallholder oil palm certification, operating in two districts in the province.

## 10.6 Conclusion

In a country as diverse as Indonesia, it would be expected that decentralization supports and facilitates climate action – although it might also create coordination challenges between central and provincial governments. Our evidence showed how provinces are attempting to design climate plans that cater to their specific contexts and needs, but are limited in their ability to experiment. In the land use sector, the institutions and processes of decentralization have created some serious obstacles that hamper forest-based mitigation action. First, a legacy of limited decentralization of the forestry sector in an otherwise highly politically decentralized polity, have created a set of institutional legacies leading to perverse incentives that fuel further deforestation and reduce the ability of provinces to lead forest-based climate mitigation action. Further, districts have largely been excluded from climate change decision making, although they might host major climate mitigation projects. As the sector is attracting substantial international climate finance for mitigation action, recentralizing tendencies of forestry bureaucrats have become more pronounced, as has the competition among sectoral ministries for the control of the climate policy agenda. Districts, and some of the provinces, perceive these developments as a loss in regional autonomy, and an institutional failure in fully adopting the subsidiarity principle. But these recentralizing tendencies do not remain unchallenged.

Sub-national governments have been able to facilitate policy innovation and diffusion, but largely with the help in international processes. New transnational climate governance initiatives support collective action institutions linking provincial governments, facilitating learning and socialization of climate action across provinces. Such support also enhances the visibility of provinces in the national climate change domain. Provincial governments have been using these platforms to develop and disseminate their own ideas and visions for climate and forests. Provinces are increasingly leading jurisdictional approaches to REDD+ and Low Emission Development, despite evidence of resistance by the central government to devolve resources and decision-making power. As implementation of these approaches is just past the pilot phase, it remains to be seen how effectively they will contribute to emission reductions. Constraints on regional autonomy, institutional bureaucratic burdens, limited and uncertain access to funding, and misalignment of national policies with local needs remain some of the key challenges that provinces face vis-à-vis the central government.

At the same time, both national and sub-national governments experience high, although distinct, pressures from private forestry and agribusiness interests driving deforestation that historically contributed to economic development to the detriment of the environment. National and provincial governments will only overcome such pressures if they collaborate more effectively. Instead of working together, bureaucratic national interests seem to be competing with provincial governments in a scramble for control of land, forests, and climate change mandates. Cooperation is further hampered by the distinct *ideas* on the future of climate and forests between national and provincial interests. More inclusive national climate change institutions willing to devolve resources and decision-making power to localities would be more conducive not just to global and national climate change emission reduction targets, but also to important sustainable development targets that are central to the visions and ideas of localities.

There seem to be major differences between decentralized polities, such as Indonesia, and federal systems in the governance of climate change. In decentralized systems, institutions and policies underpinning devolution are more likely to be in flux, and change in response to changes in government, changes in policy agendas, and in the constellation of power across governance levels. This is particularly true in emerging policy domains, such as forest-based climate change mitigation. Decentralization in Indonesia is subject to ongoing political negotiations between the centre and the periphery, and competition over the climate agenda and the associated uncertainty hamper effective forest-based climate change mitigation. Whether a more extensive form of devolution in the climate change arena would translate in enhanced emission reductions remains an open question. It would, however, likely reduce competition across governance levels, which currently hampers effective climate action.

### Notes

- 1 Aceh and Papua gained special autonomy in 2001.
- 2 Central government is responsible for foreign affairs, defence, national monetary and fiscal matters, and religion. The law, however, also states that central government retains authority to legislate on any area not mentioned in the law.
- 3 Although interviews were done before the 2020 disbursement of funding, at the time delegates knew that Norway had committed 25 \$Mill to support jurisdictional REDD+ implementation at provincial level.

### References

- Angelsen, A. 2017. 'REDD+ as Result-Based Aid: General lessons and bilateral agreements of Norway'. *Review of Development Economics* 21 (2): 237–64.
- BAPPENAS (Ministry of National Development Planning). 2014. *National Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional (RPJMN 2015–2019))*. Jakarta: Ministry of National Development Planning.

