Effectiveness of CCDP-IFAD Program to Fishermen’s Incomes of Fish Smoked in Ternate City and The Right Strategy (Case Study fish Smoked IndustriGroup at Village Faudu, HiriIsland)

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Abstract. Coastal Community Development Project–International Fund for Agricultural Development (CCDP-IFAD) program presents to effort economic empowerment, one of the industrial development effort of smoked fish. The city of Ternate is located in a geographical area and wide in North Maluku, two great potentials that can be optimized for the development of fishermen's economy. So that, this research was conducted as evaluative research and expected useful to its industrial development. The purposes of this research are fathom of; (1) the program effectiveness of CCDP-IFAD through fishermen’s incomes of fish smoked in Faudu Village of Ternate City and (2) to formulate the right strategy in fish-smoked industrial development in Kelurahan Faudu. The research method was qualitative and quantitative research. Inference analyses sampling in pairs to compare revenue value before and after doing the program, and SWOT analysis to formulate right strategy. The result of the research showed that (1) inference analyses sampling test concluded that the program was not significantly effect to fishermen’s revenue. (2) the result of SWOT analyses had the best strategy was optimization the power of resources both natural or human resources and supporting institutions and the chance Such as high market absorption, tourism and still open diversity to prevent the weakness and threatens. The strategy was evaluated to stimulate quality of life through developing business aspects.

Keywords: The effectiveness of CCDP-IFAD, fish smoked industry, development strategy

1. Introduction
North Maluku is an archipelago with a total area of 140,255.32 km². Where most of the area is dominated by marine waters, which is 106,977,32 km² 76.27% (BPS, 2015). The potential of marine is very large but not yet good impact for the fishermen economy in Ternate City. In addition to fishing fishermen, in Ternate City there are also fishermen processing fishery. These processed fishermen certainly have the potential for the development of product quality as well as wider marketing access in order to improve the fishermen's economy. This development can be achieved if done strategic empowerment.
The Coastal Community Development Program - The International Fund for Agricultural Development (CCDP-IFAD) is present as an effort to empower the economy, one of the efforts to develop the Fishing Industry. The city of Ternate is at the forefront of the vast and central trade of North Maluku, two great potentials that can be optimized for the development of fishermen’s economy (Laitupa, 2017).

The existence of this program is expected to nurture fishermen to berdaya ekonomi. Untuk support it conducted research on the effectiveness of CCDP-IFAD Program to Fishermen Fishery Income Rate in Ternate City and Development Strategy (Case Study of Industry Group of Fungi Kelurahan Faudu Kecamatan Pulau Hiri).

The purpose of this research is to Analyze the Effectiveness of CCDP-IFAD Program to Fisherman Fish Fill Rate in Ternate City and Development Strategy.

2. Research Method
Data Analysis to determine the effectiveness of CCDP-IFAD program to increase the income of fisherman using paired samples t test in paired samples t test to see the difference of income level of fisherman between before and after receiving program. Furthermore, to analyze and formulate coastal community empowerment strategy, especially fisherman smoke fish processing is done SWOT analysis.

2.1. Time and place
The research was conducted in Faudu Village, Kecamatan Pulau Hiri Kota Ternate, December 2016 until January 2017.

2.2. Data Collection Equipment and Methods
The tool used in the form of questionnaires for interviewing the level of income of fishermen, stakeholder interviews to mengumpu data that will be used in SWOT analysis and media recording video and audio.

The income level data was obtained by interview method to 6 fishermen from three groups of Fish Smoke Fishers in Faudu Sub-district. Next Collect data that will be factors in the points of strategy formulation with SWOT analysis, obtained by interview, discussion, observation, literature study on the object of research, related institutions, program implementers and other parties who can provide valid data and can be accounted for.

2.3. Data analysis
The effectiveness of the program to increase income is analyzed using paired samples t test to see the difference of income level of fisherman before receiving after receiving program. The t calculation formula in paired sample inference is:

\[ t = \frac{\overline{d}}{\frac{s_d}{\sqrt{n}}} \]

SWOT analysis is done through weighting and scoring based on interview result, then justified by researcher in the form of weight and score. Based on what was put forward by Rangkuti (2013), the steps undertaken in this SWOT analysis begin with the data collection phase. The data collection stage is an activity of classification and pre-analysis, first dividing the two data distinguished by external data and internal data. External data is data in the form of opportunities and threats and internal data is data which is a fact that can be a strength and weakness. Factors that are expected to be external and internal factors include:
3. Result and Discussion

3.1. Income Level
Fishermen processing fish smoke recipient of IFAD CCDP program in Faudu urban village of Ternate have entrepreneurial potential through development of home industry that already exist. Some potentials that can be utilized include high market absorption, innovation ideas and continued diversification, and availability of raw materials. The CCDP-IFAD program is expected to provide benefits to the fish-processing fishermen in the form of increased income. Empowerment is the first step for a powerless society to be empowered where people can have the power, capability and control of something that is able to empower their lives, both personally, family and in society (Tanggelangi et al., 2012). The results show the income level as in table 1 (Laitupa, 2017).

