

UDC 332

## **EFFORT TO INCREASE VALUE ADDED AND MARKET ACCESS ON AGRIBUSINESS OF SEAWEED**

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### **ABSTRACTS**

This study aims to develop agribusiness institutional design and identify problems encountered in seaweed agribusiness institutional development in Muna Regency, Southeast Sulawesi Province, Indonesia. This research uses a qualitative approach. The research data were sourced from informants representing four groups, namely: 1). Seaweed Agribusiness Actors; 2). Regional government; 3). Business people; collectors, traders, and industries; 4). Supporting Institutions; capital institutions, and other related institutions. The data collection method was carried out using participatory appraisal, in-depth interviews, and focus group discussions (FGD). The data analysis method used is institutional analysis through a qualitative approach. This research resulted in three institutional designs of seaweed agribusiness, namely; (a) upstream agribusiness institution design; (b) on farm agribusiness institution design; and (c) marketing agribusiness institution design. The results of the identification of seaweed agribusiness development problems are; (1) the level of education and skills of the perpetrators of seaweed farming are still classified as inadequate; (2) the stability of the business carried out by seaweed farming agents is still relatively unstable; (3) very limited business capital; (4) access to capital institutions is very limited; (5) aspects of asset legality do not yet exist; (6) production costs are relatively high; (7) low product selling prices; (8) lack of training and types of training that are often not on target; (9) the role of partner institutions has not been maximized; (10) seaweed farming which is managed based on a family management system; (11) limited and weak market access; (12) there is still a lack of connection between upstream and downstream products; (13) economic facilities and infrastructure are still limited; (14) business cluster function has not been maximized.

### **KEY WORDS**

Institution design, agribusiness, seaweed.

Indonesia as an archipelagic country has huge potential, especially in the fisheries and marine sector. This sector is one of the biggest contributors to Indonesia's national income structure. Some commodities in this sector are capture fisheries, aquaculture, and other marine products, such as; shrimp, crab, abalone, and seaweed. For seaweed commodities, eastern Indonesia, such as Southeast Sulawesi Province is a very large seaweed producing region and is an export-based commodity. In this region, seaweed commodities are cultivated in almost all districts / cities.

But behind the enormous potential, empirically the seaweed cultivation in Southeast Sulawesi Province has not been able to make a significant contribution to improving the standard of living and welfare of the community. This can be seen from the large number of seaweed agribusiness actors in Southeast Sulawesi Province who live below the poverty line. Seaweed agribusiness carried out by the community does not have an impact on increasing people's income.

The fundamental problems faced in developing seaweed agribusiness in Southeast Sulawesi Province, Indonesia are market access, low selling prices and high production costs. This causes the added value of seaweed agribusiness has not increased (Yusuf, et al: 2014). These problems are partly due to institutional aspects of agribusiness that have not yet played an optimal role (Yusuf, et al: 2014; Purnaningsih: 2008; and Raharjo: 2009). The

role of agribusiness institutions is needed so that agribusiness businesses can run well and be able to create added value in business.

The empirical condition of seaweed agribusiness in Southeast Sulawesi shows that agribusiness actors are in a very disadvantageous position. Seaweed agribusiness is only dominated by certain economic actors such as; Collector traders and wholesalers who gain large profits through unbalanced economic practices. Seaweed commodity prices at the farmer level are determined by the collecting traders and not by the market mechanism, so it is not uncommon for farmers to obtain very little business profit. This is because the seaweed price at the farm level is much smaller than the prevailing market price. This condition can be overcome by optimizing the role of seaweed agribusiness institutions so that seaweed farmers have a high bargaining position in the market. For this reason, institutional development of seaweed agribusiness is urgently needed, especially in Southeast Sulawesi Province in order to increase added value and market access for seaweed farmers, which in turn can have an impact on improving people's welfare and reducing poverty.

This study is focused on the development of seaweed agribusiness institutions in Muna Regency, Southeast Sulawesi Province. Seaweed agribusiness institutions in the area have not yet played an optimal role in business development and have not provided maximum added value for business actors (Yusuf, et al: 2014). Therefore, this research aims to design seaweed agribusiness institutions that are able to create added value and increase market access.

