The Role of Local Wisdom and Society Empowerment Patterns in Fishing by using Salambau in Baun Bango Village Kamipang District Katingan Central Kalimantan

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Abstract
Fishery potential resource in Central Kalimantan is provided by public waterworks, river, lake and swamp which have large of fish supply. Fisherman used traditional tools that were made from bamboo and rattan surrounds their village before the existence of salambau to catch the fishes. The selection of the respondent sample was done in purposive way (intentional) towards the head of fisherman families in Kamipang. This research needs 23 families. The use of salambau as one of fishing gears does not exist yet in the level of disturbing aquatic ecosystem. However, mentoring program is needed in Baun Bango since this gear has large degree of exploitation of fishing. The suggestion to use the gear with high selectivity in large amount is an alternative to bridge the economic needs and preservation of aquatic ecosystems.
Keyword : Salambau,, fishing gears, local wisdom, society empowerment

1. Preface

Fishery development in Central Kalimantan is aimed to increase the contribution of fishery sector in order to support national foundation. Fishery potential resource in Central Kalimantan is provided by public waterworks, river, lake and swamp which have large of fish supply. Thus, good human resource that is supported by good infrastructure is needed in order to manage and use the resource optimally as well.

The public waterworks contains a lot of aquatic biota potential resources that has economic value. It also can give business opportunities to the society such as fishing, cultivation and agro tourism. Managing potential resource of public waterworks is mostly done by fishing with various fishing gears.

Fisherman used traditional tools that were made from bamboo and rattan surrounds their village before the existence of salambau to catch the fishes. Salambau is exploitative since it is able to catch the fishes in large amount. It is also included into modern tool that is not touched by the local wisdom yet.

The society who strives in fishing is dominated by dayak Katingan. They raised a custom head or usually called as Damang who is responsible to organize customary laws, besides the rule of local government. Thus, Kamipang society has their own social structure which is consisted of a set of rules to guide the underlying structure in the social system.

Most of people who live around public waterworks get extra income by fishing and selling the fishes in fishing season. Low level of prosperity needs to be improved by human resource developing through participation and accountability in the local society (Dom, Catherine, 2012).

The various fishing gears in the form of traditional and modern tools are existed. The production scale also variously happens and it is proved by the increasing amount from year to year. However, declining production happens in recent years. Fisheries total production in Katingan was 5.794,20 tons in 2008, the number was decreased in 2009 since they have 4.977,70 tons (BPS, 2010). The production that is only relying on nature is very limited and the existence is not continued happens.

The role of local wisdom is very important to overcome the destructive technology that can irritate the sustainability of fish resources in Kamipang. Fishing is currently offended by fishing gear technology that can undermine the sustainability of fish resources in Kamipang in the future.

2. Subject and Methods

This research is an exploratory survey since it is done by direct observation of fishing and local wisdom in the location of Dayak tribes, Kamipang District, Katingan in Central Kalimantan. It is also conducted by focus group discussion (FGD) and distribution of questionnaire as the instrument of data collection (Patton, 2006). The informants are the leader of the society, government officials and the fishermen. The technique used is field observation in order to get physical description of the location (Singa Rimbun dan Efendi 1995, Mantra 2000). The analysis methods used are qualitative and quantitative ones. The location that is chosen is Kamipang district, Katingan in Central Kalimantan instead of other districts since the society is dominated by fisherman and the area has greater fresh waterworks.

Population and sample of fisherman in the level of exploitative fishing by using salambau in Kamipang is 310 families in the villages around the location of the research in Kamipang district. The selection of the respondent sample was done in purposive way (intentional) towards the head of fisherman families in Kamipang. This research needs 23 families based on Slovin formula in the level of 20% inaccuracy as the samples of this research.

The data analyses were done by using quantitative and qualitative approaches. Quantitative approach was applied as the way of data analysis in the level of exploitative fishing by using salambau in Kamipang. It was used to process the number of production and fishing trips. Data analysis on fishing gear used quantitative approach; it was done by applied environment friendly fishing pilot with FAO standard by Ministry of Maritime Affairs and Fisheries (2006). There are three classifications of fishing gears currently in Indonesia. First: in accordance with A. Von Brandt's classification (1964), Second: international statistical classification of fishing gear based on FAO standard, Third: the standard classification of fishing gear by Indonesian fishery statistics. There are 9 (nine) criteria of environment friendly fishing gear as the analysis instrument used by FAO and issued by Ministry of Maritime Affairs and Fisheries (2006) which is accorded with Code of Conduct for Responsible Fisheries (CCRF). They are:
1. Having high selectivity
2. Unable destroy the habitat
3. Producing high quality fishes
4. Save to fishermen
5. Save production of fishes
6. Low by-catch
7. Low biodiversity impact
8. Save protected fishes
9. Social acceptable

