

STAKEHOLDERS ROLE FOR DEVELOPING SUSTAINABLE UTILIZATION OF SUGAR PALM IN KEKAIT VILLAGE, WEST LOMBOK, WEST NUSA TENGGARA

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Accepted August 31, 2021 / Approved November 24, 2021

ABSTRACT

Indonesian sugar palm farmers progress up to date indicates less encouraging condition. In the last decade, sugar palm farmers faced thorough, complex problems from top to bottom. These complex problems could not be solved by the sugar palm farmers alone. It requires stakeholders' role to work together to solve them. This study aims to assess which stakeholders and how their role plays in the sustainable utilization of sugar palm. The study successfully identified 15 stakeholders interested in sugar palm utilization. Sugar palm farmers had high interest in the effort to develop sustainable sugar palm utilization. The interest of sugar palm farmers in Kekait Village was generally affected by strong bond against the local culture which was still being practiced. The Department of Agriculture of West Lombok Regency had a level of influence by 16 points. The high level of influence was determined by the authority of the juridical attached to the Department of Agriculture. The authority covered coaching, mentoring, supervision and provision of assistance. The results of actors-linkage matrix analysis indicated that the level of relationship among stakeholders showed the potential for conflict, cooperation, and mutual help was low.

Key words: cooperation, collaboration, Lombok Island, sustainability

INTRODUCTION

Indonesian sugar palm farmers progress up to date indicates less encouraging condition, even if the progress is compared to the progress of palm which is not the native plant of Indonesia. Several studies indicate the skills of sugar palm farmers are vary due to knowledge obtained from the previous generation added with their own experience (Abdullah *et al.* 2014; Tamrin *et al.* 2015; Febriyanti *et al.* 2017; Gunawan *et al.* 2017; Withaningsih *et al.* 2019). Sugar palm farmers have not performed any intensive cultivation, thus nature become the only source to fulfill raw materials needs and the regeneration process (Lempang 2012; Yuldiati *et al.* 2016; Surya *et al.* 2018). The profession of sugar palm farmers is increasingly abandoned by younger generation proven by the majority of sugar palm farmers are at 45 years-old and above (elderly) (Widayati *et al.* 2018). Land ownership is narrowing rapidly by many factors one of them is inheritance system among sugar palm farmers (Bhat *et al.* 2014; Tamrin *et al.* 2015; Susilowati and Maulana 2016). In addition, in terms of products sale, farmers in some areas still rely on collectors due to lack of venture capital and sources of financing (Hidayat *et al.* 2016; Febriyanti *et al.* 2017).

The results above indicate, in the last decade, sugar palm farmers have faced complex problems. The problems are thorough from top to bottom. If the complexity of the problem is not immediately resolved, then it is possible that the existence of sugar palm farmers will be a history. The complexity of these

problems could not be solved by the sugar palm farmers alone. It requires stakeholders' role to work together to solve them. Multisector collaboration is required to develop solution to overcome complex problem, thus business and technology can emerge and bring advantage to society (Savage *et al.* 2010). Similar problem is also faced by sugar palm farmers in Kekait Village. Therefore, the study on which stakeholders and how their role affects the sustainability of sugar palm utilization needs to be conducted.

RESEARCH METHOD

The study was held on August 2018 to March 2019. The study was conducted in Kekait Village, Gunungsari Subdistrict, West Lombok Regency, West Nusa Tenggara Province. The object of this study was Sasak people in Kekait Village along with stakeholders who were directly or indirectly involved in sugar palm development activities. Instruments used in this study were stationery, scoring guide, laptop, voice recorder, and camera.

Data collections of stakeholders who involved in the sustainable development of sugar palm included stakeholder identification, stakeholders' roles, stakeholders' interests and influence, and the relationship among stakeholders. Data collections were performed through observation, interview, Focus Group Discussion (FGD) and document deepening. There were two types of data require in this study. As the main source, primary

data were collected through interview with selected respondents, using purposive sampling and observation methods. Secondary data were then added which consisted of various documents related to sustainable development of sugar palm.

The data were then analyzed using stakeholder analysis according to Reed *et al.* (2009) through 3 stages: 1) Identifying the parties; 2) Classifying and categorizing the parties; 3) Investigating the relationship of the parties. Next, interest-influence matrix was developed. The placement of the stakeholders in the matrix was based on a scoring developed by Abbas (2005), namely five-tier measurement (Table 1).

