



# **Analysis of Fisheries Production Center Development in Nila Village, Ciamis Regency, Indonesia**

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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**Case Study**

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## **ABSTRACT**

Ciamis Regency is one of the areas that has a large enough fishery potential of 51,626 tons. The potential of the area that is owned is able to make a force for the development of the Ciamis Regency area. This study aims to analyze potential problems and issues by providing a strategy that must be applied. This research uses a case study method. Data were obtained from related agencies, the results of interviews and filling out questionnaires directly to cultivators. The analysis used is SWOT analysis. Based on the results of the SWOT analysis, the chosen strategy is the SO strategy, which is included in the aggressive strategy, which means that Kampung Nila Kawali can maximize existing strengths and take advantage of opportunities. The chosen strategy for the development of the kawali fishing village includes (1). Carry out or intensify available cultivation land through the use of government assistance, (2). Applying the latest cultivation technology through training activities (3). Perform certification of tilapia broodstock and seeds.

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## 1. INTRODUCTION

The fishery sector in Indonesia, especially in Ciamis Regency, West Java Province, has considerable fishery potential. of which Indonesia's aquaculture production is 990,764 tons. UU no. 45 of 2009 defines the fisheries sector as a series of activities related to the management and utilization of fish resources and their environment in a sustainable manner. Ciamis Regency Regent Regulation No. 32 of 2015 concerning Superior Fisheries Production Centers in Ciamis Regency, is very supportive because Ciamis Regency itself has a production of 51,626 tons (BPS, 2017). The Ciamis Regency Perbup itself is also supported by the West Java Governor Regulation Number 25 of 2021 concerning Human Resource Development, one of which is in the fisheries sector which is a reinforcement for the development of fishery production centers in Ciamis Regency and is related to the 3rd mission from the Regent of Ciamis Regency, namely "Developing an Economy Based on People's Economy, Local Superior Potential and Community Empowerment", the fisheries sector in Ciamis Regency is used as a local superior potential.

Regional potential is the ability, strength, power that has the possibility to be developed in an area. Ciamis Regency is one of the areas with great potential for the fisheries sector in the future. The source of water which is the main basis for cultivation is very easy to obtain, because the source of water for cultivation usually uses rivers for irrigation and other springs. Based on regional potential, Ciamis Regency has the potential for freshwater aquaculture and fairly even marketing of each cultivated fish commodity. Most people in Ciamis Regency work as farmers, but many of them work side by side as cultivators, because the community has just realized that the fisheries sector will become the leading potential of the Ciamis Regency area in the future.

Aquaculture according to Cahyo [1], is a form of human intervention in increasing the productivity of an aquatic activity carried out, namely producing fish in a container or control media and profit-oriented. The suitability of conducting fish farming in Ciamis is strongly supported by the existing potential, such as a very abundant and good quality media (water) source for

cultivating various types of fish. According to RI Law Number 9 of 1985 and RI Law Number 31 of 2004, activities included in fisheries start from pre-production, production, processing to marketing which are carried out in a fishery business system. Fish commodities that are widely cultivated are tilapia, *osteochilus vittatus*, catfish, carp, gold and *barbonymus gonionotus*. Tilapia is a more dominant fish to be cultivated in Ciamis, because there is one area that can be called a tilapia center or often called tilapia village which is located in North Ciamis, namely Kawali District.

According to KKP Regulation Number 47 of 2021 concerning Indonesian Fishery Villages, an aquaculture village is an area based on superior commodities or local commodities by synergizing various potentials to encourage the development of a sustainable aquaculture business. The tilapia village in the northern part of Ciamis is a potential center for fisheries and is growing. The development of this indigo village has increased significantly even though it was only established at the end of 2021, judging from the marketing that can meet demand in Ciamis and even outside Ciamis. According to data from the population of the Kawali sub-district, the majority of the 75 heads of families who live in the indigo village of Dusun Banjarwaru Kawali manage the fishery business.