3. The Result of Research

This research involved 29 families in Baun Bango with the highest number of Primary School and Junior Secondary School graduated as the head of the family. Their principal livelihood is fisherman and they do not have any second job. Most of them uses gillnet fishing gear in fishing (16,5%), sprinkled (13,5%) and fishing line with several hooks (11,8%). Salambau fishing gear is used by the society in low number (8,2%). The low use of this gear is caused of its expensive price that range from 3 – 5 million per unit. Salambau has large capacity in every trip that range 40 – 240 kilograms. While other gears, gillnet, sprinkled and fishing line is only able to catch 2 – 35 kilograms every trip. However, this gear should be wary since all of types and sizes of fishes can be netted. Salambau and rempa has low selectivity index, besides other gears such as pisi and sprinkled are classified into high classification fishing gear. Baun Bango society realized that the use of wrong tools in catching the fishes is caused a loss or reduction of the spicies of fishes.

4. Discussion

Nowadays, people face various environmental problems. Environmental damage is caused by the rapid grow of construction. Environmental wisdom which has been the guideline in managing the environment has moved because of knowledge and technology progress that are followed by the spread of new value and social regulation. People tend to ignore the environment wisdom and many parties begin to busy looking for ways in order to overcome the environmental problems.

"Tatas and Beje" is one of local wisdoms that were resulted from adaptation experience of society and their environment in Baun Bango. The concept is a view that is come from public knowledge (traditional knowledge)in traditional environmental management. Through the concept of *tatas* and *beje*, the society apply attitude control norms and the way of life in managing of water resources by structuring, utilization, developing, maintenance, restoration, monitoring and controlling of water resources.

4.1. Structure of Society/ Social Structure

Social structure is generally used to explain a unit or a group that has social connection to each other. It

is relatively enduring and it forms the pattern of behavior and social connection in a social system. Social structure is also expressed in the form of institutions and social norms that become a social building system and it is recognized as a guideline of the actors in the whole of social system. Knowing the local wisdom will facilitate the changing process that will be done. Society's organization is the key to develop the society itself. Through the local organization, people can learn together in order to continue the development so the society are able to get their communal needs (Yaekkhoksung, Chantachon dan Ritthidet, 2009). Social structure is social relationship between different individuals or groups, or as the relatively enduring pattern of social relations, showing an idea that the society is grouped into a structured relationship of group or a set of rules which has different functions, notions and objectives. For example, social structure is a notion of "social stratification" which gives a meaning that society itself consist of different strata, based on social different such as race, class and fender. Social treatment towards someone with various social structures can be understood as the relationship of their position in the various social strata.

Lopez and Scott (2000) differentiate institutional structure and relational structure in which the first stated is realized as social structure consisting of cultural or normative patterns. It defines the expectations of the entire subjects' behavior and how their behavior is organized to each other. Besides, the second one, explains that their relationship is described as the patterns of mutual relations' causes and interdependence between the subjects and their actions depend on their position.

Forth (1956) states that there are four community essential   elements, they are: (1) social alignment, (2) social control, (3) social media, (4) social standard. The first, all communities involve clustering method and social strata to the implementation effectiveness of the   various   activities   in   order   to   meet   general existence. The form of social alignment with its social structure is not only composed based on gender, age or cognation, it is also structured based on the same goals of work or re-creation. Dividing group society in a community can be done based on livelihood, levels in a hierarchy and ritual including the structuring of their status and social role. Social alignment is an important component in the regulation of component members in a community. Societal life also includes belief and system that are used as a guidance and control of activity.

The second one is a form of social control that actually an empirical knowledge system and a technique that is made up of an effort to use the society toward their environment although sometimes still influenced by religious behavior and customary beliefs. This social control may be regarded as an unified formula about the rules, ethics, morals, laws, rituals and beliefs as written by Malinowski about the fundamental component establishment of social behavior. Thus, it makes social control as a controlling factor in social life.