- Bertrand, J. 2007. 'Indonesia's Quasi-federalist Approach: Accommodation amid strong integrationist tendencies'. *International Journal of Constitutional Law* 5: 576–605.
- Boer, R., and A. R. Subbiah. 2005 'Twenty-Six Agricultural Drought in Indonesia'. In: *Monitoring and Predicting Agricultural Drought: A global study*, eds. V. K. Boken, A. P. Cracknell, and R. L. Heathcote, 330–44. Oxford: Oxford University Press.
- Boyd, W., C. Stickler, A. Duchelle, et al. 2018. *Jurisdictional Approaches to REDD+ and Low Emissions Development: Progress and prospects, World Resources Institute Working Paper*. Washington, DC: World Resources Institute.
- Brockhaus, M., and M. Di Gregorio. 2014. 'National REDD+ Policy Networks: From cooperation to conflict'. *Ecology and Society* 19 (4): 14. doi: 10.5751/ES-06643-190414.
- Butt, Simon. 2010. 'Regional Autonomy and Legal Disorder: The proliferation of local laws in Indonesia'. *Singapore Journal of Legal Studies*: 1–21. [www.jstor.org/stable/24870542](http://www.jstor.org/stable/24870542).
- Damarjati, Danu. 2018. 'Kementerian LHK: 95,76% Hutan Berizin Dikelola Swasta'. *DetikNews*, 3 April. <https://news.detik.com/berita/d-3951757/kementerian-lhk-9576-hutan-berizin-dikelola-swasta>.
- Di Gregorio, Monica, Kate Massarella, Heike Schroeder, Maria Brockhaus, and Thuy Thu Pham. 2020. 'Building Authority and Legitimacy in Transnational Climate Change Governance: Evidence from the governors' Climate and Forests Task Force'. *Global Environmental Change* 64: 102126. doi: 10.1016/j.gloenvcha.2020.102126.
- Di Gregorio, M., D. R. Nurrochmat, L. Fatorelli, et al. 2015. *Integrating Mitigation and Adaptation in Climate and Land Use Policies in Indonesia: A policy document analysis*, Sustainability Research Institute Paper no. 90. Leeds: Centre for Climate Change Economics and Policy.
- Di Gregorio, Monica, Dodik Ridho Nurrochmat, Jouni Paavola, et al. 2017. 'Climate Policy Integration in the Land Use Sector: Mitigation, adaptation and sustainable development linkages'. *Environmental Science & Policy* 67 (Supplement C): 35–43. doi: 10.1016/j.envsci.2016.11.004.
- Ekawati, S., K. Budiningsih, G. K. Sari, and M. Z. Muttaqin. 2019. 'Policies Affecting the Implementation of REDD+ in Indonesia (cases in Papua, Riau and Central Kalimantan)'. *Forest Policy and Economics* 108: 101939.
- Ferrazzi, G. 2000. 'Using the "F" Word: Federalism in Indonesia's decentralization discourse'. *Publius: The Journal of Federalism* 30 (2): 63–85.
- Fishbein, G., and D. Lee. 2015. *Early Lessons from Jurisdictional REDD+ and Low Emissions Development Programs*. Arlington, VA: The Nature Conservancy, World Bank, & Forest Carbon Partnership Facility.
- GCFTF (Governors Climate and Forest Task Force). 2021. *GCF Task Force: Provinces in Indonesia mobilize data for sustainable agriculture, driven by the country's recent success in reducing deforestation*. <https://gcftaskforce.exposure.co/gcf-task-force-provinces-in-indonesia-mobilize-data-for-sustainable-agriculture>, last accessed 20 July 2021.
- Global Forest Watch. 2020. *Forest Monitoring Designed for Action*. [www.globalforest-watch.org](http://www.globalforest-watch.org), last accessed 7 August 2020.
- GOI (Government of Indonesia). 2016. *First Nationally Determined Contribution*. Jakarta: Government of Indonesia.
- Hovani, L., T. Varns, H. Hartanto, S. Rahman, N. Makinuddin, and R. Cortez. 2018. *Jurisdictional Approaches to Sustainable Landscapes: Berau and East Kalimantan, Indonesia*. Arlington, VA: The Nature Conservancy.
- Ibun Aqil, A. M. 2021. 'Indonesia Sets Net-zero Emissions Goal Ahead of COP26'. *Jakarta Post*, 1 August. [www.thejakartapost.com/news/2021/08/01/indonesia-sets-net-zero-emissions-goal-ahead-of-cop26.html](http://www.thejakartapost.com/news/2021/08/01/indonesia-sets-net-zero-emissions-goal-ahead-of-cop26.html).

