6 Case study

Indonesia

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6.1 Introduction

Indonesia (1,919,317 sq km), with more than 17,000 islands, is home to about 240 million people, including over 300 ethnic groups. The country's per capita income is USD 4,200, with its gross domestic product coming mostly from industry (47 per cent), services (38 per cent) and agriculture (15 per cent).[2] It has a democratic government that is transitioning from centralized policies that lasted until 1998.

Indonesia's territory is officially divided into forest land (71 per cent) and non-forest land (29 per cent).[3] However, that does not necessarily match actual forest cover. Only about 68 per cent of the official forest land is under forest cover, and 15 per cent of what is officially non-forest land is actually under forests.[4]

Forest areas are under significant pressure in Indonesia. Deforestation took place at an average rate of 0.51 per cent between 2000 and 2010, a loss of nearly 500,000 hectares per year – about five million hectares in total.[5] Forest degradation is also at pace, with a continuous transformation of primary (i.e. undisturbed) into secondary (i.e. disturbed or logged-over) forest.[6] Finally, there is a notable increase of tree plantations in Indonesia, from 0.01 per cent of the country's forest cover in 1990[7] to 4.7 per cent in 2009.[8] Still, about 94.4 million hectares of rainforest cover remain, the third largest in the world (after Brazil and the Democratic Republic of Congo), and a number of policies are in place aiming at forest conservation and sustainable management.[9]

This chapter analyses Indonesia's forest policy context utilizing a layered case-study approach based on literature review, analysis of forest policies, and field work focused on Jambi Province in Sumatra (see Figure 6.1) and the districts of Muaro Jambi, Muara Bungo and Tanjung Jabung Barat. Jambi Province offers a good representation of Indonesia's larger context as it has experienced both large forest conversion into agricultural plantations as well as forest conservation projects, such as socially inclusive 'village forest' (*Hutan Desa*) initiatives.

The chapter is structured in accordance with the analytical framework (see 1.5), and discusses driving forces for deforestation and forest degradation

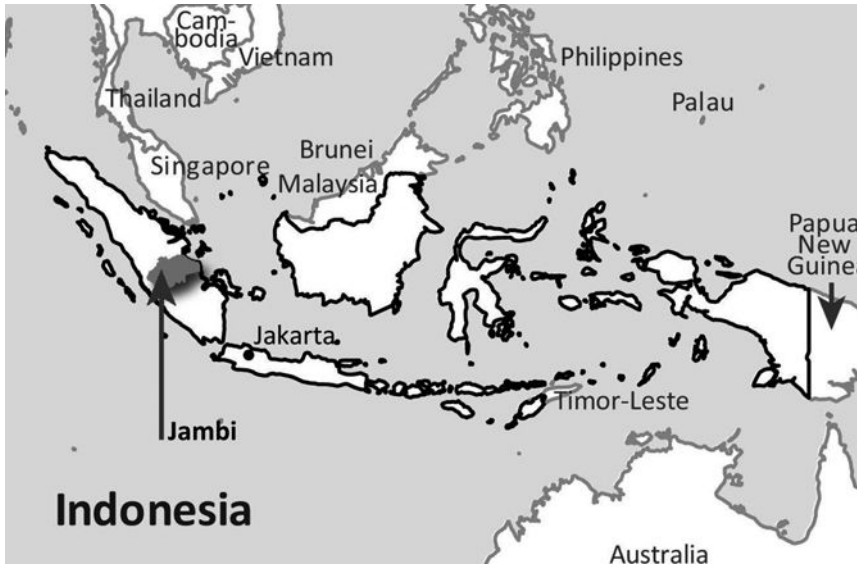

Figure 6.1 Map of Indonesia and case study area of Jambi province

(see 6.2), the forest policy context (see 6.3), describes and assesses effectiveness and fairness of policy instruments (see 6.4), the implications for REDD (see 6.5) and draws inferences (see 6.6).

6.2 Driving forces of deforestation and forest degradation

As shown in Table 6.1, deforestation and forest degradation in Indonesia can be attributed primarily to logging, agriculture and mining. Logging is regulated by the State through long-term concessions to industries. Timber-harvesting concessions (*Hak pengusahaan hutan)* last for 20 years and take place in natural forests (i.e. not on plantations), allowing companies to extract wood following certain rules (e.g. minimum trunk girth) and procedures (e.g. restoration programme following harvesting). However, rule enforcement is weak, and thus much forest has been degraded.[10] On occasion, such forests have been cleared to give place to profitable industrial timber plantations – HTI (*Hutan tanaman industry*) concessions, using fast-growth species such as eucalyptus or acacia.[11]

Illegal logging without forestry concessions occurs at large and small scales. At larger scales, private companies engage in illegal logging by operating without licences or beyond their concession areas and selling the plywood in domestic and international markets, sometimes transforming it into 'legal' wood abroad.[12] At the local level, villagers use timber for subsistence needs such as house-building or income generation. These customary activities have

been relabelled as 'illegal' and are contested. Illegal brokers (*cukong*) link these villagers to the existing wood market.[13] Furthermore, villagers or plantation companies may use timber extraction to raise resources for investing in, for example, oil palm plantations.[14]

Another proximate driver is agriculture.[15] Large-scale companies expand primarily oil palm plantations.[16] Many land concessions have been given nominally for oil palm development but without deployment actually taking place, suggesting that commodity agriculture has been also used as a means to speculate on land prices or to simply harvest existing timber. Small-scale farmers frequently encroach on forests to expand subsistence agriculture or cash-crop plantations such as cacao, coffee and rubber.

