

## Governance the Utilization of Protected Forest of Sungai Wain (HISW) with a Pattern of Incentives and Disincentives in Balikpapan City

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**Abstract:** Mapping the distribution of stakeholders based on the strengths and interests of the stakeholder group which produces: great power and great interests consist of: UP HLSW, BLH, BP DAS Mahakam Berau, the power of a small but substantial interests consist of: the community forest village, DTKP and Balikpapan Pertamina UP V, the power of a small but small interests consist of: PT. Singlurus Pratama and great power but small interests consist of: DISPORABUDPAR, DISDIK, BPMPPKB and DINKES.

**Key words:** Governance, incentive-disincentive systems, paradigm of sustainable forest, power, interests, community

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### INTRODUCTION

Development forestry sustainable everlastingly involve all stakeholders in the process of decision making. Empirically prove about the contribution forestry for food safety, energy, nutrition and human security. Behavior villagers forest relating to governance HLSW included in the category support and to partake in maintain the preserved forest sustainable and sustainability. Behavior of villagers forest explained by three aspects, namely: social aspect, aspect economic aspect culture. This was confirmed by Padoch (2012), individually or in group shows that the linkages between forests and food security are complex and often difficult to observe and measured. The key to understanding it is to appreciate the diversity of shapes and dimensions.

In the context of indonesia the aspect of coordination also cannot be released in the implementation of governance forest. Participation, accountability and coordination seen not as something new. But until now, the most appropriate form to translate aspects of good governance (good governance) for forestry in Indonesia have not been agreed upon. Indonesian Climate Change Sectoral Roadmap/ICCSR (2009) report that the factors causing deforestation Indonesia is due to fundamental issues, among others are: the conversion of natural forests into annual crops, the conversion of natural forests into agricultural land, extractive industries exploration on forest areas (coal, oil and gas, geothermal), burning of forest and land and conversion for

resettlement and other infrastructure. In addition to the five factors mentioned above in some areas of the forest damage, thus, caused by the expansion of new autonomous region.

Besides factor that has been mentioned by ICCR, the destruction of forests is now Indonesia is due to various things such as illegal logging (illegal logging), forest fires, encroachment and others. The root of the problem is yet to materialize good forest governance (good forest governance). Good governance forest would be to improved various aspects that supports it as engineering, management of forest forestry integrity, human resources (intellectuality, moral), the legislative and security devices and surveillance. Some study governance yield conclusions: among other legislation concerning forestry in indonesia inclined and overlapping (Ginoga *et al.*, 2005) there are perceptual difference between the central government and regional government regarding forest management everlastingly prompting and inconsistencies between the central and regional regulation (Ginoga *et al.*, 2005).

Sustainable forest management can not be removed with the existence of the farming community forests in protected forest area of the River Wajjn (HLSW). Forest village community as local people will always be in the flow of social cultural, economic, ecological and demographic (Chomitz *et al.*, 2007; Suharjito and Saputro 2008). This is due to that society forest villages as local communities have an adaptive system in forest management (Edmunds and Wollenberg, 2003; Golar, 2007;

Suharjito and Saputro 2008). The phenomenon of the protection and management of protected forest to include the role of the parties and the public also occur in protected forest Sungai Wain (HLSW) in sub-district Balikpapan North. On the concept of desire that the interaction between the protected forest and community living were constructed, so that, the maximum benefit without omitting preserved. Protected forest of Sungai Wain (HLSW) is the only protected forest in Balikpapan of East Kalimantan Province. Local government (local government) issued a regulation to protect the Balikpapan HLSW of human economic activity that threatens preserved. One of the regulations issued by the local government Balikpapan protected forest sustainability in looking after the wine (HLSW) is to provide incentives and disincentives on mechanical Farmers Group Forest and protected forest area. This is as described by Sanders and Cahill (1999) which suggests the importance of the development of the mechanism of incentives and disincentives in policy management of natural resources in the forest ecosystem. The mechanism of incentive and disincentive is the thesis early to suppress the effects of activities in the social, economic and cultural centre of village community forests to the existence of protected forest so that, the existence of the protected forest maintained preserved in the long run.

## **MATERIALS AND METHODS**

This research was carried out in the area of protected forest River Wine (HLSW) in Balikpapan of East. The location of the research carried out on the basis of a scientific judgment that the region protected forest River Wine (HLSW) has a competitive advantage from the aspect of socio-ecological. The biodiversity of the protected forest area Sungai Wain (BPHLSW) also be determining factors choice location research. The data analysis used in the study, namely: analysis of incentives and disincentives (Sanders and Cahill, 1999); interpretive paradigm (Moleong, 2004); Stakeholder analysis is the PILL (P = Power, I = Interest and L = Legitimate), Grimbil and Wellard (1997) and Hirarchi Process Analysis/AHP.

