

Community Development as the Resolution to the Environmental Crisis in Kampung Jawa, Riau Province, Indonesia

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Abstract--- *Environmental issues are currently becoming more complex. In conjunction with the development of various industries, the resulting impact that occurs in the aspects of pollution, waste, infrastructure, and social ills has gone from bad to worse. Especially in the Riau Province, well known for the peatland fires which took place over the last few years. This paper aims to identify the community development programs undertaken in resolving the environmental crisis faced, as implemented in the Kampung Jawa Village, Bengkalis Regency, Riau Province. This paper features a qualitative approach, specifically the use of the case study method. This includes participatory observation and in-depth interviews that were conducted with the local community. Secondary data was gathered in the form of information about programs from newspaper clippings and reports. The research found that community development programs were successfully implemented through certain projects that were initiated by the local communities in order to change the popular mindset that peatlands are a source of disasters to one which highlights its economic potential. The community development programs conducted by the local communities are as follows: (i) Masyarakat Peduli Api (MPA), a community of volunteers seeking to deal with natural disasters and suppress forest fires. (ii) Pineapple Farms and Pineapple product processing (iii) Peat Arboretum. This study also found that community development efforts carried out stirred proactive dialogue and engagement with stakeholders which includes the farming community, other local communities, NGOs and local government.*

Keywords--- *Community Development, Indonesia, Environment*

I. INTRODUCTION

Today's social problems are increasingly complex. In connection with the development of industry and business the impact of the aspectsof infrastructure, waste, pollution and damaged road towards access and mobility to sustain company operations is at an all-time high. The grave issues currently facing Indonesia are that of the environment, economy, infrastructure and resources. The efforts taken to improve the welfare of life as identified by the economic and income level did not go hand in hand with the increasingly severe environmental conditions. As a resultthe community was unable to live sustainably in an effort to improve the economy while also preserving the environment (Rudito and Famiola, 2013)..

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Forest fires is one of the common natural disasters in Indonesia in the recent years. Especially on peatlands, fires last for a long time and are difficult to extinguish as the fire spreads underground through the layer of peat. Riau Province is such an area as it has large expanses of peatland and often experiences forest fires. Based on data from the Ministry of Environment and Forestry, Riau Province has a large area of forest and peatland. The biggest fire in Riau occurred in 2015, with an area of 183,808 ha burnt. (<http://sipongi.menlhk.go.id>)



Picture 1: Forest Fires in Riau

Forest fires generally occur intentionally or unintentionally. Fires are deliberately triggered mostly to clear land and to exploit the natural resources of the forest. Statistically, land fires in Riau are one of the annual disasters caused by human behavior and error. Popularly, deliberate fires are purposed to clear the peatland in preparation for the plantation season and development. Accidental fires, on the other hand, are caused by the hot weather, open burning of trash, random throwing of lit cigarette butts, and other acts of negligence.

The issue of forest and land fires in Riau has now morphed from a provincial concern to that of a national one. Kampung Jawa is an area isolated from public facilities and can be considered socially marginalized. Kampung Jawa is located directly adjacent to a privately owned oil palm plantation so it has a high risk of land and forest fires. In Kampung Jawa, the condition of road infrastructure is quite poor, as it is a combination of concrete and dirt roads. This causes limited accessibility in all daily activities of the locals.

Though communication infrastructure is quite good in the Sungai Pakning Village, the reach of communication does not cover all regions, especially the Kampung Jawa area. In Kampung Jawa, there is a Village Health Center (Puskesmas). However, based on observations in the field, Puskesmas is more than often not operational (closed), as such people find it difficult to get quality health services. Also there is a lack of economic facilities that could be accessed by the community in Kampung Jawa to get capital assistance. Communities find it difficult to develop businesses that

need additional capital assistance. Based on the above, it can be established that Kampung Jawa is an isolated area in terms of access to infrastructure, economic aid and development, communication, and health.

Community development is a social activity that aims to improve the quality of life of people by empowering the emphasis on the principle of social participation (Suharto, 2005). It is carried out through a community development cycle that begins with the principle of development, namely the development of concepts, goals, and program objectives based on the community needs analysis (Rahman, 2009: 34). In analyzing needs, community development has to comprehend what the wants and needs of the community are. These needs are long term and not temporary. Needs analysis is carried out carefully, while including community leaders to explore program ideas to ensure that the needs addressed are universal, and not that of a few people.

The next stage is program socialization with the aim to increase awareness on the target activities and ensure that the community is responsible for the ownership, implementation and success of the programs. The socialization process should be carried out through the media with proper communication of information. Community development activities aim to increase community participation and responsibility in the empowerment programs implemented. Community participation expressed by Ife (2009: 294) is the primary concept and fundamental principle of community development taken into account. It is a form of community empowerment oriented towards achieving the optimum results of program implementation.