## **LITERATURE REVIEW**

The logical consequence in carrying out development is to encourage institutional innovation with expertise that includes market knowledge, agribusiness and rural finance (Adekunle, et al, 2012). Therefore institutional analysis is needed so that the actual conditions can be known in depth and can determine corrective measures if there are still weaknesses in the institution for the progress of agribusiness that is carried out. To make institutional changes, mapping and analysis of the linkages must be carried out, so it is necessary to identify the actors, institutional mechanisms and opportunities and challenges faced by small farmers (Kusnandar, et al, 2013).

Institutional conception has two meanings, namely: 1) institutions as rules of the game, and 2) institutions as tiered organizations. As a rule of the game, an institution is defined as a group of formal and informal, written and unwritten about the human relations system with its environment that concerns the rights and protection of their rights and responsibilities (North, 1991; and Olomola, 2010). While institutions as tiered organizations in economic terms describe economic activities which are coordinated not by the price system but by administrative mechanisms and authority (Bello, Lohtia, and Sangtani, 2004). Institution is a hierarchical organization coordinated by administrative mechanisms or authority, so that the institution becomes a very complex thing because of many parties and factors that influence it (Fadhil, et al, 2018).

Institutions that are in the area of locality (local institution), in the form of membership organizations (membership organizations) or cooperation (cooperatives), the industries that are members of the cooperation group (Uphoff, 1989). This institutionalization includes a broad understanding, which in addition to including the understanding of industrial organizations, also the 'rules of the game' or rules of behavior that determine patterns of action and social relations, including social unity which is a concrete form of the institution (Siu, 2007).

Institutions formed basically have several roles, namely: (a) tasks in the organization (interorganizational task) to mediate the community and the state, (b) resource tasks include resource mobilization of local resources (labor, capital, material, information) and management in achieving community goals, (c) service tasks may include service requests that describe development goals or coordinate local community requests, and (d) extra-

organizational tasks require local demand for bureaucracy or organization outside society against interference by outside agents (Garkovich, 1986).

Agribusiness institutional analysis, several institutional components are needed, namely: (1) upstream agribusiness institutions; (2) agribusiness institutions; (3) downstream industry institutions; (4) marketing institutions; and (5) supporting institutions. Analysis that can be used in developing institutional models include: system analysis, institutional analysis, and interaction analysis (Kusnandar, et al, 2013; and Arnold, 2012).

Based on the literature review, this research is focused on the preparation of institutional designs consisting of three institutional designs, namely; upstream agribusiness, on farm agribusiness, and on agribusiness markets.

## **METHODS OF RESEARCH**

This research will be conducted on seaweed agribusiness in the coastal area of Muna Regency which is focused on Duruka District, which includes; Lasunapa, Lagasa, and Gonebalano villages.

The informants in this study represent 4 groups, namely: 1). Seaweed Agribusiness Actors; 2). Regional government; 3). Business people; collectors, traders, and industries; 4). Supporting Institutions; capital institutions, and other related institutions.

The analysis technique is done in two stages;

- ✓ The first stage; arrange institutional design of seaweed agribusiness in the coastal area of Muna Regency, which consists of three institutional designs namely; raw material institutions, agribusiness institutions, and marketing institutions. Data collection is done through the Appraisal Appraisal and Indepth Interview method that aims to understand in depth the actual conditions of seaweed agribusiness institutions. The collected data is then analyzed using a qualitative approach through the Institutional Analysis used to design seaweed agribusiness institutions.
- ✓ Second stage; Identify the problems faced in the development of seaweed agribusiness institutions by all groups of informants. The data collection method is done through focus group discussions (FGD). FGDs are conducted to gather the problems faced by each party, including the government and related institutions. The collected data is then analyzed through a qualitative approach.

## **RESULTS AND DISCUSSION**

At the beginning of this article it was explained that there were two things that were targeted in this study namely; (1) compile the institutional design of seaweed agribusiness, and (2) identify the problem factors faced in the development of seaweed agribusiness.

In preparing the institutional design of seaweed agribusiness, research focuses on three institutional designs namely; (1) upstream agribusiness institution; (2) on farma agribusiness institution; and (3) marketing institution.

Upstream Agribusiness Institution Design aims to ensure the fulfillment of inputs needed by farmers for seaweed agribusiness, namely; seaweed seeds. Institutional input providers consist of seaweed nursery agribusiness groups that are in the vicinity of the business location as well as from other regions.

