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Transaction Cost of Forest Utilization Licenses: Institutional Issues

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Abstract

Forest resource management has a characteristic of high transaction cost particularly due to lack of valid information and policy process. Such characteristic requires unique institution to ensure an effective policy implementation. This study shows that state has inadequate control over forests and forest governance, extra-legal access, as well as patron-client relationships as the causes of the high transaction costs. Consequently, more and more the natural production forests are degraded and this does not only cause loss of state revenue from natural resources, but also a bankruptcy of corporations which exploit natural production forests. Most of those natural forest assets turned into resources for producing and reproducing a rival institution or extra-legal power, rendering official state institutions incapable of controlling transaction costs. Therefore, changes and improvements of the licensing arrangements need to be supported by the political elites and elite government officials in order to break the historical influence as well as to serve as a new platform for mid-level employees and government officers in implementing the national forest utilization policy.

Keywords: high transaction costs, institution, extra-legal access, patron-client, natural production forests

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Introduction

Licensing as a control of forest management instrument, plays a very important role in dealing with deforestation, increasing the benefits of forests and ensuring sustainable forests utilization (UNDP 2015). This is based on the fact that schemes for utilization of timber from natural forests, plantations, and mining landuse permit in forest area, have in fact caused systematic damage and conversion of natural forests. Log production from natural forests over the last 10 years has been replaced by plantation forests and at the same time there is a substantial increment of mining businesses in forest areas (MoF 2014).

Mining activities in forest areas, both for exploration or exploitation, have reached 25,983,486 hectares operated by 5022 corporations. Mining activities are found not only in 19.67 million hectares of production forest area with 4,327 corporations, but also in 4,936,878 hectares of protected forest area with 1,457 corporations and even in 1,372,398 ha conservation forests with 379 corporations which should have been prohibited.

In the same period, data from the Association of Indonesian Forest Concessionaires (APHI) shows that 179 corporations processing timber from natural forest and 139 corporations processing timber from forest plantations were heading into bankruptcy (APHI 2013). If these companies go bankrupt, there will be 39 million hectares of production forests will be in the state with no management, or that will be available for open access. These conditions will lead for uncontrollable forest conversion. So far, the role of forest certification, reform in regulations and policies related to reducing emissions such as moratorium on licensing in natural forest, online licensing in the Ministry of Environment and Forestry, as well as accelerating the gazzettment of state forests have not been able to control forest conversion and forest degradation (Austin *et al* 2012; UNDP 2013; UNDP 2015; UNDP 2015).

High deforestation and forest degradation rate as well as government incapability to handle such damage is not only experienced by Indonesia, but also other tropical forest countries. One of the reason is the rise of corruption in forestry sector (Lambsdorff (2003); Contreras-Hermosilla (2000); Geist and Lambin (2002) which is caused by the abuse of power in this sector (Contreras-Hermosilla 2000). Kishor and Damania (2007) explains that corruption in forestry sector has long been case, especially in developing countries. The issue of corruption in timber utilization licensing is generally very complicated, involving diverse typologies and modes, and can occur at any phase of the supply chain, from upstream to downstream (Søreide 2007).

Pope (1996) identifies several unofficial costs in a forest

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concession administration, i.e. bribes for receiving a particular benefit (eg, a concession), or to get a favorable discretion (eg: avoid or minimize tax payments), as well as a bribe to grease the wheel or to buy information "within the bureaucracy" (eg: speed up licensing). Licensee may also engage in bribery or extortion for forest accounting endorsement (Khisor & Damania 2007). Moreover, bribe/extortion may occur in the process of issuing business licenses, ranging from getting a map of the location, allocation recommendation or permit from the competent authority, along with trading influence in license application process by the relatives of the government employees.

Khisor and Damania (2007) also identifies the occurrence of bribery or extortion to obtain logging approval, logging in prohibited area, amount of production in excess of the provision and extension of business licenses, including to ease the administration in transport of timber and obtaining forest certification. From the side of the licensor, Khisor and Damania (2007) stated that abuse of power may take place in a policy either to centralize power for certain groups (timber baron) as well as to capture benefit of a certain party (rent-seizing). For the business, the transaction costs must be compensated by pursuing more revenue. The compensation, in the utilization of natural production forest, may be made by exceeding quota of the annual production. Within a certain time, the company will bankrupt, but those companies do not necessarily suffer financial losses (Kartodihardjo 1998).
This study was conducted to reveal the high transaction costs in the licensing of large forestry businesses as well as to identify a variety of causes, characteristics and implications for prevention efforts.