Quantitative data of interest and influence was then illustrated in interest-influence matrix (Reed *et al.* 2009) in Figure 1.

RESULT AND DISCUSSION

1. Identification of Stakeholders

Focus Group Discussion (FGD), observation and interview were conducted to identify stakeholders and their roles. However, due to 7.0 SR earthquake on Sunday, August 5, 2019, at 19.46 WITA, the information collection through FGD could only be done twice. Then, interview with keyperson was done to gain further information.

Table 1 Criteria for the measurement of the level of interest and influence among stakeholders

| Score | Value | Criteria | Description |
|---|-------|--------------------|---|
| Level of Interest of Stakeholders | | | |
| 5 | 21-25 | Highly interested | The stakeholders have interest in the sustainable development of sugar palm in terms of sugar palm preservation (KI), have the level or dependence (KII), coordination and collaboration (KIII), product marketing (KIV), and necessary regulation (KV) |
| 4 | 16-20 | Interested | |
| 3 | 11-15 | Fairly interested | |
| 2 | 6-10 | Less interested | |
| 1 | 0-5 | No interest | |
| Level of Influence of Stakeholders | | | |
| 5 | 21-25 | Highly influential | The stakeholders who have influence in sustainable development of sugar palm, in terms of policy making (PI), supports of human resources (PII), resources availability (PIII), number of production (PIV), and sugar palm products marketing (PV) |

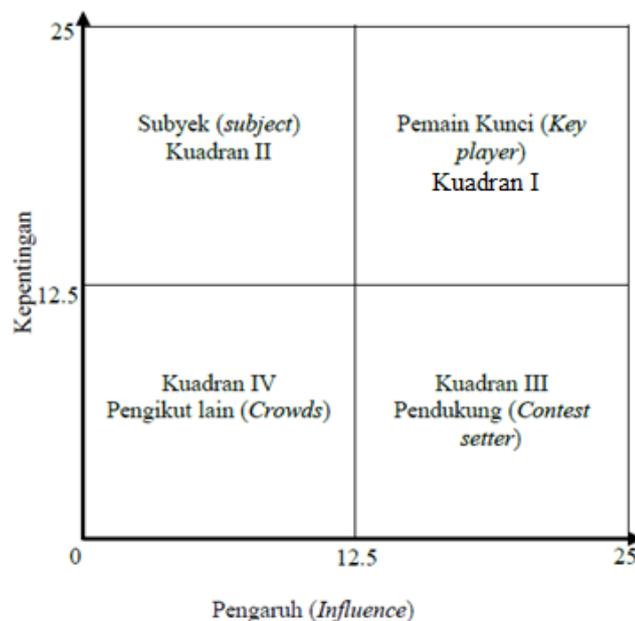


Figure 1 Diagram of interests and influence of stakeholders (Reed *et al.* 2009).

The study successfully identified 15 stakeholders interested in sugar palm utilization where both are directly and indirectly involved in sugar palm utilization sustainability utilization. According to Bryson (2004), stakeholders are individuals or groups of people who influence or be influenced by the success of an organization. They could be men or women, communities, socioeconomic groups, or institution in various dimensions at each level of society. Following their tasks and functions, the stakeholders have roles as can be seen in Table 2.

Stakeholders' identification becomes fundamental in stakeholder's analysis because it provides illustration of their involvement in sustainable development of sugar palm. According to Soekanto (2009) role is a status dynamic process, if someone fulfilling their rights and obligations following their position, then they have run a role. Stakeholders' involvement in sustainable development of sugar palm utilization starts from province, subdistrict, and village.

Table 2 Stakeholders and their roles in sustainable development of sugar palm.