| Members Of The Program Acceptive Group | Income Before (Rp) | Income After (Rp) |
|----------------------------------------|--------------------|------------------|
| 1                                      | 800.000            | 800.000          |
| 2                                      | 750.000            | 800.000          |
| 3                                      | 1,000.000          | 1,100.000        |
| 4                                      | 850.000            | 850.000          |
| 5                                      | 600.000            | 650.000          |
| 6                                      | 900.000            | 900.000          |

Based on statistical analysis inference paired samples found that Hypothesis Ha (significant increase) is rejected because t-count is smaller than t table so that the conclusion that the effect of the program does not show significant increase in income. The conclusion demands the formulation of program effectiveness strategy to increase income as a goal of empowerment (Laitupa, 2017).

3.2. Development Strategy
SWOT analysis can be displayed in the form of SWOT matrix in table 2.

| Internal | STRENGTH (S) |
|----------|--------------|
|          | 1. Potential Fisheries Resources are great |
|          | 2. The existence of institutional support such as fishermen group and CCDP IFAD |
|          | 3. Potential human resources as a businessman of hereditary smoked fish and a strong motivation to develop the business |
|          | 4. The existence of related agencies |
|          | 5. The existence of financial institutions in Ternate City such as banks and cooperatives |

| Eksternal | WEAKNESSES (W) |
|-----------|----------------|
|           | 1. The processing technology is still simple and the marketing creativity is still minimal |
|           | 2. Durability and quality of fumigation products has not been improved |
|           | 3. Low level of education and mindset less responsible for the consequences of program participants |
|           | 4. Difficulties capital |
|           | 5. Transportation |
The strategy directives shown in the SWOT matrix in Table 2 outline the strategy through a suitable approach to the existing fishing conditions. The existence of opportunities for fishery resources and market absorption and supported by the potential of human resources and related institutions is very possible to provide extensive job opportunities and efforts to improve living standards.

Increasing the production rate is still very necessary considering the market absorption is so high, which if done optimally then by itself will overcome the problem of capital even transportation. The technology used by fishermen is generally still simple, resulting in low productivity and ultimately low income. Efforts to increase revenues are made through technological improvements in an integrated manner, from production technology to post production. In the context of smokers fish processing fishermen is certainly a quality improvement to be the main factor must be considered in order to increase sales and revenue. Increasing the quality of smoked fish would lead to higher selling prices and the income of fishermen and craftsmen of smoked fish would increase (Handayani et al., 2014).

Improvement and improvement of technology is also an important factor if you want to diversify the product as one of the opportunities that are considered still very wide opportunity. Nevertheless,
community empowerment through technological improvement must also take into account the nature, character, capability, and readiness of coastal communities to enable the implementation of technology to be sustainable (Sipahelut, 2010). Of course this needs to be supported with financial management capabilities. This step needs to be enhanced by IFAD's CCDP program implementers to enable fishermen to look closely at the problems faced by exploiting their own potentials as well as external factors, such as the ability to access capital through financial institutions such as banks and cooperatives. This is a good opportunity, but sometimes conventional banks find it difficult to provide capital assistance because of uncertain sea weather factors that affect the availability of raw materials, or it can be difficult because of the lack of collateral provided by banks. It is also necessary for institutional strengthening such as establishing fishermen cooperatives or other institutions in other forms that can support economically.

The difficulty of access to capital is one aspect that needs to be considered, one of the alternatives is developing self financing mechanism. The form of this system is the development of micro institutions and the future is expected to grow into a macro, which is devoted to support capital business in the field of fisheries (Nikijuluw 2001 in sipahelut, 2010).

Ternate Island is seen from a very strategic marketing aspect as it is a market and export center of North Maluku Province which already has supporting facilities and infrastructure such as: Ahmad Yani port, Fishery Harbor Nusantara Bastiong, and Dufa-dufa fish landing center. Its airport baabullah airport also supports the accessibility of fishery commodities and other products from the center of production to the market interinsuler and export.

External factors such as opportunities for supporting institutions should be optimized with improved partnerships. Besides the existence of tourism activities such as Hiri island festival needs to be utilized by making the fishery products as a typical high-value culinary icon. In addition it is necessary to strengthen the independence of fishermen, this is possible because of the motivation owned by the fishermen so that in turn later the fishermen do not always have to depend on existing programs.

The government as stakeholders as well as policy makers is required to contribute directly to improve the economic power of coastal communities in the island of Hiri in the form of a rill program with facilities and infrastructures that support fisheries production activities, reach fishermen community with the help of production facilities with the latest technology, training education, on product development, fishermen's economic power, development of market access, institutional strengthening.

4. Conclusion
The income level was slightly increased but uneven and the paired sample inference test results showed no significant improvement. Based on the SWOT analysis, it can be concluded that the most appropriate strategy is to maximize the existing strength and opportunities by exploring all internal potentials and optimizing the best available opportunities for raw materials availability, capital access, market absorption, institutional support, and tourism.

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