

Decentralization and Avoiding Deforestation¹

The case of Indonesia

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INTRODUCTION

Decentralization of government functions in Indonesia has its roots in the country's geographic, economic, and ethnic diversity. Stretching between the Indian and Pacific oceans, this archipelagic nation consists of approximately 17,000 islands, 238 million people, around 350 ethnic groups, and many areas that are rich in natural resources (B.P. Resosudarmo 2005). The fear of secession by resource rich regions at the periphery following the collapse of the authoritarian rule of President Suharto at the end of the 1990s was a powerful driver towards decentralization (Malley 2003: 107–9; Turner et al. 2003).

Significant powers now rest at the level of local governments (399 districts and 98 municipalities) and to a lesser extent in its 33 provinces, including over the control of natural resources. Provincial and district governments receive a significant share of state revenue, including through the sharing of natural resource revenue between the central and local governments, and through allocated funds in a reformed system of inter-governmental fiscal transfers. These new fiscal transfers are aimed in part at promoting local accountability, efficiency and effectiveness, and strengthening the management of local natural resources.

¹ This is pre-publication version of our chapter.

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In the earlier, heavily centralized system of government, development had not only boosted economic growth but also resulted in environmental degradation, including deforestation, and conflicts between local communities and resource extraction enterprises (Azis and Salim 2005: 126–27). It is hoped that decentralization will deliver a more efficient, effective, and responsive mode of government in managing natural resources and the environment (I.A.P. Resosudarmo 2005: 111; Turner et al. 2003: 1), but in practice there are many shortcomings (Dermawan et al. 2006: 2; Ribot 2002: 9; Wollenberg and Kartodihardjo 2002: 92).

Of particular interest for this chapter is that rapid deforestation has continued during decentralization. The continued loss of forest and peat lands, driven by logging and the expansion of plantations, has been linked to decentralization (McCarthy 2002: 868; Ribot 2002: 9). Land use change, along with land management practice, is the principal driver of the degradation of ecosystems, loss of species, and Indonesia's large carbon emissions.

Indonesia is among the world's largest emitters of greenhouse gases, owing largely to emissions from deforestation and related aspects of land management, especially peat land fires. There are, however, great opportunities to reduce emissions. President Susilo Bambang Yudhoyono (SBY) has made a commitment to reduce Indonesia's greenhouse gas emissions by 26 per cent relative to a business-as-usual scenario by 2020, and by up to 41 per cent with additional international support, though no baseline has yet been provided to benchmark the promised reductions (Jotzo 2012). The great majority of reductions are expected to come from reduced deforestation (Secretary of the Cabinet of the Republic of Indonesia 2011: 2).

Decentralization poses significant challenges, as well as opportunities, for the design and implementation of policies and programmes to avoid deforestation. District governments will be involved in the development of specific local policies, measures, and projects, and be responsible for the implementation of activities for 'Reducing Emissions from Deforestation and Forest Degradation' (referred to as 'REDD+' in climate change policy parlance). But to make such constructive local engagement happen, an appropriate institutional model and incentive structure is needed.

Three different institutional frameworks are identified in this chapter. A 'centralistic' model will follow the current system of forest governance, where most functions are in the hands of the central government's ministry or agency, which will then instruct local governments to implement REDD+ activities. Under a 'decentralized' model, the central government will handle only selected aspects, and

the provincial and district governments will determine and manage a wide range of relevant activities, and also set the baselines for emissions and emission reductions at the local level. A ‘hybrid’ model, known in Indonesia as a ‘national approach with sub-national implementation’, will involve a national emissions baseline and national-level accounting, while the provinces and districts will have the flexibility to develop and implement their own local policies, measures, and projects.

Reducing greenhouse gas emissions is in the interest of the national government, as it is considered part of Indonesia’s role as a responsible and increasingly important member of the international community (Reid 2012), and because there may be financial rewards from the international community. By contrast, local governments have few direct incentives beyond safeguarding or improving local environmental conditions. To secure their active participation in a national effort, they will need to be compensated for foregone profits and supported for alternative economic development. The vertical inter-governmental fiscal transfer system could be used to provide such incentives from the centre to local governments. We provide an analysis of these models, taking into account the substantial decentralization reforms already undertaken, and drawing out to what extent the models will require further reforms in the mechanisms of inter-governmental fiscal transfers in Indonesia.

The next section provides an overview of the current features of Indonesia’s decentralized system of government, including the inter-governmental fiscal transfer system. The section that follows discusses deforestation in the decentralization era while the next section provides background on REDD+, and assesses the challenges in its implementation and possible ways forward. The next section provides an assessment of options for using the inter-governmental fiscal transfer system to pay local governments for avoided deforestation. The last section provides a conclusion.

INDONESIA’S DECENTRALIZED SYSTEM OF GOVERNMENT AND FISCAL RELATIONS

Efforts to introduce a degree of regional autonomy and decentralization in Indonesia can be traced back several decades, but they only really took off after the demise of the Suharto ‘New Order’ regime (see Kong, this volume). Political regime change following the Asian economic crisis of 1997–98 helped establish fertile ground for a ‘Big Bang’ approach to the decentralization of political, administrative, and fiscal functions (Hofman and Kaiser 2004: 107).

Roles and Responsibilities of the Centre, Provinces and Districts

Two laws on regional autonomy marked decentralization. Under Law No. 22 of 1999 on Regional Governance (later revised by Law No. 32 of 2004), district governments received broad autonomy and authority except with regard to security and defence, foreign affairs, fiscal and monetary affairs, justice, and religious affairs (Rasyid 2004: 67). Law No. 25 of 1999 on Central and Local Fiscal Balance set out a new system of fiscal arrangement under which district governments would gain a far larger share of the revenue generated within their borders. Since 2005, heads of local government (governors, bupati, and mayors) are directly elected by the local people.

Under these two laws district governments have, in principle, full responsibility and authority as well as financial means in terms of public works, public health, education and culture, agriculture, transportation, trade and industry, investment, the environment, land administration, and cooperative and labour affairs (Aspinall and Fealy 2003: 3–4; I.A.P. Resosudarmo 2005: 114). The role of the provinces, which sit between the central and local governments, is much more limited than that of districts. Broad lines of interaction among different layers of government are sketched in Figure 9.1.

