

## Changing policies over timber supply and its potential impacts to the furniture industries of Jepara, Indonesia

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### Abstract

*Though some scholars argue that Indonesian wood furniture industries are in decline, these industries remain a driving force for regional and national economies. Indonesian wood furniture has a long value chain, including: forest farmers, log traders, artisans, and furniture outlets. In Jepara, Central Java, wood furniture industries contain significant regional and historical importance. Jeparanese wood furniture industries demonstrated great resilience during the economic crisis in the late nineties. Although they were previously able to withstand the pressures of economic crisis, the enactment of Minister of Forestry Regulation (MoFor Reg.) 7/2009 on wood allocation for local use -as one of the implementing regulation of Decentralization Law 32/2004- causes a potential reduction of wood supply to Jepara. Since September 30<sup>th</sup>, 2014, however, the constellation of domestic timber politics has changed due to the new decentralization law (23/2014), which shifted most regulations on forest and forest products from the regency to the province. This study evaluates the dynamics of decentralization policy on timber allocation and examines the power of different stakeholders given the changing regulation and its consequences for Jeparanese wood production.*

*Keywords: decentralization policy, Jepara furniture, timber supply, wood allocation*

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### Introduction

Furniture is one of the most economically important wood products of Indonesia, and the growing market demands of wood furniture requires an increased supply of round-wood and lumber (Sari *et al.* 2009; Yovi *et al.* 2009; Nurrochmat & Hadiyati 2010). Producing furniture from sustainably raised timber is also one of the most effective ways to pool carbon outside forests (Nurrochmat & Abdulah 2014). Currently, Indonesia comprised 1.8% of the world furniture market, with a total export value of USD2 billion per year. However, the President of Indonesia seeks to increase this export value to USD5 billion, thus more than doubling the government earnings from furniture exports, by the year 2019 (Kompas 2015). A major portion of the Indonesian wood furniture is produced in the Jepara Regency of Central Java Province (Dishutbun Jepara 2009; BPS Jepara 2010; Disperindag Jepara 2010). Roda *et al.* (2007) write that Jepara is home to approximately 15,271 furniture industries, 14,921 of which are small-scale industries. The jepara furniture industry is projected to generate more than USD250 million by 2023, assuming annual growth of 7%.

This will be accompanied by an increase in demand for raw materials, in terms of both quality and quantity (Melati & Purnomo 2013).

The sustainability of the jeparanese furniture production is a concern, because Jepara's forests meet only 5% of the industry's timber demand (Melati & Purnomo 2013). Thus, furniture production in Jepara depends on a continuous supply of timber resources. The imbalance between supply and demand of wood raw material is likely to seriously threaten Jeparanese to furniture industries (Yovi *et al.* 2009), especially as a recently passed decentralization policy (MoF Regulation Number 7/2009) promotes the use of timber resources to benefit local needs. Giving priority of wood allocation for local needs is important (Marwa *et al.* 2010); however, in the name of decentralization, local government often tries to maximize benefits from natural resources extraction, including timber (Nurrochmat 2005; Nurrochmat 2005a). The Ministry of Forestry (MoF) Regulation Number 7/2009 states that each regency must allocate timber to fill local needs, instead of using cross-regency demand to receive more competitive prices for timber resources on

sequently, this may lead to a larger deficiency of timber supply for non log-producing regions, including Jepara.

In light of this unique combination of furniture production, decentralization, and policy requirements, this study addresses 3 questions: (1) how adequate is the decentralization policy in allocating regency timber supplies to serve local needs?, (2) how does the power of stakeholders inside Jepara and outside Jepara differ in terms of timber supply policy and its potential implication for jepara furniture industries?, and (3) what are the best policy options for jepara furniture industries in response to the new Decentralization Law Number 23/2014?

## Methods

**Study framework** According to MoF Regulation Number 7/2009, logs (round-wood) from community forests come from small scale private forests (HR), while the forest company category is applied to logs that originate from the state-owned forest enterprise of Perhutani (Figure 1).

Figure 1 indicates the 4 steps of this analysis. The first section discusses wood allocation policy for local needs, according to the MoF Regulation Number 7/2009. The second section assesses different stakeholder interests and scenarios in response to wood allocation for local needs, while the third section discusses the consequences of the wood allocation policy for local needs as determined by different scales of Jeparanese furniture industries. Finally, section 4 advances a policy recommendation concerning wood allocation for local needs, with regard to the new decentralization law 23/2014.

**Data collection** Although this study focuses on the jepara furniture, data were collected from several other locations,

including Jakarta, Bogor, Semarang, and Blora. Forms of primary data collection included key-informant interviews and focus group discussions (FGDs).