Based on the results of data collection at the research location, namely; in the villages of Lasunapa, Gonebalano, and Lagasa show that most seaweed agribusiness actors obtain seaweed seeds by buying. The area most often used as a location for purchasing seaweed seedlings is in Wakorumba District, Muna Regency, namely in Pure Village and Bakealu Village. Consideration of the selection of these areas is the price of seaweed seeds which are relatively cheaper compared to other places. The price of seaweed seeds obtained from Pure Village and Bakealu Village are; Rp. 200,000, - / rope (1 rope = 6 kg), where 1 rope = 30 fathoms, and 1 depa = 2 meters, so the price of a seaweed seedling per meter is approximately Rp. 3,500. As a comparison, the price of seaweed seeds in other areas in Muna Regency such as in Maligano Village is Rp. 275,000 / rope.

In addition to buying seaweed seeds, seaweed agribusiness practitioners in this research location also obtained seaweed seeds by making their own efforts. However, the acquisition of seaweed seeds by self-employment is rarely done by seaweed agribusiness actors. This is based on the consideration that the cost used to cultivate seaweed itself is greater than buying from other places. Costs incurred by agribusiness actors to produce seaweed seeds are Rp. 400,000 / rope. Based on these considerations, agribusiness practitioners more often buy seaweed seeds rather than work on their own. However, if the supply of seaweed seeds from Pure Village and Bakealu Village is reduced, the seaweed agribusiness operators are forced to make their own seaweed seeds even though at a higher cost.

The sale of seaweed seeds by seaweed seed farmers in Pure Village and Bakealu Village is carried out institutionally, namely; Seaweed seed farmers supply grass seeds to their farmer groups, which by each group of grass seed farmers are then sold to seaweed farmers in other areas in the coastal area of Muna Regency, including in the villages of Lasunapa, Lagasa and Gonebalano. The recommended upstream institution design for seaweed agribusiness at the research location can be seen in Figure 1.

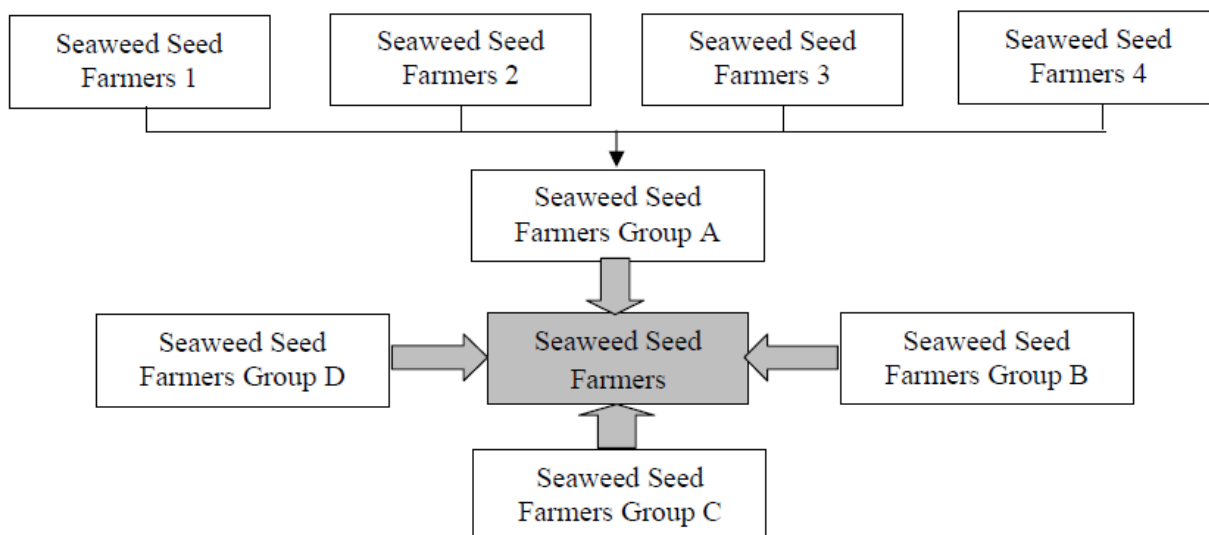


Figure 1 – Upstream Agribusiness Institution Design

The second design of seaweed agribusiness institutions is On Farm Agribusiness Institution Design. The role of this subsystem is to carry out activities that use capital goods and natural resources to produce primary agricultural commodities, namely: seaweed. At this institutionalization, farmer groups are the main actors consisting of seaweed farmers. On Farm Agribusiness Institution Design produced in this study can be seen in Figure 2.