Methods

In institutional theory, the transaction, trust, social capital, incentive structures, rules and norms are important as a determinant of behavioral patterns and outcomes of natural resources management (Commons 1990; Ostrom 1990). Institutions serve to clarify the relative dynamics of social capital and the use of resources, to clarify the de jure state structure and the de facto local practice system, and determine the role of trust in a binding relationship (Ostrom 1990).

If the neoclassical economic theory uses product as the unit of analysis, transaction cost theory uses transaction as the unit of analysis (Greif 1998). In this case the transaction to obtain forest utilization permit and the implementation of the permit. The transaction cost is not an official fee set by the government, but unofficial costs as a result of the presence of unequal information (asymentric information) which incurs cost such as in negotiation, measurement and execution of the contract (North 1990).

Based on the principal-agent approach, regulations may become a focus of analysis (Lambsdorff 2007). This approach can be applied in the relationship between the government (principal) that sets a number of regulations for timber firm (agent) to meet standards, procedures and certain forms of supervision in forest utilization. In such relation, one government official may have a conflict of interest, so does the company, as they may have a mutual benefit relation. This is due to the lack of capacity of officials on one hand, both personally and institutionally, and on another hand, the company has more control over forest resources information, leaving government officials with lack of information on the licensee's performance. In a principal-agent relation, government officials seem to have autonomy over their actions. When there is a threat of the company for the actions of corrupt government officials, the officials will adjust to consider the benefit when the company becomes honest and the cost for implementing it (Groenendijk 1997; Lambsdorff 2007).

This study was conducted by using the identification bribery/extortion in the implementation of the licensing permit concessions can be conducted on behalf of the Research and Development Unit of Work Corruption Eradication Commission (KPK). Interviews were conducted with business actors in 10 provinces that have a high potential of natural forests. The results of the interview after the initial conclusions obtained, was re-discussed with 26 business actors and then presented to the government officials who issued the licences to obtain clarification, particularly in the Ministry of Environment and Forestry.

Analysis of laws and regulations related to licensing procedures, to identify weaknesses, is carried out with the concept of corruption impact assessment/CIA (ACRC 2006). The CIA concept emphasizes on identifying weaknesses of regulations in an administration system which directly or indirectry, causes for corruption. The study looks at three perspectives, namely:

1 Obstacles of implementation, which are associated with the institutional and regulatory capacity to implement policies-including enforcing the policy, in this case sanction and law enforcement
2 The accuracy of decision-making, which is used to assess objective conditions and discretion opportunities in the policy
3 Transparency and conflicts of interest to classify the accountability of a policy.

The regulatory weaknesses were responded by the Ministry of Environtment and Forestry by making a number of changes to the regulations. The revisions were then re-evaluated through interviews with a number of informants to assess its effectiveness in controlling bribery/extortion in the licensing process.

Results and Discussion

Transaction costs in licensing A high cost of transactions is identified in permit application process, forest planning, forest product production, forest product administration, forest management and implementation of other policies which support business in the forestry sector. Practices prone to high transaction costs were found in almost all of the forestry business licensing processes (Figure 1).

Permit applicant must pay two types of fees when applying for a permit. First, the fixed costs due to the issuance of various licenses, namely the endorsement of the business work plan, boundary delineation, approval of annual work plans (RKT), approval of the business work plan (RKU), periodic comprehensive forest inventory (IHMB), the development and use of corridors for forest products transportation, monitoring and evaluation as well as the