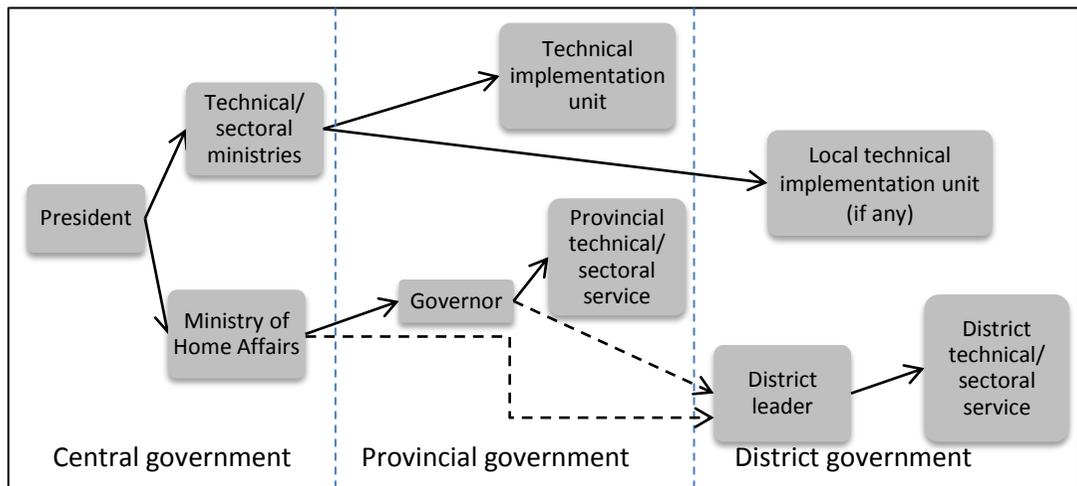


Figure 9.1 Interaction between different layers of government

Source: Adapted from Wollenberg et al. (2006: 426)

The division of authorities, roles, and responsibilities among the different layers of government remains unclear in many respects. Various laws and regulations result in overlap, including in conservation, environmental management, and forestry (Dermawan et al. 2006: 5; Seymour and Turner 2002: 38, 43). There has also been a tendency toward recentralization after the initial reforms. For example, Law No. 41 of 1999 on forestry returns to the central government much of the authority decentralized under Law No. 22 of 1999 (Turner et al. 2003: 16). In the forestry sector, regulations issued in early 1999 were aimed at decentralized forest management but soon after, the central government began to issue regulations which try to recentralize the forest administration (Dermawan et al. 2006: 5).

Recentralization of some aspects of the forestry sector has created further ambiguity and inconsistency in laws and regulations because the measures did not clearly revoke decentralized powers, instead they only ‘postponed’ them (Dermawan et al. 2006: 5; B.P. Resosudarmo 2005: 6). Figure 9.2 offers a summary of some key forestry regulations affecting decentralization since 1999.

Inter-Governmental Fiscal Transfers

Decentralization has strongly affected fiscal relationships and functions at different levels of the government. With Law No. 25 of 1999 on Central and Local Fiscal Balance (later revised by Law No. 33 of 2004), local governments obtained a much larger share of the central government’s revenues as well as the ability to create their own revenues, and became responsible for a range of expenditure categories.

The law designates four sources of local government revenues: (1) the central government’s Balancing Fund (Dana Perimbangan); (2) locally generated revenues from taxes and user charges (Pendapatan Asli Daerah/PAD); (3) regional loans (Pinjaman Daerah); and (4) other income (Colongon Jr 2003: 93; Seymour and Turner 2002: 39). Figure 9.3 depicts sources of revenue for local governments.

The bulk of provincial and district government budgets (amounting to 80–90 per cent) is financed by the Balancing Fund, which consists mainly of the General Allocation Fund (Dana Alokasi Umum/DAU), which accounts for up to 70 per cent of the Balancing Fund or around 65 per cent of provincial and district revenues (Hofman and Kaiser 2004: 27–28). Its purpose is to deal with vertical fiscal imbalances between levels of government, and to equalize fiscal capacities across

regions to finance public services or horizontal fiscal imbalance (Murniasih 2010: 7; Sidik and Kadjatmiko 2004: 147).