| (Stakeholder) | (Role) |
|--|--|
| Sugar palm famers | <ol style="list-style-type: none"> 1. Managing sugar palm (planting, maintaining, and harvesting sugar palm). 2. Processing sugar palm products 3. Selling the processed sugar palm products. |
| Government of Kekait Village | Coaching sugar palm farmers |
| Sugar Palm Farmers Group | Coordinating sugar palm farmers. |
| Local collectors | <ol style="list-style-type: none"> 1. Purchasing sugar palm products from farmers, and reselling them to established collectors at the provincial level. 2. Setting price of sugar palm products from famers. |
| Established collectors in the province | Purchasing sugar palm products from local collectors, and reselling them to established collectors out of the province, retailers, and/or customers. |
| Established collectors out of the province | Purchasing sugar palm products from established collectors in the province, and reselling them to retailers and or customers. |
| Retailers | Purchasing sugar palm products from established collectors in of outside the province, and reselling them to the customers. |
| Department of Agriculture | <ol style="list-style-type: none"> 1. Coaching sugar palm farmers and sugar palm famers group (familiarization and training). 2. Developing institutional association for sugar palm farmers. 3. Providing help for fertilization, seeds, and equipment. |
| Department of the Environment and Forestry of NTB | <ol style="list-style-type: none"> 1. Improving the prosperity of local people around the forest. 2. Coaching and empowering sugar palm farmers surrounding forest. 3. Recording the potentials, distribution, and development of Non-Wood Forest Products (HHBK), especially sugar palm in West Nusa Tenggara (NTB). 4. Setting the palm sugar products as the flagship products of HHBK in NTB province. |
| West Rinjani KPH | <ol style="list-style-type: none"> 1. Coaching and empowering sugar palm farmers surrounding Pelangan Tastura West Rinjani KPH through a partnership program. 2. Recording the potentials, distribution, and development of HHBK, especially sugar palm surrounding Pelangan Tastura West Rinjani KPH. 3. Setting the flagship HHBK products surrounding Pelangan Tastura West Rinjani KPH. |
| Department of Cooperatives, Small and Medium Enterprises | Performing coaching, development, and supervision of cooperatives, small and medium enterprises of sugar palm products. |
| Department Of Health | Coaching, issuing permit, and supervising infrastructure, sugar palm process products as one of the Home Industry Products (PIRT) marketed, as well as their distribution. |
| Department of Industry and Trade | Coaching and providing technical guidance related to industry and marketing of sugar palm products. |
| Bank of Indonesia in NTB | Coaching and providing guides on technical, managerial, and financial to sugar palm farmers. |
| High Education Institution (Unram) | Conducting sugar palm research and development with Kekait as the study location as well as the form of community service. |

At the provincial, there are the Department of Environment and Forestry of the Province of West Nusa Tenggara (NTB), Forest Management Unit of West Rinjani, Higher Education Institution (University of Mataram/UNRAM), Bank of Indonesia in West Nusa Tenggara (BI NTB), and established collectors (in or outside the province). Moreover, at the regency level there are: Department of Agriculture, Department of Industry and Trade, Department of Cooperatives and Micro, Small and Medium Enterprises, Department of Health, and retailers. Furthermore, at the level of the village there are sugar palm farmers, Sugar Palm Farmers Group (KTA), the government of the Kekait Village, and local collectors.

2. Classification of Stakeholders

Beside of stakeholders’ role, classification of stakeholders is another important aspect to determine the existence of the stakeholders. The grouping or classification of stakeholders was carried out based on the level of interest and influence (Reed *et al.* 2009). The level of interest includes interest and concern of stakeholders in sustainable development of sugar palm. Meanwhile, level of influence including power, authority, and influence of stakeholders to drive the implementation of sustainable development of sugar palm. The interview results with key person from each stakeholder related to the level of interest are shown in Table 3.

Based on the results in Table 3 and the criteria of level of interest in Table 1, it can be understood that sugar palm farmers have the highest interest on the sustainable sugar palm utilization effort. It is because the processing of sugar palm is the main income for sugar

palm farmers. They even “use” palm trees in *awasan*, West Rinjani KPH adjacent to the community plantation, in order to process molasses in one production. Some sugar palm farmers stated:

“They frequently tapped the sap from sugar palm trees in *awasan*, especially during sugar palm drought, which was no sugar palm trees ready for tapping or there were some trees ready but the sap was insufficient for one production. Regardless of the collected sap of sugar palm, *awasan* can provide it, as long as one is strong enough to harvest it”.

Moreover, the interest is also mainly affected by the strong bond upon local culture they are cling onto. It relates to the provision of ceremonial ornaments such as: stems and young leaves also traditional foods/drinks made from the sap of sugar palm, such as young sugar palm stem (*umbut*) and palm sugar which should be served in certain ceremonies, for example circumcision, marriage, and the celebration of the birth of Prophet Muhammad SAW. Furthermore, the high interest of some stakeholders is affected by the programs that have been specified and to be achieved with regard to the sustainable development of sugar palm utilization.