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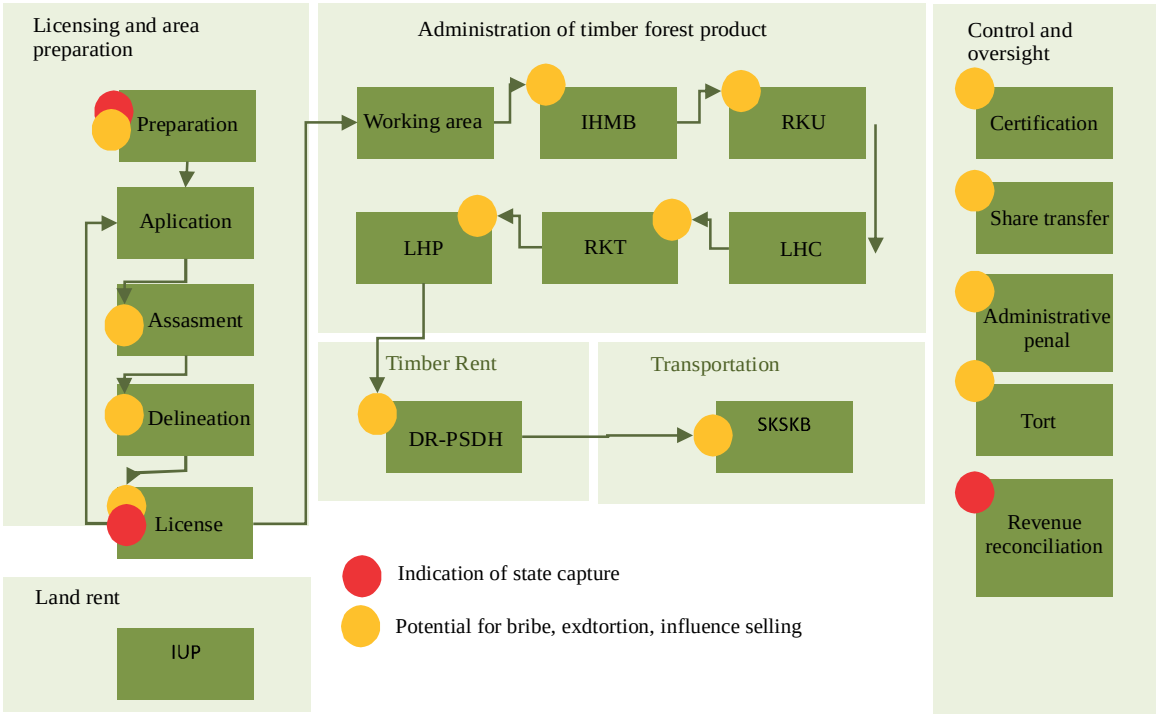

IUP = Mining Permit, IHMB = Comprehensive Periodic Forest Inventory, RKU = 10 Years Business Work Plan, LHP = Log Production Report, RKT = Annual Work Plan, LHC = Cruising Report, SFM = Sustainable Forest Management, LK = Timber Legality , PNBP = Non Tax State Revenue.

Figure 1 Chain of forestry business licensing and spots where bribery/extortion occurs.

leasing of forest areas for mining enterprises. The second variable cost includes all costs of licensing outside of the obligations of the applicant or permit holder. The charges for both types of transaction costs are based on applicants experience during negotiations for a license (Table 1).

According to the analysis of transaction cost and bribery at the spots shown in Figure 1, this study indicates that a high transaction cost occurs either for public services that are not regulated as well as those of which have a standard fee or are budgeted by the state. This condition is a negative incentive for forest conservation. Transaction costs should be compensated by additional revenues, particularly in the utilization of natural production forest, either legally or otherwise. This study did not specifically assess whether budget allocations for types of government services were adequate or not. Nevertheless, these findings affirm the need for policy makers or licensing administration system to also pay attention to the cost consequences and integrity of service delivery.

The problem of excess supervision Throughout the entire licensing chain, a company, depending on the stage, in a year spends bribery cost between IDR680 million to IDR22 billion. In terms of inspection by the Government and Local Government employees, generally the reimbursement of travel and accommodation costs by companies based on Task Order (SPT) are practiced. A company usually receives 100 to 150 Task Orders reimbursement per year. Previous studies conducted by the Faculty of Forestry of IPB (2012) indicates that in Central Kalimantan there a company that are visited by inspectors 278 days in a year. The central, provincial and district government employees carrying out the inspection requested similar information from the company.

Such phenomena advise that the degradation of forest resources is not due to to lack of supervision, but rather due to excess supervision, especially which attributed with meaningless administrative reports as control instruments. As supervision loses its control function, sanction may also lose its deterrent effect, and the legal risk can be easily managed with a certain transaction costs. However, the high costs of supervision may eventually be compensated by adjustments in the usage of the licenses-in particular by violating the law. In addition, the stages of public services in the usage of the licenses, are often used as a tool to carry out inspection. Eventhough, most of the bureaucracy provide no basis to trigger or follow-up controlling mechanism.

