

# **Fisherman Community Empowerment Model Through Production Transformation Based On Appropriate Technology**

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## **ABSTRACT**

Theoretically, Community Based Development is one of the most effective and promising development models in the current democratic era, because this development model is based on the potential and conditions of the local community (society). Community development programs that are based on the potential and community of these communities will get optimal community support and participation because it is in accordance with their needs.

The purpose of this study is to develop a model of community economic empowerment by transforming appropriate technology for traditional fish processing communities in Prigi, Trenggalek Regency.

The research method carried out is applied research which begins with a need assessment of the necessary technology needs carried out by applying appropriate technology for local community fish processing businesses based on home-industrial scale businesses.

The results of the study show that in its implementation the community empowerment model by the government is often constrained by the limitations of the main tasks and functions of each service in an effort to empower fishermen, so that the empowerment model that is implemented is not comprehensively able to develop community empowerment optimally. Therefore, it is necessary to involve various parties, both the government itself, the private sector and the community as a manifestation of Good Public Governance. However, the involvement of the three pillars of good governance is not enough and still requires other parties, namely universities to transform science and technology, in order to provide added value in the community empowerment process.

**KEY WORD:** Empowerment, Community, Development, Fishermen, Region

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## **I. INTRODUCTION**

Indonesia as an archipelagic country has a sea area of 2/3 of the territory throughout Indonesia so that the management of the potential of the oceans for the welfare of the Indonesian people is the most reasonable potential to accelerate the prosperity and welfare of the Indonesian nation. In addition, because Indonesia is an archipelagic country with many small islands, Indonesia is a country with the largest coastal area in the world. Likewise, 60% of the population resides in coastal areas, so that the empowerment of coastal communities or fishermen is a very strategic step in an effort to realize the prosperity and welfare of the Indonesian nation.

Along with the development of regional autonomy, there has been an acceleration in the development of natural and environmental exploitation in the regions in Indonesia, which has provided an extraordinary acceleration of prosperity for certain groups of people who have the opportunity and ability to access these natural resources for their welfare and prosperity. However, on the other hand, it has also resulted in impoverishment for those who do not have access to the results of natural exploitation, and has even led to absolute impoverishment for groups of people who are completely unable to access the results of these natural resources for their life and livelihood.

Fishermen's areas in regencies/cities are areas that are relatively underdeveloped in development compared to urban centers. Therefore, there needs to be a strategic study to be able to accelerate the development process and efforts to improve the welfare of the people in the area so that they are not left behind compared to other regions. On the other hand, with a relatively long coastal area, it actually has considerable natural and human resource potential, which can be used as basic capital to be managed so that community economic activities can be stimulated and developed for the benefit of their prosperity.

Nearly 40% of coastal communities as fishermen depend on coastal conditions, indicating that coastal areas have considerable coastal potential. However, it still has some limitations that need to be considered such as natural resources, human resources, funding, infrastructure, institutions, and technology in coastal areas.

The Nusantara fishing port in Prigi, Trenggalek Regency is the largest fishing port in South East Java, with a large capture fishery potential, however, the catch has not shown a significant effect on the economic growth of the local community.

Trenggalek Regency, is the largest producer of captured fish in South Java, as shown in the following table:

**Table 1.1. South Java Fishery Production Results**

No.	Kabupaten	Laut	Perairan Umum	Jumlah
1.	Pacitan	7.987,6	335,08	8.322,6
2.	Trenggalek	36.550,2	17,9	36.568,1
3.	Tulungagung	3.524,8	1.000,4	4.525,2
4.	Blitar	1.537,3	260,2	1.797,5
5.	Malang	10.566,6	382,7	10.949,3

Sumber: DKP Prop. Jatim, 2014

### 1.1. Research Problems.

The problems of this research are as follows:

- a. How is the technological transformation that can be carried out in the economic empowerment of the traditional pindang fish processing community in Prigi?
- b. How is the model that can be developed in the economic empowerment of fish processing communities to utilize appropriate technology in processing capture fishery products with high economic value?

### 1.2. Research purposes

The aims of this research are:

- a. To transform technology that can be done in the economic empowerment of the traditional pindang fish processing community in Prigi.
- b. To develop a model of economic empowerment, fish processing communities can use the fish waste products economically into fish meal and fish oil which have high economic value.

## II. LITERATURE REVIEW

The development of globalization, as a result of the development of information and transportation technology, on the other hand has created competition among nations in utilizing natural resources for the benefit of the welfare of their people. This new development, on the other hand, requires a new model of nationalism for the nation if it wants its nation's existence to continue. This is because basically globalization and free competition in world trade have given rise to a new imperialism in relations between nations or can also be referred to as neocolonialism. Where a nation state that has capital can invest its funds in other countries, both for the sake of developing its business and in an effort to utilize various resources in certain countries based on its capital. This investment is of course intended primarily for the benefit of the investor's nation state's economic interests, rather than the interests of the nation in which the investment is invested.