West Rinjani KPH, as part of the Department of LHK of NTB Province, has made palm sugar one of the flagship commodities of non-timber forest products (NTFP). It is stated in the Road Map of Management of Non-Timber Forest Products in NTB Province in 2017-2021. Meanwhile, at the department at regency level, they have high interest in the program of Regional Flagship Local Products (PLUD) utilization, that one of which includes palm sugar. It is stipulated in Regulation of Regent of West Lombok Number 21 of 2017 on the Use of Regional Flagship Local Products.

Table 3 Scoring results of interest level.

| Stakeholder | Interest | | | | | Total |
|--|----------|-----|------|-----|----|-------|
| | KI | KII | KIII | KIV | KV | |
| Sugar palm famers | 4 | 4 | 5 | 4 | 4 | 21 |
| Group of Sugar Palm Farmers | 3 | 4 | 3 | 4 | 5 | 19 |
| Village government | 2 | 4 | 5 | 2 | 3 | 16 |
| Local collectors | 1 | 2 | 1 | 2 | 1 | 7 |
| Established collectors in the province | 1 | 2 | 1 | 1 | 1 | 6 |
| Established collectors out of the province | 1 | 2 | 1 | 1 | 1 | 6 |
| Retailers | 1 | 2 | 1 | 1 | 1 | 6 |
| Department of LHK of NTB Province | 3 | 4 | 5 | 4 | 3 | 19 |
| West Rinjani KPH | 3 | 4 | 5 | 4 | 3 | 19 |
| Department of Agriculture | 3 | 4 | 5 | 3 | 4 | 19 |
| Department of Industry and Trade of the West Lombok Regency | 3 | 3 | 5 | 3 | 3 | 17 |
| Department of Cooperative, Micro Small Medium Enterprises of West Lombok Regency | 3 | 3 | 3 | 3 | 3 | 15 |
| Department of Health of West Lombok Regency | 2 | 3 | 3 | 3 | 3 | 14 |
| Bank of Indonesia in NTB | 3 | 4 | 3 | 3 | 3 | 16 |
| Higher Education Institution (Unram) | 2 | 1 | 5 | 5 | 1 | 14 |

Description: KI – KV = the list of questions related to the level of interest

On the other hand, Kekait Village government believes sustainable development of sugar palm as a village identity that needs to be maintained. If it fails, Kekait Village will no longer hold the title as "Sugar palm Village". The village is famous for its sugar palm resources potential and the loss of life guidance of the people that is Safe, Religious, Economic, and Nationalist.

After identifying the level of interest, scoring of the influence level of stakeholders was performed. The level of influence is presented in Table 4.

Table 4 shows the Department of Agriculture of West Lombok Regency has the highest a level of influence. The high level of influence was determined by the authority of the juridical attached to the Department of Agriculture. The authority covered coaching, mentoring, supervision and provision of assistance. Although it has insufficient number of human resources,

the Department of Agriculture has competence agriculture field counselors and high accessibility to villages. It also has the authority to establish farmer groups as well as provide assistance related to the sustainable development of sugar palm utilization.

Other stakeholders such as Department of LHK of NTB Province, West Rinjani KPH, Department of Cooperative, Micro Small Medium Enterprises, and Department of Industry and Trade of West Lombok Regency are categorized as fairly influential stakeholders in the development of sustainable sugar palm utilization. This is due to indirect influence but necessary, in order to successfully achieve sugar palm development. These stakeholders become a support system for Department of Agriculture of West Lombok Regency. The quantitative data of interest and influence is illustrated in interest-influence matrix (Figure 2).

Table 4 Scoring results of influence level.

| Stakeholder | Influence | | | | | Total |
|--|-----------|-----|------|-----|----|-------|
| | PI | PII | PIII | PIV | PV | |
| Sugar palm famers | 1 | 1 | 1 | 1 | 1 | 5 |
| Group of Sugar Palm Farmers | 1 | 1 | 1 | 1 | 1 | 5 |
| Village government | 1 | 1 | 1 | 1 | 3 | 7 |
| Local collectors | 1 | 1 | 1 | 1 | 1 | 5 |
| Established collectors in the province | 1 | 1 | 1 | 1 | 1 | 5 |
| Established collectors out of the province | 1 | 1 | 1 | 1 | 1 | 5 |
| retailers | 1 | 1 | 1 | 1 | 1 | 5 |
| Department of LHK of NTB Province | 3 | 2 | 2 | 2 | 2 | 11 |
| West Rinjani KPH | 3 | 2 | 2 | 2 | 2 | 11 |
| Department of Agriculture of West Lombok Regency | 4 | 2 | 4 | 2 | 4 | 16 |
| Department of Industry and Trade of the West Lombok Regency | 3 | 2 | 2 | 3 | 4 | 14 |
| Department of Cooperative, Micro Small Medium Enterprises of West Lombok Regency | 3 | 2 | 2 | 2 | 4 | 13 |
| Department of Health of West Lombok Regency | 2 | 2 | 1 | 1 | 4 | 10 |
| Bank of Indonesia in NTB | 3 | 2 | 1 | 1 | 2 | 9 |
| Higher Education Institution (Unram) | 2 | 1 | 1 | 1 | 2 | 7 |