Stakeholders were divided into 2 groups: those inside and those outside Jepara. Within the “inside Jepara” group, key-informant interviews were conducted with 3 types of stakeholders: (1) policy makers, which includes the Local House of Representative (DPRD) of Jepara, Regency Forest and Plantation Service (Dishutbun) of Jepara, Regency Industrial and Trade Service (Disperindag) of Jepara, and Regional Development Planning Board (Bappeda) of Jepara, (2) bussiness entities, which include stakeholders within the Indonesia Furniture and Handicraft Industry Association in Jepara or *Asosiasi Industri Permebelan dan Kerajinan Indonesia Komda Jepara* (ASMINDO Jepara), as well as stakeholders within the Association of Wood Artisans in Jepara or *Asosiasi Pengrajin Kayu Jepara* (APKJ), and (3) academic actors, including stakeholders working in or with the local university of *Sekolah Tinggi Ilmu Ekonomi Nahdlatul Ulama (STIE NU)* Jepara. The interviewees were sampled via snowball sampling and participated in FGDs at the regency level. The secondary data within this study consists of official reports, related documents, and other relevant data sources that we use to cross-check and inform primary data.

In addition to the interviews in Jepara, several “outside Jepara” stakeholders were interviewed. These stakeholder groups include (1) policy makers, containing key-informants from the Timber Producing Regency of Blora, the Province Forest Service of Central Java (Dishut Jateng) in Semarang, and the Ministry of Forestry (MoF, now named Ministry of Environment and Forestry/MoEFor), in Jakarta; (2) business entities, including informants from the headquarters of the

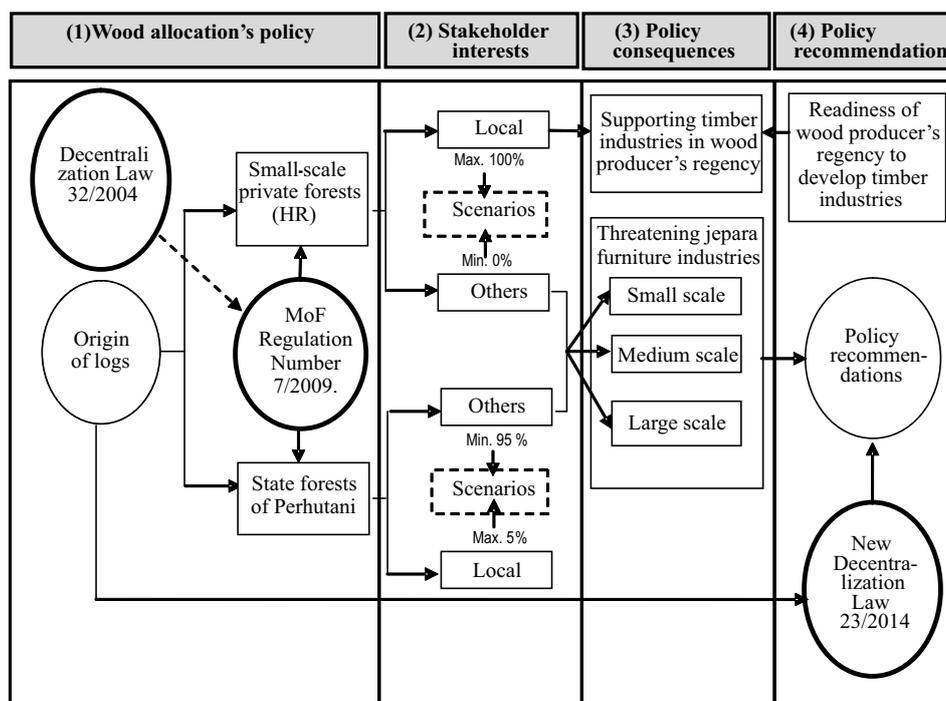


Figure 1 Study framework. Focus of study (■).

Indonesian Association of Furniture and Handicraft or ASMINDO *Pusat* (ASMINDO-P) in Jakarta and also Perhutani Divisi Regional I of Central Java in Semarang (Perhutani); and (3) academic actors, including researchers from the Center for International Forestry Research (CIFOR), Bogor Agricultural University (IPB), and Forestry Research and Development Agency (FORDA). All these institutions are located in Bogor and are actively involved in empowering Jepara small-scale furniture industries.

