

## **Transformation Of Traditional Scan Fish Processing Community To The Home Industry Scale Canning Industry In Trenggalek**

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### **I. INTRODUCTION**

The Nusantara fishing port in Prigi, Trenggalek Regency, is the largest fishing port in South East Java, with a large potential for capture fisheries products, however the results of its capture fisheries have not shown a significant effect on the economic growth of the local community.

From the capture fisheries in the Prigi port environment, it has provided business opportunities for fishermen and its surrounding communities who are engaged in fish processing. The number of fishery households in 2014 was recorded at 5,384 households consisting of 3,812 marine fishery households and 1,572 inland fisheries households. Marine fishery households are located in 3 districts, namely Panggul, Munjungan and Watulimo. Based on the condition of Trenggalek Regency which is located on the southern coast of East Java and its coastal area, Trenggalek Regency has the potential to be developed into a fishery-based good minapolitan area. (Source: Department of Marine Affairs and Fisheries, Trenggalek Regency, 2014).

Especially for the catch minapolitan processing community which is the object of this development research is the traditional pemindang community. The number of traditional fish ponds in Prigi, until 2017 has reached 54 home industries (DP, Trenggalek, 2017) which are scattered in various places of the homes of each resident, and have created separate problems for the local government and local communities, because the pollution of the waste has clouded them. the residents' well water becomes fishy and the neighboring communities are unable to bathe and drink.

To overcome this problem, the government has established pemindangan wards which are centralized in fish processing centers in Bengkorok Prigi, with the condition that fish processing community groups who live in producing fish are more hygienic and can be marketed in modern markets, so that there is economic added value for the Poklahsar. . These efforts, which have been going on for more than 5 years and until now have failed. This occurs because of the change or transformation of fish processing from traditional to hygienic scaling, economically experiencing many obstacles. Starting from the fish production material, it must be good (super fish), then the production process must be carried out cleanly so that it remains hygienic and with plastic bags which are more expensive than traditional pindang fish packaging. During post-production for marketing, pindang fish entrepreneurs must reach new market segments in the modern market with the Cold Cain Storage marketing chain, so that the marketing chain becomes more expensive to consumers, so it is not economically feasible. (Rianto, 2017).

Based on these conditions, in this study a research was carried out on the development of the transformation of traditional fish processing to household scale fish canning by applying hermetic technology to the Prigi Fish Pemindang Association Poklahsar in Trenggalek. The problems in this research can be presented as follows:

- a. What is the empowerment model that can be implemented in transforming traditional pindang fish processing into a more hygienic fish canning?
- b. What factors influence the transformation of behavior from traditional pemindang to a more hygienic household fish canning industry?

While the objectives of this study are as follows:

- a. To describe and analyze the empowerment model that can be implemented in transforming traditional pindang fish processing into a more hygienic fish canning.
- b. To describe and analyze what factors influence the transformation of behavior from traditional pemindang to a more hygienic household fish canning industry.

## **II. LITERATURE REVIEW**

The transformation of a traditional society that is less efficient and less productive is necessary in order to produce a more productive, efficient and economically beneficial community for that society. Changes in the resulting economic impact will provide good interest for local communities to change to a productivity model that is more profitable and can provide added economic value to the community. For this reason, the development and change of a social fabric-based community that has taken place in that community will provide results that can be felt by the local community.

As explained by David Corten (1986), "Community Development (Asian Experience)", it is explained that: Community Based Development is able to develop socio-culturally compatible, where the social process of the community can be developed more productively and economically able to develop itself into a social fabric that is efficient, effective and economical for the development of prosperity with the community.

Economic activities carried out by small fishermen families occur mostly in fishing areas and fishing ports, where economic activities are derivative as a link in the capture fishery business that grows and develops in fishing areas and fishing ports. This condition will certainly be very helpful and facilitate the improvement of government performance in increasing the income and welfare of fishermen in these areas. Therefore, it requires a comprehensive and integrated approach with proper and targeted business management. The creation of a business climate and investment in areas that have large and specific potential fish resources by spurring the growth of related supporting industries, which in turn will accelerate the increase in the contribution of the capture fisheries sub-sector to the national economy. (KKP - Directorate General of Capture Fisheries and Cultivation, 2011).

The results of previous research (MP3EI) show that community-based development is not enough, however, it must also be supported by development that provides support for the community to transform their business in fish processing, including their assistance until an established transformation occurs in the form of Community Driven Development. , from fish ponding to fish canning, it is necessary to introduce new technology, with different production systems and different market segments (Rianto, 2017). This is because canning is a food processing where the product is packaged in cans with the aim of increasing the shelf life of the product. The increase in storage capacity occurs because the processing uses high temperatures and an airtight packaging system.