Seeing the potential of Ciamis Regency in the field of fisheries has made the fisheries sector a very promising profession for the future. The superior production center for tilapia village has become one of the icons of Ciamis Regency in terms of regional superior fishery potential, therefore it is important to carry out research analysis on the development of fishery production centers in Tilapia Village in Ciamis Regency.

## 2. MATERIALS AND METHODS

The research method used is the case study method. The case taken was in the area of Nila Village, Kawali District, Ciamis Regency, West Java Province. The method of selecting respondents was carried out using purposive sampling with a population of 75 heads of families, where sampling was carried out by looking at respondents who met the criteria. The data collection method used is primary and secondary data obtained from the results

of questionnaires, interviews and other references.

## 2.1 Data Analysis Methods

SWOT analysis is a systematic identification of factors that aim to formulate a regional development strategy which includes internal factors, including strengths and weaknesses, as well as external factors, including opportunities and threats that are being faced.

### 2.1.1 IFE and EFE matrix analysis

IFE (Internal Factors Evaluation) and EFE (External Factors Evaluation) were carried out to analyze the internal and external environment of aquaculture activities in the Nila village so that factors were produced which were used as strengths and weaknesses. The initial steps that must be carried out are gathering information and identifying internal and external factors related to cultivation by conducting discussions and filling out questionnaires to the surrounding community. According to David [2], the steps for developing the IFE and EFE matrices are as follows:

- a) Column 1, states internal factors that make a strength and weakness, while external factors that make an opportunity and a threat.
- b) Column 2, determines the weight of each factor with a scale ranging from 0.0, which means it is not important, to 1.0, which means it is very important according to its influence on the strategic position. The total weight must have a value equal to 1.00, the determination of the weight of each variable is very continuous with external and internal factors. To give a value to the weight of each external and internal factor, namely by comparing the horizontal variables with the vertical variables. The weight of each vertical is obtained by determining the value of each variable to the total value of the entire variable using the following formula:

$$A_i = \frac{X_i}{\sum_{i=1}^N X_i}$$

Information:

- $A_i$  = weight of variable  $i$
- $X_i$  = variable value -  $i$
- $i = 1, 2, 3, \dots$
- $N$  = number of variables

- c) Column 3 in the IFE and EFE matrices, determines the ranking in the questionnaire which is determined on the basis of the condition of the factors found in Nila village. According to David [2], the rating scale used is: For internal factor analysis: 1. Major weakness, 2. Minor weakness, 3. Major strength, 4. Minor strength. For external factor analysis (opportunities and threats): 1. Poor, 2. Moderate, 3. Good, 4. Very good. For the opportunity factor the assessment is given based on the ability to respond to existing opportunities. The threat factor assessment is given based on the ability to avoid the threats faced.
- d) Column 4, determine each value of the weight multiplied by the rating value to get values for all determinants.
- e) Column 5, determines that all values are added up to get the total value. The total scores range from 1.0 as the lowest score to 4.0 for the highest score with an average rating of 2.5. The total weighting value below 2.5 indicates a weak system externally and internally, whereas a value above 2.5 indicates a strong external and internal position.

### 2.1.2 IFAS and EFAS analysis

IFAS (Internal Strategic Factors Analysis Summary) or internal factors, namely by registering all the strengths and weaknesses that exist in the Nila village. In its presentation, factors that are positive (strengths) are written before those that are negative (weaknesses). As is the case with the external factor identification stage or EFAS (External Strategic Factors Analysis Summary) which registers all opportunities and threats [2].

### 2.1.3 Strategy matrix analysis

The strategy matrix basically has two key dimensions, namely the total IFE and EFE scores given weights. The horizontal axis contained in the strategy matrix determines the total IFE score, where a score from 1.00 – 1.99 indicates a weak internal position and a score of 2.00 – 2.99 indicates a strong internal position. The vertical axis shows the total EFE score, where if the variable score is between 1.00 - 1.99 it indicates the ability of the Indigenous Village to respond to opportunities and threats is considered low and a score of 2.00 - 2.99 can be considered high.

