
Analysis of rules in use the formation of committee boundary (PTB) state forest area in Indonesia

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Abstract: Forest area gazettment in Indonesia is done through the appointment process, boundary demarcation, mapping and determination of forest area. The process was organized by the Committee Boundary (PTB) with the involvement of several agencies in the area are coordinated by Forest Center for area stabilization (BPKH). This study analyzed the interaction of PTB in decision making and the effectiveness of the rules in-use the formation of PTB. Data were collected through in depth interviews, participant observation and document review, and then analyzed by using content analysis based IAD (Institutional Analysis and Development) Framework. The results show there has been a disparity in the interaction. Types of rules in-use the formation of PTB among others position rules, boundary rules, authority rules, agregation rules, information rules, scope rules, and pay-off rules have not been able to direct of interaction. The formation of PTB has not noticed the involvement of agencies setting, the setting position and authority, setting rights and obligations, and accountability arrangements. For improvements, the configuration of the seven types of rules that can be used because the results of the analysis showed that the seven types of rules that have found substantial weaknesses in the formation of PTB.

Keywords: Forest Area Gazettment, PTB, Rules In-Use, Interaction

1. Introduction

Characteristics of state forests as common pool resources (CPRs) requires effective arrangements that must be respected and enforced [37, 28]. It was intended to ensure ownership and control. It is a form of guarantee of legitimacy and is one of the important factors in the management of forests [10]. Legitimacy will be served to increase the successful management of natural resources including forests [37, 15], encouraging management to be effective CPRS [23] and encourage agricultural investment and boost economic growth in rural areas [38].

In Indonesia, the guarantees the ownership and control of state forest land is obtained through a confirmation process that starts from the forest area designation, boundary demarcation, mapping and forest area stipulation [32 article 12, 33 article 15, 22] the implementation is delegated to the Committee Boundary (PTB). One of the duties and

authorities [21] is to determine the steps to resolve the rights of third parties stretch along the borders and in the forest. Duties and authority are confirmed also in the [22] which not only determines the steps to resolve, but also finishing third party rights (article 23). This means that the duty and authority of the PTB is to realize the legitimacy. However, the Government has not been able to provide the assurance of the control and management [14, 10], even the policy has been raising potential conflict since the very beginning [4]. This proves that the Government had a difficulty in achieving the legitimacy [1, 6, 25, 29].

Some studies suggested some activities which are able to guarantee the legality and legitimacy, for example [24] with claims verification activities, [4] to propose a formal legal approach through the scheme rural forest, community forest and social forestry, and [2] to build partnerships with the government to improve the ownership regime and [3] to strengthen the capacity of the community. The practice in Indonesia, some of the less implementable proposals for the

implementation of the boundary represented by the PTB does not yet have the capacity and capability. The interaction of the actors in decision-making is still a "passive" and be done unilaterally for the appointment of involved members elements are not based on skill. The rules in-use in forming the PTB have not noticed yet the elements such as norms, sanctions, and responsibilities, this case brings it in to difficult enforcement. In fact, sanctions and enforcement are needed in the management of natural resources [9]. Enforcement of rules, without sanctions can be useless institution [7]. Therefore, knowledge of the rules of formation of PTB interesting to study. This study aims to find substantial weaknesses of the formation of the PTB, then formulate the rules overhaul to improve the effectiveness of PTB in decision making. This study will use the IAD (Institutional Analysis and Development) framework from Ostrom, because in the exogenous variable group a rules in-use are components that affect the structure of the action and the behavior situation of the actors in interaction.

2. Material and Methods

2.1. Study Area

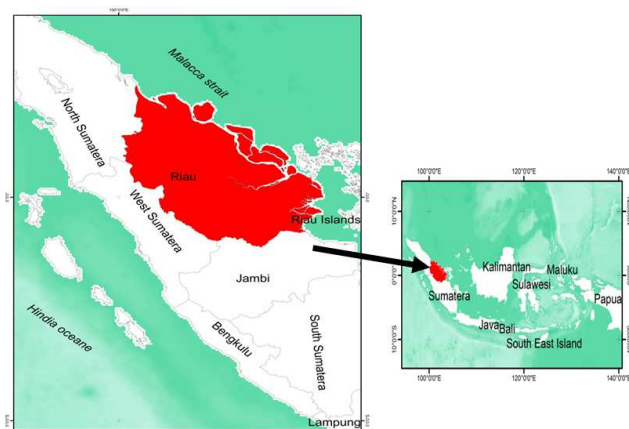


Figure 1. Study area

This research was conducted in the Province of Riau, Indonesia (Figure 1) from June 2013 to December 2013, with the following considerations: (1) Riau Province has never done synchronization between the Provincial Spatial

Plan (RTRWP) with Forest Land Use by Consensus (TGHK); (2) Riau Province has issued regulation are not approved by the Ministry of Forestry (MoF) in 1994, but guided to develop Spatial Planning District/City (RTRWK); and (3) Riau Province has the performance of forest area gazettement is still low.

