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Growth in Indonesia: is it sustainable?

The political economy of deforestation

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Preface

Oxford Policy Management Ltd. (OPML) is delighted to present the study titled 'Growth in Indonesia: is it sustainable?' The study present analysis on the sustainability of Indonesia's economic growth model conducted for the UK Climate Change Unit (UKCCU) in Jakarta.

This paper reviews the political economy of deforestation as part of our study of whether Indonesia's growth is sustainable. Our other papers review the environmental sustainability of growth, the impact of the commodity boom, and the drivers of recent economic growth. We use the World Bank's 'adjusted net savings' framework to integrate these papers in an overview paper.

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Any errors or omissions are, of course, the responsibility of the authors. For more information about OPML please visit www.opml.co.uk/.

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Executive Summary

Since the political fall-out of the Asian Financial Crisis, new checks and balances have developed in the political architecture of Indonesia, with the potential of improving accountability and transparency. However, corruption and poor governance remain important problems, particularly at a regional level.

Regional and district officials have increased power in forestry, partly a by-product of the decentralisation process. Continued forest depletion occurs in part because district governments can now issue small logging parcel leases, which has sometimes resulted in uncontrolled logging in the remaining accessible lowlands.

This paper analyses deforestation using a multi-level framework of analysis of the chain of deforestation from a 'macro', 'meso' and 'micro' perspective. It seeks linkages between different drivers of deforestation, and also explains how non-forestry factors influence the process.

At the 'macro' level, the main driver of deforestation is inconsistencies and conflicts in the regulatory framework governing the forestry sector. Uncertainty around the demarcation of forest boundaries is one of the main factors behind these tensions. Ambiguity surrounding the concept of 'state forest designation' or recent decisions by the Constitutional Court limiting the authority of the Ministry of Forestry (MoF) over areas that have been designated but not yet formally gazetted create more space for conflicting. There has also been a shift in the informal balance of power between central and regional government authorities in allocating land to forestry versus non-forestry purposes. The lack of a coherent, enforceable national strategy, effective communication channels between stakeholders, political will or champions of reform are other factors constraining the reform of forestry sector.

The main driver of deforestation at 'meso' level is a permitting system that creates opportunities for corruption of local authorities. The reasons include (i) the fact that there is no tendering procedure or third-party involvement in the review and approval of permit applications; (ii) the permitting system is extremely complex - it involves a range of functions, scales and durations; and (iii) that licensing regulations contain numerous loopholes, opening the way to abuse and illegal logging.

One of the factors creating an 'enabling environment' for corruption around the licencing system include the low enforcement capacity of most regulatory authorities. This is a function of two other factors: the lack of knowledge of laws or the technical means to assess whether illegal activities are being committed; and a lack of clear demarcation of forest boundaries which produces a high number of overlapping permits in forest areas. Delays in the organisation and operationalisation of Forest Management Units (FMU) also contribute to create this enabling environment for corruption.

Another factor contributing towards this 'enabling environment' for corruption is the fact that awarding licenses is one of the most important sources of revenues for local authorities. Additionally, local authorities are under pressure from (a) forest communities and other local stakeholders to make forest resources available for exploitation; and (b) large corporations who want to accelerate the issuing of licences and permits.

At the 'micro' level an important driver of deforestation is the lack of community participation, which is linked to the lack of transparency and accountability – thus creating a self-reinforcing cycle. Legislation on community participation is either poorly drafted or weakly implemented. For example, Law No. 10/2004 guarantees community participation in drafting legislation and policy, but the way in which this participation should be operationalised is very

vague. In addition, the decentralisation process can be better described as a ‘de-concentration’ process – it is often seen as an elite-replacement exercise, with local elites replacing elites belonging to the centre in the decision-making process.

The lack of transparency in forest management mainly refers to three critical aspects of the process: (i) how licences are issued and revenues are distributed; (ii) the nature and extent of information about the forestry sector that is available for public scrutiny; and (iii) the allocation and distribution of forest revenues.

The different drivers of deforestation relate to each other. The drivers of deforestation at ‘macro’ level are reinforced by non-forestry factors. Taking a look at the whole chain of deforestation, it is possible to appreciate the importance of non-forestry factors at ‘macro’ and ‘micro’ levels. Consequently, systemic changes at the ‘micro’ and ‘macro’ level are unlikely to happen in the short term.

At ‘meso’ level it seems possible to achieve some results by shifting incentives or building constraints. Developing efficient systems of checks and balances improving the level of law enforcement; and accelerating the implementation of FMUs could have a significant positive impact on the ‘meso’ level of the chain of deforestation. This could also act as a kind of tipping point, triggering subsequent change processes both at the ‘macro’ and ‘micro’ levels.

For example, the development of a system of checks and balances would naturally improve the amount of information circulating in the system, which would in turn contribute to enhancing transparency particularly at ‘micro’ level. This would further act as a driver for more community participation. The successful implementation of FMUs would increase participation of local communities in the decision-making process, but also favour the development of arenas for dialogue at ‘macro’ level.

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List of abbreviations

AMDAL	Environmental Impact Assessments
EIA	Environmental Investigation Agency
FLEGT	EU Forest Law Enforcement, Governance and Trade
HKm	Community Forest
HPHH	Forest Product Extraction Permits
HTR	Community Planted Forest
IPHHBK	Non-timber Collection Permit
IPHHK	Timber Collection Permit
IUPHHBK	Non-timber Concession Permit
IUPHHK	Timber Concession Permit
IUPK	Area Use Permit
IUPJL	Environmental Service Use Permit
KPH	Forest Management Units
KPK	Indonesia's Corruption Eradication Commission
MoF	Ministry of Forestry
MRV	Monitoring, Reporting and Verification Systems
ODI	Overseas Development Institute
OPML	Oxford Policy Management Limited
PAD	Income from Regionally-Generated Revenues
PEA	Political Economy Analysis
PNPM	National Programme for Community Development
UKCCU	UK Climate Change Unit

1 Introduction

"The Republic of Indonesia is a nation blessed with almost all of the prerequisites for transformation into a great economic power. With its abundant natural resources, large, production and young population and strategic access to the global mobility network, these assets and access empower Indonesia to establish itself in its rightful place among the leading economies in the world." – President Yudhoyono, Introduction to the Master Plan 2011-25.

Sustained economic growth is a pre-requisite to be a 'great economic power'. Indonesia has succeeded in recovering from the 1997/98 economic and political crisis, and performed strongly during the 2008 world financial and economic crisis. The economy almost doubled in size between 2002 and 2011, with real GDP per person rising from US$ 816 in 2002 to US$ 1,206 in 2011. This growth took place during a global commodity boom. With overall strong performance, and great power ambition, the answer to the question: 'is growth sustainable?' matters for the policy needed to both sustain improved standards of living, as well as achieving a bold ambition.