Licensing injustice The high cost for permit application and implementation and inadequate public services, cause at least two problems. First, the channels to gain legality to exploit state forests are reserved only to big businesses, because indigenous/local peoples can not afford to pay the transaction cost. Second, in any conflict on state forest land, mines or plantations, those who are most entitled to exploit the natural resources are those who can show legal proof according to the rules and regulations. Large businesses are able to get the legal requirements despite having to pay expensively, but indigenous/local people can not afford to do so (Kartodihardjo *et al.* 2013). In the last 10 years the composition of forest utilization between large and small

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Table 1 Transaction cost of licenses

Implementation of licensing policy	The number of informants at each level of transaction							Description/cost of transactions
	0	1	2	3	4	5	6	
Permit application								
Forest area allocation (Decree 6273/2011)				**2**	**2**		**1**	Costs of up to IDR25 million to get a map and a commitment
Macro-micro analysis			**1**	**2**	**1**	**1**	**1**	Can be negotiated up to IDR200 million in order to adjust concession area
Permit application(P 50/10, 26/12) –recommendation of Gov/Head of District.					**1**	**1**	**3**	IDR50,000 up to IDR100,000 per ha.
Online licensing information service (P 13/2012)		**5**		**2**				There is still costs to smoothen administrative procedure
Timber utilization permit (P 14/11, 20/13 P)				**1**	**3**		**3**	Cost of field technical teams-negotiable; rates depending on the area and type of wood
Borrow and use permit (P 18/2011, 14/2013 P)		**2**			**1**	**1**		Depending on area, can be up to IDR15 billion
Land swap (P 32/2010, 41/2012 P)		**1**				**1**	**1**	Exists, specific details not known
The transfer of shares (PP 6/07 3/08 jo PP)						**3**	**1**	IDR2 billion up to IDR5 billion
FOREST PLANNING								
Approval of 10 years business work plan (RKU) (P 56/2009, 24/11 P)		1	**1**	**1**		**2**	**2**	Revision of RKU needs IDR50 to IDR100 million and the cost of legalization up to USD 200 million
Approval of the annual work plan (RKT) (P 56/2009, 24/11) -Defining production quota		**1**			**3**	**2**	**2**	Endorsement can be up to Rp 150 million. Monitoring costs for 140 work
Boundary delineation (P 19/11, 43/13 P)				**1**	**1**	**1**		No standard costs and working time. Additional costs up to IDR300 million
Periodic Comprehensive Forest Inventory (P 33/2009 5/2011 jo P)				**2**		**1**		Consultant fee IDR50 thousand per ha. Approval cost up to Rp 1 billion (related to license renewal)
FOREST PRODUCTION								
Importation and use of equipment (P 53/2009)		**5**	**1**				**1**	Taking care of the administrative costs can be up to IDR50 million
Cooperation operations in plantation forests (P 20/05, 29/12 P)		**1**	**1**	**1**			**1**	Can reach IDR100 million
Fulfillment of technical personnel (GANIS) forestry (P 58/2009)			**1**	**2**	**3**	**2**	**1**	Training costs IDR30−40 million per person
Permit for development and use of corridor (9/2010 P)		**1**	**1**		**1**	**1**	**3**	This permit up to IDR15 million, long time, uncertain
FOREST PRODUCTS ADMINISTRATION								
Information System for forest product administration and reforestation fund and forest resources provision (DR-PSDH) (P8/2009)		2		**2**				Uncertain; pay monthly to the officer
Sustainable forest management certification (Natural forest, plantation forest) (P38/09, 68/11P, P45/12, P42/13)		**1**		**2**	**3**		**1**	Consultant ± 500 jt, 50000−500000/post (20−30 posts), Monitoring and evaluation: 100−150 × SPT paid by companies
Timber Legality Verification (P 38/09, 68/11P, P45/12, P42/13)		**1**	**1**	**2**	**1**			
OTHER POLICIES								
Routine monitoring and supervision			**1**				**4**	travel cost and accommodation
Forest protection (including in the event of social conflict)					**1**	**3**		IDR20−30 thousand /security force; Tens of millions of regular deposits

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scale companies has not changing, i.e. 97% of the large scale businesses and 3% of the small ones (MoF 2014).