Mining, too, is an important driver, particularly coal mining in Sumatra and Kalimantan.[17] Given its dwindling oil reserves, Indonesia is turning to coal for meeting its energy needs and for exports, particularly to India and China, which buy about 75 per cent of Indonesia's coal exports.[18]

Natural forest fires (i.e. not human-induced) have also been important drivers over the last decades.[19]

Table 6.1 Drivers of deforestation and forest degradation in Indonesia and Jambi Province

Proximate Drivers	*Underlying Drivers*
Local to national Agriculture: oil palm, rubber, coffee Extraction: commercial timber plantations (for acacia, eucalytus), violation of SFM rules in concessions, small-scale encroachment Infrastructure: *forest roads* Industry: *coal*/gold *mining* Biophysical: *fires*	*Local* Economic: *poverty* Local to national Cultural: e.g. Papua very connected to nature; *in Jambi few indigenous people, generally a utilitarian approach to nature,* perceived need for development *National* Demographic: growth, density, migration Economic: growth, domestic demand for land-based commodities Technological: *access to modern services* Policies: timber-harvesting concessions; mining and agricultural policy Other institutional factors: poor monitoring, lack of synergy among ministries, corruption *Global* *Demand/trade/consumption at global level for food, fibre, timber, palm oil, biofuel, paper and plywood; climate change*

* The drivers which apply to the specific context of Jambi Province are marked in italics

Underlying drivers of deforestation in Indonesia include, first, the drive for economic growth. Government officials argue that many provinces have a higher forest cover than the world average (sometimes reaching 80 per cent of the area) and that they should not be prevented from 'developing'.[20] Frequently these forests are surrounded by poverty,[21] so rural dwellers not only encroach on these forests for their needs but also tend to welcome infrastructure development and plantation companies that reduce their isolation and dependency on donors[22] and enhance their wealth.[23] This reflects the common perception that the forest has less intrinsic value than the services it provides,[24] or that short-term goals supersede long-term issues.[25] In Jambi Province, for instance, most smallholders are migrants with much less of a connection with nature than indigenous peoples tend to have.[26] Meanwhile, the government sees the opportunity costs of not converting the forest land or accessing the mines as unaffordable for a developing country.[27]

Second, the strong global demand for land-based commodities such as timber, paper, coal, edible oil and biofuels and high international commodity prices has encouraged greater investment in resource exploitation in Indonesia.[28] The country has explicitly aimed to provide for the world's growing food and energy needs: in 2010, President Susilo Bambang Yudhoyono announced that Indonesia would help to meet domestic and global food and energy security through projects such as the Merauke Integrated Food and Energy Estate (MIFEE), which has targets of about 1 million hectares of concessional land in West Papua for timber, food and feedstock crop exports.[29]

Third, the increasing international demand for arable land and private land acquisitions in the developing world[30] has led speculators to engage in land-banking by leasing land for plantations, removing the valuable wood, and then letting the land lie fallow until the permit can be sold at a high price,[31] possibly to the pulp and paper industry.[32] For instance, of the 20 million hectares under nominal oil palm concessions, only 8–9 million hectares of oil palm is actually under cultivation.[33] This is clearly related to the global demand for commodities,[34] but it has become in itself a motivation for land-clearing and concession-seeking.

6.3 The forest policy context

This section discusses the organizational framework, the evolution of forest policy, and the influence of international policies and bodies.

6.3.1 The organizational framework

In Indonesia all land is officially classified either as forest (*kawasan hutan*) or non-forest land (*areal penggunaan lain*). Official forest lands correspond to 71 per cent of the territory; however, there are forested areas which fall outside of that and there are areas without tree cover which on paper are classified as 'forest'. The Ministry of Forestry regulates all activity on official forest lands

and holds the exclusive authority to issue permits for land conversion in those areas. For lands under the 'non-forest land' category, whether forested or not, provincial and district levels have the authority to decide over land uses and land-use change.

6.3.2 The evolution of forest policy

Indonesia has had a centralized forest policy since colonial times under Dutch rule. During that period, customary ownership of land and its resources was accepted, but subordinated to the interest of the colonizers.[35] A similar approach to land and forests was maintained after independence (1949) in the country's first major related policy, the Basic Agrarian Law of 1960. Although it recognized customary land rights, these remained subordinated to national state interests. This principle was reaffirmed for forests in the Forestry Basic Law of 1967, which declared State-ownership of forested areas and prescribed rules for timber-harvesting concessions.[36] This centralized approach prevailed during the 30 years Indonesia was under President Suharto (1967–98). Following Suharto's fall, decentralization and devolution of authority to local governments has been gradually taking place. In 2004 the *Autonomy Law* officially devolved to provincial and district governments the authority to issue land-development permits and conduct semi-autonomous planning, but forest areas have remained under the jurisdiction of the central government through the Ministry of Forestry.[37] Law 41/1999 amended the older Basic Forestry Law but reaffirmed State-ownership of forests and the Ministry of Forestry's exclusive authority to issue permits for any activity on official forest areas. [38]

SFM has been the underlying concept of most Indonesian policies on forestry. This was recently included in Decree No P38/Menhut-II/2009, which contains general guidelines for forest utilization and conservation.