Indonesia is the fourth most populous country in the world. It is a big economy abundant with natural resources spread across thousands of islands. The sheer size leads to large spatial variation both in resource endowments and wealth. Growth has reflected these characteristics. While growth has been strong it has shown regional variation.

We unpack this growth to understand whether economic growth has been sustainable. In this paper we will focus on deforestation. This analysis will complement the paper on environmental sustainability. They will provide part of the answer to the question: is Indonesia growth sustainable?

Our analysis is structured into four main sections. After the Introduction, Section 2 introduces some of the contextual elements that will be present in the political economy of deforestation, like the decentralisation process. Section 3 presents the methodological approach used by OPML, while Section 4 will describe the main drivers of deforestation at 'macro', 'meso' and 'micro' level. Finally, Section 5 will explore the linkages between forestry-specific and non-forestry factors of deforestation as well as provides some conclusion following the analysis conducted.

2 The context of deforestation

Decentralisation was one of the main policies promoted in Indonesia after the fall of General Suharto. Our literature review has highlighted a link between the important changes taking place in the structure and organisation of the state in Indonesia as a result of decentralisation, and the overall lack of good governance and increasing corruption at the local level (Platzdasch, 2011).

Despite the improvements, the existing checks and counterbalances still show limited effectiveness. The political economy analysis (PEA) of linkages between the commodity price boom and policy-making in Indonesia carried out during the inception of this project indicated the existence of new checks and counterbalances in the political architecture of Indonesia, with the potential to improve accountability (both at vertical and horizontal levels)[1] and transparency. In fact, most of the World Bank 'Worldwide Governance Indicators' show improvement at national level from 2002 until 2012. But two key indicators (control of corruption, and voice and accountability) presented some declines in 2008-2009 and 2010-2011 respectively. This, in turn, is an important impediment to Indonesia's ability to build on its broader democratic achievements.

Decentralisation has not yet produced the expected outcomes, particularly in terms of poverty reduction. A number of studies argue that underperformance in policy making and implementation under decentralisation has delayed better public service delivery; as well as more empowered and accountable local governments. This has consequently resulted in weak outcomes for poverty reduction (Brodjonegoro, 2010). International experience shows that decentralisation delivers sound policy when there are sufficient incentives to reward local governments for policies that benefits social welfare. But this is more likely to happen when citizens have the ability to hold local governments accountable for the policies that they implement.

There is a strong link between decentralisation and deforestation. As a result of decentralisation, provincial and district officers have more power. Among other things, they can issue forest licenses. In the last decade, this situation has led to an acceleration of forest depletion, as district governments can now issue small logging parcel leases. The result has been uncontrolled logging in the remaining accessible lowlands (Burgess et al., 2011; Saich et al., 2010).

[1] Vertical accountability refers to the direct engagement that individuals and groups have with governments through participation in democratic political processes, and with service providers using consumer voice, while the horizontal accountability involves various state institutions engaging in mutual scrutiny to prevent abuses of office. DFID's White Paper (2006) "Making governance work for the poor."

Box 1 – Centrifugal tendencies in Indonesia and the decentralisation process

In 1999 Indonesia was in a state of political turmoil. East Timor became independent after a bloody process. Separatist movements flourished in provinces such as Aceh, Irian Jaya (or Papua) and Riau in Sumatra.

The decentralisation process was conceived as a response to the separatist movements that threatened the disintegration of the country. Regional autonomy legislation was drafted in 1999 (Law 22 and Law 25) and implemented in 2001. To a certain degree, it could be said that the process has been successful – Indonesia enjoys a political party system with multiple parties, free press, local community awareness of service costs, and the ability of the community to express their public preferences.

However, local public service responsibilities are often inadequately matched to local revenues, and public accountability and strong legal institutions are not yet in place (Rinaldi, 2007).

Decentralisation in Indonesia is much more of an administrative decentralisation rather than a fiscal decentralisation. The central government continues to control a vast share of the revenues required for more efficient. Local governments on average receive more than 80% of their revenues from the central government. Local governments are responsible for paying salaries that were previously paid for by the central government and paying for basic required services such as health and education. Consequently, local governments have increased spending responsibility without the additional locally controlled revenue base necessary to support extra spending.

However, as some stakeholders pointed out, the decentralisation process in Indonesia is also a story about the inefficient spending capacity of local governments, which face important capacity constraints in managing project implementation.

3 OPML's approach to the political economy of deforestation in Indonesia

Political economy analysis (PEA) is an important tool to better grasp on-going process of change, as it improves understanding of how incentives, institutions and ideas shape political action and development outcomes. It can also be used to identify obstacles and constraints to reform and opportunities for leveraging policy change (DFID, 2009). In this case, PEA will be used to explore the relationships between the various forestry-specific factors favouring deforestation in Indonesia (the 'whats' and 'hows' of the problem), and the overarching political, economic and cultural factors (the deeper 'whys').

The political economy of deforestation in Indonesia will be explored as a manifestation of a larger economic development process. Much of the existing literature is limited to listing the different drivers of deforestation and providing some indication on underlying causes (Indrarto et al., 2011). To understand whether economic growth is sustainable in Indonesia, we develop an analytical framework that analyses the drivers of deforestation as a part of a broader political, economic and institutional framework – rather than analysing them exclusively within the context of forest management. We argue that forest policy reform and the strengthening of forest management is not a sector-specific issue but is affected by factors shaping the broader political economy in Indonesia.

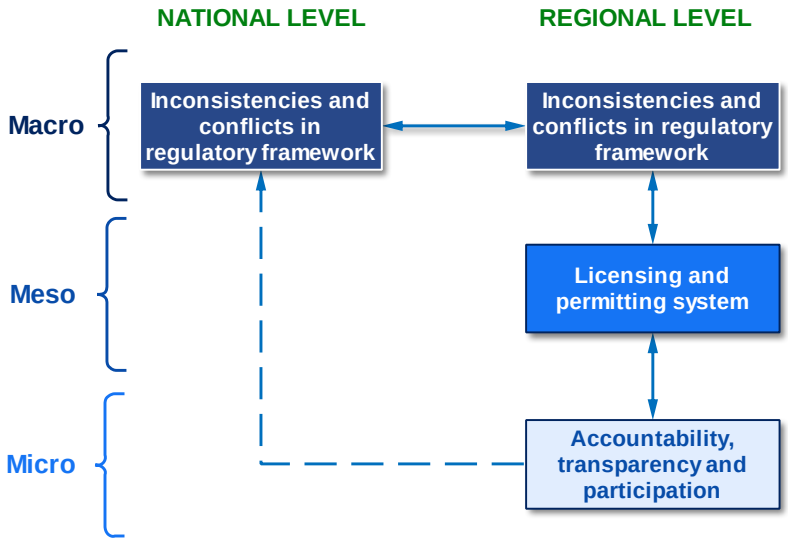
We analyse deforestation in Indonesia using a multi-level analysis framework (Figure 1), which includes:

- **'Macro' level** – the law, regulation, and policy that results from the interaction between stakeholders and the existing institutional and cultural framework in Indonesia. Such interactions frame decisions about policy and strategy. The 'macro' analysis in this assignment comprises two different, but interlinked, political and administrative layers: the national and the regional. The most important factor at this stage is the inconsistencies and conflicts in the framework governing forestry sector.