**Power analysis** The influence of each stakeholder towards wood allocation policy for local use is evaluated through “power analysis”. To conduct power analyses, Reed *et al.* (2009) divide stakeholders into 4 categories: key players, contexts setters, subjects, and crowds. Key players are active stakeholders, who exhibit high interest and high influence on particular matter. Context setters have high influence but exhibit a low interest in certain issue, while subjects have high interest, but low influence in a particular matter. The final category, crowd stakeholders, have low interest and influence on particular issue (Reed *et al.* 2009). Interest is one of the most important driving forces of policy (Krott 2005), and influence is a reflection of policy power. Following Reed *et al.* (2009), this power analysis was conducted by mapping stakeholders associated with the 2 power indicators: interest and influence. The position of each stakeholder is plotted in a matrix following those 2 indicators. This matrix describes the “power position” of

each stakeholder associated with the wood allocation policy for local needs in Jepara. Table 1 indicates the criteria for measuring “interest of stakeholder” on wood allocation for Jepara furniture industries. In addition to measuring interest, it is also important to evaluate the influence of each stakeholder in wood allocation for Jepara furniture industries (Table 2).

## Results and Discussion

**Wood allocation policy for local needs** The sustainability of jepara furniture industries depends not only on production capacity, but also on wood allocation policy from timber producing regions. Lacking a sufficient supply of raw timber resources, the enactment of the MoF Regulation Number 7/2009 policy on wood allocation for local needs further threatened Jepara furniture production. This may lead to increase timber prices and affect the business sustainability of jepara furniture industries. The significant supply gap of logs in Jepara disempowers the bargaining position of furniture industries in relation to wood producers.

According to Hadiyati (2011), almost 95% of raw materials for jepara furniture industries are in the form of logs or round-woods. Besides logs, some industries also use sawn timbers and small dimension wood pieces (“*kepelan*”) as input. Most industries use logs because they are more easily adapted to produce different sizes of furniture, and they are often cheaper than sawn timber. Each small scale industry in Jepara needs approximately 123–130 m<sup>3</sup> logs year<sup>-1</sup>, while

Table 1 Criteria for measuring interest of stakeholder on wood allocation for jepara furniture industries

Criteria for high interest	Point	Criteria for low interest	Point
Actively involved in a particular activity concerning jepara furniture industries.	5	Having interest with jepara furniture industries concerning own business purpose.	-1
Explicitly advocate for the sustainability of jepara furniture industries.	4	Less interest with the sustainability of jepara furniture industries.	-2
Explicitly state the interest on the sustainability of jepara furniture industries.	3	No interest with the sustainability of jepara furniture industries.	-3
The tasks are related directly to the sustainability of jepara furniture industries.	2	Having own different interest with the sustainability of jepara furniture industries.	-4
The tasks are related indirectly to the sustainability of jepara furniture industries.	1	Having opposite interest with the sustainability of jepara furniture industries.	-5

Table 2 Criteria for measuring influence of stakeholder on wood allocation for jepara furniture industries

Criteria for a high influence	Point	Criteria fo a low influence	Point
Having legal authority and want to influence wood allocation.	5	No authority but want to influence wood allocation.	-1
Having legal authority and consider to influence wood allocation.	4	No authority but consider to influence wood allocation.	-2
Having legal authority but less influence on wood allocation.	3	No authority but influence to particular activity rather than wood allocation.	-3
Having institutional authority and want to influence wood allocation.	2	No authority but influence to activities related indirectly to wood allocation.	-4
Having institutional authority and consider to influence wood allocation.	1	No authority and having no influence to wood allocation.	-5

medium scale industries require from 273–323 m<sup>3</sup> logs year<sup>-1</sup>, and a large scale industry requires 939–2,967 m<sup>3</sup> logs year<sup>-1</sup>. Hadiyati (2011) estimates that in total, Jepara furniture industries need 2.14–3.15 million m<sup>3</sup> log year<sup>-1</sup>, a large increase from the 1.5–2.2 million m<sup>3</sup> log year<sup>-1</sup> that Roda *et al.* (2007) estimate.

It is important to note that the estimated log demands given by Hadiyati (2011) and Roda *et al.* (2007) are much higher than total log production across the entire island of Java. The many sources of javanese log production include Perhutani, private forests (*hutan rakyat*) and plantations (*kebun*); together, these sources total less than a million m<sup>3</sup> log year<sup>-1</sup>.

The current policy governing the wood allocation of MoF Regulation Number 7/2009 -as implementing regulation of Decentralization Law Number 32/2004- requires filling local needs for wood. This rule requires 1 of 2 allocation provisions:

- 1 The provision to allocate all log production for local needs and if the local needs are met, then the rest of logs could be sold to other regencies. This provision is binding on logs obtained from small-scale private forests (HR).
- 2 The provision to allocate a maximum of 5% of log production for local needs. This provision is applied to logs from the state owned enterprise of Perhutani.