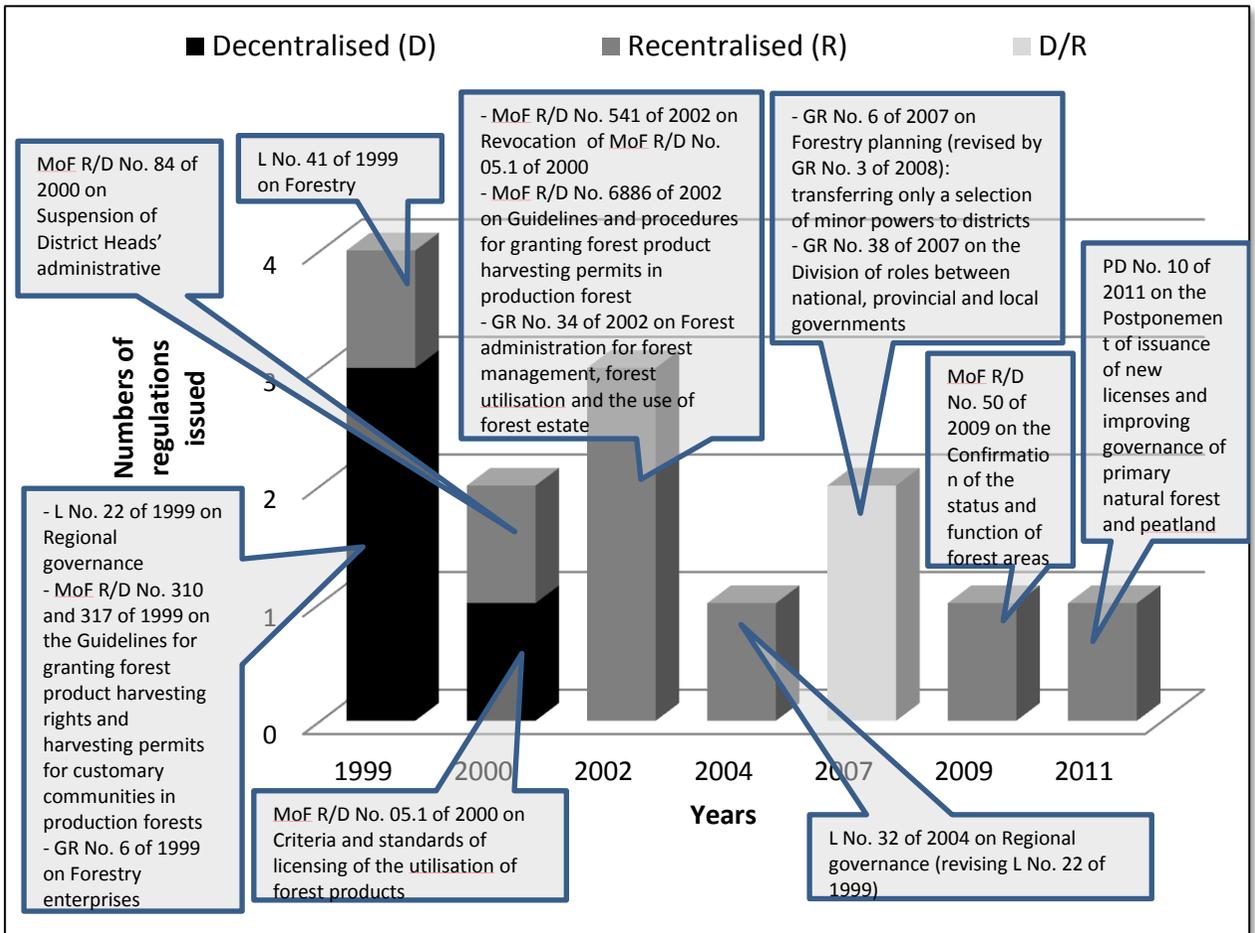


Figure 9.2 Regulatory Changes in the Forestry Sector

Source: Updated from Dermawan et al (2006).

Note: L = Law; GR = Government Regulation; PD = Presidential Decree; MoF R/D = Ministry of Forestry Regulation/Decree.

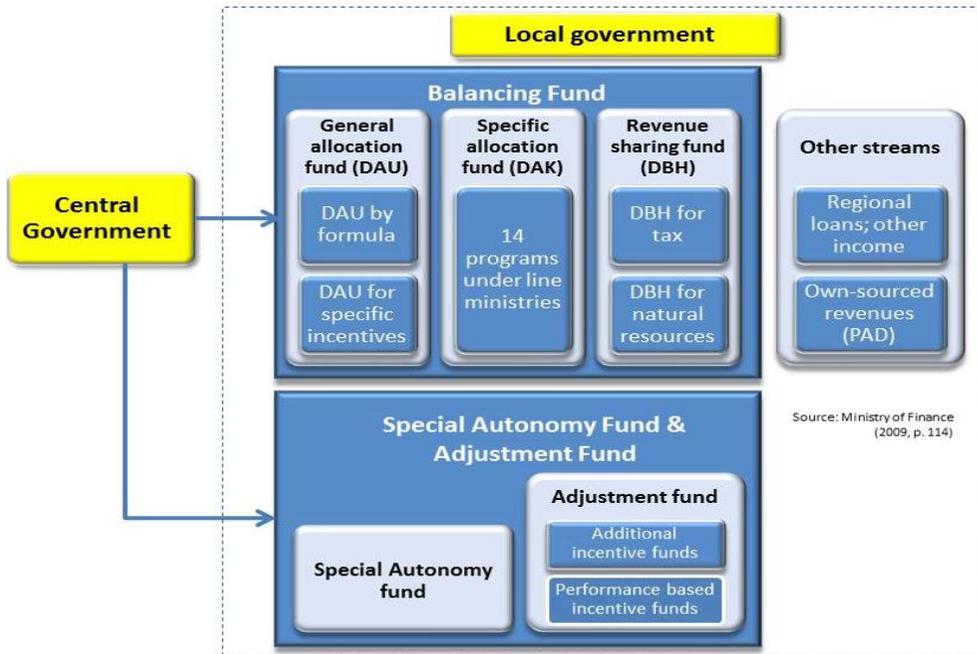


Figure 9.3 Inter-Governmental Fiscal System After Decentralization

Source: Ministry of Finance (2009: 114).

Other components of the Balancing Fund are the Special Allocation Fund (Dana Alokasi Khusus/DAK) and shared revenues (Dana Bagi Hasil/DBH), which are derived from the exploitation of natural resources (forests, mining, fisheries, oil and gas, land and property tax, and personal income tax) (Colongon Jr 2003: 93; Seymour and Turner 2002: 39). Another important component of the current fiscal system is PAD or ‘own-source revenue’ at the provincial and district levels such as is derived from local business taxes and levies. Table 9.1 lists the share of revenue from each of these categories.

The amount of Balancing Fund payments (DAU) varies among provinces and districts, depending on local needs and their economic potential, including factors of population, area, geographical condition, and income level (poverty index). DAU is the largest component of sub-national government finances.

Table 9.1 Share of Revenue Sources

	Average total revenue for districts				Average total revenue for provinces			
	2002-2005*	2006*	2007**	2008**	2002-2005*	2006*	2007**	2008**
General Allocation Fund (DAU)	75%	74%	66%	64%	24%	26%	27%	23%
Special Allocation Fund (DAK)			8%	8%			1%	2%
Revenue sharing (DBH)	18%	21%	20%	21%	27%	32%	17%	27%
Own-source revenue (PAD)	8%	5%	6%	7%	49%	42%	54%	48%
Total (DAU+DAK+DBH+PAD)	100%	100%	100%, Rp216 trillion	100%, Rp251 trillion			100%, Rp61 trillion	100%, Rp77 trillion

Source: *Murniasih (2010: 13); **Authors' calculation based on data derived from the Directorate General of Fiscal Balance (2011)