- **'Meso' level** – or the 'enabling' level is a transitional space between the 'macro' and 'micro' levels. It is at this stage where the main structural factors, the scaffolding of the economic process, leading to the implementation of policy changes and decisions occur. In other words, the institutions and rules that govern the system at 'macro' level materialise at level into processes. The most important factor in deforestation at this level is the licencing and permitting system. At this level we also explore the incentives and motivation of local authorities to exploit and maintain this licencing and permitting system.

- **'Micro' level** – the linkages between citizens and local authorities in forest management. The existence or inexistence of social contracts between these stakeholders dominates this relationship. At this level we discuss issues such as accountability, transparency and community participation.

Figure 1 – Analytical framework of analysis and main drivers explored



However, there are others drivers active at each level. At the 'macro' level, drivers such as the incomplete demarcation of forest boundaries, or the weak capacity of national and local authorities to enforce laws and regulations, play a relevant role in the process. At the 'meso' level, the absence of sufficient training capacity to strengthen forest management is also a significant driver of deforestation. At the 'micro' level, the lack of community participation in the forestry decision-making processes contributes to lowered accountability.

Our analysis explores the relative weights of each of these levels and the linkages between them; we also explore the weight of cross-cutting drivers of deforestation, such as corruption or a lack of environmental education. As a result, we hope to obtain a clearer vision of the 'chain of deforestation' in Indonesia.

4 The 'macro', 'meso' and 'micro' analysis of the drivers of deforestation

4.1 'Macro' level

The regulatory framework governing forestry sector is complicated and conflict-prone.[2] Forest management is affected by specific forest-related laws, but also by those governing other sectors (e.g. agriculture, mining), as well as by more general, cross-cutting legislation (e.g. decentralisation, spatial planning).

Decentralisation has made local authorities, mainly district ones, key stakeholders in forest management. At the 'macro' level, this results in persistent tensions and conflicts between national and district authorities, as the division of authority and responsibility between them remains unclear. In this respect, although the revised Basic Forestry Law of 1999 specifies that the central government retains the right to "determine the forest estate" and "plan the use of the forest", the Basic Law on Regional Government (1999) and the Basic Law on Financial Balance (1999) granted significant powers to the regions. It sets out the terms of revenue sharing: 80% of central government revenues from resources in forestry activities have to be redirected to the provincial and district governments (Law UU33/2004). In addition, the 1999 Revised Forestry Law gave district heads the right to hand out 100 hectares of logging licenses.

The demarcation of forest boundaries is a key factor behind the tensions between national and local governments. A central element in this dispute is the ambiguity surrounding the concept 'state forest designation'. From Article 15 of the Government Regulation No 44/2004 it seems to be a preparatory activity for state forest gazetting. Often, this 'designation' is interpreted by local authorities as a temporary status pending of official confirmation. In other words, an area "designated as state forest does not mean an area has legally become state forest" (Indrarto et al., 2012, pp. 22). In many cases, local authorities take advantage of this situation to award permits in areas that are in the process of becoming state forests.

Court sentences contribute to making forest demarcation even less clear. On February 2012, confusion arose when the Constitutional Court, decision No. 45/PUU-IX/2011 (MK45) ruled that the phrase 'designated and or' in Article 1(3) in Law No. 41 of 1999 on Forestry to be unconstitutional and unenforceable. The main implication of this sentence is that it is unclear how the authority of the Ministry of Forestry (MoF) will be exercised in the future over areas that have been designated but not yet formally gazetted. Other profound implications of this sentence include (i) the current extent and legal status of the forest zones (*Kawasan Hutan*), (ii) the future ability of the MoF to exert management authority over it, and (iii) changes to the formal and informal balance of power between central and local government authorities in determining the allocation of land to forestry versus non-forestry purposes within provincial spatial plans (Wells et al., 2012).

Uncertainty regarding the future of non-gazetted forest areas in Indonesia is one of the main elements of concern in the forestry sector. Around 90% of the total forest area in the country in 2012 has currently the status of non-gazetted forest area. Thus, with regards to boundary issues, it is reported that up to 2010, the length of boundary between forest and non-forest area and between forest functions reached 281,873 km, covering an area of about 142 million hectares or about 10% of the total forest area of Indonesia. That includes 22.5-24.4 million

[2] The most important national laws and regulations affecting forest management include Law No. 41 on Forestry, Law No. 22 on Regional Governance, Law No. 18/2004 on Estate Crops, Law No. 4/2009 on Mineral and Coal Mining Law No. 32 on the Environment, and Law No. 26/2007 on Spatial Planning. Annex A contains a table with a complete list of all the inconsistencies in the forestry sector.

hectares of non-gazetted forest area, including 19,420 villages. It means that in each of them there is a potential conflict waiting to happen between national authorities and local governments (Indrarto et al., 2012).

As a result of the inconsistencies in the mapping of forest area, the demarcation of forest boundaries is unclear in Indonesia. In December 2010, Indonesia's Corruption Eradication Commission (KPK) found that a synchronised map of forest areas did not exist at all. Instead, there were at least four different versions that were incompatible with each other. The lack of a consolidated map, coupled with unclear definitions and boundaries of forest areas and a lack clear laws and regulations, has called into question the legitimacy of land use management for 88.2% of forest areas — more than 105.8 million ha.

The increasing power of local governments as a result of the decentralisation process has contributed to weaken the traditional hierarchical links that brought together central and regional institutions, and compounds ineffective communication between different national ministries. The loss of political weight and influence experienced by the Ministry for National Development Planning (Bappenas) symbolises the weakening of the institutional links between national and regional authorities. In this environment of unclear legislation and regulatory responsibilities – and somewhat weakened accountability owing to decentralisation – economic interests have been prioritised over environmental and ecological conservation concerns. Evidence for this conclusion includes: the granting of tax breaks for investors in key industries, including forest products; the increase of mining permits granted in protection areas; the increase in the development of food estates and energy estates; and the support of biofuel development programmes, a key factor in the clearing of land for production of oil palm (Barr et al., 2006).[3]

Box 2 – Oil palm and land use change

Oil palm is a major cause of land use change in Indonesia. The area of oil palm estates, both large and small, has been growing every year to reach a total of 7 million hectares in 2008 and 8,4 million hectares in 2010 (Indrarto et al., 2012). With land availability in the current oil palm centres of Kalimantan and Sumatra becoming more limited, expansion is planned for Papua. Growing global interest in renewable energy and high palm oil prices has encouraged wide expansion of estates, and the government has issued an increasing number of regulations and policies to accelerate this programme.