The pattern of relations between the investor country and the country of investment, in the midst of the world of capitalism and the economic interests and welfare of the investor, on the other hand has made the relationship between the investor country as the employer and the country where the investment is made as a labor or worker country. In this context, the empowerment of the nation's people is very necessary so that certain countries can win global competition so as not to become a workers' state as is often the case in countries with a large population but poor, such as: the Philippines, Indonesia, and various other countries, who export more labor than managers or expatriates.

The importance of developing a new nationalism, which is more empowered in the context of global competition, is therefore very much needed, so that the utilization of natural resources and wealth, "can provide the maximum benefit to the community than it is more profitable for investors at the multinational level". (AMA, 1993), This seems to have been the thought of the founders of this nation, so that the earth, water and the wealth contained therein are controlled by the state for the greatest prosperity of the people.

Community empowerment, both in rural and urban areas, can ultimately result in the nation's competitiveness because in the end the most decisive resource is human resources themselves. (Bappenas, 2000) The government's awareness to rely on the strength of its people's empowerment enables the achievement of the noble ideals of our proclamation of achieving a just and prosperous society based on Pancasila and the 1945 Constitution. To spur competitiveness, development priorities as stated by Sunyoto Usman (1998) stated as

follows: “The government can position itself as: 1) as the executor of economic policy; 2) as consumers, producers as well as investors; 3) as company (state) management; and 4) as a community regulator (regulator).

The idea about the importance of community-based development in the regions is that the process of implementing development in the regions (both in urban and rural areas) in catching up with the poor against the rich, can take place without destroying the joints of life and local wisdom that still exists in the local community. The current decentralized and democratic government system is an opportunity to revitalize Community Based Development in developing and empowering people in rural areas. To spur development in the regions, in order to catch up with the development of urban areas. So that the increase in the country's economy and the welfare of the people, can be felt by all Indonesian people in all corners of this country.

Theoretically, it is hoped that with the existence of regional autonomy, the regions will be able to carry out their own development strategies comprehensively, for the people in the regions. Along with Regional Autonomy, the strategic momentum that must be filled is how to build the capacity of local communities in accordance with their own competencies and potentials. The most promising theory in this momentum is Community Based Development. Because this development model has more respect for socio-culturally compatible mechanisms. (Korten, 1986). This socio-cultural compatibility is considered to be more flexible in its structure and procedures in adjusting to local variations. So that it can be avoided to design structures and mechanisms in a technocratic manner, without efforts to understand the social fabric of a particular area and without efforts to adapt them to the socio-cultural context. Thus, actually to implement a human-centered community development strategy, it should emphasize the importance of implementing this community-based development.

With the Community Based Development MODEL, the development that takes place in the region will ensure the support of the potential and competence as well as the resources of the local community. So that government management and development in the regions can be more:

1. Take initiatives and decision-making processes to meet the needs of local communities themselves.
2. Can be focused on increasing the capacity of local communities to manage and mobilize resources available in the community to meet their needs.
3. Government and development activities at the local level become more flexible to adapt to local conditions
4. There can be more effective collaboration between the bureaucracy and the local community.
5. Can lead to a network (networking) between bureaucrats and NGOs, as well as independent traditional organizational units, to become an integral and comprehensive part in the process of government and development. (Adaptation of Korten's approach, 1986)

The form of government and community development is presumably the characteristics of public relations and government in the form of a modern state. Where all regional institutions, potentials and participation can be accumulated in their own policies, and are guaranteed in accordance with regional conditions and capabilities, which on a larger scale accumulate in the form of a democratic state.

Currently, many empowerment programs claim to be programs based on the wishes and needs of the community (bottom up), but ironically the community still does not feel ownership of these programs so it is not surprising that many programs only last for the life of the project and end without any significant impact on the community. community life. (Wisdom, Harry, 2002)

### **III. RESEARCH METHODS**

This research method is an action research that takes 3 years, the research method for the first year can be stated as follows:

#### **3.1. Research Object.**

The object of this research is the implementation of fisherman community empowerment based on the diversification of capture fish processing, in Trenggalek Regency. Expected results in the first year of research: Identification of fishing community empowerment models based on diversification of capture fish processing in Trenggalek Regency. Identification of the empowerment implementation model carried out by the Trenggalek Regency government, according to the needs of the community, Identification of Determinants of the factors that affect the effectiveness of empowering fishing communities.