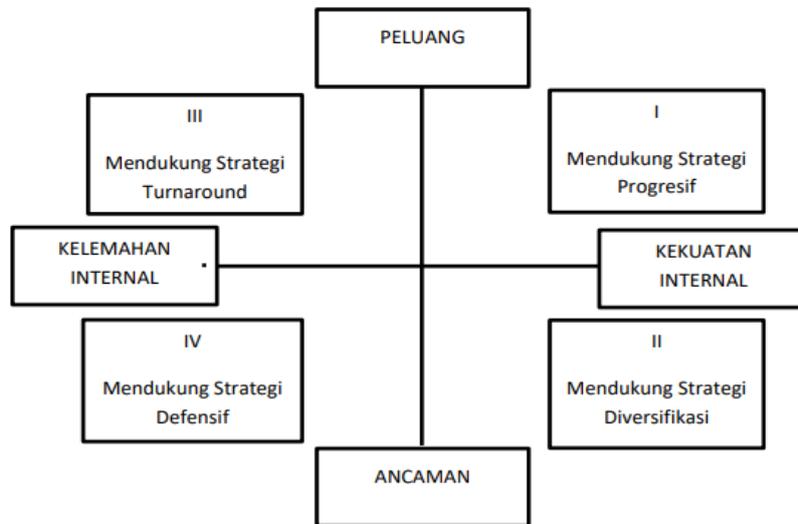


Fig. 1. Strategy matrix analysis

Table 1. SWOT matrix

EFAS \ IFAS	Strengths (S)	Weaknesses (W)
Opportunities(O)	Strategi SO	Strategi WO
Treatths(T)	Strategi ST	Strategi WT

2.1.4 Strategy meaning

Analysis of the meaning of the strategy is the stage of matching the results of alternative strategies that are in accordance with those that have been carried out involving the strengths, weaknesses, opportunities and threats that have been previously determined (Fahmi. F., 2016). This matrix produces four sets of alternative possibilities, namely SO, WO, ST and WT strategies or is called the SWOT matrix. The table contains all factors both internal and external (Rangkuti, 2008). The SWOT matrix is shown in the Table 1.

3. RESULTS AND DISCUSSION

Analysis was carried out to obtain alternative regional development policies that are in accordance with the development of the fishery area of kampung nila kawali. The basic development strategy for the factors that influence fishing activities in Nila Village. Looking at the analysis that has been done before, it shows that each factor has the potential to be developed by making improvements to existing deficiencies. To determine a regional development policy in Nila village, a SWOT analysis is used.

3.1 IFAS (Internal Factor Analysis Summary)

Based on the results of the previous analysis, there are several internal factors, namely strengths and weaknesses, the factors that become these strengths are as follows:

- a) Availability of extensive cultivation land that can be managed to develop aquaculture. The existing cultivation land in Nila Village currently has an area of ± 2 Ha with an area that has the potential for cultivation of ± 10 Ha. Judging from the available potential, Nila Village deserves to be a leading production center area in Ciamis Regency.
- b) The availability of quality broodstock is a strength for cultivators, especially in the area of Nila Village nursery, because with the availability of quality broodstock it can produce quality fish seeds as well. This is very necessary to further develop the area so that it is known for its superior quality seeds and can compete with fish seeds outside Ciamis Regency.
- c) Quality seed resources are a strength that is expected by cultivators in the enlargement field, because with quality seeds, the fish that will be produced is also of high quality. Just like the availability of quality broodstock, where quality seed sources can also develop areas that are famous for producing quality fish and can also compete with fish that are outside Ciamis Regency.