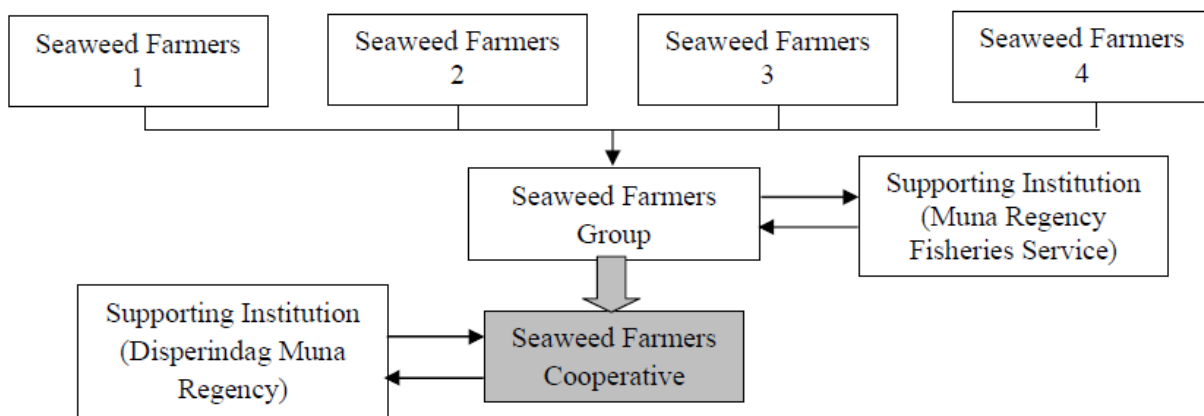


Figure 2 – On Farm Agribusiness Institution Design

On Farm Agribusiness Institution Design produced in this study in general is not much different from the upstream seaweed institution design that has been described previously. Some different things lie in the support of the government, especially to seaweed agribusiness groups. The form of support is the provision of fisheries instructors as well as assistance provided by the Muna Regency Fisheries and Maritime Affairs Office to seaweed farmer groups in the form of equipment and providing training related to seaweed agribusiness. In addition, there are also supporting institutions from the Muna Regency Industry and Trade Office to the Seaweed Farmers Cooperative. Bentunk support is the provision of trade protection for the Seaweed Cooperative with a view to maintaining the price stability of seaweed.

The real condition shows that in general the seaweed marketing institutions in Lasunapa, Lagasa, and Gonebalano villages still adhere to the traditional marketing institutional model, which is very dependent on the presence of the collecting traders. The marketing direction of seaweed production is sold to 3 (three) components, namely; collector traders who come directly to the location of production, the gelatin industry that is near the production location, and large traders who are in the City of Raha (the capital of Muna Regency). Marketing Institution Design produced in this study can be seen in Figure 3.

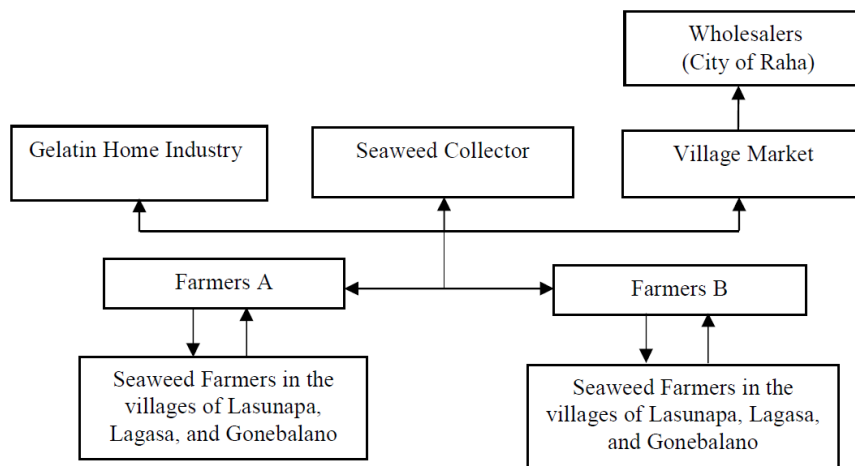


Figure 3 – Marketing Institution Design

The results of the analysis identify the fundamental problems in the development of seaweed agribusiness found at the research location, through the FGD information method, namely: 1. The level of education and skills of seaweed agribusiness actors is still inadequate; 2. The stability of business carried out by seaweed agribusiness actors is still relatively unstable due to the average length of business that has not been classified as long; 3. Very limited business capital; 4. Access to capital institutions is very limited; 5. The aspect of legality of assets does not yet exist; 6. Production costs are relatively high; 7. The selling price of the product is low because it is triggered by monopsony practices; 8. Lack of training and the type of training that seaweed agribusiness participants participate in and are often not on target; 9. The role of partner institutions is not yet maximized; 10. There are still many seaweed agribusinesses that are managed based on the family management system; 11. Limited and weak market access; 12. There is still a lack of connection between upstream and downstream products (upstream and downstream road products respectively); 13. Economic facilities and infrastructure for some areas in the coastal area of Muna Regency are still limited, especially in the production poles; 14. The function of the business cluster is not yet optimal.