#### **3.2. Data Collection Technique**

The technique used to collect data is by focus group discussion, observation and documentation. Focus group discussions supported by interviews are used to identify the interests and needs of officials and community members, as well as various potentials for excellent service accountability that allow for development.

Observation is used to observe conditions and potentials that can be developed through existing technology, which is developed and used as a means of improving the economy of fishing communities in

Trenggalek Regency. Documentation method is used to collect data related to data stored in related Office Office documents that can be used to support the research process.

### 3.3. Data analysis technique.

The analytical technique used in this study is an interactive model analysis as developed by Miles and Huberman (1984) which consists of 3 (three) analysis components, namely (i) data reduction, (ii) data presentation, and (iii) drawing conclusions. Data reduction is the first step of analysis to find the data that is most relevant to the research problem. The data is then displayed in the form of frequency distribution patterned tables with the intention of making it easy to understand which will then be analyzed based on relevant social theories. Meanwhile, descriptive statistics use the percentage formula and the mean formula to analyze the data from the results of the need assessment.

## IV. RESEARCH RESULT

### 4.1. Various Processing of Fishery Products Capture VAT in Prigi.

Capture fisheries products from the Nusantara Fishery Port (PPN) in Prigi, have great potential for capital in empowering the local community's economy. This is because empowering coastal communities means creating opportunities for coastal communities to determine their needs, plan and carry out their activities, which ultimately creates permanent independence in the life of the community itself. Empowering coastal communities is not like empowering other community groups, because in coastal habitats there are many groups of community life including:

1. Capture fishing community, is a coastal community group whose main livelihood is catching fish at sea. This group is further divided into two major groups, namely modern fishermen and traditional fishermen. Both of these groups can be distinguished by the type of vessel/equipment used and the range of their catchment area.
2. Collector/bakul fishing communities, are coastal community groups who work around landing sites and fish auctions.

They will collect the fish caught either through auction or from the rest of the fish that is not auctioned which is then sold to the surrounding community or taken to local markets. Generally, these collectors are women's coastal community groups.

3. The labor fishing community is the fishing community group that is most commonly found in the lives of coastal communities. Characteristics of them can be seen from the poverty that always shackles their lives, they do not have adequate capital or equipment for productive businesses. Generally they work as laborers/ crew members (ABK) on skipper ships with minimal income.

4. Pond fishing communities, processing fishing communities, and labor fishing community groups.

Each community group must receive special treatment and treatment according to their group, business, and economic activity. Empowerment of fishing communities, for example, they need fishing facilities and certainty of fishing areas. In contrast to the pond community group, what they need is working capital and investment capital, as well as for the processing community and laborers. The needs of each of these different groups indicate the diversity of empowerment patterns that will be applied to each of these groups.

Thus the empowerment program for coastal communities must be designed in such a way that it does not generalize between one group and another, especially between one area and another. Empowerment of coastal communities must be bottom up and open menu, but the most important thing is empowerment itself which must directly touch the target community groups. For example, some products from the processing of fish caught by fishing communities that still need to get a touch of Science and Technology include the following:

**Table .4.1. Types and Scope of SMEs in Fish Processing**

No.	Type of MSME	Coverage
1.	Fish Fumigation	200
2.	Fish Sauce	5
3.	Shredded Fish	3
4.	Fish Nuggets	2
5.	Fish Meatballs	3
6.	TrasiIkan	2
7.	Fish Crackers	4
8.	Boiled/Gerih	25
	Sum	244

Source: DKP Trenggalek (data processed), 2015

#### 4.2. Application of Appropriate Technology in Community Economic Empowerment

As stated above that in every community, society has its own social fabric, however, due to backwardness and inability in the application of the required technology, the economic development of the community in general does not experience significant progress, especially regarding intensification, efficiency, effectiveness and high production. Economically sustainable, so it is necessary to have the presence of science and technology experts in optimizing the productivity of the social fabric in these communities. For fishing communities, capture fisheries are products that are easily damaged because of their different habitats, so it needs a touch of certain appropriate technologies to be applied in the processing of these capture fishery products. The model that can be developed can be seen in Figure 2 as follows:

