



# Model of Economic Development and Chanosh Fisher Protection (Case Study in Domas Village, Pontang District, Serang Regency)

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**Abstract.** Food is a basic need that is fundamental and its fulfillment of human rights. In the Constitution 1945, said that the fulfillment of food as a basic component to increasing of human resources quality. Development of food and nutrition security is focused on strengthening food sovereignty. One of the icons in Serang District is chanosh. In Serang Regency, precisely in Pontang District, Domas Village is very well known as a producer of chanosh. Chanosh is one type of fish which has a good taste of meat, and is generally consumed by many Indonesian people. Chanosh, one of the mainstays in minapolitan project will be developed in Domas Village, Pontang District, which accounts for 40% of the total production of chanosh Serang Regency. Recorded in 2014 Serang Regency produced 2,423 tons of chanosh. But the problem of abrasion that is currently experienced by the Pontang's community especially in Domas Village has a very big effect. Hundreds of hectares of ponds were exhausted due to abrasion. As a result, these ponds cannot harvest much, thus reducing the income of the fishermen. Through a qualitative and quantitative research approach, it showed the government on the structural and bureaucratic have not given the maximum to solve all problems. They only can to solve the problem in short tim, in need at the time, it has not touched on the future development and innovation. The approach offered in this reseacrh is built a informal Model for Economic Development and Protection of chanosh Fishers, as an initial step that can be continued later to become an institutional strengthening that has the legality of the government and society. With this model, will speak to the context of the problem and the solution given, because it is built on the perspective of the future and the people who are compatible in there.

**Keywords:** Chanosh · Domas Village · Model for Economic Development and Protection of chanosh Fishers

## 1 Foreword

Food fundamentally is a basic needs, and its fulfillment is part of human rights that has been guaranteed in Constitution 1945 as a basic component to create a qualified human resources. Regulation No.12, year 2012 about Food entrust that The State be under an obligation to manifest availability, affordability, and fulfillment of adequate, safe, qualified, and balanced nutrition foods consumption both at national and regional levels to individuals evenly by utilizing local resources, institutions and culture. Development of food and nutrition security focused on strengthening food sovereignty which is believed can be manifested by implementing sustainable food self sufficiency program, increasing added value of food products and food exports, import control, food diversification, strengthening of chanosh fishing institutions, human resource development, and so on.

One of the icons in Serang Regency is chanosh, precisely in Domas village Pontang district, which is famous as a producer of chanosh. Chanosh is one type of fish that has a good meat taste, and generally consumed by many Indonesians, and it's a fishery commodity which relatively easy to cultivate and the technology has been established in the society, it's also has high consumer choice values, and resistant to extreme environmental changes (Sudradjat et al., 2011). The Cultivation activities already known to the public around the 14<sup>th</sup> century which began with traditional cultivation in Tidal ponds (BBPPBL, 2011).

Chanosh is the result of cultivating fish that live in brackish water or a fishpond. The development of this business has very big prospects because market demand is quite high and prices are relatively stable with easy maintenance. Chanosh has high nutritional content, specifically 70,7% water, 1,4% ash, 24,1% protein, 0,85% fat, 2,7% carbohydrate (Hafiludin, 2015). Besides that chanosh contains protein which is needed for brain cell formation in increasing intelligence, consuming chanosh besides being healthy also improves brain ability to achieve optimal learning achievement (Zulaihah,2006). But chanosh can easily damage, caused by bacterial, yeast and fungal activity.

Since 2008 Serang Regency is projected to be a minapolitan area because of its position as the biggest producer of chanosh, seaweed, and shrimp in Banten Province. The minapolitan location is in Pontang District, Tanara District and Tirtayasa District based on the Serang Regent Decree Number 523.31/KEP.661-HUK/2008 and about working group formation (known as *pokja*) based on the Serang Regent Decree Number 061/KEP.192-Org/2009. The resources of Serang Regency to become a minapolitan area is quite large. The land suitable for chanosh cultivation is around 5,023 ha. However, the land has only been used for around 3,000 ha. The Marine and Fisheries Service at Serang Regency spend Rp1,5 billion for supporting activities for the realization of the Minapolitan area. These activities include repairing waterways to fish ponds, use of breeding technology, and guidance for ponds managers. These efforts will continue next year with a budget of Rp1 billion, it's allocated to revitalize waterways, to develop chanosh cultivation intensively, and the arrangement of special chanosh hatchery units. Chanosh is one of the mainstays in the Minapolitan will be developed in Domas Village, Pontang District, which accounts for 40% of chanosh total production in Serang Regency. It was recorded in 2014 that Serang Regency produced 2,423 tons of chanosh (data from Central Bureau of Statistics, Banten Province). Apart from that, there are 22 groups of chanosh cultivators in Serang Regency and 10 groups of chanosh penders (data from The