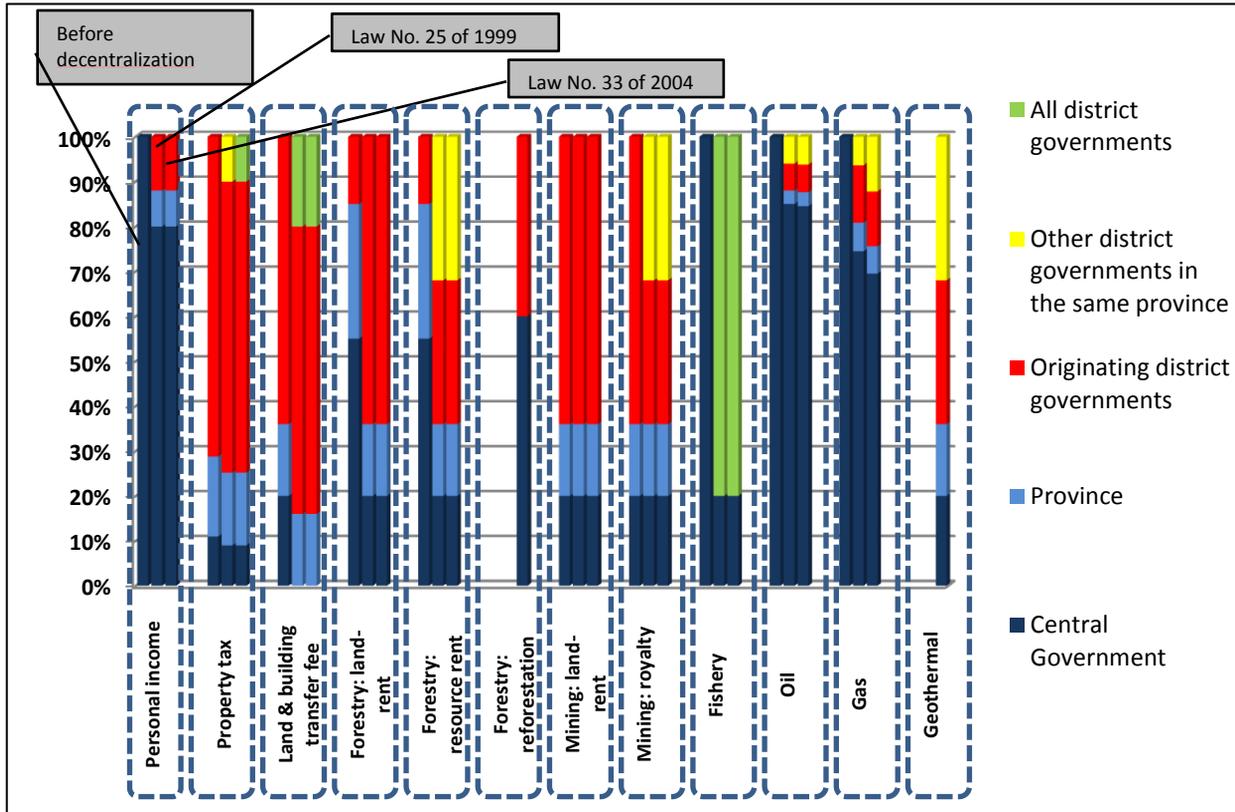


Figure 9.4 Revenue Sharing Between Levels of Government for Different Sources at Different Stages of Central-Local Fiscal Relationships

Source: Murniasih (2010: 5–6), Seymour and Turner (2002: 39), Sidik and Kadjatmiko (2004: 149)

DAK, or the Special Allocation Fund, is an earmarked transfer scheme to specific provinces or districts for certain sectoral programmes (Murniasih 2010: 6). DAK is mainly intended to help fund important needs that cannot be estimated in a DAU formula and to assist with funding expenditures that relate to national priorities (Sidik and Kadjatmiko 2004: 154). Programmes are administered by central level ministries, but local governments can propose programmes and activities for funding (Murniasih 2010: 6).

The revenue sharing mechanism aims to accommodate long-standing dissatisfaction of natural resource-rich regions (Hofman and Kaiser 2004: 29; Murniasih 2010: 5; Sidik and Kadjatmiko 2004: 148). There are currently three main types of revenue sharing mechanisms: for property-based taxes (PBB and BPHTB); for natural resource revenues (VAT for forestry, mining, fisheries, oil and gas); and for personal income tax (PIT) (Murniasih 2010: 5; Sidik and Kadjatmiko 2004: 148). Figure 9.4 compares the evolution of revenue sharing percentages in the periods before decentralization, based on Law No. 25 of 1999 and Law No. 33 of 2004.

Locally generated revenues (PAD) consist of local taxes, regional retributions, profits from locally owned enterprises, and/ or other local wealth (Seymour and Turner 2002: 39). With the introduction of Law No. 34 of 2000 on Regional Taxes and Levies, local governments were also given broad taxing authorities (ADB 2006: 143; Hofman and Kaiser 2004: 27).

DEFORESTATION IN THE DECENTRALIZATION ERA

The Impacts of Forest and Land-Related Resources Exploitation

Indonesia has one of the world's largest rainforest estates. Forests have long served as a source of economic growth, as well as supporting local development and providing an important livelihood for local communities (Resosudarmo 2003: 231). By the mid-1990s, Indonesia had become the world's largest exporter of hardwood plywood (B.P. Resosudarmo 2005: 3).

The rapid development of the forestry sector was then followed by other land-related sectors, notably palm oil plantations. In the last two decades, palm oil has emerged as the most significant contributor to Indonesia's economy outside oil, gas, and mineral products. Indonesia surpassed Malaysia as the biggest producer of palm

oil in the world in 2009, and production continues on a steep growth trajectory. Figure 9.5 shows the value of exports of forest and palm oil product exports.

Destructive and illegal logging, the expansion of industrial timber plantations and rapid expansion of oil palm plantations are the main causes of a significant loss of forests and peat lands (ADB, ILO, and IDB 2010: 16–17; Pagiola 2000: 2; Rudel 2007: 39). Overall, Indonesia lost over 19 million hectares of its forests and peat lands during the 1980s and 1990s (Hansen et al. 2009: 7; Pagiola 2000: 3–4). In the early 2000s, the rate of deforestation slowed significantly and then gradually increased again (Figure 9.6). The causes of these changes remain the subject of research.

The adverse consequences of deforestation have included increased flooding, social conflict, loss of biological diversity, loss of carbon from vegetation and soil, as well as increased fire activity (ADB, ILO, and IDB 2010: 16; Aiken 2004: 55; Deddy 2006: 89–90; Elliott 2001: 440; Yonekura et al. 2010: 496). Land use, land use change, and forestry (LULUCF), as well as peat related emissions, are by far the largest contributors to Indonesia’s current and projected emissions (Figure 9.7). Hence, addressing deforestation and peat cover loss need to be central to the effort to reduce the country’s greenhouse gas emissions.