The injustice of forest allocation at various places will trigger social jealousy, feelings of anxiety and frustration, and a sense of deep injustice for indigenous/local peoples. Forest and land use conflicts between companies and communities that seemed to be triggered by trivial matters, actually have the deeply injustice causes.

Weak oversight structure and capacity The forms of forest policy are determined by the problem structures and actors (Bernstein & Cashore 2012). To explain this problems, Sahide et al (2015) use theories of regime and bureaucratic politics. The regulation generally requires the prospective applicant to search for prospective locations in the area that has been allocated by the Government. Thus, the private sector must have accurate information about the location, because it will determine the feasibility of their business. The government/local government will verify the accuracy of the location permit, but in practice, the information used is very limited. As a result, there is conflict in almost every location, in addition the Government/Local Government never know the true potential of the forest. This condition turns the implementation of licenses as a bargaining tool.

The numerous public service functions delegated to the permit holder is also the reason for more supervisor and control. Especially for public services which are prerequisite of a license implementation. Boundary delineation and forest inventorization, which should be part of the forest planning stage, is delegated to the license holder. As a result, the government does not have sufficient information to be used as definite and objective benchmarks to oversee license implementation.

In general, there is also the issue of lack of capacity of local government in using permit as a control instrument. A review by the President's Work Unit for Development Monitoring and Oversight (UKP4) conducted in 2013 in nine districts in three provinces, namely East Kalimantan, Central Kalimantan and Jambi, for instance, shows that the licenses which were n the possession of the government were less than 50%. The missing documents included company tax ID number. Such conditions reflect that the Government/Local Government is not aware of the value of the state assets, does not care about the minimum state revenue and loss caused by the current licensing system. Under such conditions, conversion and destruction of forests is not an essential part of the existing government.

The results of online licensing study in the Ministry of Forestry in 2014 showed that improvements of licensing mechanism conducted by the Ministry of Forestry have not been able to address the expectations of service users. Issues such as the lack of service timeliness and unofficial costs are of major concern. In addition, access to information is still lacking, the independence of the service provider from the supervisor is still weak, and special treatment to companies is still identified and this causes many problems. Analysis of the regulations of the Ministry of Forestry revealed the above problems are exacerbated by the lack of a comprehensive regulation regarding supervision and sanctions against corruption and follow-up to complaints (UNDP Indonesia 2015).

Regulatory content The conditions of forest policy implementation are due to, among others, the content of regulations that stipulate authorities to provide recommendations and issue permit, but there are also a wide discretion and implementation mechanisms that are not transparent. In addition, regulation formulation is also influenced by state capture i.e. bias or the fulfillment of interest of certain parties, unclear deadline of license issuance, and other things that cause injustice. Analysis of licensing regulations based on corruption impact assessment (Table 2) also shows that regulations are prone to causing extortion/bribery and corruption.

The weaknesses of the regulations include at least three classifications. First, a loophole in terms of the absence of a regulation because explicit criteria for license issuance, standard time and standard costs are not stipulated, thus allowing wider discretion. For example, in the absence of clear regulations to determine the size of concession area, the principal, in this case the government, has a broad discretion, while providing room for the agent (the applicant) to influence the decision-making process regarding the area, without adequate accountability.

Second, the existence of overlapping regulations provide opportunities for government officials to have choices in the application of the law. For example, when the articles of criminal offence and administrative penal are iteratively applicable with same activity, the law enforcement officer has the authority to select between the two. The loss of objectivity in the application of the regulations can be the basis for bribery and even blackmail. Finally, the CIA method also found regulations which deliberately give space to provide facilities for certain types of licenses, which could potentially be the basis for a criminal offense in the broader sense.

Based on these studies, the Ministry has revised the licensing regulation. While implementation of this new regulation, considered by companies claimed able to reduce some portion of transaction costs, in the district and province, the high transaction costs is persist. For companies (agents), as shown in the CIA assessment, the ease of implementation is a problem. Unreasonable costs and sacrifices for the company have an impact on the implementation of the regulation and become systemic. For the government (principal), having a target that is not appropriate, either because it lacks substance or are not supported by adequate cost and capacity as well as a form of performance accountability focusing on budget disbursement, can lead to inefficiencies in the use of the state budget and possible occurrence of corruption that resulted in loss of revenue.