2.2. Material

This study uses multiple rules as material analysis, among others regulation of the Minister for Forestry Number: P.47/Menhut-II/2010 concerning the formation of PTB; regulation of the Director General for Forestry Planning Number: P.6/VII-KUH/2011 concerning technical instructions forest area gazettement and Riau Governor's decision Number: Kpts.662/v/2011 concerning the establishment of forest PTB district/city in the province of Riau including regulation of the Minister for Forestry Number: P.44/Menhut-II/2012 jo. P.62/Menhut-II/2013 concerning forest area gazettement. The analysis will be restricted to the articles related to the formation of the PTB, pay close attention at the implications for the behavior of the participants were formed, as well as the performance or impact.

2.3. Data Analysis

This study uses a qualitative approach [11, 36] with the case study method [34]. Data were collected through in-depth interviews (in depth interviews), participant observation (participant observation) and a review of documents [12]. Informant determined by purposive, namely PTB and partly by snowball sampling technique [36]. Validation or testing the validity of the data is done by triangulation of sources and techniques [36]. Then, the data were analyzed using content analysis (content analysis) based on the IAD framework [17]. [16] divides the rules into seven types of rules, namely: position rules, boundary rules, authority rules, agregation rules, information rules, scope rules, and pay-off rules. This classification is directly related to the elements of the structure of the action situation, namely the participants, positions, actions of authority, control, information, results or impact, and cost-benefit. The linkage between the elements of rules in-use with action elements of the situation shown in Figure 2

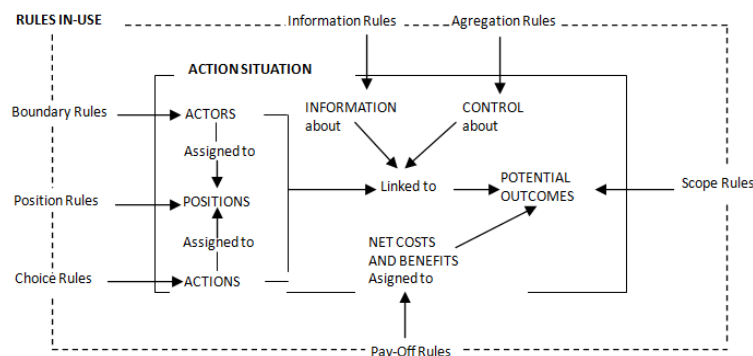


Figure 2. Linkage rules in- use to action situation [16]

3. Results and Discussions

3.1. Interaction and the Role PTB of Forest Area Gazettment

Structure of PTB put Regents (Bupati) as chairman, Forest Service District/City (Dinas Kehutanan Kabupaten) as secretary, BPKH, Regional Development Planning Board (Bappeda) District/City, Provincial Forestry Office (Dinas Kehutanan Provinsi), National Land Agency (BPN) District/City, subdistrict (Camat) and village chief/headman (Kepala Desa/Lurah) as an element members. The results of mapping [30], is factually put Regents and BPKH as key players and other members of the element as a marginal actor (context setters). The placement of elements that negate the role of other members in their interaction. Regents power among other legitimate power and coercive power is used to force (power to coerce) as $\pm 75\%$ element PTB members are officers determined by the Regents. Although, structurally BPKH and BPN are not chosen by the Regents, but in practice these institutions are subject to the decision of the Regents. While BPKH have the power to dominate the activity boundary as in a power that is legitimate power, expert power and access to resources (knowledge, information, finance and technology) as consequence of their duties and functions. Regents of power and domination BPKH result of policy decisions into a single (one size fits for all policy) without control and the involvement of other members. As a result, the interaction only "agreed" to sign the Minutes Boundary (BATB) forest area and maps the results of the boundary. There are at least five descriptors. First, from the beginning, the boundary has been positioned to complete physical and accountable budget allocation received, so there is not opened-space coordination and negotiation.