- d) The application of good cultivation methods (CBIB) carried out by cultivators in Tilapia Village has been said to be successful. The application of this good cultivation method makes it a force to increase sustainability in sustainable cultivation techniques. Nila Village also has a CBIB certificate.
  - e) The conditions and sources of water for aquaculture in Tilapia Village come from irrigation rivers from Gunung Sawal springs. During the dry season, Nila Village cultivators never experience a shortage of water sources for cultivation activities because the water supply from irrigation can meet the needs of cultivators during the dry season. The waters used are also very supportive or suitable for aquaculture activities.
  - f) good cultivation skills, because skills in cultivation are a major key in development in Nila Village. Looking at the human resources in Nila Village which are quite high both in terms of the number of cultivators, high mutual cooperation participation and others for the development of Nila Village
- The factors that become weaknesses are:
- a) Farmers in Nila Village have cultivation experience which can be said to be lacking. The cultivators who are said to have the longest experience, namely 4 years, are cultivators who joined since the establishment of Nila Village. However, there are some cultivators who have been involved in the world of fisheries long before Nila Village existed, namely around 5-10 years and above. According to Anggoro [3] states that experience greatly influences a person's productivity.
  - b) Nila Village cultivators still have weaknesses in understanding business management in the fisheries sector. This can be seen from the influence of the final education taken by cultivators. Apart from education there are also several factors, namely the lack of training on business management for cultivators in Nila Village. This will greatly affect the lifestyle of the cultivating community who do not think far ahead, resulting in a consumptive nature when getting a lot of results. Because by understanding good management, cultivators will be able to overcome the production constraints they face, so that in the end they will be able to change business results [4].
- c) The availability of inadequate cultivation equipment is a weakness faced by the cultivators of Nila Village. One of them is the use of an automatic feeder and wheel technology which is widely used for grow-out cultivators. However, most of the cultivators, especially the enlargement sector, have not been able to use a water wheel or automatic feeder for enlargement, this is due to the constraints on the capital of the cultivators.
  - d) The source of capital, which is said to be still weak, is an obstacle for the cultivators in Nila Village. The various financial capabilities of cultivators make capital a weakness that must have a way out. The absence of cooperatives and government assistance independently (not on behalf of the group) in Nila Village has forced cultivators to borrow group bailout funds (Pokdakan), but for cultivators who are financially capable enough to issue personal capital.

### 3.2 EFAS (External Factor Analysis Summary)

Based on the results of the analysis, there are several external factors in the form of opportunities and threats. The following are the factors that become opportunities:

- a) Government assistance in supporting fisheries development is one of the opportunities that can be utilized in Nila Village. Government assistance in the form of capital loans through cooperatives and equipment for cultivating equipment is urgently needed by cultivators. This can help reduce one of the problems that are often faced, namely the problem of capital.
- b) Nila Village has a strategic location to reach. According to Fitriani [5], states that the success of a business depends on choosing the right location. Therefore, by having a strategic location, the Nila Village area will develop economically. The infrastructure in Nila Village is very supportive for cultivation activities. According to development economic studies, it states that to increase the economic activity of an area, adequate infrastructure facilities are needed [6].
- c) Competent Fisheries Extension Officers in Nila Village make a force for cultivators, where fisheries extension officers are very helpful in guiding aquaculture activities. So

that with the existence of fisheries extension agents, Nila Village will grow.

- d) Knowledge and development of increasingly advanced fisheries technology when used in the right way will ultimately facilitate the cultivation process. This becomes an opportunity in the utilization of fish resources if the implementation is accompanied by the absorption of sufficient information.

The factors that pose a threat are:

- a) Fluctuations in feed prices which tend to continue to rise make farmers confused to determine feed that has affordable prices, this makes it a threat to farmers.
- b) The large supply of fish production from outside Ciamis Regency that enters makes the cultivators feel a loss because the supply of fish that comes in at a relatively cheap selling price. This poses a threat to cultivators, because people prefer fish from outside Ciamis Regency.

### 3.3 IFE and EFE matrix

Based on IFAS and EFAS which have been discussed above, there are internal and external factors that influence the development of the fishing area in Nila Villega. Identified there are 10 internal factors consisting of 6 strengths and 4 weaknesses. There are 6 external factors consisting of 4 opportunities and 2 threats. The results of the weighting and rating of the respondents were then taken - the average weight and rating for each internal and external factor. After that the results are entered in the IFE and EFE matrices and multiplied to get the scores of each of these internal and external factors (Table 2 and 3).