- ICCSR. 2009. *Indonesia Climate Change Sectoral Roadmap: Synthesis report*. Jakarta: BAPPENAS.
- InPres 6/2017 (President of the Republic of Indonesia). 2017. *Instruksi Presiden Republik Indonesia Nomor 6 Tahun 2017, Tentang Penundaan Pemberian Izin Barudana Penyempurnaan Tata Kelola Hutan Alam Primer dan Lahan Gambut*. Jakarta: Republic of Indonesia.
- Irawan, S., T. Widiastomo, L. Tacconi, J. D. Watts, and B. Steni. 2019. 'Exploring the Design of Jurisdictional REDD+: The case of Central Kalimantan, Indonesia'. *Forest Policy and Economics* 108: 101853.
- Jodoin, S. 2017. 'Rights and Jurisdictional REDD+ in Indonesia'. In *Forest Preservation in a Changing Climate: REDD+ and indigenous and community rights in Indonesia and Tanzania*, ed. S. Jodoin, 87–116. Cambridge: Cambridge University Press. doi:10.1017/9781316986882.005.
- Lewis, B. 2013. 'Local Government Capital Spending in Indonesia: Impact of intergovernmental fiscal transfers'. *Public Budgeting & Finance* 33 (1): 76–94.
- MMIA (Coordinating Ministry for Maritime and Investment Affairs). 2020. *Draft of the 896 Presidential Decree on the Carbon Economic Value Instrument for Achieving NDC and 897 Carbon Emission Control in Development*. Jakarta: MMIA.
- MoEF (Ministry of Environment and Forestry). 2018a. *Indonesia: Second biennial update report under the United Nations Framework Convention on Climate Change*. Jakarta: MoEF.
- MoEF (Ministry of Environment and Forestry). 2018b. *The State of Indonesia's Forests 2018*. Jakarta: MoEF.
- MoEF (Ministry of Environment and Forestry). 2021. 'SP.434/HUMAS/PP/HMS.3/12/2021'. <http://ppid.menlhk.go.id/berita/siaran-pers/6330/capaian-tora-dan-perhutanan-sosial-di-tahun-2021>, last accessed 10 January 2022.
- Nasution, A. 2016. *Government Decentralization Program in Indonesia: ADBI working paper*. Tokyo: Asian Development Bank Institute.
- Nugroho, B. 2014. 'Menuju KPH Mandiri: Apa yang harus dilakukan?' In *Strategi pengembangan KPH dan perubahan struktur kehutanan Indonesia*, ed. Sugiharto, 91–114. Jakarta: FORCLIME.
- Pal, S., and Z. Wahhaj. 2017. 'Fiscal Decentralisation, Local Institutions and Public Good Provision: Evidence from Indonesia'. *Journal of Comparative Economics* 45 (2): 383–409.
- Pedroni, L., M. Dutschke, C. Streck, and M. E. Porrua. 2009. 'Creating Incentives for Avoiding Further Deforestation: The nested approach'. *Climate Policy* 9 (2): 207–20.
- Peluso, N. L., and C. Lund. 2011. 'New Frontiers of Land Control: Introduction'. *Journal of Peasant Studies* 38 (4): 667–81.
- PerPres 61/2011 (President of the Republic of Indonesia). 2011. *Presidential Regulation of the Republic of Indonesia No. 61 Year 2011 on the National Action Plan for Greenhouse Gas Emission Reduction*. Jakarta: Republic of Indonesia.
- PerPres 1/2016 (President of the Republic of Indonesia). 2016. *Peraturan Presiden Republik Indonesia Nomor 1 Tahun 2016, Tentang Badan Restorasi Gambut*. Jakarta: Republic of Indonesia.
- Pham, T. T., M. Moeliono, J. Yuwono, B. Dwisatrio, and P. Gallo. 2021. 'REDD+ Finance in Brazil, Indonesia and Vietnam: Stakeholder perspectives between 2009–2019'. *Global Environmental Change* 70: 102330.
- Pierskalla, J. H. 2016. 'Splitting the Difference? The politics of district creation in Indonesia'. *Comparative Politics* 48 (2): 249–68.