Indonesia's forests are classified into Conservation Forests (national parks, other reserves, and areas devoted to biodiversity conservation – 17 per cent of the actual forests), Protection Forests (forests maintained for hydrological and other such services – 26 per cent) and Production Forests (forests allocated for economic use, mainly timber extraction – 57 per cent). Production forests may be non-convertible or convertible (areas which can be legally cleared for other land-uses – what some government officials refer to as 'planned deforestation' [39]).[40]

6.3.3 The influence of international treaties and bodies

Four types of international institutional influences can be identified: multilateral agreements, bilateral agreements, private certification schemes, and the extraterritorial effects of foreign policies of other governments. With regard to multilateral agreements, Indonesia is a party to all major agreements that relate to forests (CITES, CBD, UNFCCC, KP, UNCCD,

ITTA, Ramsar, WHC and UNPFII), in addition to the non-binding UN Forum on Forests (UNFF) (see Chapter 3).[41] These agreements have limited influence on Indonesia's forest policy and its implementation,[42] but the discourses in these agreements are influential, sometimes shifting the focus from sustainable forest management to climate change.[43] Although Indonesia does not have binding emission reduction commitments under the UNFCCC, it is seen as the world's third largest gross GHG emitter because of high emissions from deforestation and peatland degradation.[44] Concern about its image and the impacts of that on trade have led Indonesia to adopt a voluntary commitment to reduce emissions by 26 per cent by 2020 relative to a business-as-usual trend.[45] Furthermore, the climate change framing has been associated with the promise of financial compensation for forest conservation, such as through REDD (see Chapter 4).

6.4 Key forest policy instruments and their analysis

This section presents and analyses a selection of regulatory and market-based instruments[46] (using the numbering system developed in Table 2.3) in terms of their effectiveness and associated fairness issues, given the existing drivers of deforestation and forest degradation, using the [++ – –] method developed in 1.5.

Trade restrictions (i): Indonesia has a bilateral agreement with the European Union (its biggest export market for timber products) to combat illegal logging. In 2003 the European Commission proposed an Action Plan on Forest Law Enforcement, Governance and Trade (FLEGT), a framework that promotes trade in legal forest products.[47] Upon FLEGT's legal adoption in 2005, the EU launched a *Voluntary Partnership Agreements* (VPAs) scheme where, together with timber-exporting countries, the EU can help develop a licensing system to halt imports of illegal timber.[48] Although voluntary, these partnerships become legally binding once they are agreed on – for five years, with the possibility of renewal. Indonesia joined VPA negotiations in 2007, and it is expected that in January 2013 the agreement will become fully operational.[49] Meanwhile, Indonesia has been receiving technical assistance to develop a *Legality Assurance System* that will allow it to emit legality licences to its timber industry, without which shipments will be refused at EU borders.[50] Indonesia plans to go beyond that and request a legality licence from *any* timber exporter, whether to the EU or not, and to apply the same to domestically consumed timber in the future.[51] Stakeholders consulted see this as a promising agreement despite the expected monitoring and enforcement challenges.[52] It may be promising because it addresses EU demand and promotes capacity building on legal assurance in Indonesia. It may reduce illegal logging and have effects which go beyond the fraction of the timber industry that exports to the EU.

Sustainability criteria in the EU Biofuels Directive exclude Indonesian palm-oil-based biodiesel as it does not reduce GHG emissions sufficiently.[53]

As such, EU countries may import that biofuel but it will not count towards their mandatory EU targets of 10 per cent renewable transport fuel by 2020. Indonesian critics argue that this policy fails to recognize Indonesia's development needs, choosing a zero-conversion policy instead of a mid-way compromise,[54] and some accuse the EU of being protectionist under the guise of sustainability concerns.[55]

The EU biofuel sustainability policy has not yet succeeded in reducing imports, though it may have worked as a disincentive to further investments. Indonesian stakeholders see this as trade protectionism under the guise of sustainability and as ignoring Indonesia's development needs.[56] At least two lessons can be drawn from the above. First, bilateral negotiations (FLEGT) are more constructive than unilateral standards and trade restrictions (Biofuel directive) which create resistance. Second, it could trigger domestic governance improvements. The European restriction on biofuel imports would gain in both receptiveness and effectiveness by engaging on these two points. [EU FLEGT: +; EU Biofuel Standards: – –]

Decentralization (ii): Since its re-democratization in 1998, Indonesian law is relocating power to subnational authorities.[57] District governments have the authority to decide over land-uses in areas which are not official forest land (the latter remains under the Ministry of Forestry). Decentralization relies heavily upon the capacity of subnational governments to produce land-use plans in line with national regulations and development strategies. However, local governments do not always understand the devolutionary system and think they have complete autonomy on decisions regarding land use.[58] They are often eager to clear forest land for development even without permission from the central government.[59] The responsibility for raising part of their budget – instead of only receiving transfers from the central government – has added to that eagerness, possibly creating a race-to-the-bottom in the form of competition among districts to attract private investment.[60] Provincial and district governments need further capacity enhancement to produce land-use plans that are in line with national regulations and development strategies, as a way to improve the effectiveness of conservation strategies and reduce land conflicts. *In situ* verification is necessary to update data on forest land. Local governments may need revenue-generating, sustainable programmes that can match the opportunity costs of deforesting. [+ –]