Second, communities attributes such as knowledge, values and norms, the level of homogeneity and policy assessment gazettment unequal (unbalanced), and limited. It is providing an opportunities to make unilateral boundary. Third, they are forcing power and domination that weaken the interaction. When the power is performed, then the dominance of determining the shape of legitimacy, whereas the ideal is the legitimacy determining the power [18]. The power has reduced the involvement of elements of other members. Fourth, the boundaries do not open the claim transparently, so the results are not recognized and will be prone to be overlapped the control, licensing, or use of, even lead to resistance and conflict. Fifth, the rules in-use has not imposed sanctions in enforcement, so it does not force responsibility. Sanctions and enforcement are needed in the management of natural resources [9]. Enforcement of rules, without sanctions can be enforced is useless institution [6, 7]. Based on these findings, the role of PTB in the forest area gazettment has not effectively produce the legality and legitimacy, because the rules in-use is not efficient due to conflict with the norms. The rules will not be efficient if it is contrary to the norm, it can even lead to

high transaction costs in enforcement [8].

3.2. Analisis of Rules In-Use

Rules in-use will affect each variable in the action situation [17, 26, 35, 16]. In the IAD framework [17], the rules used will affect the structure and behavior of the actors in the interaction. The situation is built on seven action rules are used to define the actions that occur [16, 26, 27]. If there is no common sense when rules are formulated, there will be confusion about what actions are required, permitted, or prohibited [16]. Therefore, understanding the rules in-use in an institution is very important. In other words, the performance of an institutional rules can be determined through the analysis of the seven rules in-use configuration.

The performance of state forest area gazettment is determined by the interaction of PTB on the action situation. This interaction will ensure that the forest area that has been delineated to comply with the decision and is also recognized by the parties. The effectiveness of these interactions will be affected by the rules in-use, among others, the rules that define the elements involved members, position and authority, rights and obligations, financing, and accountability rules. The ability of the Government to establish by the PTB is held by considering the satisfied elements of any of the rules which will affect the results of the forest area gazettment. In this case, policy analysis can examine how far the composition rules have been consistent, whether there is a gap between the goal to reality. In the forest area gazettment in Riau Province, there has been a gap between the establishment of forest area with boundaries. For that, it is needed to find substantial weaknesses in the rules used in the formation of PTB. The results described below.

3.2.1. Position Rules

Position rules create positions for participants and determine how many can hold a position [5]. At the national level, [21 (article 5, article 7 and article 9)] it is set the position of either PTB outer boundary, the boundary function and regional boundaries and water conservation. At the level of Riau Province, the Governor determines the position of the PTB in all districts/cities including duties and authority as approved [31]. There is no defined mechanism in determining the structure of PTB. PTB positioning is done automatically, by placing the Regent as chairman and ranking officials in each work unit as a component member. All elements members are part of the government, so there is no balance in decision-making. The Chairman position politically gives him power to influence other members to sign BATB and boundary map results. Coordination is facilitated BPKH ineffectively and banged by protocol and echelon levels. As a result, coordination is not effective and decision taken unilaterally by BPKH. Society as the recipient of the impact of the boundary is only represented by the village chief/headman. The facts

found in the position rules, namely:

- (1) PTB is still following the rules above it normatively. There should be an explanation for the position and contribution too, for example, in terms of what the contribution of the chairman and secretary, and so are other members, not the cumulative contribution;
- (2) duties and authorities are still being done normatively as the rules above them. It should explain the duties and authority of the members of the appropriate elements as their duties and functions. For example, BPN is responsible for providing and giving information/evidence documents ever issued rights. Sub-district and village chief/headman in charge of ensuring forest boundaries in his village and the position of people who have been using the forest area to be delineated. Bappeda assess the forest with the spatial plans. Likewise, the role/duties of other members;
- (3) no clear job description and setting mechanism. The position is attached to the structural position. Similarly, tasks and authority, there is no specification of the role which they are responsible for. For example, who responsible for the accuracy of the identification and inventory of third party rights is and who responsible for researching written documents related to evidence of third party rights is, and the others;
- (4) examination of the work monitoring mechanisms have not been effective boundary. The announcements and field observation are held to fulfill administrative responsibilities only.