According to Zubaedi (2007: 77), agents of change place more concern on rumors, problems, and community needs before conducting community development activities. Hence, community development activities is driven by the role of agents of change. The implementation of development programs also requires community participation because it is in the final process that the community experiences the results achieved. Furthermore, they do not only act as the subjects but also as the objects within the development cycle. Community development activities aim to build both material and non-material life. Nasution (2012: 89) provides an understanding of the concepts that bridge the non-material aspects of development by viewing these activities as a process of acquiring new knowledge, information, and skills. In addition to being a tool, skills are also the result of the development process for those who go through it.

Community empowerment is a concept of economic development that encapsulates social values. The intended improvement is not only reflected in the economy, but also in the local prestige, dignity, self-confidence, and self-esteem. The rationale for community empowerment is that the efforts made should be directed at the root of the problem to improve on people's abilities. This concept reflects the new paradigm of development, which is people-centered, participatory, empowering, and sustainable (Chambers, 1995). The idea of community empowerment integrates growth with equity.

Community development are activities carried out systematically, well planned, and directed to increase community access to achieve better socio-economic success and quality of life (Budimanta, 2003: 28). Meanwhile, Payne (1995: 165) argues that community development is a joint effort planned to improve the quality of life in the education, health, and socio-cultural sectors. Community empowerment focuses on helping community members who have an interest in working together, identifying joint activities and carrying out said joint activities to meet the shared needs.

II. METHODOLOGY

This research employed a qualitative approach. According to Creswell (2009: 33), qualitative inquiry is a way of analysis by understanding the purpose of individuals or groups in social problems or human problems. The process comprises of questions and procedures.

According to Bryman (2012):

Qualitative research is a research strategy that usually emphasizes words rather than quantifications in collecting and analyzing data. As a research strategy, it is broadly inductivist, constructionist, and interpretative. It has become an increasingly popular approach to social research. This research is in the form of a case study. Idrus (2009: 57) explains that a case study is a detailed investigation of specific arrangements or events.

The research data were collected in two ways, firstly through in-depth interviews with the Head of Village (R1), the village officials (R2 and R3), and local community leaders (R4 and R5). Secondary data were obtained from the local authority reports on the community development programs of Kampung Jawa and news about the Kampung Jawa empowerment programs from online media. The data collected were analyzed using an interactive analysis model. This model consists of three analysis components called data reduction, data presentation, and concluding (Maskur, 2015: 83). The location of this research is Kampung Jawa, Riau Province, Indonesia.

III. FINDING AND DISCUSSIONS

Community development is carried out through the following stages: (1) planning phase. It is the initial process where the Kampung Jawa villagers and the local government determine and classify the problems faced by people with intellectual disabilities living in the village. (2) Action phase. This stage deals with the appropriate methods and strategies in executing the community development program, which is carried out through mentoring. (3) Evaluation. It measures the success of the program implemented. The steps taken towards community development projects in Kampung Jawa are as detailed below:

(i) Planning Phase

The Community Development was initiated by the communities in Kampung Jawa while being led by the local leaders. The aim is to change the popular mindset that peatlands are a source and causal risk of haze and fire disasters to one which also focusses on its economic potential in the form of pineapple agriculture development which serves the welfare of the local community through the empowering of local SMEs when managed properly and sustainably. The identification step involves community participation and involves the local community, local government and the NGOs. In the planning phase, the local community will identify their own problems and carry out discussions on solving the problems. The program carried out focusses on community development with MPA and the Tani Tunas Makmur group, led by their chief as opinion leader. Through this program, it became known that Kampung Jawa is plagued by environmental problems of forest fires that occur during the dry season each year, following a lack of facilities and the ability of the community to deal with these problems. The Kampung Gambut Berdikari program increases capacity building of the Masyarakat Peduli Api (MPA) through firefighting training and provision of facilities. Other programs that arose were the Pineapple Farm, Peat Arboretum, and Pineapple Product Processing programs.

(ii) Implementation of the program

Community Development involves different stakeholders, which includes the local community, local government and NGOs in the CSR Programs. The community development programs that are conducted by the local communities are as follows:

(a) Masyarakat Peduli Api (MPA) is a community of volunteers that aim to deal with natural disasters and suppress forest fires. Capacity building training is carried out by the Masyarakat Peduli Api to improve their ability in resolving forest fires that mostly happen during the dry season in Riau Province. The program for mitigating land and forest fires based on community empowerment is a superior program in the environmental field that has been running for the past 2 years through the development of a community concerned with fire related natural disasters. This program arises from environmental issues in the form of land and forest fires that have occurred repeatedly in the mountainous regions during recent times. In mid-2014 to 2015, land and forest fires hit more than 86 hectares of mountainous region and resulted in moral and material losses such as the burning of people's gardens, burning of people's homes, ISPA related diseases to people who died due to ISPA. The local government had increased support in the strengthening of institutions and increasing of MPA capacity through training, improving the quality of facilities and infrastructure, participatory mapping, provision of reservoir infrastructure, canals and canal blocking. The community development projects also helps the community with facilities such as firefighting equipment and tools to get water. This program helps the community to be able to move swiftly in disaster mitigation of forest fires.