The third is about societal life that requires basic material to do an activity and communication. Objects (thing) and language are social media. In many ways, the material (object/thing) affects the life of a community. The way they facilitate their activities, equipments and transportations, the way they crystallize and seek a trading system, the way they do treatment as their future needs, all of them is ownership connection in the clan effort of goods movement, all of them is an object of emotional attitude. Based on its superiority, language shows the relationship to the past as the continuous form factors of an activity. In other words, language is an emotion expression and human mind media. In terms of communication, language is the implementation, representation and stimulant of an action.

The last one, standardize system is also created in societal life by giving the strata and assessment to the social value system. The main characteristic of social value includes estimation of something in a certain scale that gives positive quality, desire and feasibility. Each value has emotional bond as well as a thought, which not only represents expression of feeling but also gives encouragement and guidance in directing. In other words, value is a form of complementary linkage system despite appears as the result of integration of various individuals and groups of people. Clustering of social value is not easy, and this discussion tends to explain about common social standard such as technology, economics, morals, rituals, aesthetics and organizations of society.

4.2. Empowerment Process of Society

The basic principle of the society empowerment consists of five important things (Rubin cited in Sumaryadi, 2005). They are: profitability, participation, training, human resources and relations. The empowerment needs break-event in every action done, although its orientation is different from business organization. The profits of society empowerment are returned in the form of other programs or activities. It always involves society's participation whether in planning or implementation. In implementing society empowerment program, training is an element that cannot be separated from physical construction. In its implementation, empowerment should be able to maximize the recourse, especially in terms of financial whether it comes from the government, private sector or others. The program should become a function as the connection between the interests of the government at macro level and the interests of the society at micro level.

Understanding of empowerment concept cannot be separated from the comprehension of its empowerment cycle, since empowerment is essentially a continuous effort in order to make people more pro active in determining the progress of their own prosperity. Thus, empowerment program cannot only be done in

a cycle and stop at a certain stage. It should be sustainability continued and the graph of the quality has to be increased from one stage to the next one. McLean and Andeson (2009) give their opinion about the empowerment, it should have: rarely heard except inside their community, direct empowerment, building social power and innovation, and real.

In accordance with Wison (1996) there are 7 stages in the cycle of society empowerment. The first stage is society's desire to be better. The second stage, the society is expected to lose the resistance obstacles or factors that can obstruct their progress to be better. The third stage, the society is also expected to accept additional freedom and responsible in their own development. The fourth one tends to become the continuation of the third stage to develop the role and wider responsibilities. It is also related to the interest and motivation to do something better. In the fifth stage, the real result of empowerment starts to be appeared, in which the greater ownership is able to give better performance. There is an improvement in their behavior and impression in the sixth stage in which the success of performance is able to increase psychological feeling upon the previous position. In the last stage, the society is successfully empowering themselves, challenged to greater efforts in order to get the better result. This cycle defines the the effort process of individual and group to follow the step towards achievement, individual satisfaction and the better jobs.

Kartasasmita (1995) states that the process of empowerment can be done through three processes: First, creating suitable atmosphere that can develop the society's potential. The point is about the human definitely has a potential to be developed. It means that there is no human or society who does not have any power or potential. In this context, empowerment is about building the power, strength or ability to encourage and raise awareness of the potential and strive to develop it. Second, strengthen the society's potential or power (empowering). Thus, besides the suitable atmosphere, the positive steps are also needed. Third: empowering means protecting. In the process of empowering, being weaker shoul be prevented because of the powerlessness to face the strong one.

Empowerment process of society is expected to make the society more empowered, stronger and having ability. Related to the indicator of empowered society, Sumardjo (1999) mentions the characteristics of empowered society. They are: (1) able to understand theirselves and their potential, able to plan (anticipating the future changes), (2) able to master themselves, (3) having the power of negotiation, (4) having bargaining power to conduct mutually beneficial cooperation and, (5) responsible to their actions.

Slamet (2003) explains the empowered society in details. It is about a society that knows, understands, motivated, opportunist, taking advantage of opportunities, energetic, able to work together, understanding the various alternatives, able to make decision, able to take a risk, able to find and capture information, and able to act according to the situation. Empowerment process that creates the society with those characteristics is expected to be done continuously by optimally participate of responsible society.

Adi (2003) states that although the society empowerment process is a continuous process, but not all of plans can be smoothly done in its implementation. There are several groups who reject the "renewal" or innovations. Some barriers in society development whether comes from individuals' personality or social system:

1. Derived from individual's personality, stability (homeostatis), behaviour (habit), selective perception and retention, dependence, super-ego that is too strong and tends to make people ignore the renewal and self-distrust.
2. Derived from social system, conformity to norms, the binding of some society members of certain community, systemic and cultural coherence, vested interest, the sacrosanct, and rejection of outsiders.