The IFE Matrix is an analytical formulation in the internal environment. This IFE matrix provides a summary and evaluation of the main strengths and weaknesses in various functional areas in a variable [7]. Based on the IFE matrix above, it is found that the most dominant strength is the availability of extensive cultivated land and high human resources, which has a weight of 0.113 and branch 4 with the highest score of 0.406 for each factor, then the second is the availability of quality seed resources with a weight of 0.110., rating 4 and score 0.384. The most dominant weakness is the source of capital for cultivators which is still minimal which has a weight of 0.100, rating 3 with a score of 0.321, then the second, namely the availability of fishing equipment that is inadequate has a weight of

0.091, rating 3 and a score of 0.264. The overall total score for internal factors is 3.236 (IFE value), where this figure is above the average, which means that Nila Village has strong internal potential.

The EFE matrix is used to infer opportunities and threats to a variable. This EFE matrix analysis was carried out using the same calculations as the IFE matrix [7]. Based on the matrix data above it states that the most dominant opportunity is government assistance that supports and competent fisheries extension officers who have a weight of 0.178, rating 4 with a score of 0.772 for each factor, second order, namely development and knowledge of fisheries technology, which has a weight of 0.164, rating 4 with a score of 0.658. The most dominant threat is fluctuations in feed prices, which have a weight of 0.171, a rating of 4 with a score of 0.713. The total score for external factors is 4.071 (EFE value), where this figure is above the average which indicates that Nila Village has strong external potential.

### 3.4 Strategy Matrix Analysis

This matrix is a combination of the results of an internal and external analysis obtained from the total score of the IFE and EFE matrices. The total IFE matrix score results will be plotted on the x-axis and the EFE matrix score results will be plotted on the y-axis. The meeting of these two axes will show in which quadrant the internal and external factors of Nila Village are positioned and the results from these quadrants will yield any strategies that will be applied in developing fisheries in Nila Village.

Based on the results of the IFE matrix above, the internal position on the x axis has a score of 3.236. Based on the results of the external position EFE matrix on the y axis which has a score of 4.071. The combination of IFE and EFE values is in the quadrant I strategy matrix (upper right), in the Fig. 2.

Looking at the results of the internal and external positions above, it shows that the strategy matrix is in a very good situation, because there are strengths that are utilized to seize profitable opportunities, therefore alternative I or SO strategies can be used, namely supporting the development of aggressive growth policies [8]. Aggressive growth is a strategy that supports maximizing existing strengths and taking advantage of existing opportunities to achieve

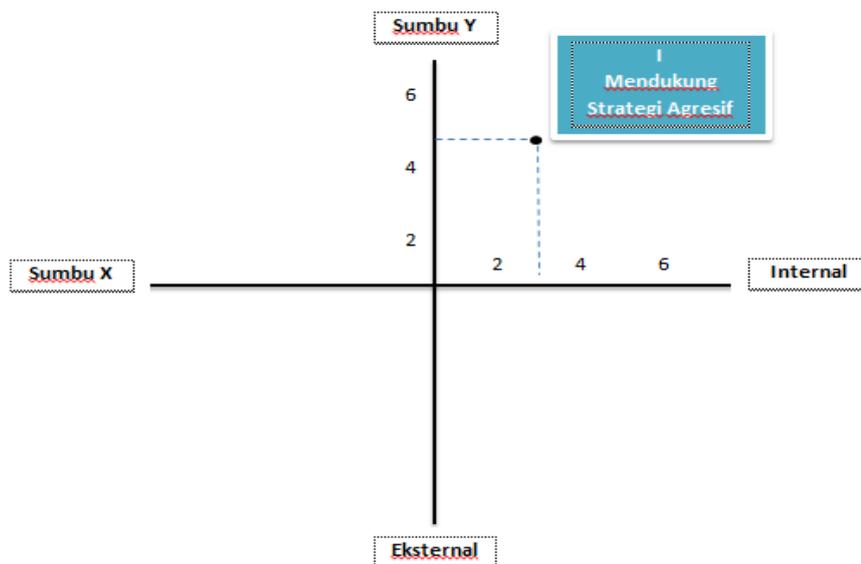
success. In quadrant I, the general strategy that every advantage of the opportunities or must be carried out is to use strength to take opportunities that exist [9].