Accountability and information transparency In addition to regulations, public accountability and transparency influence corruption and deforestation and forest degradation. The lack of transparency often takes many forms, be it because of the unavailability of basic information which serve as the basis for accountability as well as because such information is not managed. Evaluation in several provinces found that information related to the implementation of the licenses are often managed by

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Table 2 Results of analysis of corruption impact assessment (CIA) on forestry licensing regulations

CIA Variable	Description	Assessment		
Ease of Implementation		IUPHHK-HA	IUPHHK-HT	IPPKH
Cost reasonableness	reasonableness of costs for implementing regulation	Highly problematic	Highly problematic	Problematic
The adequacy of the level of penalties	magnitude of the penalty compared with similar rules	Problematic	Problematic	Problematic
Possibility of partial treatment	favoring certain groups	Highly problematic	Highly problematic	Highly problematic
Policy Appropriateness				
Clarity	the who, what, and limits of authority	Problematic	Problematic	Problematic
Scope of authority	appropriate authority measured based on local and international norms	Problematic	Problematic	Problematic
Objectivity	clarity of discretion and the elaboration by 3rd party	Highly problematic	Highly problematic	Highly problematic
Transparency				
Access and transparency	transparency in creation and implementation of regulation	Highly problematic	Highly problematic	Highly problematic
Predictable	permit process and administrative implementation can be predicted	Highly problematic	Highly problematic	Highly problematic
Corruption control system	There are special controls for corruption and executed consistently very problematic Very problematic is very problematic	Highly problematic	Highly problematic	Highly problematic

IUPHHKHA = permit for utilization of timber from natural forests, IUPHHK- HT = permit for utilization of timber from plantations, IPPHK = borrow to use permit for forest areas (for mining)

individuals or specific forestry officials. So the agencies concerned are unable to provide adequate public services without the presence of the individuals.

On the other hand, the accountability of the information is also weak, because the information was never tested, used or even delivered-not just to the public, but also to other agencies who actually need the information. For example, information regarding the stock of tree stand reserves generated through timber cruising by the Director General of Forestry Enterprises are not used by the Director General of Forestry Planning as the basis for making decisions related to the conversion of forest or borrow and use. Furthermore, the lack of public accountability, makes corruption more systemic. Corruption shifted from the non-collusive, into collusive corruption with agreed transaction costs. When it became collusive corruption, corruption in the forestry sector becomes increasingly difficult to be identified and prevented. Because both the agent and the principal do not have an incentive to report (Smith, et.al, 2003). The transaction costs are then associated as insurance for license holders from the risk of getting caught or prosecuted.

Institutions and pressure to change The bribery/extortion can be categorized as corruption offenses based on the notion that corruption is committed when a person acts unlawfully to enrich himself or others that could harm the state finance or economy, giving a gift or promises to civil servants by considering the power or authority inherent in the position. Thus, corruption is the consequences of such acts. The action occurred not because the state institutions do not function, but because there are other more legitimate and trusted institutions among government officials and the public (Robbins, 2000). Ribot and Peluso (2003) consider the other type of institution as a form of access which disregards formal regulation and due to a web of power of various interested parties.

Perry (1997) and Robbins (2000) mentioned that corruption is understood as bargaining network or transactions between individuals involving trust, betrayal, deception, subordination for certain interests, secrecy, and the involvement of several parties which is mutually beneficial. Members in the network are bound in a social

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relationship that is often referred to as social capital, ie the relationship between the people who facilitate the action (Ostrom 1992). The relationship will continue to survive as far as there is energy, business, investment, or transaction costs to maintain it.