The provision of wood allocation to meet local needs will create serious impacts for wood processing industries in Jepara, which rely heavily on raw material supplied from neighbouring regencies. According to MoF Regulation Number 7/2009, 5% of the wood that originates from Perhutani must meet the needs of the wood producing regency according to the Annual Work Plan or *Rencana Karya Tahunan* (RKT). As small scale private forests (HR), the rule states that wood from these sources must be fully allocated to meet the demand of wood producing regency, until such a demand is satisfied. The following chapter will discuss various factors influence to the effectiveness of this regulation in determining wood allocation.

**The power of stakeholders in determining wood allocation for Jepara** This study evaluated relevant stakeholders outside Jepara that influence the sustainability of Jepara furniture industries, especially in reference to wood allocation for raw materials. Those stakeholders are the Ministry of Forestry (MoF), Provincial Forest Service of Central Java (Dishut Jateng) and the Regency Forest Service of Blora (Dishut Blora), which represent the policy maker category. Besides policy makers, this study also evaluates 2 business entities outside Jepara, which potentially influence to the furniture industries namely ASMINDO headquarter in Jakarta (ASMINDO *Pusat*) and state own forest company of Perhutani Divisi Regional I in Semarang (Perhutani). CIFOR, IPB, and FORDA are 3 research institutions outside Jepara that have contributed research and activities to empower small scale furniture industries in Jepara, and thus they represent academic actors in this study.

All stakeholders with interest in Jepara wood furniture are divided into 3 major groups, i.e. policy makers, business entities, and academic actors. The most powerful policy

maker with reference to wood allocation for local needs is the local government of the timber producing regency. The local government of Blora has no interest in the sustainability of furniture industries in Jepara, but it does have the authority to determine wood allocation for local needs, which largely influences the wood supply in Jepara. In principle, selling wood from Blora to other regencies is only possible if the local needs have been met. Thus, the political determinations of Blora and other wood producing regencies will impact the business sustainability of jeparanese furniture production.

The Provincial Government of Central Java, represented here by the Province Forest Service (Dishut) of Jateng, has interest in the wood allocation policy as a part of the province regional mid-term development plan (RPJMD). However, referring to the MoF Regulation Number 7/2009, the province government has little influence over making wood allocation policy. Instead, this regulation gives authority to the regency to make its own policy for wood allocation based on local needs, especially in reference to wood that originates from private forests.

Different from the province government, the MoF does not only have high interest in wood production for local needs, but it also has high influence in this matter. However, the interest of the MoF does not deal directly with the sustainability of jeparanese industries. According to the regulation, wood can be required for local needs if, for instance, it is needed for infrastructure and reconstruction after catastrophes, such as floods or earth quakes. The influence of the MoF is very high since the regulation is enforced and enacted by the ministry. Thus, the MoF has authority to withdraw, persist, or renew MoF Regulation Number 7/2009 on wood allocation for local needs. In addition to the full authority to regulate wood allocation, the MoF also has an interest in influencing and determining the distribution of wood, in Jepara and across all regions of Indonesia. Besides having the authority to determine wood allocation, MoF is also responsible for regulating the administration of wood distribution, such as SKSKB and SKAU as well as timber legality verification through SVLK (Nurochmat *et al.* 2014). Figure 2 shows the power analysis of stakeholders outside Jepara.

Figure 2 shows that the MoF, Dishut Blora, and Perhutani exhibit a strong influence over the allocation of wood for Jepara. MoF Regulation Number 7/2009 provides full authority to the regency head to determine the allocation of logs from private forests and mandates Perhutani to prioritize the allocation of 5% of log production to meet local needs. Blora as timber producing regency and one of the main suppliers of logs to Jepara, must prioritize local wood use over selling logs to other regencies. The local government of Blora wants to support the development of wood processing industries within its regency borders, in order to receive the added value of timber products. The government of Blora's position, represented by Dishut Blora, is that of a “context setter” with high influence but low interest in the sustainability of furniture industries in Jepara.

Contrary to the position of Dishut Blora, Dishut Jateng does not necessarily support the prioritization of wood allocation to meet local needs. Dishut Jateng perceives that wood allocation should be determined by province-wide

markets. This is because Dishut Jateng is primarily interested in the optimal allocation of wood within the province, as mandated in the RPJMD. However, according to MoF Regulation Number 7/2009, the influence of Dishut Jateng over wood allocation is relatively low. Thus, referring to the power position of Reed *et al.* (2009), Dishut Jateng falls inside the “subject” category.