Description: PI – PV = a list of questions related to the level of influence

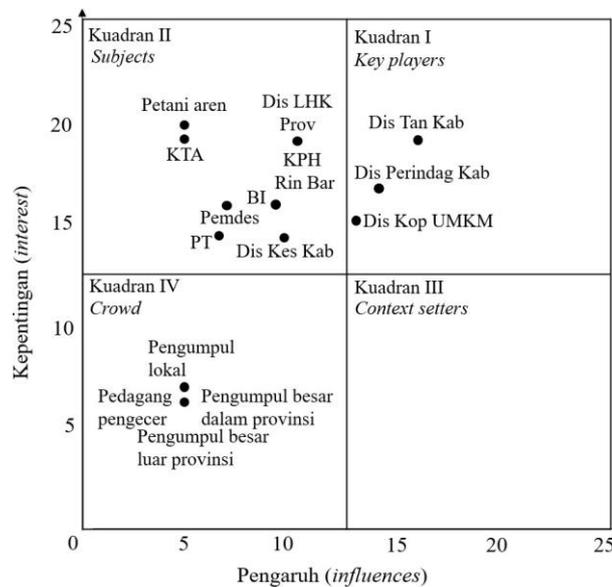


Figure 2. Interest-Influence Matrix

- High interest–High influence (Key players)

Quadrant I in Figure 2 shows that stakeholders who have high interest and influence are Department of Agriculture, Department of Industry and Trade, and Department of Cooperative Micro Small Medium Enterprises (UMKM). This due to their ability to make decision and policy (regulator), policy implementers (implementer), facilitating and meeting the needs of farmers or groups of farmers (facilitator), and accelerate sustainable development of sugar palm (accelerator).

Each key player has the capital resources in terms of budgeting activities that support the sustainable development of sugar palm. Department of Agriculture, for instance, can support the provision of quality seeds (2018 program), provision of equipment (2018 program), and management of proper cultivation techniques (once a year). Department of Industry and Trade take part in providing information and bringing the market closer, increasing products quality through trainings, supporting production equipment and planning the development of Regional Technical Implementation Unit (UPTD) to handle sugar palm (2018 program). Meanwhile, Department of Cooperative Micro Small Medium Enterprises runs its authority in expanding marketing scope as well as developing an institution that can unite the famers. Thus, cooperatives are expected to increase the bargaining value of the farmers. Hence, the existence of stakeholders in key players is expected to encourage or influence policies so that the sugar palm development can be sustainable.

- High interest–Low influence (Subject)

Government agencies such as the Department of Environment and Forestry in NTB Province, West Rinjani KPH, Department of Health of West Lombok Regency, and the government of Kekait Village are categorized as subject, i.e., those who have high interest level with low influence (quadrant II of Figure 2). In addition, there are other parties such as BI in West Nusa Tenggara, university (UNRAM), KTA, and sugar palm farmers. Even though some of stakeholders have fair to very high level of interest, their influence level is below the key players. This is because in some parties, such as farmers, KTA, and the government of the village during this time perform their function as the policy implementer. Meanwhile, BI in West Nusa Tenggara, Department of Health of West Lombok Regency and UNRAM to perform their function as acceleration agent (facilitator) through the provision of capital assistance, granting permission of home industry products, research activities and community service. Similarly, the high interests of West Rinjani KPH and Department of LHK of NTB in realizing the sugar palm sap as one of flagship

NTFP. Until now, however, this has not been realized in cooperation with the Kekait community who live adjacent to the *awasan*.