Binding forest rules (iv): These rules include the classification of forest areas according to their main purpose (biodiversity conservation, ecosystem protection or commercial production) and determine their use (see 6.3.2). Furthermore, Presidential Decree N.32/1990 regulates the use of peatlands and establishes that only areas where the peat is shallower than 3m can be converted, thereby limiting the impacts of land-use changes. The zoning of forest areas and the peatland use policy are viewed positively.[61] However, weak enforcement and some contradictory regulatory incentives have severely limited the effectiveness of these binding rules. Plantations have frequently

encroached on protection and conservation forests. Prominent examples include World Heritage Sites such as the Kerinci Seblat, Bukit Barisan Selatan and Gunung Leuser national parks in North Sumatra, which together comprise UNESCO's 2.5 million hectare Tropical Rainforest Heritage of Sumatra,[62] and which since June 2011 figure in UNESCO's 'Danger List' due to the damages of illegal encroachment.[63] Effectiveness is often undermined by lenient authorities who wish to accommodate agricultural and infrastructure development interests. For instance, the Ministry of Forestry approved almost 3 million hectares in development concessions on 31 December 2010, on the eve of the date the moratorium from the agreement with Norway could potentially come into force, releasing more than 40 new concession holders from the stricter controls of that policy.[64] Eleven days after the moratorium decree was signed by the president, the ministry adopted another decree[65] changing the status of more than 1.6 million hectares of forest land in Central Kalimantan (the province selected for pilot work of the Norway–Indonesia partnership). Much of what was considered protection or conservation forest became convertible production forest, and part of the overall forest area had its status changed into non-forest. This rests upon Government Regulation N.10/2010, which allows for status changes in forest areas when their de facto condition no longer supports their classification. Indeed, much of the relabelled area in Central Kalimantan had already been converted to oil palm plantations.[66] This implies that forestry categorization may sometimes not suppress illegal land-use change but rather legitimizes it. If this continues as a trend, it provides a perverse regulatory incentive for illegal land-clearers to convert forests into plantations and expect that sooner or later the land status will be changed. [+ –]

Spatial planning (v): Indonesia's Law 24/1992 regulates spatial planning. However, it was only after Law 26/2007 that provinces and districts gained the right and the responsibility to conduct spatial planning at their respective levels and feed it into a national database. Still, any plan related to official forest areas requires Ministry of Forestry approval and must be in conformity with the binding rules described above.[67] However, between 2007 and 2011 only six out of 33 provinces had submitted their spatial plans to the National Development Planning Agency.[68] Hence, there are often conflicts between departments and across levels in terms of what a map shows, its boundaries between zones, and what is intended for each area. For instance, there are hardly clear boundaries between official forest and non-forest areas; or sometimes there are but maps at the province and at the Ministry of Forestry give different information.[69] This has led to increased social conflicts and environmental degradation often with negative impacts on areas of biodiversity or watershed conservation value.[70] It is not uncommon for district governments to issue land-use permits that go against regulations from the Ministry of Forestry – or even for overlapping permits to be issued by different authorities for the same area.[71]

Spatial planning rules frequently define who wins and who loses out of land-use policy implementation.[72] Finally, it is controversial that the government categorizes timber plantations as forests, although this is in line with FAO and UNFCCC definitions (see Box 1.1). Including plantations is acceptable from a carbon stock perspective[73] but not from a biodiversity and ecosystem service perspective.[74] Critics refer to it as a 'discursive trick' and argue that it masks the loss of natural forests in forest cover statistics.[75] [spatial planning + –; peatland use ++]

Forest logging/concessions (vi): Logging concessions are widely prevalent since all forest land belongs to the State and thus companies cannot buy land but only lease it. These concessions are of two main types: logging concessions on natural forests (Law 5/1967, *Hak pengusahaan hutan*) and concessions for industrial timber plantations (P.3/Menhut-II/2008, *Hutan tanaman industri*). Logging concession on natural forest rules include annual extraction plans, limits on what timber can be harvested, and payments for forest rehabilitation. These concessions have been controversial to the extent that they have granted timber industries exclusive access to large areas, ignoring non-timber forest products, sometimes excluding traditional users and exacerbating land conflicts. In addition, weak enforcement of SFM has led to poor conservation.[76] As a consequence of government dissatisfaction with the performance of concession-holders, natural forest depletion and relatively low profits for industry, there is decreasing interest in such logging concessions on natural forests.[77] They have decreased to about 300 concessions in 2008, from an average of 600 in the 1990s.[78] Meanwhile, there is growing interest in timber plantations, primarily for the pulp and paper industry. These plantations are promoted as 'forest improvement' as they increase carbon stocks, but monocultures of fast-growing species such as acacia and eucalyptus may be replacing areas of lower carbon stocks but of higher conservation value.[79] Moreover, policies have facilitated the expansion of tree plantations: formerly, natural vegetation could not be cleared for timber plantations if it exceeded a certain minimum level of density but this level has been lowered, facilitating land use change. In this case, enforcement is also an issue, as those rules are not implemented rigorously.[80] Forestry rules and management regulations on concessions need stronger enforcement of regulations on sustainability and stricter rules on when a forest can be handed to logging or converted into a tree plantation. [Logging concessions on natural forests + + –; industrial timber plantation concessions + – –]