Perhutani also does not necessarily support the prioritization of local wood allocation. Perhutani indicates that wood producers should have a full authority to determine where, how, and to whom they will sell. This means that the jeparanese furniture industries would maintain the right to buy Perhutani timber. Perhutani is most interested in receiving the best price for its wood. Thus, if jeparanese industries do not participate in timber auctions conducted by Perhutani, then Perhutani timber will not flow to Jepara. Perhutani stakeholders expressed disagreement with the regulation of wood allocation. They indicated that timber trading is not limited by geographical boundaries and the most important trade consideration should be a price agreement. The interest of Perhutani to sell logs at the highest price will greatly affect the lower amounts of timber supply can be reached by small scale furniture industries in Jepara. Perhutani is positioned as a “context setter” in the power matrix.

In contrast to Perhutani, the ASMINDO headquarters in Jakarta (ASMINDO *Pusat*) has low influence to determine the allocation of woods, despite having an interest in the policy on wood allocation for local needs. Likewise, the 3 research institutions (CIFOR, IPB, and FORDA) have high interest and concern with the availability of raw materials for jepara furniture industries because they conduct action research projects in Jepara. Although the research institutions have high interest in wood allocation policy, they have no authority in determining wood allocation. Thus,

ASMINDO *Pusat*, CIFOR, IPB, and FORDA are positioned as “subjects” within the stakeholder power matrix.

To conduct a power analysis of stakeholders inside Jepara, this study considers: the DPRD Jepara, Dishutbun Jepara, Disperindag Jepara, and Bappeda Jepara, all of which are policy makers; ASMINDO Jepara and APKJ, all of which are business entities; and academicians from the local university of the *Sekolah Tinggi Ilmu Ekonomi Nahdlatul Ulama* of Jepara (STIE NU) that represents academic actors.

ASMINDO Jepara is one of the most important stakeholders related to wood allocation in Jepara, because it is an association of owners of large-scale furniture industry. ASMINDO has a multilevel organizational structure, operating at both national and local levels. This organization represents large-scale furniture industries, but is not able to sufficiently represent small-scale industries. Thus, some owners of small and medium-scale furniture industries, working with by CIFOR, created an association of APKJ.

APKJ moves quickly to develop strategies for expanding the furniture market for small-scale industries. However, it is not easy to unify the voices of thousands of artisans. Soon after forming, some conflicts arose within APKJ due to distrust of the elite circles within APKJ's board. This was caused, in part, by a lack of coordination between the APKJ board and its members. The problem could not simply be overcome, because any solution has to involve thousands of members. Some members are unsatisfied with APKJ because they were expecting more immediate financial gains. The many members of APKJ require extensive coordination, which makes it difficult to communicate between the board and members as well as among members of APKJ. Consequently, many owners of small and medium sized furniture industries in Jepara prefer to remain unaffiliated with APKJ or any other professional association.

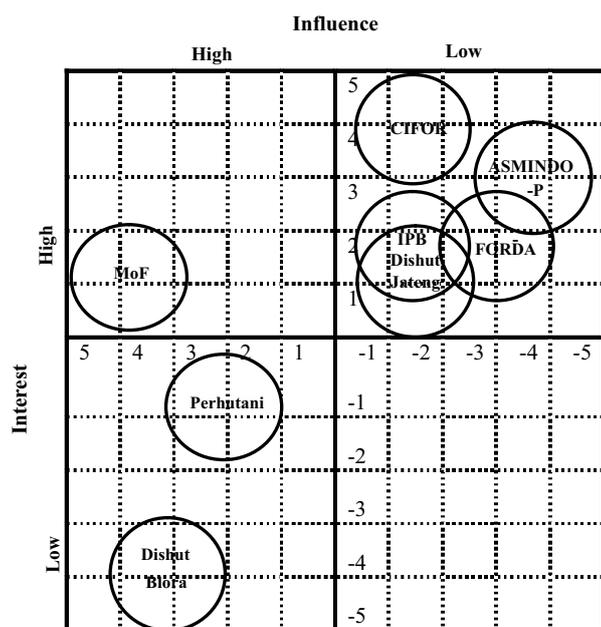
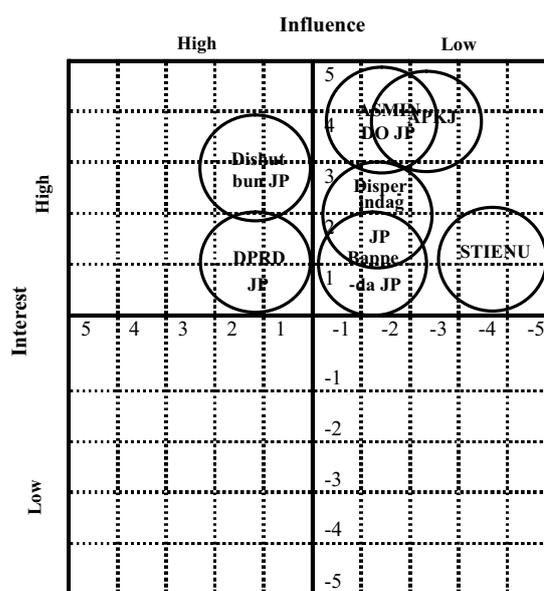