In principle, the food canning mechanism can be done in two ways (Akbarsyah, 2006), namely:

- a. Food ingredients are packaged hermetically first, then heated.
- b. Foodstuffs are heated first and then packed (packed) hermetically, either after they are cold or hot. The use of cold packs is often referred to as aseptic canning.
  - Several stages of canning, namely: 1. Air Exhaust / Vacuum / (Exhausting), 2. Sealing, 3. Sterilization (Processing) 4. Cooling (Cooling). The main advantages of using cans as food containers are:
    - The can can keep the food ingredients in it. Food in hermetically closed containers can be protected against contamination by microbes, insects, or other foreign substances that may cause spoilage or irregularities in appearance and taste.
    - Cans can also protect foodstuffs from unwanted changes in moisture content.
    - Cans can protect foodstuffs from absorption of oxygen, other gases, odors, and radioactive particles in the atmosphere.
    - For colored food which is sensitive to photochemical reactions, the can can protect against light.

## **III. RESEARCH METHODS**

This research is an action research (Kemmis & Tagart, 1998) by conducting limited trials in the transformation of fish processing communities from traditional fish farmers to household scale fish canning industries. Starting from the production input, the production process, to the marketing, so that the business can run as a new business of fish breeders which is the target of the fish processing transformation. The object of this limited trial will be the 3 existing fish canning units plus the 2 units that have been developed in the first year. For this reason, data collection was carried out by means of FGDs, surveys and snowball interviews to complete the required data, and even conducted a questionnaire to test market interest in canned fish produced from Prigi, Trenggalek Regency.

## **IV. RESEARCH RESULTS AND DISCUSSION**

### **4.1. Fishery Sector in Trenggalek**

Prigi fishing port as an archipelago fishing port produces quite high minapolitan catch fish, and has a great potential to be used as a natural resource that can be utilized for the benefit of the fishing community in the Prigi port environment, Trenggalek Regency. From the VAT data in 2019 the captured fish can be seen in the table as follows:

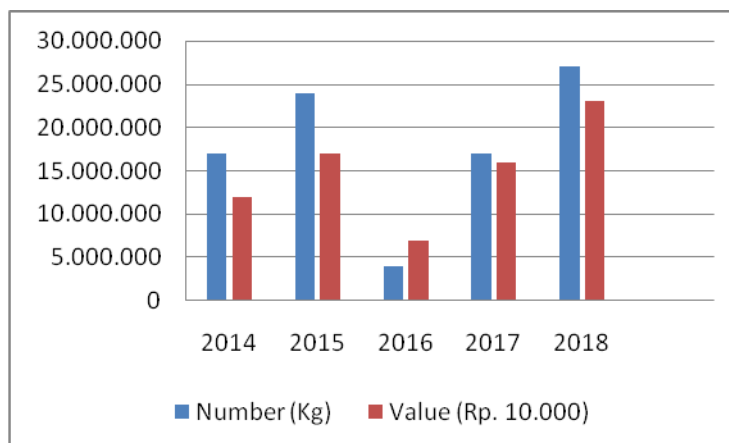


Figure 4.1 Production at VAT Prigi 2014-2018  
Source: Prigi PPN Lapsta 2019

While the types of fish that have the potential to be processed in the fish canning industry can be seen in the following figure:

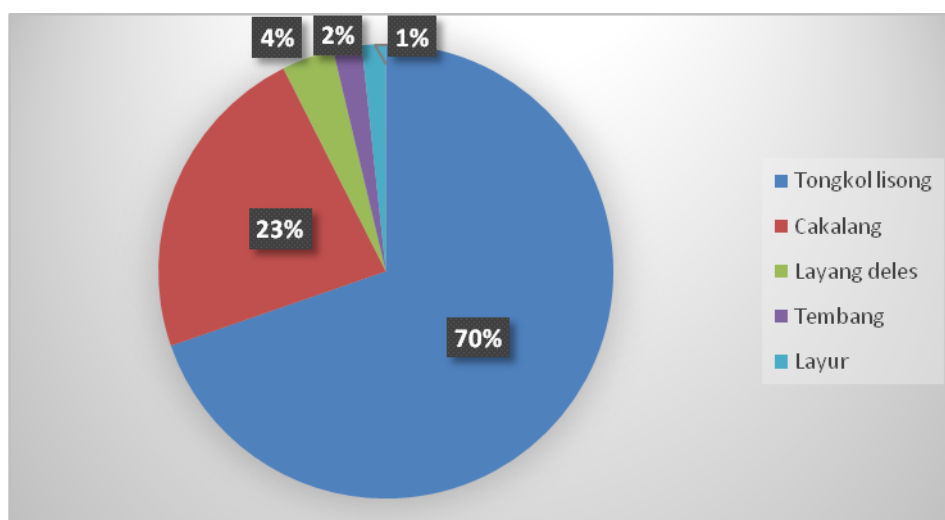


Figure 4.2 The dominant types of fish caught in the PPN Prigi 2014-2018  
Source: Prigi PPN Lapsta 2019