Corruption can be proven in the field. Informants interviewed related to the bribery/extortion in a large concession mentioned that the whole process may occur due to the strong pressure to intervene the licensing process or neglect the regulation because a clientele relation between the giver and the licensing supervisor finally happened, even outside the permit process. One informant said that after his company ran for a year he was still asked to give some money on special occasions to the license issuer. This informant also mentioned that it is very difficult not to give money or any other forms because in the business world, in which various work plans must be approved annually, good relations must be maintained with the license providers and inspector. The disclosure of the above data and information has led to pressures to the informants. The conditions were suspected as the cause of the persistence of the bribery/extortion in licensing, particularly at the district and provincial level, although regulatory improvements have been done on the advice of the Corruption Eradication Commission.
Associated with clientele relationship, Nordbholt (2000) mentions that corruption in Indonesia can not be separated from the history of corruption since the colonial era. He explained that corruption in Indonesia is strongly influenced by the role of the political elite and the elite government officials, both in direct role in the implementation of regulations and in the policy making process. These practices are committed by mid-level employees and staff in the field.

Conclusion

The state's assets in the form of natural production forests from time to time experience degradation and conversion. Most of those assets turned into resources for producing and reproducing a rival institution or extra-legal power, rendering official state institutions incapable of controlling transaction costs. Improvements of large forestry business licensing regulations have provided a new foundation to reduce opportunities for corruption, but the web of power as the support of the transaction costs as well as historical influences and clientele relationships do not necessarily disappear, particularly in the implementation of licensing at district and provincial levels, with the changes and improvements to the licensing regulations. Therefore, changes and improvements of the licensing arrangements need to be supported by the political elites and elite government officials in order to break the historical influence as well as to serve as a new platform for mid-level employees and government officers in implementing the national forest utilization policy.

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Note:

1 This figure is the result of the research team for KPK's joint MoU which can be downloaded at http://acch.kpk.go.id/gn-sda

2 Unequal access to the utilization of forest resources is also used as one of indicators to measure aspects of injustice in utilization of forest resources (UNDP, 2013; UNDP 2015)

3 This fact, among others, was obtained from the confessions of communities which were in conflict with the company. This information was obtained in the implementation of national studies on indigenous peoples conflict in forest areas, in 2014, in 38 cases in Sumatra, Java, Kalimantan, Sulawesi, Nusa Tenggara, Maluku and Papua by the National Commission on Human Rights.

4 Regulations which were revised: restriction of concession area (into P. 8/2014), the application and expansion of permit for natural forests, plantation and ecosystem restoration (into P. 31/2014), a comprehensive periodic forest inventory in natural forest (into P. 33 / 2014) and plantations (into P.30 / 2014).

5 Interviews were conducted with several businessmen in Samarinda, Palangkaraya and Riau.

6 Association of Indonesian Forest Concessionaires (APHI) in a statement said that for locations in which the timber log transportation exceeds 100 km, the cost of production and transaction per m3 has exceeded Rp 1.1 million. This shows that the profit margin of this business is no longer financially viable.

7 At the local level, the implementation of a license is the responsibility of the Regent / Governor in accordance with his authority and the Forestry Office as the technical implementing agency in the field. There is also a technical implementation unit of the Ministry of Forestry in charge of monitoring production forest utilization, ie Production Forest Utilization Monitoring Center (BP2HP). It is responsible for preparing technical personnel (GANIS) ie employees of companies holding licenses, through training, and the supervisor of the technical personnel (WASGANIS) ie officials from the Forestry Office and BP2HP. In practice, monitoring of licenses by WASGANIS is very weak with very limited facilities. BP2HP does not conduct overall monitoring, as monitoring of implementation of forest exploitation is carried out by the Provincial and District Forestry Office.

8 This is evidenced by the study of KPK's R&D division (2015) in its review to identify potential loss from non-tax state revenue. Results of this study have not been published.

9 The results of interviews with Forestry Office staff conducted in the province of East Kalimantan, Central Kalimantan and Riau

10 Both Directorate Generals (DG) are located in the same Ministry, namely the Ministry of Forestry. Director General of Forestry Planning prepares the concession area and the Directorate of Forestry Enterprises determines the feasibility and implementation of the license based on the forest management.

11 Pursuant to Article 2, Article 3 and Article 13 of Law Number 31 of 1999 on Corruption Eradication.

12 Employees of companies in South Sumatra, Riau, Central Kalimantan and East Kalimantan conveyed this.

13 This statement was given by someone who handles permits for a variety of companies. Interviews were conducted in Bogor in May 2015.

14 Informants in Palangkaraya provided information that after the publication of the results of the study, several businessmen received pressures from several parties. The Central Kalimantan Association of Forest Concessionaires (APHI) made a report in the form of booklet. The publication of the report is prohibited.