Figure 2 Power analysis of stakeholders outside Jepara on wood allocation policy. Stakeholder outside Jepara (○)



Source: power analysis model of Reed *et al.* (2009)

Figure 3 Power analysis of stakeholders inside Jepara on wood allocation policy. Stakeholder inside Jepara (○)

Figure 3 shows the power analysis of stakeholders inside Jepara.

The stakeholders in Jepara have no authority to determine the wood allocation from the neighbouring timber producing regencies. The DPRD of Jepara and Dishutbun of Jepara only have authority over wood allocation within Jepara. Both stakeholders disagree with the prioritization of wood allocation for local needs. These institutions indicate that wood allocation should be not prioritized within wood producing regions, but should meet actual needs for current regional use, wherever they are. These institutions express further concerns that the wood allocation policy can lead to rampant illegal logging within Perhutani and private forests. The DPRD and local government of Jepara can increase their influence, if they build mutual agreements with wood producing regencies to meet Jeparanese wood demands. Although they lack power over wood producing regions, DPRD Jepara and Dishutbun Jepara could be positioned as “key players” with reference to the sustainability of Jeparanese furniture.

ASMINDO Jepara and APKJ have strong interests in ensuring the wood allocation for Jeparanese furniture is sufficient. However, they have no authority to determine wood allocation policy. Much of the current information related to forestry regulations, including wood allocation for local needs, is unknown or not understood by stakeholders within ASMINDO Jepara and APKJ (Nurrochmat & Hadiyati 2010). As with other stakeholders in Jepara, Disperindag Jepara, Bappeda Jepara, and local university of STIENU also express disagreement with the wood allocation policy for local needs. They expect that the wood can be freely distributed to other regencies without any restriction. The certainty of wood supply is very important for the sustainability of Jepara furniture industries. ASMINDO Jepara, APKJ Jepara, Disperindag Jepara, Bappeda Jepara, and STIE NU have high interest to ensure the sustainability of furniture industries in Jepara, but they have low influence over determining wood allocation for Jepara. Thus, according to the power matrix of Reed, these business entities and academic actors are “subjects”.

**Wood allocation scenarios and factors that influence the effectiveness of local timber supply regulation** Three scenarios concerning wood supply and Jeparanese furniture production might occur if restrictions on wood supply across regencies are applied. First, Perhutani might reduce 5% of wood supply, while wood from other sources continues to flow into Jepara; second, all wood from private forests (HR) outside Jepara are allocated for local use, while the wood supply from Jepara and Perhutani remains available in Jepara; and third, a combination of the first and second scenarios is applied.

The first scenario will reduce the log supply by approximately  $1.57 \text{ m}^3 \text{ log year}^{-1}$  per small-scale furniture industry unit. The log supply for small-scale industries in Jepara is thus expected to decrease about 1.2%. Therefore, the availability of remaining raw materials for each small-scale industry in Jepara is only  $125 \text{ m}^3 \text{ log year}^{-1}$  or 98.8% of the initial volume of wood supply. For medium-scale

furniture industries, the supply of logs will decrease by  $6.89 \text{ m}^3 \text{ log year}^{-1}$  (2.31%) per industry unit. In other words, the remaining log supply is ca.  $291 \text{ m}^3 \text{ log year}^{-1}$  per unit, or 97.69% of the initial volume of wood supply for each unit of medium-scale furniture industry. Meanwhile, every unit of large-scale furniture industry in Jepara will lose  $44.38 \text{ m}^3 \text{ log year}^{-1}$  (2.27%) of log supply. Thus, the remaining supply of raw materials for each unit of large-scale furniture industry is  $1,908 \text{ m}^3 \text{ log year}^{-1}$  or 97.73% of the initial volume of wood supply.