The palm oil industry in Indonesia is booming, with US$20 billion of crude palm oil exports in 2011. Expanding oil palm plantations has had a significantly adverse impact on the remaining forests and other natural habitats and often led to conflict over land (Sizer, 2012). In fact, from 1990 to 2010, 90% of lands converted to oil palm plantations in Kalimantan were forested. Although some more conservative sources estimate that 'only' 56% oil palm expansion in Indonesia occurred at the expense of forests, some authors indicate that this figure is still very high (Koh and Wilcove, 2008). Last, but not least, spread of oil palm plantations is also considered to be related to human-induced forest fires, which claimed approximately ten million hectares of forest between 1997 and 1998 alone (VVAA, 2011).

Another critical factor affecting forestry management is the lack of appropriate communication channels which are needed to create arenas for dialogue where ambiguities and tensions between national and regional regulatory frameworks exist. Inexistent or ineffective communication between different ministries tends to make forestry management coordination more difficult.

The absence of a coherent, enforceable overarching national strategy for the forestry sector is also an important weakness[4]. Due to political conditions and limited time availability, the forest management process in Indonesia jumped directly to the drafting legislation. As a result, when

[3] http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_Jakarta_Indonesia_8-14-2012.pdf
[4] Although a Strategic Plan has been drafted by the Ministry of Forestry (2009-2014); it is unclear how much of the targets set within have been achieved; and if this plan has gained support at a national level.

there is confusion, ambiguities and conflicts about the regulatory framework, no valid reference is available to stakeholders involved.

Land tenure, the recognition of customary community rights and agrarian reform all affect the deforestation process. According to the Constitution of Indonesia, the land of Indonesia is controlled by the state, which in turn has to manage it for prosperity of the people. The state is compelled, however, to recognise and respect traditional rights under Article 18B (2) of the Constitution, and under the Law No 5/1960 on Basic Agrarian Principles , which acknowledges customary rights to land, provided such rights do not conflict with interests of the state. Few customary forests managed by local communities have been formally recognised by authorities in practice. Under the Forestry Law, forests encumbered by traditional rights are referred to as Hutan Adat (traditional forest) and are therefore considered part of state lands. As such they fall under the management authority of MoF until they are excised from the Kawasan Hutan (normal forest area) during the process of gazetting. However, the gazetting process does not include adequate provisions to ensure the full and effective participation of local communities, and consequently often fails to detect and/or account for customary forest areas where local communities have long-standing, legitimate claims to forest (Boer et al., 2012). Consequently, even in areas where gazetting has been completed, it is still likely that traditional use rights have not been fully acknowledged.

Agrarian reform is a critical factor in correcting an imbalance in the tenure and use of agricultural land, and also in the relationship between people and companies. In 2000, at most 20% of individual farmers held formal title to their land. Unsatisfactory resolution of land disputes remains the most common complaint about the justice system. Lack of title leaves farmers economically insecure and also hinders their ability to access finance to invest in farming and other activities. Even if farmers do possess clear title to the land, powerful actors find it relatively easy to claim the land as their own, in collusion with local officials (Barr et al., 2006). Actually, because of the limited availability of agricultural land, many people go into forests and open up plots for farming. For that reason, supporters of the process argue that agrarian reform could also be a useful instrument to slow the rate of deforestation. If done well, the agrarian reform could actually reduce both poverty and forest loss by giving people right to access to forest resources, especially in those areas where forest allocated to companies is not being exploited. In other words, it will prevent corporations from grabbing forest land and turning it into factories or plantations, while at the same time it will also prevent rightful land owners from seeking land in the forested areas.

4.2 'Meso' level

The main driver of deforestation at 'meso' level is the corrupt licencing and permitting system: local authorities grant licenses to private companies to develop economic activities, including timber extraction and mining, within forest areas. The allocation of small-scale timber extraction and forest conversion permits by district governments began in Indonesia after the Law 22/1999 on Regional Governance was issued. Two other pieces of legislation issued by the national government came to reinforce this measure: Regulation 62/1998 on the Delegation of Partial Authority in the Forestry Sector to the Regions; and Regulation 6/1999 on Forestry Enterprises and the Extraction of Forest Products in Areas Designated as Production Forest. The latter in particular gave district governments the power to allocate Forest Product Extraction Permits (Hak Pemungutan Hasil Hutan, HPHH) in areas classified as state forest. HPHH could be issued for areas up to 100 hectares for the extraction of timber within sites classified as conservation forest or in production forest areas that were in the process of being converted or reclassified.[5]

[5] Other permits that can be issued by regional authorities include the area use permit (IUPK), the environmental services use permit (IUPJL), the timber concession permit (IUPHHK), non-timber concession permit (IUPHHBK), timber collection

The current permitting system is highly conducive to corruption and fraud (Dermawan et al., 2011). The reasons to explain this include:

- There is no tendering procedure or third-party involvement in the review and approval of applications;
- The system involves a range of functions, scales, durations and other variables, creating complexity and less transparency; and
- Licensing regulations contain numerous loopholes, making abuse and illegal logging possible.

The absence and/or the ineffectiveness of checks and balances in the licencing and permitting system allow malpractices and corruption. This in turn, can be associated with two of the drivers of deforestation at 'macro' level: decentralisation, which has weakened the institutional linkages between different layers of authority in the country, and the lack of a clear demarcation and classification of forests (see Box 3). An example of weakened institutional linkages between different layers of authority was the public statement by several Bupatis (the head of a district) that they no longer had to answer to the governor, as Law 22/1999 on regional governance had dissolved the subordinate status of district governments in relation to the provincial government (Barr et al., 2006). The context was a conflict in East Kalimantan originated by the issuance of further small-scale timber extraction and forest conversion permits by district governments. Without a clear definition of responsibilities among the different authorities involved, it is impossible to design a system of checks that provides oversight to the licencing activity.

Box 3 – Ambiguities in the regulatory framework - definition of responsibilities

An example of how ambiguities in the regulatory framework affect the definition of responsibilities is Law No. 41 on Forestry and Law 22/1999 on Regional Governance. District governments, on the one hand, have interpreted the latter to mean that they have primary authority for administering forest resources that fall within their district boundaries. MoF officials in Jakarta, on the other hand, argue that the former gives the central government legal authority over most aspects of forest administration, unless the Minister has explicitly delegated these to the districts or provinces. Without definition of responsibilities it is difficult to create and implement an effective system of checks and balances.