Land rights (vii): All forest land belongs to the national state. Customary land rights are recognized by law, but subordinated to national interests (see 6.3.2). Lack of land tenure security and overlapping land rights remain a problem making land tenure rights unclear. The issuing of business operation permits on customarily held lands routinely leads to land conflicts.[81] This involves not only traditional communities but also smallholders who squat and settle on State forestland and remain there until the area is licensed for

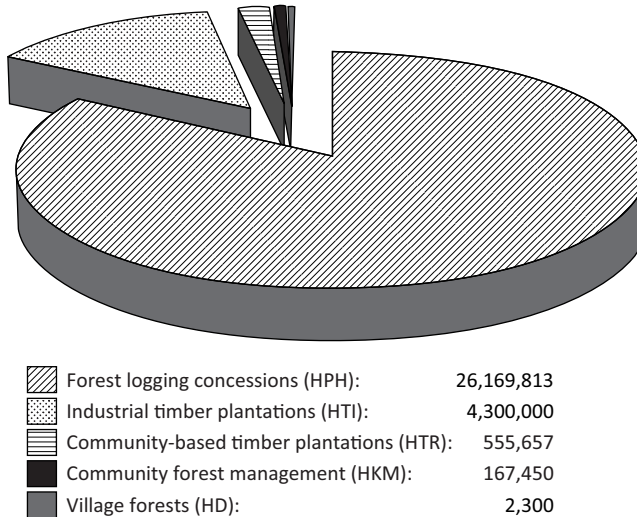

Figure 6.2 Areas under different land-use-right concessions from the Ministry of Forestry (in hectares)

Sources: Akiefnawati, R., Villamor, G.B., Zulfikar, F., Budisetiawan, I., Mulyotami, E., Ayat, A. and van Noordwijk, M. (2010) Stewardship agreement to Reduce Emissions from Deforestation and Degradation (REDD): case study from Lubuk Beringin's *Hutan Desa*, Jambi Province, Sumatra, Indonesia, *International Forestry Review* 12 (4), 349–60; Ministry of Forestry (2009a) Forestry Statistics of Indonesia: 2008, Jakarta: Ministry of Forestry; Obidzinski, K. and Dermawan, A. (2010) Smallholder timber plantation development in Indonesia: what is preventing progress? *International Forestry Review* 12 (4), 339–48.

business operation, which then works as a trigger for (sometimes violent) conflict.[82] Indirectly, this also exacerbates deforestation. As these communities live mostly on areas considered secondary forest, companies may prefer peatlands or primary forests, where the likelihood of a conflict is lower but the impacts on the environment are larger.[83] There are also serious distributional issues. Because most land belongs to the State, equity in access to land is largely determined by the allocation of concessions given by the Ministry of Forestry granting land-use rights. As of 2008, there were 4.3 million hectares conceded to large-scale companies doing timber plantations, and an additional 9 million hectares are sought by 2016.[84] More than 26 million hectares were under private forest-logging concessions in 2008.[85] In contrast, less than 1 million hectares had been granted to local communities in all community-based forest management programmes combined, and more than half of that consists of timber plantations held under supply contracts with the timber industry (the HTR scheme).[86] As such, there is inequality in the distribution of recognized land-use rights between companies and forest-based local

communities (see Figure 6.2). It is critical to improve land tenure security and the de facto recognition of customary land- and forest-use rights. [+ – –]

Reporting (viii), Monitoring (ix) and Enforcement (x): Although many laws have strong reporting, monitoring and enforcement provisions, implementing these is challenging.[87] For instance, timber traceability is problematic and even more so because illegal timber may become 'legal' at some point in the chain.[88] Indonesia may be too large for easy monitoring, and large conservation areas and forest management units require not only satellite mapping but also *in situ* monitoring and evaluation.[89] As a government official puts it:

> It is hard for satellite imagery to trace shifting cultivation or to distinguish it from fallow land, or to tell different types of forests and plantations apart. Agroforestry is even a more difficult category to comprehend. Statistics keep going up and down, so you have to verify it on the ground.[90]

Indonesia also faces a lack of manpower to deal with its forests. [91] Cases of bribery, data manipulation and other forms of corruption are also not uncommon, limiting the effectiveness of the policies in place.[92] It is important to improve timber traceability and *in situ* monitoring and evaluation. This requires investment in the quality and quantity of personnel. [– –]

Debt-for-nature swaps (xvii): Indonesia has engaged twice in debt-for-nature swaps with the US, in 2009 and 2011. First, nearly USD 30 million in debt was forgiven and instead put into the management of conservation forests in Sumatra. The second swap involved USD 28.5 million of pardoned debt for the management of conservation areas in Kalimantan.[93] Although it provides additional financial resources for conservation, it does not attempt to improve domestic policies nor does it address enabling conditions for effective conservation such as unclear land tenure issues. Moreover, the swapped amounts are too little to provide significant debt relief to Indonesia's budget.[94] This instrument can be improved by increasing the amount of swapped debt (to enhance budgetary relief) and tying it to domestic forest policy improvements. [+ – –]

CSR/certification (xix): International certification instruments exist on timber (e.g. FSC certification) and on palm oil (e.g. the RSPO certification). Although these schemes were initiated in Northern countries, many Indonesian stakeholders such as NGOs and producers are active members. In 2011 the government decided to launch its own scheme – the Indonesian Sustainable Palm Oil certification – to become effective in 2014.