If the second scenario unfolds, then the raw material for every unit of small-scale industry in Jepara will decrease by 74.51%. Therefore, the available supply of raw material for each unit of small-scale furniture industry will be only about  $32 \text{ m}^3 \text{ log year}^{-1}$ . The second scenario will reduce wood supply for medium and large-scale furniture industries by about 54.70% with only  $138 \text{ m}^3 \text{ log year}^{-1}$  per medium-scale furniture unit and  $888 \text{ m}^3 \text{ log year}^{-1}$  per large-scale industry unit. If a combination of the first and second scenarios is applied (third scenario), then small-scale furniture industries will face a very serious threat, with wood supply decreasing by 75.75% or  $31 \text{ m}^3 \text{ log year}^{-1}$  per unit. Each unit of medium and large-scale furniture industry in Jepara will lose more than 56% of its wood supply under scenario 3. The availability of remaining logs will be  $131 \text{ m}^3 \text{ log year}^{-1}$  per unit of medium-scale furniture industry and  $843 \text{ m}^3 \text{ log year}^{-1}$  per unit for the large-scale one.

The scarcity of logs, and the resultant increased demand, may also have positive impacts. Among these, jepara furniture industries are currently seeking to improve the efficiency of wood processing in order to increase yield. Hadiyati (2011) reported efficiency of wood processing for jeparanese furniture as: 90.22% for small-scale industry, 83.09% for medium-scale industry, and 58.33% for large-scale industry. Large-scale furniture production is less efficient than production within medium and small-scale industries. This differs from the commonly held belief that large-scale industries produce higher yields and minimal waste through high-tech machinery. One factor that contributes to this decreased efficiency of large-scale furniture industries is the higher standard of furniture quality they produce for export to foreign markets. This higher standard requires the increased quality of raw material. Some of the rejected raw materials do not meet the requirements of export market, but could be used for domestic market furniture production to maximize the efficiency of wood usage.

**Implications of changing decentralization policy to wood allocation** Hypotetically, according to Hadiyati (2011), the local wood allocation policy threatens the business sustainability of Jepara furniture industries, and in particular the small-scale furniture industries. However, after five years of MoF Regulation Number 7/2009 implementation, most of the small scale furniture industries in Jepara are still operating normally. The furniture industry actors believe that the regulation of local wood allocation will not influence significantly wood supply to Jepara. Although the local government of Blora regency -as the main wood supplier of

Jepara- wants to prioritize wood supply for their own timber industries, the capacity of its industries is too low to absorb local round-wood production. Developing furniture industries in Blora is not simple. Furniture industry development does not only depend on the availability of wood as raw materials, but it is also influenced by technical skills, culture, and product positioning. Further, while furniture industries might be developed in Blora, this development will require more than 5 years.

The potential impact of reducing wood supply from producing regencies to Jepara, however, causes positive impact greater support of local efforts to produce timber resources. Within Jepara, there are different government and non-government programs, which seek to provide seeds and seedlings to farmers, in order to provide locally harvested logs (Erbaugh 2013). These programs include efforts through the Village Nursery Program (*Kebun Bibit Rakyat*), Trees 4 Trees (Yayasan Bumi Hijau Lestari), and various Perhutani extension efforts. Farmers cite “economic gain” as the primary reason for raising timber crops, though they are often interested in the fastest growing tree varieties (Erbaugh 2013). However, it is important to consider these positive impacts alongside the inevitable decrease in production that will result from stricter wood resource allocation regulation.

The new Decentralization Law Number 23/2014 gives more authority over natural resource management to provinces. This law thus weakens the authority of regencies, and it may further change the policy on wood allocation, particularly due to shifting the power relationships of certain stakeholders. After the enactment of the new decentralization law, authority over forest management has mostly been deconcentrated (Ribot *et al.* 2006) to provinces. Thus, the province forest service of Central Java has gained authority over wood allocation. On the other hand, the authority of Blora Regency and other wood producing regencies to allocate wood resources will decline. Although MoF Regulation Number 7/2009 has given authority to the wood producing regencies to determine their own policy on wood allocation, this authority will be tempered by the new decentralization law. However, the new decentralization law needs further implementing regulations in order to be effectively operationalized.