After Law 22/1999 was replaced by Law 32/2004, the decentralisation did not follow a hierarchical decentralisation but sectoral decentralisation (Law 32/2004, paragraph 13, 14). Besides giving division of central government authorities and regional government authorities, Law 32/2004 also introduced 30 areas where responsibility is shared between central and regional government. These areas include forestry. However, the problem is the lack of regulations to interpret and to detail the tasks that are shared between national and sub-national governments (Darmawan, 2008).

The low enforcement capacity of most regulatory authorities is an important barrier to prevent malpractices in the licencing and permitting system, even if the demarcation of responsibility was clear and a check and balances system were in place. Not only does the Forestry Law contain numerous loopholes that allow the main perpetrators behind illegal logging to escape justice; in most cases authorities have either little knowledge of laws or the technical means to assess whether illegal activities are being committed. This, in turn is linked to the lack of clear demarcation of forest boundaries mentioned before, which produces a high number of overlapping permits in forest areas. The inexistence of monitoring, reporting and verification (MRV) systems only contributes to reduce enforcement capacity. In most cases, the opacity of the processes creates important barriers to trace back permit data. As a result, many crimes go unpunished, the most frequent being obtaining IUPK (area use permit) without approved

permit (IPHHK) and non-timber collection permit (IPHHBK). The first 4 permits are large-scale concessions, and the last 2 – the collection permits – are issued for smaller businesses, smaller areas and shorter durations.

Environmental Impact Assessments (AMDAL);[6] operating without forest release permissions; operating without IPHHK (timber collection permit); operating outside concession boundaries; and failures to mitigate forest fires (EIA, 2012).

The delays in the organisation and operationalisation of multi-stakeholder Forest Management Units (FMU or KPH - Kesatuan Pengelolaan Hutan) are also contributing to the creation a more enabling environment for corruption and malpractices around the licencing system. The aim of KPH is to facilitate a more efficient and sustainable management of forests. The development of the KPH as the basic unit for all forest resource management in the future is a crucial step forward and a missing link towards sustainable forest management and conservation across all forest land (The target of the government is to establish 600 KPHs and 120 model KPHs by 2014, which means that 65% of state forest should come under KPH management. So far the KPH development in Indonesia is limited to the areas of Forest Estates on Java except the Province of Yogyakarta and Madura and parts of the forest conservation areas. The literature reviewed clearly indicates that the KPHs may have limited capacity to accomplish their goals due to some of the constraining factors at 'macro' level already explored. In particular, some of problems faced in the KPH development are:

- The ambiguities in the regulatory framework as well as demarcation of forest areas create barriers to the mandate and area of application for KPHs;
- The resource mobilisation for the planning and implementation of the KPH development programme has been much more slow than originally anticipated;
- The lack of communication between stakeholders (both national and regional) contributes to the lack of progress. Multi-stakeholder involvement was originally envisaged to foster the formation of KPH;[7]
- Insufficient quantity and quality of human resources; and
- Awareness and concern of all stakeholders at the national level on the importance of KPH, as well as at the provinces and districts is limited.

Having discussed what factors contribute to create a more enabling framework for corruption linked to the licencing and permitting process, it is important to examine as well the main incentives for subnational governments sustaining the current licencing and permitting structures. These include:

a) **For regions with commercially valuable forests, the concession of licences has become an important source of revenues.** It is important to remember that the fiscal balancing law emphasises that under decentralisation, regional governments at the provincial, district, and municipal levels will be responsible for securing a significant portion of their income from regionally-generated revenues (or Pendapatan Asli Daerah – PAD). PADs include any sources of revenue that a regional government can directly obtain from within its own jurisdiction, as opposed to transfers from the national government or loans

[6] AMDAL is required for every business or activity which have substantial impact to the environment, which include (i) change in form of land and landscape; (ii) exploitation of natural resources, renewable and renewable; (iii) process and activity to cause environmental pollution and/or damage as well as squandering and degradation of natural resources in the utilisation; (iv) and process and activity whose output would influence the preservation of the natural resource conservation area and/or protection of cultural resource reserve area. Law 32/2009 on Environmental Protection and Management.

[7] One of the most ambitious goals of KPHs is getting the involvement of concession holders (either on estate and plantation forest) in developing KPHs Long Term Management Plan. On paper, that would be a critical step to increase participation in the decision-making process in forestry management, as well as to increase transparency and accountability in the sector (CER and CCAP, 2011).

from external sources. Law 25/1999 identifies three main types of PAD: regional taxes; regional levies (i.e. fees and surcharges); and regional government enterprises. Most of stakeholders consulted agreed that licencing is a critical source of revenue for many local authorities but also an important source of corrupt income for districts heads handing out licences.

b) **The weak institutional capacity of local authorities, understood as their low level of ability to pursue its objectives by delivering quality services, also plays an important role in the licensing system.** These weaknesses are especially evident in areas like planning, investment programming, finance and taxation, and monitoring and evaluation. In addition, it is widely reported that most local authorities need support in areas such as the management of funds and enhancing expenditure capacity. Because of this state of affairs, licencing becomes in many cases the only source of revenue available to local authorities. And because of the lack of accountability and the inexistence of checks and balances, this is an easy source of revenues and personal gain. In other words, licencing also responds to an opportunistic behaviour of local authorities without the capacity to generate other sources of revenues. This situation is clearly aggravated by the low human resource capacity and capability in local governments, which we have identified as one of the stronger impediment variable to good governance. If highly educated forestry experts find it difficult to navigate through the complexities of the legal regulatory system governing forest management, low skilled local authority officials face even larger problems.

c) **The issue of licences and permits is linked to the establishment of regional government-owned forestry enterprises.** In Berau, for instance, the district government formed a company PT Hutan Sanggam Labanan to secure equity shares in several existing HPHH timber concessions. Through this company, Berau district's has acquired the majority shares in an 83,250 hectare block HPH concession held by the state-owned forestry enterprise PT Inhutani (Barr et al., 2006). The fact that timber extraction can be carried out with relatively modest amounts of capital investment and requires only basic technological inputs means that for local authorities is an easy way to generate revenues – easier and quicker than other types of activity that many require longer and more complicated investments.

d) **Local pressure to cut down forest:** in many regions, district officials face considerable political pressure from forest communities and other local stakeholders to make forest resources available for exploitation. Timber extraction is an important source of jobs for the local population as manual and semi-mechanised logging generally involves intensive use of unskilled or semi-skilled labour. Issuing licences and permits therefore becomes a way to sustain political support.

e) **Pressure from companies:** Large corporations exert pressure over local authorities to accelerate the issuing of licences and permits. Strong demand for palm oil in the international markets in the last decade, together with the boom in palm oil prices, has attracted a large number of investors who invest in developing palm oil plantations – and in doing so, clear more forested land.