- Low interest–Low influence (Crowd)

Stakeholders with low interest and influence level were local collectors, established collectors in or outside the province, and retailers. Although local collectors have long connection history with sugar palm farmers, they are hardly affected by the fluctuations in sugar palm development as palm sugar products are not the only source of income. The fact that the local collectors are generally traders or collectors of produces who are less concern for the sustainable development of sugar palm. Similarly, the level of concern of the established collectors and retailers is low due to vary in income source. Low interest–High influence (Context setters)

Based on the results there is no party who has a big role in development of sustainable sugar palm, although the sustainability of the development of the palm is not the only program that gets the attention from the parties.

3. Relationship of the Stakeholders

Analysis of relationship between stakeholders is fundamental step which is illustrated by an actors-linkage matrix. This method is commonly used in understanding the possibility of conflict, mutual help, or cooperation between parties. Thus, it is possible to implement an exploration and understand the patterns of interaction between parties, especially the cooperation. This is important because different stakeholders can determine the effective innovation, and often, collaboration is hampered due to the conflict of strategic interest. The identified parties are written in the row and column of the table that describe the relationship of stakeholders as shown in Table 5.

Relationship between sugar palm farmers and the government, both provincial and regency province has the potential of collaboration and conflict. All this time, sugar palm farmers actually have “used” sugar palm trees in the area West Rinjani KPH under the Department of Environment and Forestry of West Nusa Tenggara Province, especially during the sugar palm sap drought. In this case, the collaboration can be form as social forestry activities. According to Supriyanto (2019), there are five schemes of partnership in social forestry that is driven to improve the welfare of the village community around the forest, wipe the gap between villages and cities, resolve conflicts, and to realize the sustainable management of forests. Meanwhile, the conflict of interest might be arisen if this situation is not resolved properly.

Table 5 Level of the relationship of the stakeholders in sustainable development of sugar palm.

| | Sugar palm famers | Group of sugar farmers of Village Government Local collectors | Established collectors in the province | Established collectors out of the province | retailers | Department of LHK of NTB Province | West Rinjani KPH | Department of Agriculture of West Lombok Regency | Department of Industry of West Lombok Regency and Department of Cooperative Micro Small Medium Enterprises (UMKIM) of West Lombok Regency | Department of Health of West Lombok Regency | BI in Mataram | Higher Education Institution |
|--|-------------------|---|--|--|-----------|-----------------------------------|-------------------------|--|---|---|---------------|------------------------------|
| Sugar palm famers | | 1, 2, 3 1, 2, 3 1, 2, 3 | - | - | - | 1, 3 | 1, 3 1, 3 3 | 3 | 3 | | 3 | 2, 3 |
| Group of Sugar Palm Farmers | | 1, 3 1, 3 | 3 | 3 | 3 | 3 | 3 1, 3 3 | 3 | 3 | | 3 | 3 |
| Village government | | - | - | - | - | 1, 2, 3 | 1, 2, 3 1, 2, 3 1, 2, 3 | 1, 2, 3 1, 2, 3 | 1, 2, 3 | | 1, 2, 3 | 2, 3 |
| Local collectors | | | 1, 3 | 1, 3 | - | - | - 3 - | - | - | | - | - |
| Established collectors in the province | | | | 1, 3 | 1, 3 | - | - - - | - | - | | - | - |
| Established collectors out of the province | | | | | 1, 3 | - | - - - | - | - | | - | - |
| retailers | | | | | | - | - - - | - | - | | - | - |
| Department of LHK of NTB Province | | | | | | | 1, 2, 3 1, 3 | 1, 3 3 | 3 | | 3 | 2, 3 |
| West Rinjani KPH | | | | | | | 1, 3 | 1, 3 3 | 3 | | 3 | 2, 3 |
| Department of Agriculture of West Lombok Regency | | | | | | | | | 1, 2, 3 1, 2, 3 2, 3 | | 3 | 2, 3 |
| Department of Industry of West Lombok Regency | | | | | | | | | | 1, 2, 3 2, 3 | 3 | 2, 3 |
| Department of Cooperative of Micro Small Medium Enterprises of West Lombok Regency | | | | | | | | | | 2, 3 | 3 | 2, 3 |
| Department of Health of West Lombok Regency | | | | | | | | | | | 3 | 2, 3 |
| BI in Mataram | | | | | | | | | | | | 3 |
| Higher Education Institution | | | | | | | | | | | | |

Description: 1 = potential conflict; 2 = potential of mutual help; 3 = potential cooperation

Source: processed primary data in 2018

There are three schemes of social forestry which allows cooperation to occur, namely: village forest, community forest and forestry partnership. Each scheme has a prerequisite that must be met adapted to the real conditions in the Kekait Village. First, the utilization of sugar palm for the majority of the community is the main source of income. Second, people have used the palm tree in *awasan* since a long time ago, especially if farmers are experiencing a shortage or drought of palm tree sap. Third, the activity of sugar palm "utilization" in *awasan* can potentially create a conflict. Fourth, the village-owned organization (BUMDES) is not running optimally. Fifth, the existed group of sugar palm farmer (KTA) is simply used as the administrative requirements when receiving support. Based on these schemes, the proper scheme of social forestry for developing sugar palm in Kekait Village is a forestry partnership.