Marine and Fisheries Service, Serang Regency). However, the abrasion problems that are currently experienced by the people of Domas village, Pontang give a massive impact. Hundreds hectares of ponds that have run out due to abrasion. As a result, the ponds cannot harvest a lot, thus reducing the income of these fishermen. The next phenomenon is many land that used to be a pond has been sold and no longer belong to the fishermen, they belong to other people that probably want to use the land for another purpose. The erosion of the beach in Jakarta to the ponds in Domas Village has a correlation due to sand mining carried out by a number of companies for reclamation purposes in Jakarta Bay.

This phenomenon then becomes a common concern how Serang Regency with the tradition and icon of the chanosh must be able to maintain and strengthen the existing of institutional system, in order to maintain chanosh as a food commodity that must be preserved and developed. Based on these phenomenon, the form that will be tested is “The Institutional Model of Economic Development and Protection of Chanosh Fishermen (case study at Domas Village, Pontang District, Serang Regency)”

## 2 Literature Review

Institution is an important factor to manage relationships between individuals to control a rare production factors (Saleh,2007). In this case, the institution has a strategic role, but according to Soekartawi (2001) institutional aspects, both formal and informal are prominent aspects which can hamper agricultural or fisheries development in developing countries especially in Indonesia. This happened because institutions in developing countries, including Indonesia, are still not optimal. The institutional definition includes two important demarcations, they are 1) norms and conventions, and 2) rules of the game. Based on its level, institutions can be categorized into four categories, they are: social institutions, groups, organizations or associations, and institutional institution. Social institutions are certain rules that are adopted by society in general and widespread, for example the land leasing system, profit sharing, bonded labor, loan and debts between farmers, paying debts after the harvest, and so on. Groups (fishermen) are a bunch (of fishermen) that are informal. Bonds in groups are based on harmony, it means they have same point of view. Interest, job, even the same composure, rural broadcast listener group and social gathering group, for example. Organizations or associations (fishermen) are organizations (fishermen) that are formal, there are administrators and members who are clearly registered. This organization (fisherman) has a certain rules, include goals, efforts, membership requirements and other provisions (Adjid,2001). Institutional Economics, institutions are used as a booster of market system work who is able to answer and even reveal the problem of the existence of a company as an administrative and financial organization. Institutional Economics has explored non-economic factors, such as ownership rights, contract law and so on as a way to overcome market failure.

The presence of many communication channels today, actually has the opportunity and also the threat to how the community understands and can apply it to the realm and communication needs in their lives. The point is, communication is the process of conveying an idea to another person in an interaction, as said by Hovland, Janis and Kelly that in a communication process there is a stimulus, where the stimulus will play

in the direction of how to change the patterns and behavior of others . As explained in a model, Laswell states that communication is closely related to the relationships and elements that exist and influence each other like: 1) Who (Communicator); 2) Says What (message); 3) In Which Channel (Channel); 4) to Whom (Communicative); 5) With What Effect (Effect). Changes to existing patterns and concepts are certainly not easy. Many factors influence how the community accepts to something new. Behavior that continues to be carried out, in the end will be a truth and difficult to change. Therefore, presenting something new related to the encouragement of innovation to the community, is not as easy as we imagine. As stated by Rogers (1974) that the process of behavior change starts from:



Another thing that we certainly can't avoid is innovation. Innovation is identified as changes and developments to something new. Humans in their lives with their intellectual abilities will continue to innovate in line with the frame of thought of the central or regional government, especially in terms of providing services and improving people's welfare. The regional leaders must continue to innovate, especially the seriousness of the government of Serang Regency in related to chanosh fishermen so they can continue to produce chanosh but also has a correlation with improving their welfare. Not only in a mere discourse, but there must be a concrete evidence in this matter.

Of course innovation that carried out is through the stages in it, it isn't directly an innovation will be accepted. Innovation not only originates or departs from the progress of the tool alone, but innovation can be done on how changes in perspective and thinking or innovation on a clear concept both on the goals or objectives. As developed by Rogers (1983): 1) Knowledge Phase; 2) Persuasion Phase; 3) Decision Making Phase; 3) Implementation Phase 4) Confirmation Phase.