Finally, an interesting factor is the direct relation between licencing activity and the electoral cycles in Indonesia. Politicians have been accused of using licensing to fund their political campaign. The literature reviewed also confirms this hypothesis. Illegal logging increases dramatically in the years leading up to an election: by 29% two years prior to the election and by

42% in the year before the election. Illegal logging then falls dramatically (by 36%) in the election year and does not resume until the next election cycle (Burgess et al., 2011). This may be explained by the fact that forestry officials are pressurised to reduce enforcement of logging in the conservation and protection zones before an election in order to increase the popularity of political incumbents.

4.3 'Micro' level

An important driver of deforestation at the 'micro' level is the lack of community participation in forestry sector decision-making (Indrarto et al., 2012; EIA, 2012; Boer et al., 2012; Arsyad, 2012). General reasons for community participation in forestry management are listed in Box 4 In the specific case of Indonesia, three other factors need to be taken into account:

- Without community participation the level of accountability and transparency is limited, which worsens the licencing and permitting systems;
- Inputs provided by communities can be very useful to clarify the classification and demarcation of forest during gazetting, as well as reconciliation of spatial plans, which is one of the biggest deforestation factors at 'macro' level. This, in turn, would produce a virtuous cycle by strengthening the position of local communities in future negotiations with all forms of business investment opportunities (including REDD+); and
- Forest-dependent communities in Indonesia are often among the most vulnerable and marginalised of social groups (Larsson, 2005):

> "People living in forest areas… have been expected to cope with sometimes drastic limitations on their choices and to yield rights of self-determination commonly enjoyed by others living outside of forests. This applies to exclusion from protected areas as well as the economic benefits of commercial logging, while, with respect to the latter, often then having to live with the degradation."

Box 4 – The rationale of community participation

Community participation in forest management is justified on the following grounds: (Brown, 1999)

- Proximity to the resources: those in closest contact with the forest are best-placed to ensure its effective husbandry.
- Impact: those whose livelihood impact most on the forest should be involved in its management.
- Equity: forest should be managed so as to ensure adequate resource flows to rural populations.
- Livelihood: single-purpose industrial management may be incompatible with the livelihood of needs of rural populations.
- Biodiversity: multi-purpose management of forest by communities is likely to lead to better conservation of biodiversity than industrial management.
- Cost-effectiveness: local involvement in management may be an important way of cutting costs to the state.
- Governance: community involvement introduces important checks and balances in relation to state services, which tend to be mismanaged.
- Development philosophy: local participation, decentralisation and subsidiarity may all, in themselves, be considered as important ends of development.

An example of the limited political and institutional weight of local participation is the fact that to date no customary forest claim has been approved in Indonesia. Customary forest

claims are, at least on paper, one of the most powerful tools to increase not only participation but also influence of indigenous groups on forestry management.

Legislation regarding securing community participation is either poorly drafted or incorrectly implemented (Indrarto et al., 2012). For example, Law No. 10/2004 guarantees community participation in drafting legislation and policy, but the way in which this participation should be operationalised is very vague. The same is the case with Article 19(2) of Government Regulation No. 44/2004 regarding boundary demarcation and inventorying activities. In theory, it gives communities an arena to have their voice heard. In practice, this provision is not accompanied by operational mandates. But it is not only a matter of implementation and operation of participatory measures – it is a matter of incentives too. For example, none of this regulation includes sanctions when planning processes fail to involve communities. Again in theory, the preparation of AMDALs is another arena for community participation (communities should be consulted and be able to express their opinions whenever a forestry activity may affect them) but, as explained in the analysis of the 'meso' factors, one of the most frequent malpractices in forestry sector is the existence of companies operating without approved AMDAL.

Indonesia's decentralisation process is often described as a de-concentration process or an elite-replacement exercise, with local elites replacing elites belonging to the centre in the decision-making process. Consequently the relationship between new local elites and the communities they purportedly represent is almost as distant as the relationship between the national government and citizens before the decentralisation process (Barr et al., 2006).

In addition, **there is a lack of transparency in forest management, in three critical aspects of the process:**

- How licences are issued;
- The nature and extent of information about the forestry sector that is available for public scrutiny; and
- The allocation and distribution of forest revenues.

These factors are linked to the weak enforcement capacity of public actors (both at national and regional level) in Indonesia – as discussed above under the 'meso' level – which in turn: (i) leads to lack of public input on decisions pertaining to permit issuance; and (ii) restricts the capacity of civil society and local communities to monitor any infringements of the law or detect irregularities in permit issuance processes. Finally, the allocation of resources is closely linked to the previous two factors: without adequate data about the licensing processes and barely any information available to the public, the likelihood of malpractices in the allocation and distribution of forest revenues becomes much greater. Connected networks of vested interests in the private and public sectors have poor track records in meeting contractual obligations and administering forest revenues (Dermawan et al., 2011).

Box 5 – Improving participation in forestry management

In recent years, the MoF has begun experimenting with administrative tools for promoting community-based forest management as a means for delivering a greater share of forest-derived benefits to communities whilst maintaining MoF authority. These efforts centre on issuance of three different types of licenses to encourage local participation in forest management at the project or landscape scale, including: (i) Community Forest or Hutan Kemasyarakatan (HKm); Community Planted Forest or Hutan Tanaman Rakyat (HTR); and (iii) the Hutan Desa (Village Forest) program. HKm and HTR are licenses issued to communities for utilisation of land area, and Hutan Desa is a relatively new legal instrument that confers a broadly defined right to communities for managing forests where no pre-existing licenses occur (and no future licenses may be issued without consent of the community).

The MoF has made quantitative, time-bound commitments to accelerate licensing for community based forest management across Indonesia, with targets of formally licensing 2.5 million hectares of Hutan Desa and/or HKm by 2014 (Law No. 6/2011).

These instruments do not, in a formal sense, resolve land ownership claims rooted in traditional practice and customary law. However, they provide a legal framework for communities to enjoy direct economic benefit from forests and strengthen their position vis-a-vis other forestry actors, including the private sector, and provide a low-carbon alternative to intensified community agriculture.

Source: Wells et al., 2012.

5 Links between forestry and non-forestry factors

Figure 2 shows the chain of deforestation in Indonesia and the linkages between forestry-specific and non-forestry factors contributing to the deforestation process. The central part of the diagram is occupied by what we define as main drivers of deforestation: the inconsistencies and conflicts in the regulatory framework at 'macro' level; the malpractices at the licencing and permitting system at 'meso' level; and the lack of accountability, transparency and participation at the 'micro' level. Arrows between them show that inconsistencies and conflicts in the regulatory framework are a critical factor in licencing and permitting processes. This, in turn, clearly conditions the lack of transparency, accountability and participation in the forestry sector, at 'micro' level.