Learning process and problem solving are also included into the process of empowering. Mentoring processes that can be done in order to empower the society are: closeness, friendship, trust, openness, teamwork, groups and institutions. Local people should get the knowledge about the management, Higher education community has to share their knowledge to others (Chaiphar, W, Sakolnakorn, T.P.N and Naipinit, A. 2013).

The close relation between the mentor and the society is needed in mentoring process. It can be learnt from the failure experience in developing rural society that usually failed since the officers only visited the village if they have certain importance and leaving the village and its society if their needs were finished. Therefore, close relation is very important and the mentors should live in the society in a longer time.

Making a friendship is an intimated process between the societies with their mentors and it happens when they live together. Creating friendship is not easy as it seen. Thus, both mentor and society have to understand the principles of friendship.

The principles that should be developed in mentoring the society are equality, democracy and justice. Equality means that all people have the same status or degree, they are not allowed diferentiate whether between the mentors and the society or among individuals in the society. Democracy means that all of members have the same rights, the right to suggest opinions and expectation. While justice means that they have the same rights and obligations in solving problems and realizing their desire and expectation. One thing that should be grown in a friendship is feeling of the same boat, keeping each other, respect and tolerate each other because they essentially comes from different individuals.

Building trust is done by showing the fact that what was said was then performed. Thus, avoiding of promises and prior of working together should be done in mentoring. Building trust is very important since trust is the main pillar of all interactions among individuals or groups in the society. Trusting each other is able to create closeness, cooperation, groups and institutional groups.

Creating openness is needed to reveal the problems encountered expectations, the potential and weaknesses. This openness cannot be created if there is no closeness and trust. Mentoring contains problem identification and potential of the society. The process of identification runs and flows by itself through creating this openness. Based on the result of problem identification and potential that is revealed, the mentors and the society have a conclusion. They have the same problems, expectations, potential that can be developed in order to raise their expectations.

In the step of cooperation among the individuals in the society, they have actually understood that they have the same problems, expectations, potential that can be developed in order to raise their expectations. However, their potential is impossible to be empowered in order to solve the problem and raise their expectation since the potential is still fragmented in each individual. The whole members of society and the mentors think about the way of creating cooperation.   They are required to understand and implement the principles of equality, democracy, justice, keeping each other, respect and toleratate each other in creating this cooperation. .

Creating a group as a form of cooperation with various activities is a dynamic process. Therefore, an organization is needed to accomodate the dynamic cooperation. In this status, a group as a organization of interaction or cooperationthat have been and are being built is needed to be formed. The form of the groups is aimed to make the cooperation among the group members effective and efficient. In the group formation, they need to consider the principles above and the same location of target and residence.

Institutional is a continuation of the groups that has been completed by the rules made and agreed upon by members of the group. Besides, the groups that has been institutionalized also has management structure as well as the rules that have been agreed upon by the members. Thus, the mechanism of action of the group becomes more systematic and guided. One thing that is needed to be understood and emphasized is the role of management in building the institutional is representing, facilitaing and doing cooperation or agreement that is decided by the wntire members. The other important thing in institutional is how to achieve self-reliance in a sustainable SDI management efforts and make the society live in prosperity.

The whole process of society mentoring as described above should be done with the concept of shared learning and follow the development as society expected. Learning in this case is several productive trainings to the society so they still work as bream fishing fishermen and the fishes can be managed optimally.

Learning together means that there is no one feels clever and more capable than others whther they are the mentors or the society. However, they have to be aware that the mentors should learn more from the society since the society have understood about themselves. The society also can learn from the mentors since they understand more about government policies about the provision in managing the forest. It is also concerning about the empowerment of society who live around the forest. While following society's expectation is about mentoring process that does not have any certain target which is limited by time or the result that can be achieved by means of half force because mentoring which is limites by time and half force will be failed.

5. Conclusion

The use of salambau as one of fishing gears does not exist yet in the level of disturbing aquatic ecosystem. However, mentoring program is needed in Baun Bango since this gear has large degree of exploitation of fishing. The suggestion to use the gear with high selectivity in large amount is an alternative to bridge the economic needs and preservation of aquatic ecosystems. The role of local wisdom in Kamipang society towards the development of fishing by using salambau is the right approach in order to save the ecosystem. Patterns of empowerment and implementation of local society's policies in the use of fish resources are done in a sustainable manner based on local wisdom in Kamipang.

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