While certification schemes have improved forest management through scrutiny of the timber chain of custody and the sustainability of the oil palm sector (reducing forest conversion),[95] they cover a small fraction of the timber and oil palm sectors.[96] As of April 2012, only about 1 million hectares in forest concessions were covered by the FSC[97] from a total of more than 30 million hectares currently under logging concessions. As of October 2011, only 16 of the 435 members of the Indonesian Palm Oil Association were

certified by the RSPO. Moreover, the Association itself decided to leave it, arguing that the requirements were too stringent, that it added little market benefits (small take-up and large markets which do not require certification, particularly India and China), and given that the Indonesian government now had its own national certification scheme for palm oil.[98] The certification schemes can be improved by increasing the price premium and market absorption of certified timber and agricultural products. [+ –]

Community-based management (xxiv): Indonesia has multiple concession schemes promoting community-based forest management, partly as a way to resolve land tenancy disputes.[99] However, these concessions remain relatively small in number and area when compared to industrial logging concessions. They include Community-based Timber Plantations (*Hutan Tanaman Rakyat*) and Village Forests (*Hutan Desa*). Community-based Timber Plantation concessions are contracts between smallholders and industries for supplying timber.[100] They have, however, suffered from design problems (e.g. permits cannot be transferred or inherited), low timber prices, poor bargaining power, and faced competition from other land uses.[101] 'If they [concession holders] die, their families starve.'[102] By 2011, about 600,000 hectares were under these concessions, lower than the 2 million hectares targeted by the government,[103] but enough to raise concerns of degraded forests of higher biodiversity being replaced by timber monocultures.[104] The Village Forests scheme, on the other hand, has been more successful in reconciling forest conservation and the maintenance of traditional livelihoods that use forest resources sustainably. It officially recognizes local use rights and provides an assurance that forests will not be converted for other purposes.[105] Villagers, NGOs and government authorities in the Muaro Bungo district of Jambi Province showed great satisfaction at the results of the programme in conserving natural forests and providing legal recognition of community rights over the forest.[106] Some villagers argued, for instance, that it further legitimizes their stewardship and empowers them to stave off encroachers.[107] Moreover, forest ecosystem maintenance has helped conserve watershed resources and generate electricity from micro-hydropower units.[108] The main challenge, however, is protecting an 'island' of forest in a sea of unregulated inhabited land.[109] There has been limited adoption of the Village Forests scheme, so its effectiveness remains limited to small areas. As of May 2011, only six villages had obtained a Village Forests permit, while 23 had started an application procedure.[110] Some analysts feel that district governments show little interest in supporting a village's application to the Ministry of Forestry for such a permit as it does not generate revenues for them.[111] In addition, bureaucratic transaction costs are perceived as too high for local communities to handle on their own if NGOs do not step into the process.[112] Preference should be given to schemes that promote the conservation of natural vegetation rather than the establishment of plantations, which may lead to further land clearing. [Community-based Timber Plantation – –; Village Forests + +]

NGO-based management (xxv): Indonesia utilizes ecosystem restoration concessions, 100-year-long concessions to private entities for forest rehabilitation.[113] Launched in 2004,[114] amended in 2007[115] and 2008[116], these concessions covered 100,000 hectares (2 million hectares under application) by 2011.[117] Ecosystem restoration concessions have gained momentum from the ongoing PES and REDD debates and attracted many Indonesian and foreign NGOs.[118] Their effectiveness as conservation tools remains to be seen. However, the challenges of illegal encroachment and border monitoring persist.[119] In addition, there are dubious benefits for local people (some included,[120] some fenced off[121]), leading some critics to refer to it as a new form of 'green land grabbing'[122]. [+ –]

6.5 Implications for REDD

Indonesia adopted a REDD+ National Strategy in 2010 as part of a bilateral agreement with Norway to reduce emissions from land-use changes. This non-binding agreement includes a Letter of Intent where Norway pledged to provide USD 1 billion as official development assistance funds,[123] for Indonesia to devise and implement a REDD+ strategy including provisions in domestic law such as a two-year moratorium on issuing new permits to convert forest lands. Following this agreement Indonesia launched in 2010 a REDD+ National Strategy and a task force to recognize the challenges and propose guidelines for improvement of forest management and REDD implementation in the country, in addition to building capacity for measurable, reportable and verifiable emissions reductions from land-use change.[124] Following its preparatory stage (2010–11), there has been a transformation stage (2011–13) with pilot work in Central Kalimantan testing land tenure, law enforcement, developing a degraded lands database, and imposing a two-year moratorium on issuing new development concessions on peatland and areas of natural forest nationwide. The third phase (2014 onwards) is to see REDD becoming operational and contributing to verified emission reductions against payments from Norway and, potentially, other donors. Initial assessments of this Letter of Intent and the two-year moratorium indicate that its coverage is limited and enforcement weak. Three-quarters of the primary forest and peatland areas covered by the moratorium were already protected by Indonesian law, suggesting limited additionality.[125] Secondary forests, which tend to be at frontier areas and more vulnerable, have been excluded from the coverage. And, finally, initial evidence reveals more than 100 illegal clearings in forest areas covered by the moratorium during its first three months.[126] Including secondary forests in the moratorium is key to reducing land conversion. More generally, funds for reducing emissions from deforestation (such as REDD+) should also be associated with biodiversity conservation and social goals to ensure more inclusive and environmentally friendlier approaches rather than tree plantations for carbon absorption only.