Non-forestry factors are contextual elements that influence most of aspects of the economic and political life in Indonesia. Issues like corruption or the existing political culture acts like cross-cutting drivers whose influence is present, in one way or other, at every level of the analysis of the chain of deforestation (Datta et al., 2011). It is important to remember that the pace of change of non-forestry factors is extremely slow as they are deeply ingrained in society.

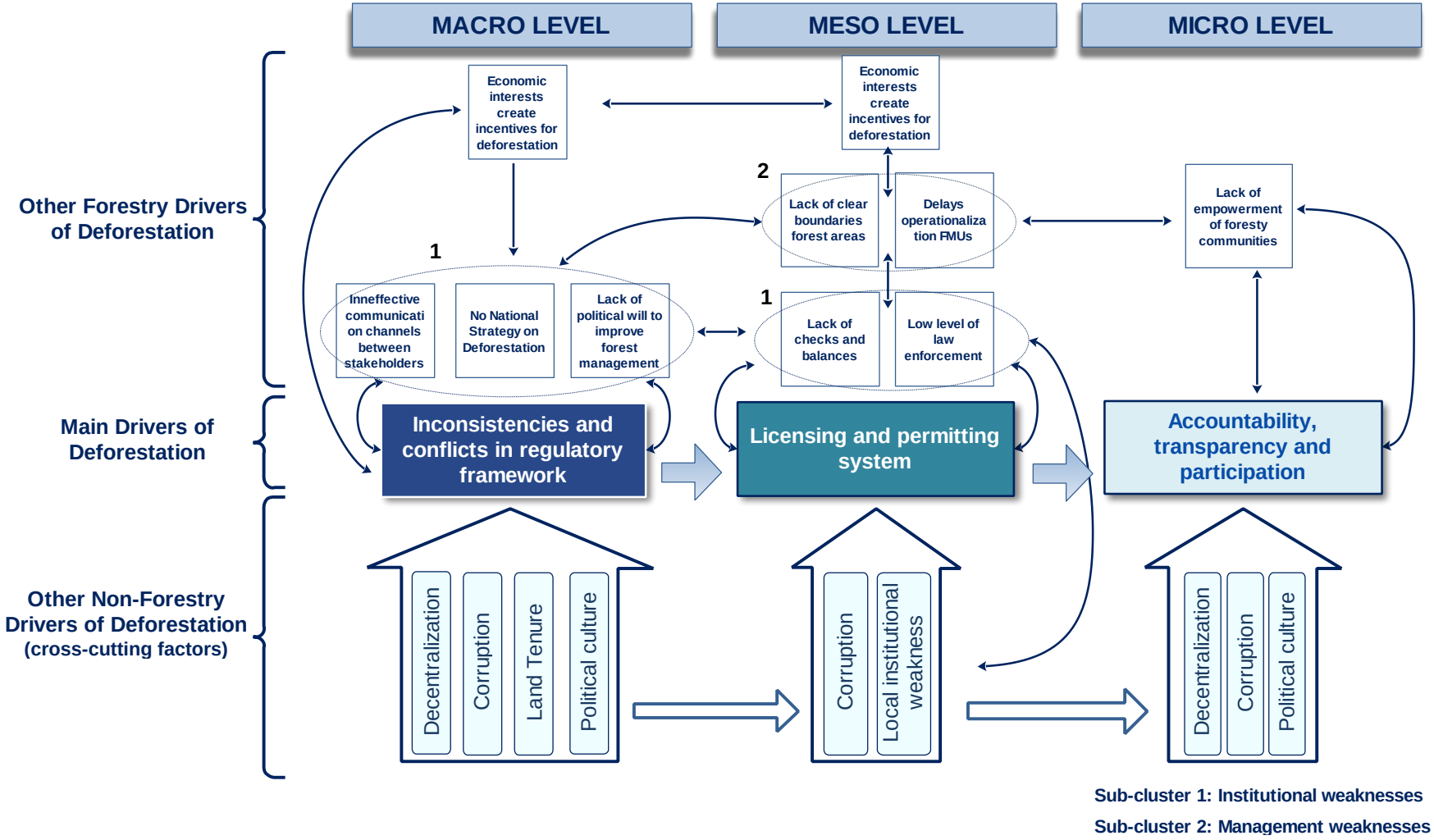
At the 'macro' level, the non-forestry factors affecting the development of the sector are the negative effects of decentralisation in the structure of the political and administrative system in Indonesia, the high level of corruption, the existing political culture, and the land tenure problem. Global economic trends, such as the rise in demand for palm oil, have further fuelled deforestation in Indonesia. The linkages between forestry-specific and non-forestry factors are evident and the influence of the latter is critical to explain the perpetuation of the current status quo in forestry management, with abundance of regulatory inconsistencies and tensions.

Drivers of deforestation at 'macro' level do not operate in a linear way but they seem to form an extremely entangled cluster, with multiple and multifaceted linkages among them. For that reason, isolated or individual activities to correct these drivers are likely to fail.

International experience show that the best way to approach such complicated clusters is by developing comprehensive reform strategies that may create simultaneous and coordinated change processes at different institutional levels. However, these movements are only possible when key stakeholders (champion of reforms) are clearly positioned in favour of change; there is enough political will to impulse the process as well as enough political capital to deal with the logical resistance that change generates among those who benefit from the current status quo. Another approach is to harness the power of markets: increasing demand for sustainably sourced produce in Western markets; and the need to demonstrate Corporate Social Responsibility can be used to influence environmentally damaging business practices in Indonesia. In the recent past pressure exerted by large companies and buyers of palm oil (for example Unilever) on Indonesian producers like PT SMART has brought about real, demonstrable change in business practices in Indonesia (Hickman, 2010).

However, forestry sector in Indonesia is characterised by the existence of abundant policy silos that difficult the elaboration of a national strategy to prevent deforestation. The lack of a clear champion of the process, who may bring together the different parties to dialogue, makes the situation even more complicated.

Figure 2 – The chain of deforestation



At the 'meso' level, the main driver of deforestation is the malfunctioning of the licencing and permitting system. It is also possible to appreciate two sub-clusters of forestry-specific drivers of deforestation: Sub-cluster 1 brings together institutional weaknesses, namely the lack of checks and balances in the system, and the low level of law enforcement. Sub-cluster 2, management weaknesses, is mainly formed by the lack of clear boundaries in forest sectors and the delays and obstacles to KPH operational.

A key element of the analysis at this level conducted is exploring the influence of corruption in the licencing and permitting system. Evidence suggests that local authorities behave in an opportunistic way – issuing licenses creates the prospect for them to generate revenues, trade with political favours, consolidate their positions of power, etc. In order to understand better how to improve licencing system therefore is necessary to explore in depth the factors contributing to perpetuate an enabling environment for corruption.