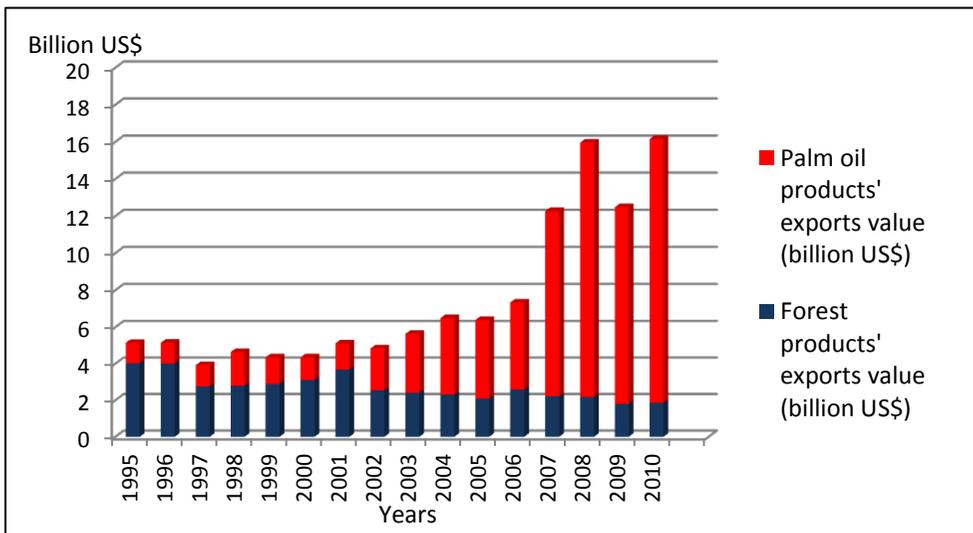


Figure 9.5 Indonesia’s Exports Revenue from Forest and Palm Oil Products

Sources: Index Mundi (2011); ITTO (2011).

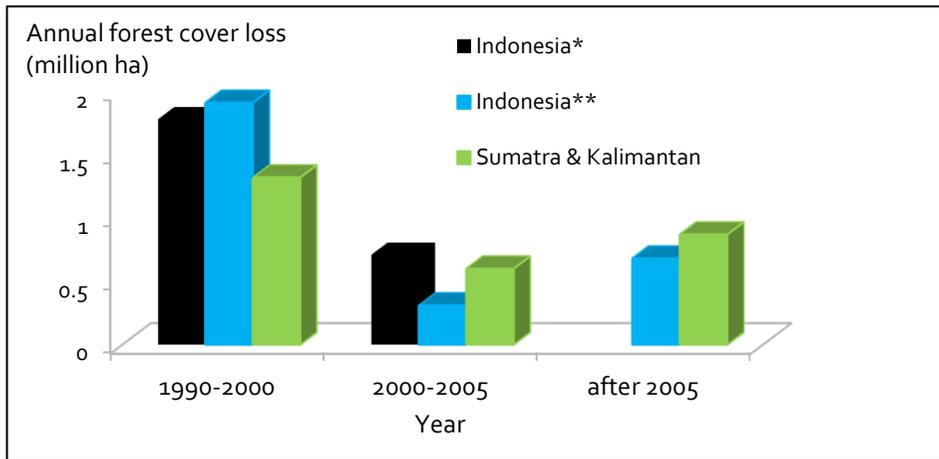


Figure 9.6 Annual Loss in Forest Cover

Sources: *Hansen et al. (2009:7 for data in 1990–2005) and Broich et al. (2011: 5 for data in 2005–08); **FAO (2010 for data in 1990–2010).

Local Level Driving Forces of Deforestation

Communities and local governments have little direct incentive to maintain and properly manage forests and peat lands. Since decentralization, local governments have strived to help finance their administrative and development priorities through increasing their own local revenue, including from the exploitation of forests and other land use activities (Resosudarmo 2003: 233). Karyaatmadja et al. (2006: 11) argue that the decentralized fiscal framework has provided the incentive for greater exploitation of forest resources to maximize local government allocations of DAU, DAK, and PAD grants. Immediately after the decentralization arrangements came into force, the forest-rich districts in Sumatra, Kalimantan, and Papua passed regulations and logging permits to boost forestry activities (Fox et al. 2005: 98; Resosudarmo 2003: 233–34).

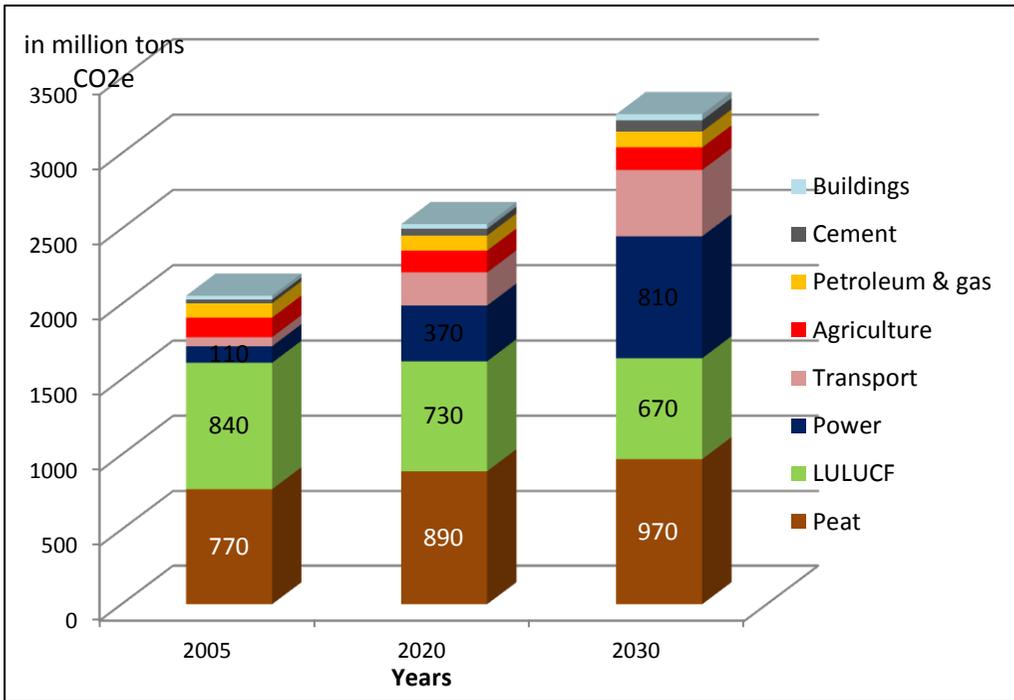


Figure 9.7 Indonesia's Greenhouse Gas Emission Level and Profile, Historical and Baseline Projection

Data source: NCCC (2010: 11).