3.2.2. Boundary Rules

Boundary rules specify the set of criteria (e.g., qualifications or eligibility of a member or a director) that participants are required to fulfill to hold positions, and they directly affect the “participants” in the action situation [5]. It sets the determining process of the qualified persons to be the members of PTB in any position including the criteria and mechanisms. [21, 13, 22]. In fact they have not set that condition. Although article (5), (7) and (9) [21] set membership, but the requirements that must be met somebody a member yet determined because the member is assigned automatically officials attached to structural or other official authorized to be appointed as members. Each ranking officials in organizational units automatically become members of the PTB. Supposedly, the rules below (Governor's or Regents decisions) are able to establish criteria and requirements of somebody become a member because of regulations above it give space to determine the members. According to the rules above them PTB members consists of the elements that can be interpreted to choose a competent member of the appropriate expertise. As a result, PTB do not have right to demand the responsibility. Substitution members due to mutations and ended his tenure is not associated with membership in the PTB. Substitution takes place automatically without handing over duties and responsibilities.

3.2.3. Authority Rules

Authority rules regulate the types of actions / formal authority for each position. In other words, these rules regulate the rights and obligations of the PTB as the organizer of the boundary and make the determination of the Minister of Forestry. Rights and obligations are still normative. Rules were more focused set obligations, while the rights of each member is not regulated. This means that the rules are less demanding responsibilities. The main obligation of the rule is to determine the steps to resolve the problems related to land rights / land along the route of the line and in the forest area. Throughout its implementation, completion mechanism has not been determined. PTB does the boundary based on the instruction of the head BPKH as the member, so that there is the demarcation done unilaterally. Determination is the authority of the Minister of Forestry. Unfortunately, the authority has not been applied, it has been seen since 2009 and 2013 there has been no determination, even since colonial times there are 7648.35 Km (68.74%; 98 forest groups) which have not been determined, but has been already delineated.

3.2.4. Agregation Rules

This rule governs the mechanism of decision-making, whether the individual/group or organization may decide an action individually or collectively, it is necessary to do consensus. This rule will regulate the things that lead to results boundaries accepted or rejected for the set. Setting process will be done if it meets the provisions required by Directorate of Gazettment, Stewardship and Tenure of Forest Areas (DPPTKH) among other technical provisions, the provisions of juridical and completeness of documentation. At the PTB, the setting is set in the decision making [21 article 12], namely: (1) meeting led by chairman, (2) in case of the chairman is unable to attend the meeting may delegate to officers designated by a power of attorney and was given full authority to make decisions and sign documents boundary, (3) in case of the members unable to attend the meeting, the member may delegate to an authority appointed by a power of attorney and was given full authority to make decisions and sign documents boundary, and (4) meeting shall be valid if attended by at least two-thirds of the members. Poorly the procedure of making the decision was not implemented, and it is worse in some cases, BATB and the boundaries map were signed by the chairman or other member in their own office room. It showed it was not the collective decision-making, but on their own without giving information each other.

Furthermore, article (13) states: (1) decision of the meeting shall be valid if approved and signed by the chairman, secretary, chief BPKH and the other committee members; (2) the members who do not approve of the meeting's decision, the concerned member shall submit the reasons set forth in the document boundaries; (3) in terms of meeting the decision was not approved and signed by the chairman, secretary, or head BPKH, then head BPKH report to the Governor through the head of the provincial

forest service (fourteen working days); (4) based on the provincial forestry department head reports, the governor can approve and reject the results of the meeting (twenty-one working days); (5) in the governor rejected, then head BPKH (twenty-one working days) to report to Directorate General of Forestry Planning (DitjenPlan); and (6) maximum of twenty-one working days, DitjenPlan on behalf of the Minister has to make a decision. Unfortunately, the decision setting has not translated yet into operational rules under it, such as [13, 31].

The results of the boundaries have not been set because it has not complied with DPPTKH. Elements of administration including evidence are claimed disable to meet BPKH. Claims dominated by the written evidence is not right, so BPKH it difficult to meet the evidence. This rule does not apply sanctions, including the results of the boundary can not be determined. The terms have not fulfilled the determination yet are not fixed as necessary and it goes on and on. As a result there is 7648.35 km (68.74%; 98 forest groups) which have not been determined, but already delineated.