**Table 2. Matrix IFE**

Internal factors	Weight	Ratings	Score
<b>Strength</b>			
1. Availability of extensive cultivation land.	0.113	4	0.406
2. Availability of quality sires	0.107	3	0.362
3. Availability of quality seed resources	0.110	4	0.384
4. Apply good cultivation techniques (CBBI)	0.100	3	0.321
5. Aquatic resources (irrigation) are very supportive for cultivation	0.107	3	0.362
6. Have good cultivation skills	0.113	4	0.406
<b>Weakness</b>			
1. The cultivator's experience was still lacking	0.075	2	0.181
2. Limited understanding of cultivator business management	0.085	3	0.229
3. Inadequate availability of fishing equipment	0.091	3	0.264
4. Cultivator capital sources are still minimal	0.100	3	0.321
Total	1.00		3,236

**Table 3. EFE matrix**

External Factors	Weight	Ratings	Score
<b>Opportunity</b>			
1. Supportive government assistance	0.178	4	0.772
2. Has a strategic location and adequate infrastructure	0.158	4	0.604
3. Competent fisheries instructor	0.178	4	0.772
4. Development and knowledge of fishery technology	0.164	4	0.658
<b>Threat</b>			
1. Feed price fluctuations	0.171	4	0.713
2. The large supply of fish production from outside Ciamis Regency	0.151	4	0.553
Total	1.00		4,071



**Fig. 2. Strategy matrix analysis**

### 3.5 Strategic Meaning Matrix

Analysis of the meaning of the strategy is a matching stage that focuses on producing an alternative laying strategy by combining internal and external factors which have used the IFE and EFE matrices [10]. The matrix analysis used is the form of the SWOT matrix. These strategies include (1). SO (strength – opportunities) strategy, which means a strategy that uses strengths to take advantage of opportunities (2). ST strategy (strength - threats) which means a strategy that uses strength to overcome a threat (3). WO strategy (weakness – opportunities) which means a strategy that minimizes a weakness and takes advantage of existing opportunities (4). WT strategy (weakness - threats) which means a strategy that minimizes weaknesses and avoids threats.

The use of this matrix is also to compile strategic factors in developing the fishing area of Nila Village. Where this matrix can describe an opportunity and threat from external factors that are faced with the strengths and weaknesses they have, which will then be obtained by four cells of possible alternative strategies. The purpose of this strategy matrix is to generate an alternative strategy that makes sense, but not to determine the best strategy. So not all strategies in the matrix will be selected for later implementation. The SWOT matrix can be seen in the Table 4.

#### 3.5.1 SO strategy

Based on the SWOT matrix above, 3 SO strategies are obtained. The first strategy (SO1) is to expand the available cultivation land. The availability of large cultivation land can be used to expand the cultivation area with the aim of increasing the amount of fish production, both broodstock and quality seeds that can help farmers in Nila Village. Seeing the power that has become a real fact and an opportunity for the future, it is hoped that the expansion of the aquaculture pond area in Nila Village can be realized. A suitable program to implement in support of the strategy of expanding available cultivation land in Tilapia Village, is with a fishery advice and infrastructure assistance program such as feed, broodstock, seeds, medicines and fishery equipment.

The second strategy (SO2), namely implementing advanced cultivation technology through training activities. Training for cultivators

is a top priority, this really needs attention because of the high human resources and limited understanding of business management and the latest technology that can be used for cultivation. Therefore, training must be held for the purpose of changing the mindset of cultivators so that they can develop further. This training can be organized by the local government by collaborating with supporting organizations such as extension workers, related governments, students in their fields and related institutions. The program that is suitable to be implemented in supporting the latest fish farming technology training strategy in Nila Village is program (1). digitalization of Nila Village, (2). WWTP technology training (wastewater treatment installation), (3). training on recirculation aquaculture system (RAS) technology to create superior seeds, (4). Training and counseling on biofloc, good way of cultivating fish (CBIB) and good fish hatchery method (CPIB) with research institutions and universities