In 2002, however, the Ministry of Forestry retracted most local governments' authorities over forest resources, particularly by revoking their rights to issue permits for forest exploitation. With this and the subsequent revision of the legal framework, the ministry took back legal control over most activities in the state forest. New regulations removed most clauses related to the authorities of local governments related to forest management, leaving them only minor powers (Arnold 2008) and fewer incentives to manage their forests sustainably. This recentralization process has not curbed deforestation. There is also no consistent evidence that the Ministry of Forestry has managed state forests better than the local authorities did (Barr et al. 2006: 87).

INSTITUTIONAL FRAMEWORKS FOR DEFORESTATION AVOIDANCE UNDER DECENTRALIZATION

REDD+ Internationally and in Indonesia

Reducing deforestation and improving land management is widely seen as one of the critical elements of the strategy to reduce global greenhouse gas emissions (Eliasch 2008). Globally there are many programmes under the 'REDD+' banner to provide technical assistance and financial incentives to developing countries aimed at facilitating reduced deforestation and better forest management. It is hoped that international climate policy regimes will be able to deliver large scale payments for deforestation avoidance in the future, and REDD+ is one of the areas where the UN climate change negotiations have made progress in recent years.

Indonesia has been engaged in the international processes, bilateral cooperation, and national development of REDD+. Through a multi-stakeholder platform known as the Indonesia Forest Climate Alliance (IFCA), the Ministry of Forestry has led the initiative of developing REDD+ methodologies, strategy, financing, and revenue distribution (Ministry of Forestry 2008: 5), and several ministerial decrees have been issued on REDD+.

President Yudhoyono has made a commitment to reducing the country's greenhouse gas (GHG) emissions, mainly by tackling deforestation, peat land degradation and forest and land fires, and gradually changing the status of Indonesia's forests from a net-emitter sector to a net-sink sector by 2030 (Yudhoyono 2009: 2). To financially support the President's commitment and REDD+ development in Indonesia, an agreement promising a grant of up to US\$1 billion was signed by the Norwegian and Indonesian governments in late May 2010 (Murdiyarso et al. 2011: 1). This agreement presents Indonesia with big opportunities, and challenges, to further develop and implement a REDD+ programme from the preparation and readiness phases, to launching pilot programmes, and, eventually to fully implementing a national REDD+ strategy.

Part of the Indonesia-Norway agreement was a moratorium on logging concessions. In May 2011a two-year moratorium on new permits to clear primary forests and peat lands throughout Indonesia was issued (Presidential Instruction number 10 of 2011), along with indicative maps to support the implementation of this moratorium. A programme of 70 government-funded projects and measures for the land and forestry sector has been announced as part of the national action plan to

mitigate GHG emissions (The Secretary of the Cabinet of the Republic of Indonesia 2011: 1).

Options for REDD+ Implementation under Decentralization

Regardless of pledges and decrees from the central government, it is questionable to what extent national-level measures can succeed without the more active involvement of the local level. For example, the national moratorium policy on logging concessions has been criticized for its narrow scope, exclusions and exceptions, as well as for allowing large numbers of new concessions to be issued before the moratorium came into force (Murdiyarso et al. 2011: 1–3). For REDD+ to be successful under the current decentralized system, it needs to reflect local aspirations and accommodate political factors at the local level.

Different models of design and implementation of REDD+ programmes have been under discussion in Indonesia, including ‘centralized’ and ‘decentralized’ models, and a ‘national approach with sub-national implementation’ model (FCPF 2011: 1–2; Masripatin 2010: 8).

Centralized model

This model will make use of the current, largely centralized forest governance system. Under this model, the central government will instruct local governments to implement specific REDD+ measures to support the national objective. The central government will also decide GHG emissions baselines for the local level where necessary, that is, a reference level of emissions against which actual future emissions will be compared.

This option was the basis for Indonesia’s approach in the UN climate change negotiations, but has been criticized for its failure to promote participation from provincial and local governments (Cronin and Santoso 2010: 22). Relying on the existing forest governance system to implement REDD+ may, however, be advantageous as it avoids the need to create new institutions or delegate new mandates. The model could also potentially ensure a more uniform policy approach, and it provides the prospect of allowing broad-based policy changes (Angelsen et al. 2008: 3).

In the case of Indonesia, however, as discussed earlier, the existing forest governance is far from ideal since there are still many overlapping regulations,

claims, and authority over forest resources; and there are many different actors that exert power over actual land use decisions. In the existing centralized framework, local governments have limited legal authority over forests, but in practice their involvement is critical if the protection and conservation of forests is to be achieved.

Several specific issues may hinder the successful implementation of REDD+ under the existing centralized model, including difficulties in monitoring forest degradation and estimating emissions if there is only limited support from local stakeholders; lack of regard for local circumstances; and the limited participation of local communities, which has the potential to create new conflicts over land use.

Decentralised model

A decentralized model would rely on local governments being in a better position to develop local policies and measures, as they have better specific information, and are able to design well targeted policies and reduce transaction costs (Irawan and Tacconi 2009: 432–33).

To encourage local government participation in the national effort, the central government in this model will seek expressions of interest from local governments to implement REDD+ in their administrative areas. Alternatively, local governments could implement REDD+ measures locally. Local governments will be expected to incorporate policies and incentives for REDD+ into their economic development agendas with action plans and timetables, and establish suitable institutions and measures to address gaps in their capacity, financing, and technology. In return, they will receive financial rewards for reducing emissions below agreed local baselines.

An example of a policy vision along the lines of a ‘decentralized’ model is REDD+ development in Papua province, Indonesia’s easternmost province covering 42 million hectares, and representing 24 per cent of the country’s total remaining forest area. The province has identified four steps to address deforestation and REDD+ (Suebu 2009: 1), according to which Papua proposes to:

- revisit its economic development model to ensure a sustainable growth path that does not exceed the limits of the environment;
- work to improve and fine-tune planning instruments, including the next long and medium-term development plans as well as provincial spatial plans. This implies addressing the economic drivers of deforestation including, for example,

logging, oil palm, pulpwood plantation, road development, mining, and settlements;

- give more muscle to the legal framework protecting and empowering the indigenous people of Papua in this sustainable development process; and
- work on strengthening institutional mechanisms to deliver sustainable development, including village-level decision-making structures.