3.2.5. Information Rules

Information rules specify information regarding what outcome is expected to be produced when actions are taken by the participants in positions. This rule directly affects the information for PTB on the situation action. [21] it has not been set, although [22] and operational rules that [13] has been set up on the information that. The information is intended to announce the results of temporary boundary pole to the public. Then to observe of the field situation to find out whether the rights of third parties which have not been resolved when the boundary pole announced. Installation of notice boards at every distance of ± 1 km by writing the function of the forest and group's name. Lastly, BATB forest area and boundaries results map which have been signed should be submitted to the manager and the manager is responsible for carrying out the maintenance and securing boundaries forest.

In fact, the announcement was just given to the village chief/headman head with the minutes of evidence. While the field observation was never carried out, although there is minute of evidence to prove the events administratively, but it is only for fulfilling administrative responsibilities. PTB has not formulated a mechanism announcement and field observation, as a result this activity has not been done in earnest. The boundaries result are not submitted to the manager immediately, there is no socialization when they submit it. This rule has not been set up grievance mechanisms/procedures for community complaints (claims). There is only a general arrangement of PTB obligation to respond and resolve disputes caused by third-party claim. The rules also do not set penalties, either delay or truth of boundary demarcation, the responsibility is at a minimum.

3.2.6. Scope Rules

Scope rules set conditions/circumstances as a must (mandatory), not allowed (forbidden), and may be (allowed). This rule determines the desired outcome of PTB action in situations action. Authorizes the formation of PTB is the Minister delegated to the Governor and administrative preparations made by BPKH through the head of the provincial forestry service [21 article 2, paragraph (1), (2), and (3)]. The article explained that the implementation of the boundary in each district/city is the PTB is responsible to the Minister through the Governor (21 article 2 paragraph (4) and article 3). PTB is given space to determine the steps to resolve the land rights along the route of the line and in the forest. However, this is almost never been done. The identification and inventory of the rights of third parties not involved BPN, sub-district and village heads who really understand the real field situation. As a result, the activity is only reported the manners normatively. In addition, there is no job description in the implementation of the boundary. There is no setting provision and maximum percentage of area that can be removed ("out") of the forest area and the minimum that can be incorporated ("in") into a forest area. Subjective determination made by the officer/interpreter measure. The result of the interaction of PTB is qualified forest area, which has the legality and legitimacy. The fact, the interaction has produced as much as 85.37% boundaries, but which has only 16.63% of legality and not legitimacy.

3.2.7. Pay-Off Rules

Pay-off rules set up costs and benefits, including incentives and sanctions for the community. PTB financing charged to the State Budget (APBN) or other funding valid sources and not binding [21 article 14 paragraph (1)]. While the license boundaries of financing borne by the permit holder or applicant [21 article 14 paragraph (2)]. Some issues that have not been regulated in the pay-off rules, namely: (1) there are no rules to prioritize the allocation of funding for the acceleration boundary, for example through the Local Budget (APBD) or other funding that does not bind; (2) there is no incentive setting for regional who does good quality boundaries; and (3) no arrangements of sanctions to members who neglect and cover up the truth of the information.

Some of the rules used to conclude that the rules in-use had not been a whole set position, membership and mechanisms to resolve the rights of third parties as a boundaries major problem. Based on the interpretations of researchers supported by the facts, rules are used (rules in use) would open space to BPKH to perform boundary element unilaterally because the members consider that the task is a task BPKH boundaries. Besides that, the PTB are not given space by the chairman or BPKH to negotiate based on the information they hold. In other words, these rules have not been able and effective to direct PTB to interact. Table 1 shows the results of content analysis to the three rules that are used in the formation of PTB.

Table 1. Abstraction three rules of content analysis results are used in the formation of PTB

Component analysis of rules in-use	Rules in-use		
	Regulation of the Minister for Forestry Number: P.47/Menhut-II/2010	Regulation of the Director General for Forestry Planning Number: P.6/VII-KUH/2011	Riau Governor's decision Number: Kpts.662/v/2011
Position rules	adjust the position and duties of PTB	not set the position and duties of PTB	set position, and the PTB task normatively
Boundary rules	PTB set membership, but does not specify the criteria and mechanisms for determining the member	no set membership PTB	PTB set membership, but does not specify the criteria and mechanisms for determining the member
Authority rules	set authority PTB	authority to regulate the establishment of forest area	set authority PTB
Agregation rules	set of decision-making procedures	not govern the procedures of decision-making	set of decision-making procedures
Information rules	not organize information resulting from the implementation of the boundary	there are arrangements in organizing information through the announcement of the boundary delineation and field trips	not organize information resulting from the implementation of the boundary
Scope rules	regulate the authority to determine steps to resolve the issues of land rights, regulate the formation of PTB delegation of authority, and organize boundaries	not regulate the authority steps to resolve land rights.	regulate the authority to determine steps to resolve issues over land rights
Pay-off rules	arranging financing the implementation of the boundary	not arrange financing the implementation of the boundary	arranging financing the implementation of the boundary