## **RESULTS AND DISCUSSION**

Farmers group in the perspective of forest governance HLSW is a collection of forest farmers who have the right to manage the lowliest HSLW especially, in Judge. management model the role of farmer groups, according to Moleong (2004) has great potential in its role as: classroom teaching and learning means the farmers group is a container for each member of the group to

interact in order to increase the knowledge, skills and attitudes in better farming and profitable as well as foster a drive for more independent. The cooperation means that the farmers group is a container for the strengthening of cooperation between farmers within the group and between groups with others to confront various threats, challenges, barriers and the failure of pre harvest, post-harvest, marketing and capital, so that, farmers have a fertilizing power of bargaining (bargaining position).

On the corporate governance of the utilization of protected forest River Wine at Balikpapan in addition is determined by the existence of a formal organization of farmers (as of empirical facts above) then it needs any incentive and disincentive mechanisms needed to support the position, role and function of the formal organization of farmers. To find out the factors that are incentive and disincentive to the HLSW governance will be done with the analysis of incentive. This analysis aims to find out whether the formal organization of farmers already in accordance with the wishes and needs of farmers. Conformity with the conditions and needs of farmers is vital as capital for farmers to participate in the governance of an enduring and sustainable HLSW. Analysis of the results obtained through in-depth interviews with experts (the interview was conducted to determine the factors that influence the incentives and disincentives). Results of the in-depth interviews are then classified and formed a table on the basis of answers parties, analysis of data done in a descriptive. Analysis incentives using typology incentives according to Sanders and Cahill (1999).

Table 1 describes the mechanism of incentive and disincentive conducted as an instrument to regulate the governance of utilization of protected forest of Sungai Wain (HSLW) in the long-term in order to remain sustainable and sustainability. Types of incentives and disincentives in Table 2 above when analyzed with analysis of the incentive of Sanders and Cahill (1999) entered in the group incentive not directly with categories of sector incentives and enabling incentives. Results of analysis between the type of incentive factually and theoretically by Sanders and Cahill (1999) can be seen in Table 2.

A table on to explain that theoretically, the mechanism of incentives and a disincentive in governance utilization protected forest of Sungai Wain (HLSW) entered into two categories kinds of incentives that is kind of sector incentives and enabling incentives of the above types of incentives then performed an analysis of the level of incentives. The incentives levels based on its impact to the farmers. The impact on society of farmers to incentives is measured based on two variables, namely

Table 1: Description of the mechanism of incentives and disincentives on farmer's organization in the HLSW sustainable governance and sustainability

Organization type	Incentives	Disincentives	Description type
Combination of farmer groups (Gapoktan)	Means of production, seedlings, drugs, fertilizer, capital, extension	Fines, temporary suspension of business/activity, revocation of license	Decree Minister of Agriculture Number 24/KPTS/UM/I/1983, Decree Minister of Forestry Number 118/KPTS-VII/1998, Regulation of the Balikpapan City Number 11 of 2004
Forums forest farmer	Means of production, seedlings	Land acquisition of the building remains with a distance of 200 m from the road	As suggested by the community released ±500 M from the edge of the highway Balikpapan-Samarinda between 20-24 km, by the decree minister of forestry No: 416/KPTS-II/1995 dated August 10, 1995
Forest Farmer Groups	Seeds of annual plants, certification rights of land management	Revocation rights manage forest community for 15 years if it fails to manage, the transfer of processing to a group of farmers when the 3 years period is not utilized	Regulation of the Minister of Forestry No P.37/minister of forestry-II/2007

Table 2: The result analysis between incentive and disincentive factually with theoretical in governance HLSW sustainable and sustainability

Factual		Theoretical	
Incentive	Disincentive	Sector enabling	Incentives incentives
Means of production, seedlings, drugs, fertilizer, capital, extension	Fines, temporary suspension of business/activity, revocation of license	Incentives variable input, incentives variable external/output subsidies	Market development
Means of production, seedlings	Land acquisition of the building remains with a distance of 200 m from the road		Security of land
Seeds of annual plants, certification rights of land management	Revocation rights manage forest community for 15 years if it fails to manage, the transfer of processing to a group of farmers when the 3 years period is not utilized		Security of land, devolution of natural resource management

the response from the farming community and the condition of the farmers. The response of the community farmer of incentives that have been issued by officials would fall into the category of high or low. Besides against response of farmer community also what deserves consideration is how conditions socially economy, farmer community are included in the category of high society economically or socially in the classification of farmer community with social.