### 3 Research Methodology

This study uses a qualitative approach that emphasizes observation and in-depth interviews. From the results of observations made, it was confirmed that the informants were: (1) chanosh Fishermen in Serang Regency, Pontang District, Domas Village (2) Head of Serang Regency Agriculture and Fisheries Service (3) Religious figures who know and understand about traditional economic concepts and local cultural values (4) Academics or experts in economics and fisheries, especially chanosh (5) Representatives of the local community. Questionnaire instruments as reinforcement to analyzing the description of the problems in this research.

### 4 Results and Discussion

#### 4.1 Chanosh Pond Land Condition

The existence of Domas Village chanosh ponds is getting smaller and smaller. Cultivators on this land are not the owners, but they are only employed so it is probable that their

land can be traded at any time according to the needs of the landowner. Ecologically, the location of chanosh ponds in Domas Village is better compared to other chanosh ponds such as in Sawahluhur Kasemen or in the Lontar Village, Tirtayasa District. The land of chanosh ponds in the village was based on the observation that there were more ponds in Domas using brackish water. This is because the structure of the village has an average brackish water. The production of Chanosh cultivation in Domas Village is currently only 100Kg / Ha, with an average of 1kg contain five to six fishes, the harvest period is six months, which mean that every year there are only twice harvests. This condition is far from the production of chanosh in the 80s to 90s where the production of harvests can be in 3 months, and 1kg of chanosh as many as three fish.

The results of these chanosh ponds are not only sold in the form of fish, but the utilization of chanosh is used in other processed food products such as chanosh satay, *Bontot* and Fish Crackers. With current land area of 610,934 ha, it actually has the potential and opportunity to increase its production and become an icon of chanosh production not only at the regency level, but at the provincial level it can be one of the chanosh barns in the national scope. The condition of fish farmers is not far from other fishermen in general. Judging from his life, his condition is not too encouraging. On average, pond fishermen in terms of education are still classified as low education such as elementary or junior high graduates. Fishpond fishers in Domas Village are only laborers whose profits will then be shared with the landowner or capital owner. Therefore, the benefits of the chanosh ponds are not directly enjoyed by chanosh fishermen, because their position is mostly cultivators.

The chanosh pond fishermen income is still in the low category, because still in the range of 1 to 3 million Rupiah per month. The fact is that this income is not in the form of salary, but the fishers of the chanosh are usually borrowed first to the owners of capital or to the landowners to later cut from the harvest. Erratic harvest fluctuations sometimes make many fishermen didn't get what they're expected. They can get revenues of 2 to 3 million Rupiah if they do additions or make innovations such as planting shrimp.

Based on the results of a deep observations, the harvest of chanosh fishermen currently not satisfactory, between feed, seeds and yields, it is felt to be lacking. Natural factors and human activities, such as dredging and waste, have a profound effect on the harvest result in Domas Village. For chanosh feed, it can be categorized easily. The fishermen can easily get feed. Chanosh seeds can be purchased at Anyar or in Labuan, which can actually developed by them shelves, so the capital price can be cheaper. Government subsidies are usually in the form of seeds or fertilizers. This is done through agricultural working groups that have been formed. However, these subsidies are very limited. However, the feeds are usually bought by them shelves. Every working group and cooperative village, and this has gone well.

The role of extension agents has been there, but the problem is that the chanosh fishermen are mostly old with an elementary education strata. Thus they are more happy and more likely the chanosh ponds cultivation and business pattern with traditional systems. But if we go back to the initial concepts and theories, to accept and adopt according to the adaptation theory proposed by Rogers, that in terms of knowledge, it is very decisive how this innovation is accepted. On the other hand, in terms of stimulus by local governments, they are not too aggressive to provide stimulation so they can

use new ways or theories. Apart from that, the role of extension agents from the local government is good, usually they call to the pond fishermen. Every three months there is always a meeting. At present there are socio- socialization about the system of chanosh ponds with the side of seaweed. In case of chanosh, they make counseling about how to increase the selling power of chanosh not only sold in traditional markets, but also processed into other forms such as chanosh satay, *bontot* or sticky. Indeed, the method was offered has not produced the maximum result. For example is how they can sell chanosh not only at the local traditional market but they can sell it in supermarkets. In marketing, when it's very easy to sell, demand for chanosh will increase. People in East Serang in the Districts of Pontang, Tirtayasa, Kragilan, Carenang, Kasemen etc., every time there is a feast event, their mainstay in serving food is chanosh.