The development of the Jeparanese furniture industry requires strong support from sectoral initiatives, inter-regional coordination, as well as support from national policies. The decentralization law is not a single policy that influence to the wood allocation for local needs. There are also a number of conflicting timber trade policies (Nurrochmat *et al.* 2014). For instance, wood allocation and distribution are supervised by the MoF. However, because wooden furniture is considered to be a downstream industry, the supervision is under the authority of the Ministry of Industry (MoI). This creates ambiguity between sectoral regulations and departments (Nurrochmat 2005; Nurrochmat 2005a; Nurrochmat *et al.* 2012). While oil, gas, chemical, and other large-scale manufacturers are also classified as down-stream industries, furniture regulation receives comparatively less attention from the MoI. Also, small scale furniture industries face frequent obstacles in gaining access

for capital and improving their managerial capacity.

The government policy on wood allocation for local needs has decreased the bargaining power of small-scale furniture industries in Jepara. These industries often are pressured by actors within larger furniture industries who can suppress the wood supply and furniture distribution from small businesses. Usually, small business actors face more difficulties in obtaining access to credit than larger industries. Within the same log supply chains, small-scale furniture industries are usually required to pay cash for goods purchased, while large industries can delay payment (Nurrochmat *et al.* 2013). The small businesses that will try to access export markets cannot compete with the bigger actors because of widespread rent seeking practices within bureaucratic export procedures. Small business actors cannot afford many of the costs for exports. Thus, small businesses are forced to rely on larger exporters. Actors within larger furniture industries tend to be more vocal in determining market norms and rules, while small businesses have little influence over market institutions (Nurrochmat *et al.* 2014). Thus, considering the complex problems that empower small-scale furniture industries, implementing regulations of the new decentralization law should pay attention not only on wood allocation but also institutional and financial aspects comprehensively.

## Conclusion

As one of the implementing Regulations of Decentralization Law Number 32/2004, the MoF Regulation Number 7/2009 on wood allocation for local use has potential negative impacts for the business sustainability of jepara furniture industries. This regulation stimulates wood producing regencies to prioritize wood supply for their own regions. Although between of 2009–2014 the impact of MoF Regulation Number 7/2009 did not reduce the wood supply for Jepara, if this regulation is being implemented into the future, then Jepara furniture industries could be seriously threatened by a reduced supply of wood. Jepara furniture industries will no longer be able to obtain raw materials, or they may receive only lower quality wood because the best is allocated for local needs within the regency of production. Due to the decreasing amount of available timber, the price of timber in Jepara will increase. Small-scale furniture industries will become the first victims of wood allocation regulation for local needs, because they have a limited capital to obtain higher priced wood resources. It is important to note that MoF Regulation Number 7/2009 will also potentially impact larger scale furniture industries in Jepara. Although large-scale furniture industries will still be able to purchase more expensive wood, log price in Jepara will be much higher than log prices within the regency of production. This will result in an increase in price for Jepara furniture, reducing the competitiveness of furniture produced within the regency. The enactment of the new Decentralization Law Number 23/2014 will change the power map of stakeholders for wood allocation, and it will interrupt further implementation of MoF Regulation Number 7/2009. Under this law, province governments receive more authority than regency governments. Thus, through the new decentralization law, the authority of timber producing

regencies on wood allocation regulated by MoF Regulation Number 7/2009 will decrease, generating positive impacts for the sustainability of Jepara furniture industries. The problem of continued furniture production in Jepara is not related to wood allocation policy, alone. Rather, the extent to which the new decentralization law is implemented will determine the sustainability of furniture industries in Jepara. The dissolution of MoF Regulation Number 7/2009 may help the continuity of Jepara furniture production in the short-term. However, in the long-term, the sustainability of Jepara furniture industries will be threatened, so long as their dependence on wood from neighbouring regencies remains high. Thus, the biggest challenge to the development of the wood furniture industry in Jepara is providing continuous, legal, and affordable raw materials of sufficient quality. Incentivizing these timber resources in Jepara will require strong political support for the research and planting of fast growing tree species, grower support programs across private forests, and simplifying the marketing administration of timber from private forests.

### Recommendation

Wood allocation policy for local needs is not the only problem of jepara furniture industries. Small-scale furniture industries need more assistance to strengthen their capacity and financial capital as well as to scale-up their production. One reasonable approach is to apply cross-price subsidies between different log qualities. This would require Perhutani to sell lower quality of teak (*Tectona grandis*) at a lower price, and charge a premium on higher quality teak logs. In order to secure the availability of raw wood materials and increase the overall supply of raw materials in the regency, the Jepara Government can engage in mutual cooperation with wood-producing regencies. In addition, the government can create policies that encourage alternative of wood sources for jepara furniture industries, such as using less familiar species from agricultural plantations or gardens. Serious efforts for reforestation and policies supporting private forests (*hutan rakyat*) are also pivotal strategies for improving the availability of wood raw materials for jepara furniture industries.

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