(b) The Pineapple Farm program is run by the Tani Tunas Makmur group. Pineapples are chosen as the main crop in the peatlands due to the nature of the plant which does not absorb much water and has a high production value. At present, the group has increased development to become more integrated and institutionalized by way of cooperatives. The pineapple farm size increased from 0.5 ha to 14.5 ha all being in the area of Sungai Pakning.

Looking upstream, pineapple farming has been able to provide pineapple seedlings independently in 4 types that have a variety of qualities, ranging from root buds, stem buds, stems, and crowns.

These four seedlings have been used in planting 100,000 new plants in 10 hectares of new land. Moreover, pineapple planting techniques has also developed from monoculture to polyculture initially through mixing plantations with hard plants such as matoa, jengkol, durian, and soursop with as many as 20,000 seedlings. This planting technique is known to the group as the Poligowo technique which combines the concepts of jajar legowo farming commonly applied to annual crops, which is usually applied to forest plants. This program helps the farmers to increase their income through pineapple farming and also maintain soil conditions to be safe from the risk of land fires.



The Peat Arboretum was initiated when a stretch of peatland was donated by a member named Sadikin to be managed by the group. The donated peatlands then become one of the natural laboratories for studying the diversity of flora and fauna in peat forests. Various high quality and economically valuable timber and non-timber forest products can be obtained from peat swamp forests, namely *gonysylus bancanus*, *dyera lowii*, *camnosperm macrophylla*, *litsea sp*, *shorea sp*, *cratoxylum arborescens*, *tetramerista glabra*, *aistonia sp*, *callophylum sp*, *combretocarpus ogundatus*, *melanorrhoea wallichii*, dan *cococeras lorneense*. In an effort to use peat swamps, it is necessary to first study the condition of the soil, water and vegetation. Vegetation diversity can be considered as an indicator of land fertility, for example for agriculture or forestry activities. For this reason it is necessary to study the potential of peat swamps based on their vegetation. The Peat Arboretum is expected to be one of the laboratories for research both in the optimal use of peat swamps ecologically and economically.



- (c) In addition to developing pineapple farming, the program also includes the processing of pineapple products carried out by the womenfolk of the Tunas Makmur Farmer Group. The program went on to produce various processed products such as Pineapple chips, Dodol, Syrup, Pineapple stick, and Pineapple Sweets. In its processing, the group uses simple, appropriate technology, such as Vacuum Frying, Spinners, Press Machines and PH Separator (Pineapple Heart Separator) which is the result of PERTAMINA's design to separate pineapple hearts from pineapples before being processed into products. This innovation not only provides for safety, but also speeds up the production time so as to save labor costs. Full assistance and coaching is provided through this program, and this program succeeded in increasing the income of group members through the sale of said processed products.



(iii) Evaluation.

It measures the success of the programs implemented. People who live surrounding the peatlands can be socially and economically independent through an effective mentoring process as the community development strategy begets support from both the government and the local community. The community development program implemented has succeeded in improving the social, economic, and living conditions of people

According to Ife (2009: 178), the process of group activities can build confidence and enthusiasm. They are necessary to achieve the goals of building society. The process and outcomes are essential in empowerment activities as they can add insight and motivation to people with intellectual disabilities.

The stigma of the peatlands as a source of hazards has turned into an independent source of commerce for the village. This is in line with the statement of Chambers (1995), that community empowerment is a concept of economic development that encapsulates social values.

IV. CONCLUSION

1. Community Development are focused on solving environmental and economic issues Community development carried out in the Kampung Jawa village takes a huge role in improving the community's welfare and to change the image of Kampung Jawa as a disaster prone area. The community development programs that are conducted by the local communities are as follows: Masyarakat Peduli Api (MPA) is a community of volunteers in dealing with natural disasters and suppressing forest fires. (ii) Pineapple Farm and Pineapple product processing (iii) Peat Arboretum. These projects involves the community at every stage beginning from the planning phase, issue and problem solving selection, implementation, and evaluation of the program.

2. Two-way communication applied in the form of discussion between the local leaders and community and other stakeholders are one of the key success drivers of the Community Development program. The design of program implementation that prioritizes the role of the community in determining the program influences the level of success and benefit garnered through the program. This program has contributed in preserving peatlands and converting them into pineapple agriculture land and natural laboratories as an impetus for socio-economic change and increase knowledge and research base for the future generations. Utilization of peatlands as pineapple farming land increases the land's water content which reduces the risk of forest fires. Community empowerment is also carried out for MPA community groups in the form of training and facilities, with the Tunas Makmur farmers group managing and producing various pineapple-based products to improve local socio-economic welfare.

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