Table 3 describes the results of an analysis of the types of incentives are measured based on the response of the farming community. Types of incentives based on farmer's responses were then analyzed by socio-economic conditions of the farmers. Analysis of the types of incentives that the results measured by response variable socio-economic conditions of farmers and farmers can be seen in Fig. 1.

Analysis of the types of incentives that the results measured by the response variable and the socio-economic conditions of the farmers explained that this type of incentive regulation issued by the holder governance utilization the protection forest of Sungai Wain (HSLW) in the category of Quadrant 1 and 4. Quadrant 1 explained that incentive-based community empowerment is needed by farmers in the forest areas of

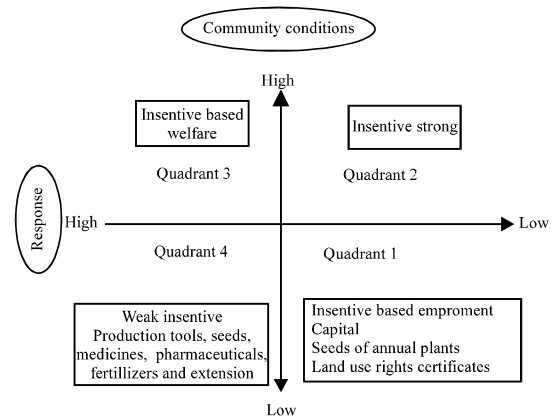


Fig. 1: Results of analysis of the response incentive type and socio-economic conditions community farmers

Sungai Wain protection forest (HSLW) in order to secure sustainable conservation (Fig. 1). This can be explained by the high response peasant society on the type of incentive (Table 1-3). Quadrant 1 also explain the substance of the farming community forest low socioeconomic category that requires the kind of incentives that can significantly improve their welfare

Table 3: Results of rating type incentives in sustainable HLSW governance and sustainability

Incentive type	Community response		Description
	High	Low	
Means of production	-	√	Incentive means of production for farmers group gets low response. Means of production that they receive is only used in the production of abundant, especially of the type of production processing products
Seedlings	-	√	Incentives in the form of crop seeds received a low response from farmer's groups. This was due to the poor quality of seeds given that affects the quality of plants and products
Drugs	-	√	Incentives in the form of drugs received a low response from farmer's groups. This was due in the long run will damage the fertility of the land. Therefore, farmer groups did not rely entirely on the use of drugs in the treatment of their crops
Fertilizer	-	√	Incentive in the form of fertilizer gets low response from farmer's groups. This is because more farmers use manure obtained from breeders group. They think fertilizer is too expensive and difficult to reach by their price
Capital	√	-	Incentive in the form of capital gets high response from the farmers group. This is because each planting season beginning farmers the trouble of capital.
Extension	-	√	Incentives in the form of field extension workers received low response from farmer's groups. It is because farmers assume exertion counselors roomy only mastered theoretically course. Issues directly related to the technical production of farmers based on the experience gained
Seeds of annual plants	√	-	Incentives in the form of crop seeds received a high response of forest farmer groups and farmer forums forests. The farmer groups were in the community forest area and buffer zone or non community forest. High rate of response was due to the group depends on the ability of the farmer to cultivate land by the number of seeds it has
Certification rights of land management			Land that can be processed if no seeds are planted also affects their income. Therefore, incentives are expected annual plant seeds by farmers Incentives in the form of land use rights certificates gets steeper response of forest farmer groups in the area of community forestry. This was due to the guarantee of the certainty of the results of their work to cultivate land owned by the state. Certification of forest management rights for farmers to make peace of heart and mind to cultivate the land in the long term For farmers forest management certification of land rights is de facto proof of land ownership for 20 years. Even after 20 years will be evaluated against the results of the management of the land

in the long run. Three farmer groups in the area of Protection Forest River Wain (HSLW) is Gapoktan, Farmers Forum Forests and Forest Farmers Group as a whole requires the kind of incentives that are described in Fig. 1. Gapoktan focus more on incentives types of capital while the forum is forest farmers needed seed capital and annual plants. Forest Quadrant 4 explains the low response of the farmers to the type of incentive regulation issued by the holder of the management protection forest of Sungai Wain (HLSW). Types of incentives are very normative and not according to the standard quality of goods that are expected by the farmers. In addition to the result of the perceived not affect significantly if receive the incentives. Although, the socio-economic condition of the farmers in the low category they do not expect in depth to obtain the types of incentives. In addition to not affect production, farming communities have local knowledge in lieu of the types of incentives. It is given or not is kind of incentive does not affect the welfare of economically and environmentally in the HLSW.