The third strategy (SO3) is to certify tilapia broodstock and seeds. The broodstock and seeds available in Tilapia Village are of good quality but there is no certification of fish seeds and broodstock. Certification is a form of formal recognition of the implementation of quality standards with the aim of providing a guarantee that the product has been certified because it meets quality standards. In accordance with KEPMEN KP No. 2/MEN/07 Concerning Good Fish Cultivation Practices (CBIB) that fish seed as a production facility in a fish farming business must come from a certified hatchery unit. Issuance of certification is carried out by a certification body, namely the Central UPT or UPTD which has the duties and functions of certification and seed supervision. The benefits of fish hatchery certification are to guarantee the quality of broodstock or fry, increase competitiveness and increase the level of consumer confidence in the product. A suitable program to be implemented in supporting the strategy of certifying tilapia seeds by utilizing government assistance in Tilapia Kawali Village, is a program that is collaborating with the government (UPT/UPDT) regarding the implementation of fish seed certification.

#### 3.5.2 WO strategy

The first strategy (WO1), namely training and coaching on the understanding of cultivator business management. Management in a business is a factor that needs to be mastered

and an important aspect to maintain a business so that it can be sustainable [11]. Training and coaching for this understanding of management really needs to be implemented so that cultivators can develop. Because management is the spearhead of a business, it can be said that if we are able to apply management properly, the business we are undertaking will develop and vice versa if a business does not apply good management, the business will not develop. This training and coaching can be organized by local government or cultivator community initiatives by collaborating with supporting organizations, such as extension workers, related government, students in their fields and related institutions.

The second strategy (WO2), namely the need for adequate facilities and infrastructure. Suggestions and infrastructure in the form of technological equipment in the fisheries sector are very important to complete, because this is a

support for the advancement or development of an area. Supporting facilities and infrastructure such as auto feeders and windmills that already exist in Nila Village, but not all cultivators have these supporting facilities. This auxiliary tool is very useful because cultivators no longer need to conventionally feed, the auto feeder is a tool that has been set. Apart from that, for the field of enlargement, the necessary supporting tool is a waterwheel, because installing a water wheel in the pond will help supply oxygen to the waters and assist in the process of fertilizing and mixing the characteristics of the upper and lower layers of water. Apart from these benefits, farmers who have used the wheel in their cultivation state that the fish production they get is more than usual or before using the wheel. Seeing the situation in Nila Kawali Village itself, there are indeed some cultivators who use fishing tools or technology, such as the use of auto feeders and windmills for grow-out fields, but most of the cultivators still do it conventionally.

**Table 4. Matrix SWOT**

<b>Internal</b>	<b>Strengths (S)</b>	<b>Weaknesses (W)</b>
	<ol style="list-style-type: none"> <li>1. Availability of extensive cultivated land.</li> <li>2. Availability of quality broodstock</li> <li>3. Quality seed resources</li> <li>4. Apply technique good cultivation method (CBIB)</li> <li>5. Aquatic resources (irrigation) are very supportive for cultivation</li> <li>6. Have good cultivation skills</li> </ol>	<ol style="list-style-type: none"> <li>1. The cultivator's experience was still lacking</li> <li>2. Limited understanding of cultivator business management</li> <li>3. Inadequate availability of fishing equipment</li> <li>4. Cultivator capital sources are still minimal</li> </ol>
<b>External</b>	<b>Opportunities (O)</b>	<b>WO strategy</b>
	<ol style="list-style-type: none"> <li>1. Supportive government assistance</li> <li>2. Has a strategic location and adequate infrastructure</li> <li>3. Competent fisheries instructor</li> <li>4. Development and knowledge of fishery technology</li> </ol>	<ol style="list-style-type: none"> <li>1 Training and coaching on understanding cultivator business management (W1-2 O1,3)</li> <li>2 The need for adequate facilities and infrastructure (W3 O2,4)</li> <li>3 the need to facilitate access to capital through the growth and formation of cooperatives (source of capital) in Nila Kawali Village (W3-4 O1)</li> </ol>
	<b>Threats (T)</b>	<b>TW strategy</b>
<ol style="list-style-type: none"> <li>1. Feed price fluctuations</li> <li>2. The large supply of fish production from outside Ciamis Regency</li> </ol>	<ol style="list-style-type: none"> <li>1. Carrying out regional partnership system business development to achieve quality standards and marketing stability (T1,2 S2,3)</li> </ol>	<p><b>TW strategy</b></p> <p>Increasing the capacity of human resources (fish cultivators) through training, comparative studies and demonstrations (T2 W1-2)</p>