The last two steps may be crucial, since plans and actions will only be able to yield results if provincial governments can provide benefits to the local people, in particular indigenous Papuans. REDD+ incentives need to be framed by rules that ensure that the benefits created also flow to, and are retained by, the indigenous people and poor communities that are among the most resource-dependent of the province (Angelsen et al. 2008: 5).

However, to be able to develop and implement such a decentralized model, the capacity of local governments needs to be developed urgently and, in some cases, dramatically. Demonstration projects exist only in a few regions. Therefore, governments will need to extrapolate the experiences of pilot projects now being carried out.

A crucial difficulty with decentralized approaches is the ‘leakage’ of emissions, whereby reductions in emissions (or deforestation) in one part of the country may be partly or fully offset by consequent increases elsewhere. An example of leakage in avoiding deforestation would be if a certain area of primary forest was put under an effective protection regime, causing logging and plantation operations to intensify in other areas around the protection zone. The individual project then shows up as a success, but not much would be gained overall.

A hybrid model (‘national approach with sub-national implementation’)

Under this model, proposed by the central government (FCPF 2011: 1–2; Masripatin 2009: 5), the central government has the responsibility for developing national carbon accounting, monitoring the implementation of policies and measures to reduce emissions, receiving and distributing international payments under a REDD+ scheme, assuming liability after payment has been received, and holding specific projects liable if they fail. The central government will also retain its existing regulatory powers, and may need to strengthen implementation. Meanwhile, the sub-national levels (province, district, or ‘landscape’, which is a defined forested area that may span more than one district or province) have significant scope in developing their specific local policies, measures, and projects, and are responsible for implementation.

This model thus combines aspects of the ‘centralized’ and ‘decentralized’ models. Its success will depend on whether it can effectively combine the strengths and reduce the weaknesses of the other two models. A decisive aspect of the likelihood of this is whether local governments can be given enough actual decision-making powers to feel that they ‘own’ the REDD+ process.

A hybrid model needs to ensure that local government policies and actions are in line with the national government’s interest on REDD+ and land use management, to ensure consistency and greater accountability. Ensuring consistency between the different layers of government will often be challenging, as in many cases the course of action that minimizes deforestation and carbon emissions will not be one that offers the greatest economic benefit to the area, or the greatest financial benefit to a local government. For example, plantation developers find it more attractive to establish plantations by cutting down the natural forest than using already degraded lands because the logs can be sold, but this produces significantly greater carbon emissions (Casson 2002; FWI/GFW 2002; Pagiola 2000). Local governments typically try to foster development, and they will often be in a position to capture a share of the resulting extra profits. Hence, they tend to opt for the higher profit option regardless of whether this goes against national or environmental objectives.

A number of ongoing efforts taking place across Indonesia could be built on to achieve the effective integration of REDD+ and land use policies at the central and sub-national levels. These include steps taken under the Sumatra Governor’s Declaration as well as in the Heart of Borneo and in Papua. In Sumatra, four ministers and 10 provincial governors have committed themselves to protecting the island’s remaining forests and critical ecosystems by developing ecosystem-based spatial plans that will serve as the basis for future development (GEF 2011). The Roadmap for Saving Sumatra—a blueprint to conduct ecosystem-based spatial planning—has been finalized and endorsed by these ministers and governors (GEF 2011).

Sub-national initiatives such as these and those by Papua represent a critical step towards credible and comprehensive REDD+ in Indonesia. If these actions can be accommodated in the ‘national approach with sub-national implementation’ model, better forest governance and effective REDD+ could be achieved.

PROVIDING LOCAL INCENTIVES

Intergovernmental Fiscal Transfers for REDD+

Good governance and suitable institutional frameworks are important but cannot ensure the success of REDD+ implementation by themselves. Incentives are needed to achieve lower deforestation rates in a situation where economic opportunities are the overwhelming driver of deforestation. To achieve sustained reductions in deforestation, positive incentives for local governments will need to be created to compensate them for foregone profits and to facilitate alternative development.

With many responsibilities for natural resource management in the hands of local governments and large fiscal flows moving from the central government to local governments, Indonesia's fiscal transfer system offers clear opportunities for establishing such incentives. The current fiscal arrangement is partly aimed at ensuring the adequate provision of revenue to the local level (Alisjahbana 2005: 109; Sidik and Kadjatmiko 2004: 142). Setting up positive incentives for REDD+, including through inter-governmental fiscal arrangements, could be important in encouraging local governments and actors to be more involved in REDD+. They can also help in sharing benefits from REDD+ in an equitable manner.

If REDD+ is to become a large scale scheme globally, it is likely to essentially be a performance based mechanism, with large scale REDD+ payments disbursed by investors only after emission reductions from deforestation and forest degradation are achieved. If payments are made to Indonesia's national government for the fulfillment of a national target, these incentives then need to be channeled down to the local level, insofar as the local level has the power to affect outcomes. For many aspects of REDD+, provincial and district governments are in the best position to achieve success because they can better identify potential beneficiaries and compensate potential losers from carbon abatement policies in the forestry and land use sectors.

In its Green Paper on Climate Policy, Indonesia's Ministry of Finance (2009: 64) argues that the best way forward for Indonesia in the REDD+ programme is to adopt a national-level policy of frameworks and targets (possibly supplemented by selected regional or project-level approaches where applicable), with implementation of policy measures at the sub-national level (see also Jotzo and Mazouz 2010). Inter-governmental fiscal transfers for REDD+ could then work under the existing decentralization setting, providing rewards to encourage local governments/ stakeholders to achieve REDD+ targets. In Indonesia, positive

incentive payment systems have recently been introduced in the inter-governmental fiscal transfer system through grants to sub-district governments for environmentally sustainable development projects (Doupé 2010: 10).

Positive incentives for the REDD+ programme can be disbursed to local governments if they translate REDD+ targets into a package of interventions that account for the economic, social, and environmental co-benefits of their actions. Examples of actions or measures which can be eligible for payments through inter-governmental fiscal transfers include: locating new plantations on grassland instead of forest land, or on degraded rather than natural forest; better enforcement of forest management regulations such as replanting after logging; ensuring that protected forests are not logged or cleared; supporting fire prevention measures, especially in peat land and; building new roads in areas covered by grassland or degraded forest rather than areas covered by a natural forest (Ministry of Finance 2009).