An initial analysis of the linkages between 'macro' and 'meso' levels suggests a strong relation between opportunities for corruption at the licensing and permitting stage, and some of the 'macro' drivers of deforestation identified. The absence of checks and counterbalances, the low law enforcement capacity and the delay to fund and implement KPH are a direct consequence of issues like the ambiguity in the regulatory framework, the lack of political will to deal with forest management issues or some of the problems deriving from a flawed decentralisation process.

While a certain level of corruption within the licencing and permitting process may be unavoidable, there are significant measures that need to be taken to reduce the opportunistic behaviour of local authorities. An in-depth analysis of the structure of incentives and motivations of regional and district officers in charge of the licencing process would provide significant clues to explore new courses of action to create a less enabling framework for corruption. This is what innovative programmes such as the EU Forest Law Enforcement, Governance and Trade (FLEGT) are precisely trying to achieve: to tackle the root causes of illegality by mainly (i) improving checks and counterbalances in forestry sectors; and (ii) improving log-tracking as a way to reduce illegal deforestation.

At the 'micro' level, the influence of non-forestry factors is massive. The lack of accountability, transparency and community participation are not exclusive to the forestry sector but a dominant feature of the relationship between local authorities and citizens across all sectors in the country. In other words, the lack of social contracts, particularly in rural areas, is a factor deeply embedded in the Indonesian political culture;[8] something that the decentralisation process has not been able to change, and that in many cases has even worsened.

However, some pilot programmes are successfully challenging those patterns. One of them is the Green National Programme for Community Development (Green PNPM), which constitutes a potentially valuable channel to bring together local authorities and citizens in forestry and environmental issues. The main obstacle, tough, is replicating those successful experiences at national level.

Taking a look at the whole chain of deforestation, it is possible to appreciate how systemic changes at the 'micro' and 'macro' level are unlikely in the short term as a result of the weight of non-forestry factors. An element that could alter this tendency at the 'macro' level is

[8] Relations between public actors and people in rural and forestry areas are still dominated by what some authors call the "floating mass doctrine" (Vickers, 2005). This term was originated during the period of the New Order political system, when people were viewed as a 'floating mass' that should not be distracted by politics except for brief periods leading up to elections, also called 'festivals of democracy'. The legacy of this "vision" is still quite entrenched in Indonesian society, creating a vacuum.

the appearance (or consolidation) of a champion of forestry sector reform who, after obtaining the support of other relevant stakeholders, could lead a process of change in the sector.

Developing efficient systems of checks and balances, improving the level of law enforcement, or accelerating the implementation of KPHs could have a significant positive impact at 'meso' level. Interestingly, it could also act as a kind of tipping point; triggering subsequent change processes both at the 'macro' and 'micro' levels. For example, the development of a system of checks and balances would naturally improve the amount of information in the forestry system, which would in turn contribute to enhancing transparency. The successful implementation of KPHs can increase participation of local communities in the decision-making process. At the 'macro' level, an improvement in the establishment of clear boundaries between different types of forests would reduce the conflicts between different forestry stakeholders and could also fewer ambiguities in the regulatory framework.

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Annex A Laws and regulations in forestry sector

Table A.1 – Disharmony of laws and regulation in forestry sector

Issue	Laws and Regulation	Content and Problems
Minimum area of forests in a province and regency/city	Law 26/2007: 17(5) Law 41/1999: 18(2)	- Contents: Minimum area of forests in a watershed area/island/province is 30%. Problems: If a watershed area covering more than one regency or province, how to define a minimum area of forests? If a regency or province covering more than one island, how to define a minimum area of forests?
- City Forest	Law 41/1999: 9(1) Law 26/2007: 29(2,3)	- Contents: Each city has to own a city forest. Problems: No clear definition of a minimum extent of forest area in the city. It is stated that from 30% of city forests, 20% of them regulated in RTRW and 10% shall be under the responsibility of community. No clear mechanism, how to achieve the 10% of city forests managed by the community.
- Time period of the utilisation permit of environmental services	Government Regulation 6/2007 Paragraph 28 (1) Government Regulation 3/2008 Paragraph 29 (1) and 50 (1) Forestry Minister Regulation P.30/ Menhut-II/2009 Paragraph 13	- Contents: The time period of utilisation permit of environmental services for carbon is 30 years (Forestry Minister Regulation P.30/2009: 13) Problems: In the case of protected forest, it needs further explanation. Government Regulation 6/2007: 28 (1) stated that the maximum time utilisation permit in protected forest is only 10 years.

Issue	Laws and Regulation	Content and Problems
- Carbon sequestration (RAP) and carbon stocking (PAN) in protected forests.	Law 41/1999 Paragraph 27 (2) Government Regulation 6/2007 Paragraph 25 Government Regulation 3/2008 Paragraph 25 (1) Forestry Minister Regulation P.36/ Menhut-II/2009 Paragraph 3.	- Contents: Implementation of carbon trading scheme with additionality concept in protected forests. Problems: Less additionality in protected forests. Usually protected forests are primary forests.
- Use of forest area for mining	Law 41/1999 Paragraph 38 Law 4/2009 Government Regulation 24/2010 Paragraph 4(1)	- Contents: Use of forest area for other forest activities may be implemented for strategic purposes. Problems: No clear definition and further explanation of strategic purposes.
- Inventory of Green House Gases (GHG) Emissions	Law 32/2009 Paragraph 45; paragraph 63 (2) point 'e', and Paragraph 63 (3) point 'e'	- Contents: Each province government has to conduct natural resource inventory and GHG emission inventory. Problems: Inventory of GHG Emission is extremely difficult to be implemented by province government. No clear explanation about the scope, whether based on the temporary changing of stock carbon (degradation) or permanent land use change (deforestation).
- Measurements of emission	Law 32/2009	- Contents: Each region shall implement carbon emission inventory. Each region shall provide funds for forest protection and nature conservation. Problems: Regular measurement of GHG is not an easy task and it is also relatively expensive.
- Environmental Impact Analysis (AMDAL)	Law 32/2009	- Contents: Environmental Impact Analysis (AMDAL) Problems: The law focused on environmental Impact Analysis (AMDAL), but pays less attention to the other programs.
- Zonation	Government Regulation 26/2008	- Contents:

Issue	Laws and Regulation	Content and Problems
		Zonation of Forest Area Problems: Zonation could not be implemented effectively because of incomplete forest inventory .
- Decentralisation of authority in forestry matters	Law 41/1999 Paragraph 66 Law 32/2004	- Contents: Decentralisation of forestry matters from central to the regions. Problems: No clear scope of authorities among central, province and regency/city.
- Forest Inventory at the Management Unit (FMU)	Law 41/1999 Paragraph 13	- Contents: Forest inventory shall be implemented at national level, watershed area, and Forest Management Unit (FMU). Problems: FMUs are not established right now.

Source: Nurrochmat, 2011.