The forestry partnership scheme will provide mutual benefit. Sugar palm farmers will be able to solve the decline productivity of the sap due to the narrowing plantation area and lower the potential of conflict. On the other hand, West Rinjani KPH will also increase the efficiency and effectiveness of the management of the area, especially in supporting of palm sugar as the flagship product of non-wood forest products of NTB

Province, as stated in the Road Map for Governance of Non-Wood Forest NTB Province from 2017 to 2021.

Department of Environment in the West Lombok Regency also has the potential to partner with sugar palm farmers, particularly in supporting the use of Regional Flagship Local Products (PLUD) according to the Regulation of Regent of West Lombok No. 21 of 2017. In the efforts of the sustainable development of sugar palm tree, each department plays a role following their duties and functions, for example the Department of Agriculture provides early maturing palm seedlings and palm farming equipment (machete, sprayer, and jerry cans). The department of Industry and Trade provides post-harvest equipment (cool box and packaging tools). Department of Cooperative Micro Small Medium Enterprises helps develop an institution (cooperative) for farmers. The Department of Health plays a role in issuing permits for Home Industry Products (PIRT). In addition to the potential of cooperation, the potential for conflict can be found in the provision of aid. The aid distribution is often not on target, on quantity, and on type. The provision of early maturing palm seedlings by the Department of Agriculture in 2018, for instance. Early maturing palm seedlings were averse to grow due to its characteristics was the opposite to the characteristics local sugar palm chosen by the farmers, and there had

been no success in planting early maturing sugar palm, especially in NTB Province, for instance Kekait farmers. Still in the same year, the provision of agricultural tools aids was not on target. The results of interview with farmers reveal that the tool they needed the most is a pot (large cauldron), given the high cost that must be spent to buy it, while the aids provided are other tools which are relatively very affordable. In the end, the proper assistance to improve palm sugar production business triggers conflict among sugar palm farmers instead. The recent conflict is the provision of aids in the form of sugar palm gallery construction, which up to that moment could not be utilized.

The potential for cooperation between the sugar palm farmers and BI in West Nusa Tenggara can be in form of program of Local Economic Development (LED). In this case, BI with the relevant agencies along with sugar palm farmers cooperated and helped each other to improve the skills of managerial and technical of the farmers as well as providing infrastructure for palm sugar processing (Lombok Post, August 25, 2018). Similarly, the potential of cooperation between sugar palm farmers and university. All this time, cooperation was full on community service and location of the study, but the results of the study could not be used for the sustainable development of sugar palm.

Group of Sugar palm Farmers (KTA) has the cooperation potential with government agency, financial institution, university, and have potential for conflict with village government, local collectors, and Department of Agriculture. The cooperation potential can be seen from the implementation of human resources improvement through training and the assistance, while the potential for conflict between KTA with the village government and the Department of Agriculture occurred during the selection of KTA that will receive assistance that was not even, so it leads to jealousy among the KTA. Meanwhile, the presence of the KTA that is able to collect the products of processed sugar palm from the farmers is often considered competitors by local collectors.

CONCLUSION

There are 15 identified stakeholders which involved directly or indirectly in the sustainable development of sugar palm trees. The stakeholders came from the provincial level, regency level and down to the village. Based on interest-influence matrix, there are 3 stakeholders recorded as the key players, 8 stakeholders as subjects and 4 parties as crowd. In addition, actors-linkage matrix analysis indicates that the potential for conflict, cooperation, and mutual help is low. Collaboration to improve coordination and synergy among the key player stakeholders by electing one stakeholder as the director is necessary to scrape the sectoral ego and project orientation. Moreover, the

synchronization program between the subject and the key players need to be improved to achieve the sustainable development of sugar palm. The number of stakeholders involved in the development of a resource does not guarantee the resolution of the complex problems.

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