## DISCUSSION OF RESULTS

The findings generated in this study in the form of Upstream Agribusiness Institution Design seaweed at the research location lead to the formation of farmer groups and

cooperatives that function as regulators of the distribution of raw materials in the form of seaweed seeds. Farmer groups were formed with the intention to increase the amount of seaweed seedling produced and be able to produce seaweed seed production in a sustainable manner. In the Upstream Agribusiness Institution Design it is also necessary to have a cooperative institution that aims to maintain a stable supply of seaweed seeds and price stability. Another finding obtained in the preparation of the Upstream Agribusiness Institution Design is that there are several raw material producing areas close to the research location that offer prices that are quite low compared to the existing suppliers of grass seeds. Therefore, in the future, it is necessary to identify potential suppliers of low-cost seaweed seeds.

Meanwhile, for the On farm agribusiness institution design seaweed produced in this study must be supported by the existence of several supporting institutions, namely; Muna Regency Fisheries Office, and Muna Regency Industry and Trade Office which serves to maintain the stability of the seaweed production process. In addition, the supporting institution will also function as an institution that prepares agricultural extension workers who are tasked with controlling the running of seaweed agribusiness activities in the research location. Supporting institutions which in this case are local governments are also expected to be able to increase the availability of supporting infrastructure on farm agribusiness.

The seaweed marketing institution in the research location based on the results of data collection and analysis still adheres to a traditional marketing system that is very dependent on the presence of collecting traders who can sometimes act as monopsonists. In this condition, the seaweed agribusiness actors are in an unfavorable condition because the determination of the selling price is in the hands of the collecting traders, so the sales margin received by the collecting traders is far greater than the business margin received by the seaweed farmers. Therefore, in the future it is highly expected that there is interference from supporting institutions in this case the regional government to be able to stabilize the selling price at the seaweed farmer level so that there is no imbalance in the acquisition of margins between farmers and traders.

## **CONCLUSION**

The findings of this study also provide information, that: the level of education and skills of seaweed agribusiness actors in the study location are also classified as inadequate, this is indicated by the large number of seaweed farmers who only have high school education; business stability carried out by seaweed agribusiness actors is still relatively unstable caused by the average length of business that has not been classified as long; very limited business capital; access to capital institutions is very limited; the absence of legal aspects of assets owned by seaweed farmers for the assets they have; relatively high production costs especially for supporting material costs; the selling price of seaweed at the farm level is very low because it is triggered by monopsony practices; lack of training and types of training that are participated in by seaweed agribusiness actors and are often not on target; the role of partner institutions not yet maximized; there are still many seaweed agribusiness actors that are managed based on the family management system, where the workforce only comes from a family structure consisting of fathers, mothers, and children; the limited and weak market access caused by seaweed farmers is very dependent on the role of the traders; the lack of linkages between upstream and downstream products caused by the presence of the processing industry of derivative products from seaweed such as seaweed jelly products, seaweed chips is still lacking; (13) the availability of supporting infrastructure for several areas in the Muna Regency coastal area is still limited, especially in the polar regions of production; and the seaweed business cluster function is not optimal.

Some things that can be suggested from the results of this study are: (1) the need for the revitalization of agribusiness institutions aimed at strengthening institutions in each agribusiness institution design in the form of institutional seaweed agribusiness institutional engineering in order to be able to increase added value and market access; (2) there is a need for government intervention in seaweed marketing, so that the price of seaweed at the

farm level can increase; (3) optimizing the role of partnership institutions to support seaweed agribusiness activities; (4) improvement of supporting infrastructure is needed to support the development of seaweed; (5) cooperation between seaweed agribusiness actors and the capital provider is expected to increase the availability of working capital for seaweed farmers; and (6) training activities on procedures for seaweed agribusiness management that are beneficial for seaweed farmers are needed.

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