3.3. To Improve Rules In-Use of PTB

Renewal policies are basically fixing norms, rights, and limits set. The renewal does not mean to quit sociological processes whereas the agreement achieve collectively. This is where the challenges will emerge, especially for those who are usually too rigid in bureaucracy and only see the rule as black - white side. [19]. Enforcement the country's forests as the CPRS through the confirmation assigning of PTB as the boundaries organizers is predicted will not be effective. Assignment policies will prioritize the technical and administrative aspects, while the problem lies on the institution that organizes the boundary, then the social and political issues. The other thing is the budget allocation is

not based on social issues, but based on the length of the boundary and its use is restricted for one year. Determination of element members are attached to the structural officials, and the results of the boundary is not opened to the public, including a claim disclosure is not held transparently, it may reduce the gazettment performance. The success of the forest area gazettment will be determined by the organizers of the boundary. While the implementation of the boundary will be determined by the rules they use. Rules in-use in the formation of the PTB have not noticed values, norms and sanctions. As a result, the rules were not effectively direct PTB to interact in decision making.

Table 2. To improve rules in-use of PTB

Component to improve rules in-use	Criteria used to improve rules in-use	Form of to improve rules in-use
Position rules	establish a position based on the duties and functions, rather than on the structure of the post.	preparing job descriptions and position within the organization boundaries
Boundary rules	avoid direct appointment by the members of the institutions involved	develop criteria and mechanism for setting member
Authority rules	strengthening the authority of PTB in solving social problems field.	formulate mechanisms for resolving claims and rights of third parties
Agregation rules	establish decision-making mechanism is not tiered as long as it is implemented.	develop Standard Operating Procedures (SOP) decision-making
Information rules	specifies the type of information needed to facilitate decision-making, for instance announcement and review of field	enforcement of the rules by setting penalties, if the decision is not directed to achieve legality and legitimacy.
Scope rules	clarify the results to be achieved of interaction	develop a plan of action of any interaction (criteria and indicators of success forest boundary)
Pay-off rules	open space is not only a top-down financing, but it involves the area of financing	proposed financing through state and local budgets (APBN and APBD)

Based on these findings, it can be concluded that the rules used have led to boundary done unilaterally, do not transparently reveal claims, and let the forest inaugural

mechanism done out of the rules. The forest area gazettment reach the physical and legality targets more than the legitimacy, although the legality of the target itself

is still low. The results show, from a total of 11126.35 km forest area in Riau Province, there is a determination throughout 1850.67 km (16.63%; 22 forest groups), but has been delineated 9499.02 km (85.37%; 120 forest group). Factual results of the boundary can not be used to minimize the conflict (claims), in fact the claims continue increasing over time. The performance improvement requires change in the rules at the level of the organizers. Rules in-use the formation of PTB has not been effective, so that the interaction that occurs in the decision-making tends to be "passive". The repairing rules used in the formation of PTB shown in Table 2.

4. Conclusion

State forest's characteristics as CPRs requires an effective setting up, respected and able to enforce the parties who are entitled and not entitled (non-excludable) to fulfill the realization of legality and legitimacy. To achieve this goal, the Government commissioned PTB to organize the demarcation as part of the confirmation process of forest area. As a result, only 16.63% have been legalistic, although it has been laid out along 85.37% limit. The results show that the rules in-use to form the PTB but this situation open a certain an opportunity BPKH to do demarcation unilaterally, they do not reveal the factual claims transparently and dominate the execution boundaries. The component of rules in-use are position rules, are boundary rules, authority rules, aggregation rules, information rules, scope rules and pay-off rules have not been able to direct the PTB to interact in decision making. In the implementation of the rule in-use PTB applied them normatively. As a result, PTB would rather pursuit physical complexness than open a space as well as doing coordination and negotiation of claims reveal transparently to solve social problems field. Therefore, the repair is required in every component of the rules in-use.

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