- ROI (Republic of Indonesia). 2011. *Masterplan: Acceleration and expansion of Indonesia economic development 2011–2025 (MP3EI)*. Jakarta: Republic of Indonesia.
- Sahide, M. A. K., and L. Giessen. 2015. 'The Fragmented Land Use Administration in Indonesia: Analysing bureaucratic responsibilities influencing tropical rainforest transformation systems'. *Land Use Policy* 43: 96–110.
- Sahide, M. A. K., S. Supratman, and A. Maryudi et al. 2016. 'Decentralisation Policy as Recentralisation Strategy: Forest management units and community forestry in Indonesia'. *International Forestry Review* 18 (1): 78–95.
- Santika, T., E. Meijaard, and S. Budiharta et al. 2017. 'Community Forest Management in Indonesia: Avoided deforestation in the context of anthropogenic and climate complexities'. *Global Environmental Change* 46: 60–71.
- Santos, S. S., D. R. Nurrochmat, B. Nugroho, and I. Santos. 2019. 'The Feasibility of the Implementation of Forest Management Units (FMUS) Policy: A case study in FMU Yogyakarta and FMU region IX Panyabungan'. *Jurnal Manajemen Hutan Tropika* 25 (1): 1–1.
- Schebek, L., J. T. Mizgajski, R. Schaldach, and F. Wimmer. 2018. 'Land-Use Change and CO<sub>2</sub> Emissions Associated with Oil Palm Expansion in Indonesia by 2020'. In *From Science to Society: New Trends in Environmental Informatics*, eds. B. Otjacques, P. Hitzelberger, S. Naumann, and V. Wohlgemuth, 49–59. Cham: Springer. doi:10.1007/978-3-319-65687-8.
- Seymour, F. J., L. Aurora, and J. Arif. 2020. 'The Jurisdictional Approach in Indonesia: Incentives, actions, and facilitating connections'. *Frontiers in Forests and Global Change* 3: 503326.
- Shari-Rosenfield, S., G. Marks, and L. Hooghe. 2014. 'A Comparative Measure of Decentralization for Southeast Asia'. *Journal of East Asian Studies* 14 (1): 85–108.
- Sloan, S., B. Locatelli, M.J. Wooster, D.L.A. Gaveau. 2017. 'Fire activity in Borneo driven by industrial land conversion and drought during El Nino periods, 1982–2010'. *Global Environmental Change-Human and Policy Dimensions* 47: 95–109.
- Suharjito, D., and C. Wulandari. 2019. 'A Reflection of Social Forestry in 2019: Towards inclusive and collaborative government approaches'. *Forest and Society* 3 (1): 137–40.
- Utami, A., R. Juliane, and M. Ge. 2016. *Six Things You Never Knew about Indonesia's Emissions and Local Climate Action*. Washington, DC: WRI.
- UU23/2014. (Government of the Republic of Indonesia). 2014. 'Undang-undang (UU) tentang Pemerintahan Daerah'. Jakarta: Indonesia.
- Wertz-Kanounnikoff, S., and A. Angelsen. 2009. 'Global and National REDD+ Architecture: Linking institutions and actions'. In *Realising REDD+: National strategy and policy options*, eds. A. Angelsen with M. Brockhaus and M. Kanninen et al., 13–24. Bogor: Center for International Forestry Research.
- Wijaya, A., H. Chrysolite, M. Ge, et al. 2017. *How Can Indonesia Achieve its Climate Change Mitigation Goal? An analysis of potential emissions reductions from energy and land-use policies*. WRI Working Paper. Jakarta: World Resources Institute.
- WRI (World Resources Institute). 2020. *CAIT Climate Data Explorer*. <http://cait.wri.org>, last accessed 8 August 2020.
- Wunder, S., A. E. Duchelle, C. D. Sassi, et al. 2020. 'REDD+ in Theory and Practice: How lessons from local projects can inform jurisdictional approaches'. *Frontiers in Forests and Global Change* 3: 11.
- Yong, C. K. Y. 2020. 'Indonesia Receives Results-Based Payments from the Green Climate Fund'. *UN-REDD Programme*, 1 December. [www.un-redd.org/news/indonesia-receives-results-based-payments-green-climate-fund](http://www.un-redd.org/news/indonesia-receives-results-based-payments-green-climate-fund).