Fiscal Transfers Based on Outcomes

Theoretically the best way to transmit incentives for avoiding deforestation from the central to the local governments is to pay local governments on emission outcomes, and leave it to local governments to decide which actions to take and how to implement them. In practice, such ‘outcome-based’ incentive schemes will probably still have elements of policy coordination between the different levels of government, as well as elements of risk sharing (Ministry of Finance 2009). An outcome-based funding mechanism will allow participation by provincial and district governments on a voluntary basis, giving them a large extent of control over the design and implementation of projects.

Payments to local governments could be linked to the achievement of milestones and outcomes in activities to reduce emissions, and payments could exceed implementation and opportunity costs. Some parts of the programme could be tied to specific spending purposes, while the rest will be in the form of reward payments for successful implementation, with regional governments free to making their own spending decisions. Participation in Regional Incentive Mechanism (RIM) programmes by provincial and district governments will be entirely voluntary, and these local governments will have full control over the design and implementation of projects.

Projects can be chosen by the central government by ranking proposals from regional governments according to cost effectiveness in anticipated emissions

reductions, as well as performance against other indicators such as developments benefits and alignment with other national policy objectives.

For the implementation of outcome-based incentive schemes, the Ministry of Finance (2009: 113) suggests a number of possible avenues. The possibilities include the use of the existing Special Purpose Fund (Dana Alokasi Khusus, DAK) vehicle, which provides funding for specific local programmes, making payments partly or fully contingent on successful implementation. Another possibility is to strike direct grant agreements on programmes and outcomes (governed by Government Regulation No. 57 of 2005) with provinces or districts. Alternatively, a separate funding vehicle could be established with its own rules.

Regardless, reliable systems for monitoring and control are needed to ensure that claimed successes are real if REDD+ is to be successfully implemented using an outcome-based mechanism. Further, since local governments may have the liberty to design and implement the projects, there may be a need to define and monitor the conditions for earning and spending revenue from REDD+ activities. Finally, there is a question about whether negative incentives (taking away other fiscal flows) may be required in addition to the positive incentive system sketched in Ministry of Finance (2009)—though punitive measures may be much more difficult to implement, especially in light of Indonesia's often poor track record in enforcing policies and regulations.

Fiscal Transfers Based on Inputs

A simpler option for harnessing the inter-governmental fiscal transfer system to support REDD+ would be to create a programme of tied transfers for specific activities. For example, central government grants could pay for the cost of equipment and staff to monitor forests, fight forest fires, and the like. This will require only minimal institutional change but it will be limited in scope; in particular it will not incentivize broader measures by local governments, and local governments may not even perceive incentives to avail themselves of all the grants on offer.

An option for larger scale transfers without the need to define local-specific contracts or tightly monitor performance may be a scheme of predefined payments for a catalogue of specific actions. For example, the central government could offer a fixed payment per hectare per year of protected natural forest or peat land that is deemed eligible according to a standard definition. Another example might be a

fiscal transfer payment in return for local governments affecting the closure of sawmills supplied through illegal logging.

A broader avenue for large-scale transfers may be to provide payments to support alternative development options to districts where national regulations on deforestation curtail development options. In some cases, the most practical way to slow deforestation and achieve better land management may be for the central government to use its regulatory powers, provided reliable enforcement mechanisms can be implemented locally. The fiscal transfer system would then be used to compensate local areas that see their development prospects curtailed. Payments from the central government could be made according to a standardized indicator-based scheme, and they could be earmarked for expenditures that promote alternative local development, for example roads, hospitals, and schools.

Benefit Distribution

Irrespective of the specifics of the transfer mechanism, clarity will be required on the amount of revenue to be allocated to different stakeholders at different levels. Payments will need to be set high enough for the mechanism to be effective, but without exceeding the amount of money available. The central government also has an important role in making money flow to the local level during implementation, but needs to be cautious to avoid overly large upfront payments that may not generate outcomes.

It may turn out that a pre-determined benefit-distribution mechanism of the REDD+ fund is required in order to ensure that payments are seen as fair at all levels of the government. Aspects useful to consider in developing this mechanism include the strategic conditional terms of earning and spending revenue from REDD+ activities; the amount of revenue to be allocated to each stakeholder at different levels, depending on their contribution to achieving REDD+ goals or the degree to which they are negatively affected and; possibly minimum achievement thresholds for REDD+ goals for funds to be distributed. It will also be important to pay special attention to customary land users in REDD+ payment distribution.

Conclusion

In this chapter, we reviewed aspects of Indonesia's heavily decentralized system of government and how they relate to forest and land-related resources, land-use

change and deforestation, and efforts to reduce emissions from deforestation and forest degradation to reduce greenhouse gas emissions. We analysed different models for institutional arrangements and options for using the inter-governmental fiscal transfer system to create effective mechanisms to curb deforestation, which is a declared goal of Indonesia's national government in the context of global climate change action.

Decentralization means that many decisions over natural resource management, including land-use change, are determined at the level of local governments, whose intrinsic incentives will often be different from the objectives of the central government. The resulting tension however can be overcome using the tools of inter-governmental institutional and fiscal relations. The Indonesian government's favoured model of a 'national approach with sub-national implementation' to curb deforestation has advantages over the alternative centralized or fully decentralized framework. Managing the interface between the central, province, and district governments will present large challenges and implementation could be fraught with difficulty, but there is nothing in principle that precludes success.

Inter-governmental fiscal transfers could play an important role in an overall policy package for avoided deforestation by providing local governments with incentives compatible with the national government's objectives, and by rewarding them for performance. Such transfer mechanisms could start by using existing fiscal transfer mechanisms. Under an outcome-based incentive mechanism, local governments will commit to specific actions and outcomes of their own choosing, and will be paid agreed amounts of money by the central governments on successful implementation. Districts will be free to use the payments as they choose. By contrast, an input-based mechanism will rely on a more traditional model of central-local fiscal interactions, with the central government reimbursing local governments for the costs incurred in implementing agreed programmes.

Given that the local level has a strong hand in determining actual resource management decisions, an outcome-based system appears to have a better chance of delivering results cost-effectively. However, local governments may not be ready to take on the full range of responsibilities for programme design, implementation, and financial management that an outcome-based incentive system will require. Input-based payments may therefore provide a more readily deployable near-term option.

Since comprehensively embracing decentralization, Indonesia's policies on land use now need to take into account the interests and aspirations of local governments and actors. A purely centralized approach would have little prospect of success, but a fully decentralized approach is also unsuitable in response to an issue that requires

national outcomes to feed into a global effort. The challenge is to choose an institutional framework that is fit for the purpose, and to create incentives that align local interests with national goals.

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