#### 4.2. The Strategy for the Transformation of Traditional Pindang Fish Processing Communities to the Fish Canning Industry

The strategy for community transformation from traditional fish processing to the fish canning industry must be accompanied by community empowerment or what is called Society Empowering. This empowerment can be in the form of education and training, both formally and informally, which is carried out both at school and outside of school or in the local community. This empowerment approach is theoretically the most relevant one is empowerment based on the local community. Empowerment of fishing communities based on the diversification of traditional pindang fish processing is expected to bring about new innovations in the processing of captured fish in Trenggalek Regency. Processing innovation, both in the form of business intensification and diversification of fish processing businesses, is expected to increase the added economic value of the processing business carried out by the traditional pindang fish processing community.

The fish processing transformation strategy is by introducing a more modern fish processing production system, namely the application of hermetic technology to produce canned fish. The advantages of canned fish:

1. Has a higher added economic value because it is safer for consumption with better quality standards,
2. Has a longer consumption mass, because it is tightly stored in a can and is not easily polluted by pathogens from open air.
3. Has a wider market reach, due to easy storage and takes longer, so that it is easy to distribute to various areas with a wider market reach.

The transformation strategy carried out in this action research is to involve various parties as follows:

1. Research Team from Higher Education, Hang Tuah University Surabaya with funding from the Ministry of Research and Technology / National Research and Innovation Agency to introduce new technology, namely the application of hermetic technology in fish canning.
2. Local Government, in this case the Fisheries Service of the Trenggalek Regency Government.
3. Fish processing and marketing community groups, in this case are Prigi fish breeders, or known as APIG.
4. And private companies or traders of fish processing products, namely UD. Tirta Aji Prigi, Trenggalek

#### **4.3. Factors affecting the transformation from traditional processing to modern industry**

Several factors influence the change in the traditional pindang fish processing community towards the household scale fish canning industry can be described as follows:

##### 1. Program Factors:

Factors of the Canning Industry Development Program for traditional fish breeders, namely from a simple and unhygienic production system, to a product system that is more hygienic and packaged in cans with higher economic added value, longer consumption period and market reach that is further away. It allows economic activity that does not only depend on the fish harvest season, but can be sustainable throughout the year, because the consumption period for fish in cans is longer, even up to 2 years.

##### 2. Community Participation Factors:

Changes in the community's production system from traditional fish processing to the fish canning industry are certainly something new for the community. In changing this processing pattern, of course, it will cause various changes, starting from the production input, the production process and the marketing output of the fish canning production. This of course will result in new types of production and it is not certain whether the results will be better, or become worse economically, it is necessary to have an awareness of community participation transformed from a simple traditional pindang fish processing to a more complex fish canning industry. and a higher standard of quality.

##### 3. Technological factors:

Fish canning production system is an application of hermetic technology, which is a technology unknown to the local community because in general this fish canning production system is carried out for mass production with sophisticated technology and requires large capital. In this study, the same technology is applied, namely the application of hermetic technology, but on a smaller scale, namely the household scale industry.

##### 4. Community empowerment factors.

The process of community transformation can be carried out naturally and generally runs slowly, but it can also be accelerated through the process of community empowerment, through community management that is more productive for the community.

##### 5. The socio-cultural value factor of the local community.

The social values that apply in the community will greatly influence the transformation of the community, where the prevailing social values can be a stimulus and support for the expected behavior change, namely from the traditional fish ponding production system which does not require production quality standards. high standards, leading to the fish canning industry with more stringent production quality standards and high quality standards to produce fish in the produced cans.

#### **4.3. Data Analysis Factors influencing transformation**

Based on the results of data analysis of the five factors that influence the transformation of traditional pindang fish processing into a household scale fish canning industry, the results are as follows:

<b>Tests of Normality</b>							
No	Faktor	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
1.	Program	.269	3	.	.949	3	.567
2.	Pratisipasi	.214	3	.	.989	3	.804
3.	Teknologi	.304	3	.	.907	3	.407
4.	Pemberdayaan	.213	3	.	.990	3	.806
5.	Nilai Sosbud	.253	3	.	.964	3	.637

Source: Data obtained from research results, 2020

Based on the table above, it can be concluded that the transformation of the fish processing community is significantly influenced by these five factors, with a significant value as  $> 0.05$ .

## V. CONCLUSION

The conclusions that can be conveyed from the results of the research conducted show that the transformation from traditional pindang fish processing to the household scale fish canning industry is not an easy transformation process. Of the five factors studied, it shows that technological factors play an important role in encouraging changes in the behavior of the production system carried out by traditional pindang fish processing communities to a more modern fish canning industry.

On the other hand, the level of participation is strongly influenced by programs carried out by the government and other institutions that support the transformation of the production system from traditional pindang fish processing to a more modern, higher quality fish canning industry.

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