Pattern of the system of incentives and disincentives in the River Wain Protection Forest area (HSLW) which is

based on regulation if the above analysis is based on the characteristics of the policy can provide the enabling or inhibiting effect. Results of an analysis of the patterns of incentives and disincentives in the Region Sungai Wain Protection Forest (HLSW) can be seen in Table 4.

On the management and utilization of the HLSW there are some problems faced especially in the area of community forest and non-forest community. Various constraints faced by the community forest and non forest community divided by two sources, namely from the local government (management board) and the community (community forest management group). At the board level HLSW problems faced by business is the quantity and quality limited personnel resources, lack of means of support to the funding and the vast area of community forest area. While the problems at the level of farmer's groups such as the lack of public forest policy dissemination community forests by personnel of the business, the process of obtaining permission community forestry is too long and tiring, overlapping government policy and control/supervision by the management board is not participatory.

Table 4: Results on pattern analysis incentives and disincentives in sungai wain protection forest (HLSW)

Policy	Characteristics		Description
	Support	Inhibitory	
Policy status	V	-	Incentive and disincentive policies provide the conditions that the HLSW awake preserved in the long run because of the ever-increasing activities to undermine the good in quantity as well as quality
Distribution	-	V	Issues in the governance of the problems utilization of HLSW enough variety, not only on the technical aspects of management but also regarding non technical aspects of management. Non technical aspects of problems that often cannot be addressed by implementing so often overlooked. Non technical issue into a point crucial in HLSW that governance has not been clearly outlined in the regulation
Purpose	V	-	The purpose of the granting of incentive and disincentive so pattern effect on the parties which directly or indirectly have an interest in the presence of HLSW
Attitude of land users	V	-	The forest farmer located in the HLSW supports and contributes to maintaining continuity with HLSW that their live with the family of the HLSW depends entirely. This realization becomes a capital basis for the realization of farmers to participate in the governance of an enduring HLSW and sustainability
Evaluation process	-	V	The evaluation conducted in the pattern of incentives and disincentives in the HLSW very slowly so that it affects the process of enforcement of the rules on the field as a result of farmers often ignore them when they are in trouble economically

### CONCLUSION

This study aims to explain the governance of the use of Sungai Wain Protection Forest (HLSW) that are sustainable and sustainability. The end result of this research resulted in several conclusions, among which are: The mechanism of incentives and disincentives given to the Formal Organization of Farmers who in this case is Gapoktan, Farmers Forum Forests and Forest User Groups in supporting sustainable governance and sustainability HLSW seen from the aspect of socio-economic fall into two categories of types of incentives are the type of sector incentives and type of enabling incentives. Types of incentives as measured by the response variable and the socio-economic conditions of the farmers explained that this type of incentive regulation issued by the holder of the governance utilization Sunga Wain Protection Forest (HSLW) in the category of Quadrant 1 and 4.

Quadrant 1 explained that incentive-based community empowerment is needed by the farming community forest in River Wain Protection Forest (HSLW) in order to secure sustainable conservation. Quadrant 4 explains the low response of the farming community against this type of incentive normative and not in accordance with the quality standards expected by the farmer's goods. Besides impact perceived against the result of effect significantly if receive kind of incentives. System of incentives and disincentives in the area of River Wain Protection Forest (HSLW) which is based on aspects of the regulation describes the status of policies, goals and attitudes of land users have the characteristics to support

the governance HLSW sustainable utilization and sustainability and vice on the distribution aspects of the problem as well as the evaluation process has the characteristics to inhibit. The behavior associated with forest village community governance HLSW belongs to the category supports and participates in maintaining sustainable protected forest conditions and sustainability. The behavior of the community forest village described in three aspects, namely: Social aspects consist of: clear boundaries between areas of forest villagers with protected forests, land tenure conflict resolution mechanism is effective. Availability of community organizations in the management of protected areas. Community involvement in the management of protected areas and balance of rights and obligations of stakeholders in the use of protected areas, economic aspects consist of: opportunities in employment and business opportunities around natural attractions and cultural/use zones in protected areas and use of biodiversity through cultivation, use of biological diversity through cultivation, cultural aspects consist of local cultural practices in the conservation of protected areas factors supporting the socio economical basis of formulate policies that support the implementation of the incentive pattern in HLSW governance with score 0.788. Score that got the rank 1 (first) shows supporting factors believed by community groups in the forest village of HLSW and the parties related to the governance of sustainable HLSW. Factors supporting social capital got a score of 0.165 while supporting the socio-ecological factors scored 0.182.

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