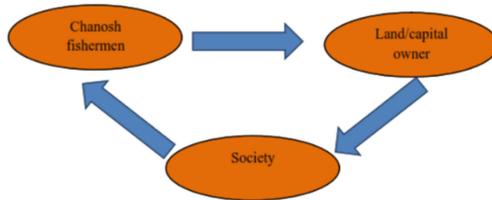
#### **4.2 Regional Government Role**

The current role of the government that is felt by the community is from the fisheries and marine service both from the Regency and the Province. The facilities from the Regional Government for offices are currently inadequate, because they collapsed. The role of the government is considered to be less serious, because the market for chanosh is not adjusted to the facility and its removal. The environment also does not receive attention, for examples waste problem and protests which not later followed up. The role of the village is better and more effective, as they allocate their villages for development which makes it easier for the chanosh production centers themselves. Limited funds and mechanisms from local governments that still seem rigid are sometimes still perceived as obstacles for fishermen and chanosh owners. Of course with small chanosh, the price is not too expensive. On the other hand, the role of the government towards middlemen or those who play the price can sometimes not be handled very well, so those who are harmed are the perpetrators and owners of the chanosh business. In this case the development agency for supervision of chanosh nurseries does not function properly. For example, the pond used in the nursery business uses tarps, so that the adaptation for the chanosh seeds will be very difficult. The good news is that currently there are several hectares of ponds for nurseries in Domas Village. However, this is seasonal, meaning that the local government only makes land and produces seeds when it feels which ones really need seeds, meaning they are not permanent. So after finishing from Domas Village, then it will move to another place. This is certainly not efficient and does not answer the problem of seedlings.

#### **4.3 Institutions Role**

The active role of government institutions to develop the welfare of the chanosh fishermen is absolutely necessary. The policy implementation of the Serang Regent related to the entry of Domas Village, Pontang District, Serang Regency, as a minapolitan area must certainly be supported by the active role of the Blood Device Organization (OPD). The role of the OPD, however, must be able to provide comfort and certainty, especially for chanosh pond fishermen to continue to focus on working and increasing production so that the welfare of pond fishermen communities will be better. The function of the institution as a unit in terms of providing input and strengthening for the creation of good

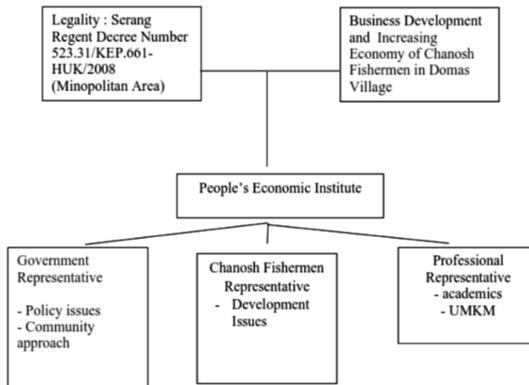
relationships and mutual support for each other. Therefore it is important for all parties to be able to collaborate and support each other on how to increase welfare not only for fishermen but also for the owners and the surrounding community. However, these three elements have an important role, so that the passion in improving and developing this chanosh business will grow.



Model : Processed Research

Based on the results of the research above, the researcher can see the gap and analyze how the actual strengthening is right in the chanosh producing area in Domas Village, Pontang District. The current and appropriate model proposed, is a model for strengthening the people’s economy. This model is as a place in the direction of the drafter, not just about technical problems, but with this model as a means by which parties are directly or not be involved in this matter. As mentioned above, this model will work as a support for the operation of the market system. This institution is filled by a collection of people who do have concentration in terms of developing and improving chanosh fishermen, especially in the context of protection for chanosh fishermen in particular and the economic development of the surrounding community. The proposals from the model are:

## 5 Chanosh Fishermen Economic Strengthening Institutional Model Proposal



In its implementation, this institutional model is not directly used in a formal institution. However, in our study we applied non-formal first. The steps that we have done here are the first perception of equality in carrying out the stages of information. Indeed, with the institutional strengthening model like this, we cannot get the effect instantly, but gradually. The closest goal of this concept is the legalization of the institution that has the power, especially the legality of the government and the community. With the existing institutional model and structure as above, it will summarize all forms and identification of the problems and solutions given based on the findings and facts in the field.

## 6 Conclusions and Suggestions

The enthusiasm to improve and maintain the existence of the Domas village in Pontang District as part of the Minopolitan area is very good. However, it turns out that the local government policy is still far from the targets. Based on the results of the research, it can be concluded that:

1. The structural and bureaucratic institutions have not given something maximal yet. Only fulfill the needs at one time, they have not touched on the future development and innovation. These are certainly not optimal.
2. The approach offered in this study, is the first step that can be continued later to become an institutional strengthening that has the legality of the government and society. This institution will talk in the context of the problems and solutions given, because it is built on the perspective to the future and people who are compatible.

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