The third strategy (WO3), namely the need to facilitate access to capital by growing and forming cooperatives (source of capital) in Nila Village. The facility for access to capital is one of the hopes that must be realized, because the availability of the capital-asks facility can help cultivators who can be said to be less fortunate. The growth and formation of cooperatives as a source of capital is one of the steps that must be taken by Nila Village, because with the existence of cooperatives cultivators will not feel confused to find sources of capital for cultivation businesses. This is because the cultivating community in Nila Village has very different finances. The existence of a cooperative in Nila Village is not only for a source of capital (a place to borrow) but can also be used as a forum for cultivators to save from cultivation, because basically a cooperative is an organization that is based on kinship, therefore the formation of a cooperative is very suitable for the Nila village.

### 3.5.3 ST strategy

The first strategy (ST1) is to develop a regional partnership system business to achieve quality standards and marketing stability. Where some cultivators complain about the price of feed, especially cultivators who have less capital, of course that makes them an obstacle or a threat. Feed is one of the main factors needed for cultivation, where the price of feed that is often used by cultivators varies widely. The absence of subsidies, such as subsidies given by farmers for fertilizer, makes cultivators have to be able to manage the expenditure of the required feed. In addition, the existence of regional partnerships can reduce the supply of fishery production from outside Ciamis Regency. Partnership is essentially a business collaboration with a specific purpose and between partners must have equal interests and positions [12]. The existence of a business partnership system is a goal to achieve mutual prosperity. Therefore, developing a business with a regional partnership system to achieve quality standards and marketing stability.

### 3.5.4 TW strategy

The first strategy (TW1), namely increasing the capacity of human resources (fish cultivators) through training, comparative studies and demonstrations. Capacity is an adequate resource, ability or community expertise [13]. Increasing the capacity of human resources is something that must be done, because by

increasing capacity the human resources of Nila Village will be more advanced, even though the strength factor has high human resources but if these human resources do not increase their capacity then the development of Nila Village can still be hampered or left behind. Seeing the threats and weaknesses that exist, makes a problem that must be resolved. Increasing the capacity of human resources in Nila Village can be carried out by conducting training, comparative studies and piloting. Therefore it is necessary to increase the capacity of human resources in Nila Village [14,15].

## 4. CONCLUSIONS

Based on the results of research that has been carried out regarding "Analysis of Regional Development of Fisheries Centers in Nila Village" it is concluded that:

1. Nila Village has several potentials, namely the availability of extensive cultivation land, the application of CBIB techniques, good cultivation skills, conditions and water sources that support cultivation and the availability of quality broodstock and seeds that can be used to develop this Nila Village, while the issues What they face is the farmer's lack of understanding of business management, minimal cultivation experience, inadequate availability of equipment and minimal sources of capital.
2. Based on the results of the SWOT analysis, the chosen strategy is the SO strategy, which is included in the aggressive strategy, which means that Kampung Nila Kawali can maximize existing strengths and take advantage of opportunities. Following are the selected strategies for the development of the Nila fishing village (1). Carry out or intensify available cultivation land through the use of government assistance, (2). Applying the latest cultivation technology through training activities (3). Perform certification of tilapia broodstock and seeds.

## CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

## ETHICAL APPROVAL

As per international standard or university standard guideline participant consent and

ethical approval has been collected and preserved by the authors.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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