In 2009 the Ministry of Forestry issued a decree on REDD+ fund-sharing, only for the Ministry of Finance to later declare it illegal and make it invalid.[127] Officials recognize that policies and programmes under different directorates sometimes conflict and generally lack the articulation that could optimize results.[128] For example, a senior forest officer argues that forest rehabilitation funds hardly ever match the rehabilitation planned schedule and the planting season.[129] These governance problems are recognized in the country's National REDD+ Strategy[130] as well as by non-State stakeholders, who complain also of bureaucratic hurdles especially in relation to policies aimed at local communities, who often lack the skills and the resources to navigate the bureaucracy.[131] Ecosystem restoration concessions should have provisions to ensure the inclusion of local communities into their conservation programmes.

The two-year moratorium on issuing new permits to convert forest lands provoked the oil palm sector to react[132] as the deal almost halves oil palm expansion from 350,000 hectares per year to about 200,000 hectares per year.[133] Regardless, in May 2011 the Indonesian president finally signed the moratorium decree,[134] and until May 2013 central and local governments cannot issue new mining, logging or plantation concessions on peatlands or areas of *primary* forest. Still, existing concessions can be renewed, and concessions to sectors considered strategic for national development (oil, gas, rice and sugar cane) are exempted. As of April 2012, Indonesia has also set up a national REDD+ Task-Force[135] and initiated pilot works in the province of Central Kalimantan. Norway, in turn, has paid USD 30 million through a UNDP Trust Fund, the rest being conditional on further implementation.[136]

Indonesian stakeholders generally argue that REDD remains unclear with respect to its operational aspects.[137] In addition, local actors generally have very little understanding of it.[138] It is evident that (a) enabling conditions (such as land tenure, weak governance and conflicts between environmental and development policy) need to be improved prior to REDD implementation.[139] (b) It would be appropriate to link with existing mechanisms and knowledge gained such as with community forests, ecosystem restoration, moratorium, peatland policy and protected areas, as well as (c) with international mechanisms (FLEGT, FSC). (d) REDD needs to be designed to ensure that ecosystem services (see Table 1.1) and equity challenges are safeguarded. REDD and equity issues (e.g. fear of land grabbing;[140] the lack of recognition of tenure rights[141]) need to go in tandem: '*No rights, no REDD; no REDD, no rights.*'[142] For instance, the recognition of collective customary ownership of local people may allow for REDD benefit sharing with forest dwellers.[143]

Successful REDD implementation will also require improving Indonesia's domestic governance, particularly in terms of better vertical and horizontal coordination, harmonized land-use planning, and strong institutions to prevent corruption.[144] REDD has already provided a forum for different sectors and actors to come together and dialogue on land-use and emissions issues, but synergetic action must follow. For this it will be useful to (e) develop baselines based on development aspirations and the implications for its forest

transition and to clearly (f), equitably define the beneficiaries (especially necessary due to unclear tenure), (g) explain to them the key concepts involved in REDD (a highly abstract concept), and (h) develop modalities of benefit sharing. Where payments are made, they should be made partially upfront and then become performance-based. (i) REDD funds must prove to be at least as significant as the deforestation alternative – in other words, they must match the opportunity costs. Still, this alone may not suffice, as halting deforestation may raise the price of commodities, making deforestation even more profitable. [145] This could lead to a race to offer the higher payments – a race in which REDD could pour in large resources and still lose. (j) The principle of free prior informed consent should be implemented to ensure that indigenous communities are effectively and equitably engaged in the discussions (see Box 4.2). Furthermore, REDD policy (k) should not adopt a pure market logic and utilize incentive-based instruments only; rather, it needs to be tailored to the necessary implementation reforms which would allow for the regulatory instruments in place to also become effective. Finally, it seems useful to (l) adopt a regional approach in order to minimize leakage.

A question remains as to whether REDD policies should be project-based or landscape-based. Project-based supporters see this as simple and manageable, as test cases that can be later scaled up.[146] However, this may lead to problems similar to that of CDM, such as exclusion of smallholders and leakage. A landscape-based approach, instead, could deliver concrete benefits to local people (improvement in access to energy services, health and educational facilities, etc.) in addition to public investment in development and poverty-alleviation programmes.[147] Whichever the option, REDD+ needs to be aligned with development policies.

6.6 Inferences

The steady pace of deforestation in Indonesia is not accidental. Logging, mining and agriculture have been very strong drivers of land-use change stimulated by an agenda of development and economic growth and a global demand for land-based commodities such as coal, minerals, wood and palm oil. Indonesia's forests have suffered both from the cumulative effects of small-scale encroachment by poor local villagers and from large-scale land-conversion endeavours of governmental programmes (e.g. Merauke Integrated Food and Energy Estate) or private investors aiming at the growing national and international markets. Notably, there has been also a demand for arable land, with speculative interests mindful of the growing need for land-based commodities and increasing prices.