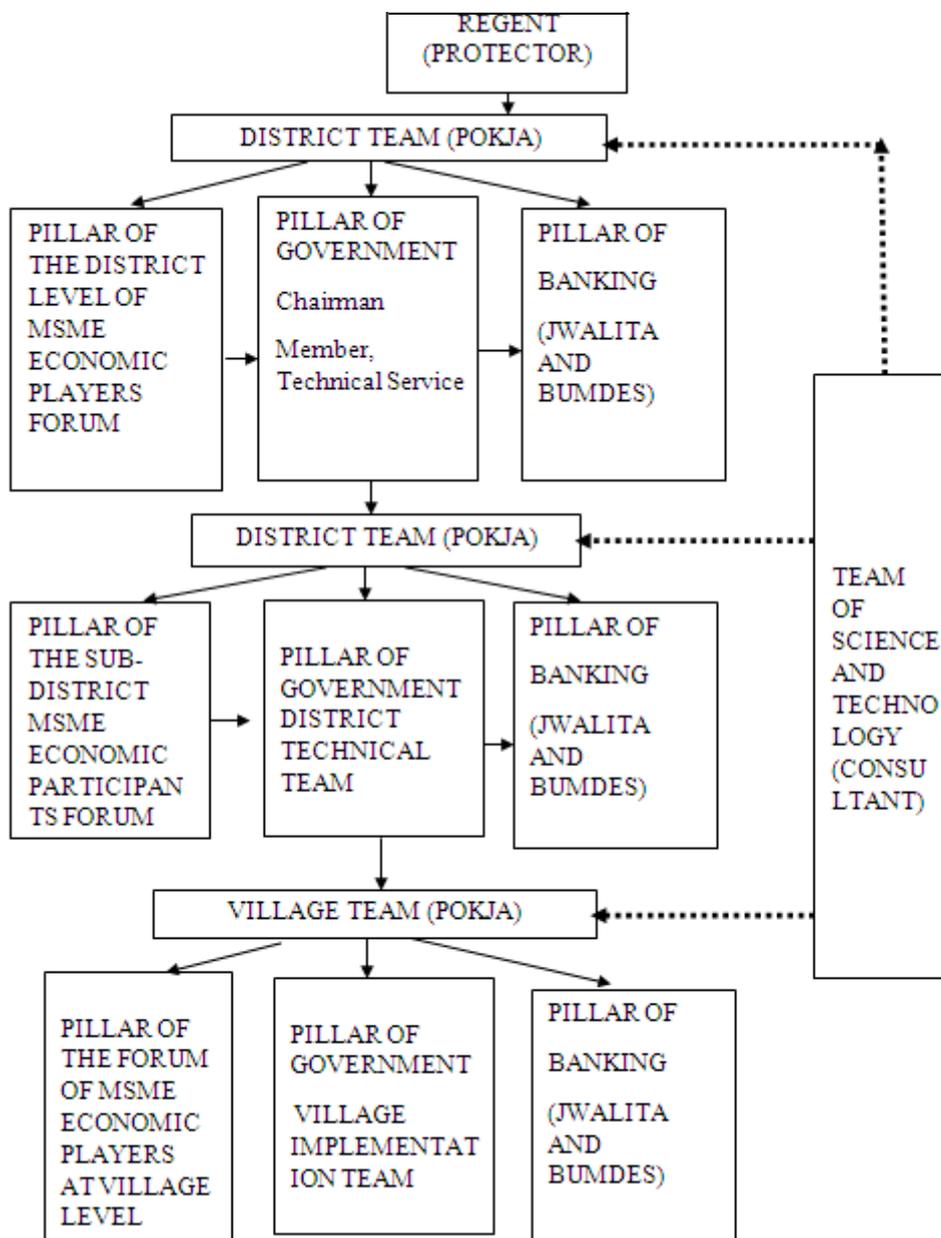


Figure 4.2. Fisherman Community Empowerment Model in the Region

## V. CONCLUSION.

5.1. Efforts to develop the economy of fishing communities with businesses on a Micro, Small and Medium scale, are a very strategic policy for the economic development of the Indonesian people, who mostly live in coastal areas, with a community pattern that is independent, inclusive and on target because business groups This requires assistance from the government in order to be able to compete with entrepreneurs or other economic actors who are already large, independent and able to compete with other business partners, both at the regional, national and international levels.

5.2. The application of appropriate technology by involving scientists and appropriate can make the process of accelerating the advancement of community welfare and educating the life of the community, especially the fishing community, must support each other to improve a productive social system for the local community itself, in order to achieve PAD that can support the economic growth of the local community. . The development of fishing communities on the scale of regional MSMEs can be the most effective model for improving the welfare of the community in addition to inviting investors from outside so that the wheels of economic turnover will be faster for the economic growth of the community.

5.3. Socio-economic conditions and geographical location of the Regency/City. Can be the main obstacle in the effort to accelerate the economic growth of the community, government and development in the Regency/City. This is due to the lack of investment from outside and the flow of large-scale businesses running within the Regency/City area.

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