Against this background, Indonesia's policy instruments for forest conservation have been ill-suited and largely ineffective to counter the deforestation drivers at work. There has been a strong reliance on regulatory instruments, such as zoning and SFM rules for logging concessions, but coupled with inadequate monitoring and weak enforcement. Additionally, these regulations have not met Indonesia's development needs, thus conflicting with the

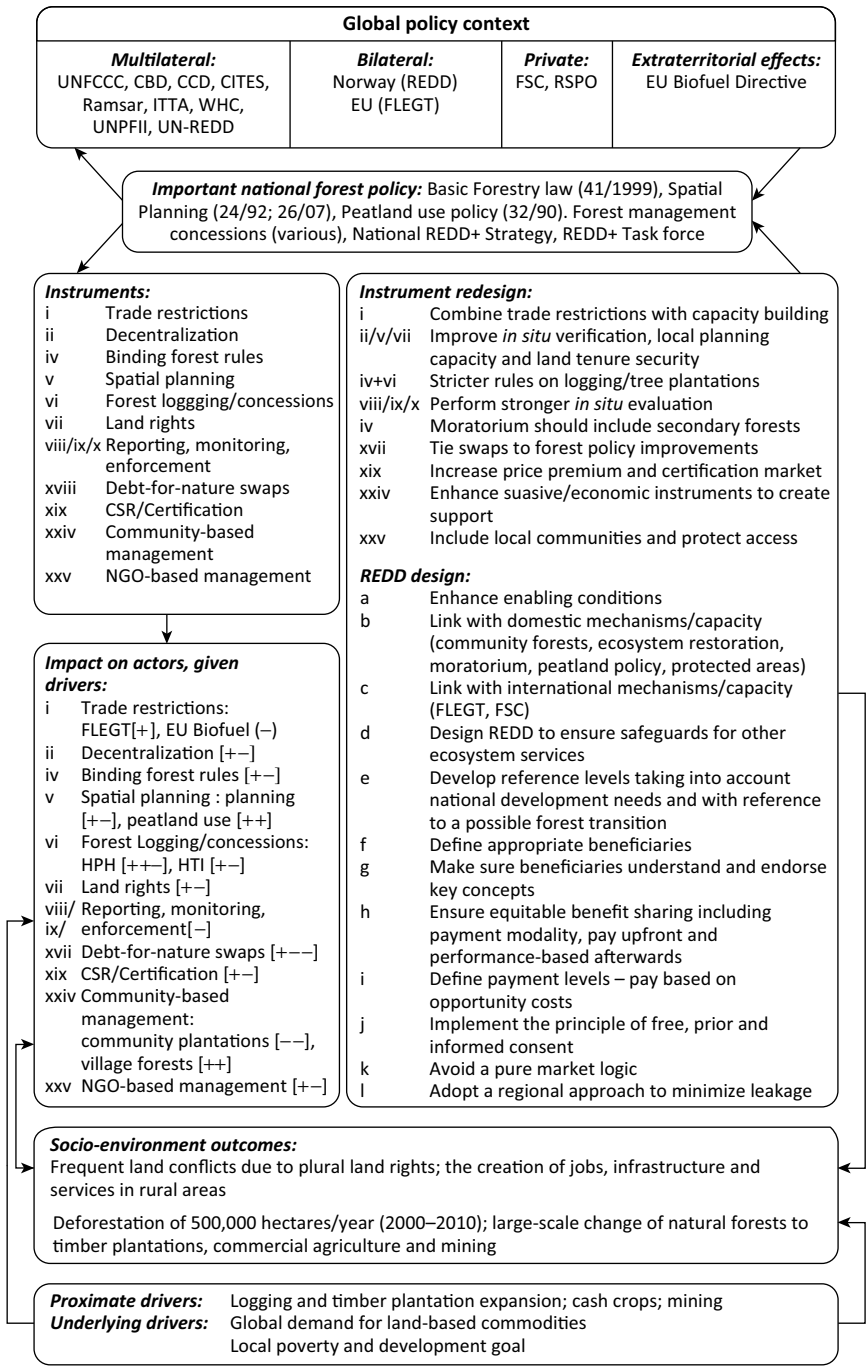

Figure 6.3 Applying the analytical framework to forest and REDD policy in Indonesia (HPH = Hak pengusahaan hutan; HTI = Hutan tanaman industry)

economic growth agenda. Therefore, it becomes of prime importance for forest conservation policies to compensate for the opportunity costs of not expanding land-based economic activities. Moreover, market mechanisms and economic instruments that link conservation to trade, such as the partnership with the EU on combating illegal wood exports, seem to hold great promise to the extent that they target the *underlying* drivers of deforestation.

Lastly, there may be a need to construe viable, alternative sustainable and socially inclusive paths of local economic development. The current agenda has led to large losses of forests and increased land conflicts due to a focus on short-term economic gains, corporate-controlled resource extraction, and forest policies that aim at 'improving carbon stocks' through tree plantations rather than at the rehabilitation of natural habitats or the integration between conservation and socio-economic development. For one, the emphasis solely on carbon and REDD's dissociation from biodiversity and ecosystem services risks legitimizing environmentally damaging paths as 'sustainable' – and rewarding them as such – simply because they have climate benefits. Furthermore, rural communities and local governments are eager to welcome large-scale investment in oil palm (and other cash crops) mostly because this has been the only option offered – the other being stagnation. It is uncertain whether environmental degradation (of soil, water resources, etc.) will not compromise the very viability of these businesses in the mid and long terms. Moreover, the fact that they accrue some benefits to the local people should not hide the fact that the major beneficiaries are still those trading the wood and other land-based commodities – a matter of equity. Therefore, this should not signify that alternative development paths cannot or should not be conceived.

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