

Study on the dynamics of Fish Farmer Group (Pokdakan) in Bukit Pinang Village, Samarinda Ulu District, Samarinda City

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ABSTRACT

The aim of the research, is to determine the profile of the Rejang Raya Lake fish cultivator group (Pokdakan), and to find out the level of dynamism of the Rejang Raya Lake fish cultivator group (Pokdakan). The sampling method used was the census method with the number of respondents taken as many as 10 respondents. The analytical method used is a Likert scale to determine the level of dynamics of the Rejang Raya Lake fish cultivator group for each indicator: group goals, group structure, group tension, group effectiveness, hidden intentions, are in the high category. The level of dynamics of the Rejang Raya Lake Fish Cultivator Group (Pokdakan) cumulatively obtained a score of 79.90, which is at a high level in the range of 63-81 and can be interpreted that the level of dynamics of the group is at high criteria (already dynamic) or the management and members it's been going well.

INTRODUCTION

The fisheries sector plays an important role in the lives of both society and the nation. Fisheries businesses can contribute to the well-being of communities, ensuring prosperity and supporting national economic and development growth. Therefore, fisheries activities must be continuously developed. Essentially, fisheries development is a process in which humans utilize biological resources in a natural environment, making it a crucial aspect of future fisheries development (Bastari et al., 2016).

Indonesia's fisheries production is highly capable of meeting the needs of the Indonesian population. One of the most essential fishery products for consumption as a food source is fish (Afrianto and Liviawaty, 2010). East Kalimantan has a total area of 127,346.92 km² and is administratively divided into three cities, one of which is Samarinda (Central Bureau of Statistics of Samarinda, 2022).

Samarinda City, covering an area of 716.53 km², is the capital of East Kalimantan Province and one of the largest cities in the province. In 2018, Samarinda had a population of 124,753 people and is traversed by the Mahakam River, the second-largest river in Kalimantan. The city consists of 10 districts: Palaran, Samarinda Ilir, Samarinda Kota, Sambutan, Samarinda Seberang, Loa Janan Ilir, Sungai Kunjang, Samarinda Ulu, Samarinda Utara, and Sungai Pinang (Central Bureau of Statistics of Samarinda, 2019). With its growing population, the demand for animal protein, particularly from fishery commodities, is increasing. This demand can be met through fishery production, particularly fish farming activities.

Bukit Pinang Village has a total area of 19,687.5 hectares, with potential in both the fisheries and plantation sectors. Due to the extensive water resources available, the people of Bukit Pinang can utilize

these wetlands for freshwater fish farming and fishing, serving as either their primary or secondary source of income.

Group dynamics refer to a group consisting of two or more individuals who have a clear psychological relationship with one another within a shared situation (Shaw, 1979 in Abdul Hanan, 2015). According to Sumantri, S., & Hastuty, S. (2018), a dynamic group is characterized by ongoing activities and interactions, both internally and externally, conducted effectively and efficiently to achieve its objectives. The role of fisheries groups is determined by individual contributions within the group as well as external factors that serve as motivators and stimulators for the group's activities in achieving its goals. Fisheries groups act as a platform for learning and collaboration, helping members meet their collective needs. The condition of a group can be analyzed by evaluating its elements—if some aspects are lacking, they can hinder group dynamics; conversely, if strong elements are present, the group can be considered dynamic. Based on this perspective, we are interested in studying the level of group dynamics within the Danau Rejang Raya Fish Farmers Group in Samarinda Ulu District, Samarinda City.

METHODOLOGY

This research was conducted in Bukit Pinang Village, Samarinda Ulu District, Samarinda City, at the fish farming group (*Pokdakan*) owned by Mr. Jali. The study took place from October 2022 to November 2023. This study is a qualitative data analysis using a descriptive approach, aiming to describe and provide an overview of the research object. Qualitative analysis is a form of analysis that can be measured and described. According to Nazir (2014), a descriptive approach is a method used to study the status of human groups, objects, conditions, thought systems, or current events. The measurement scale used for variables is the Likert scale, where respondents are presented with a series of pre-prepared questions and asked to provide their responses.

Data analysis

The data sources used in this study consist of primary and secondary data. Primary data includes field observations and questionnaire-based interviews obtained from surveys, while secondary data is gathered from literature studies, institutional sources, and other relevant materials related to this research.

The selection of respondents was conducted using the *saturated sampling* (census) technique, where the entire population within the group was included as the sample. According to Sugiyono (2002), the saturated sampling technique is used when all members of a population are taken as research samples.

The data collection technique for analyzing group dynamics among fish farmers was conducted using the Likert scale. According to Sugiyono (2013), the Likert scale is used to measure opinions, attitudes, and perceptions of groups or individuals regarding social phenomena. The responses were assigned scores, with each answer categorized into three levels: low (1), medium (2), and high (3). To determine the level of group dynamics, class interval length was used, categorizing groups into low, medium, and high dynamics, as proposed by Purwanto & Hurairah (2006).

$$C = \frac{Xn - XI}{K} \qquad C = \frac{81 - 27}{3} = 18$$

Description:

C : Class Interval

K : Number of Classes

Xn : Maximum Score

XI : Minimum Score

Table 1. Group Dynamics Level Criteria

Class Interval	Criteria
63.01 - 81.00	Dynamic
45.01 - 63.00	Less Dynamic
27.00 - 45.00	Not Dynamic

RESULT AND DISCUSSION

Population characteristics

1. Population Size

Data from Bukit Pinang Village in 2023 shows that the total population of Bukit Pinang Village is 8,147 people, consisting of 4,153 males (50.98%) and 3,994 females (49.02%).

2. Age Distribution

The population of Bukit Pinang Village is categorized into three age groups: 0-17 years: 1,761 people (21.62%); 15-56 years: 4,911 people (60.28%); above 56 years: 1,475 people (18.10%)

3. Occupation

Bukit Pinang Village has limited potential in the fisheries sector, and a minority of residents work as farmers. In general, the occupations of the residents of Bukit Pinang Village include farmers, farm laborers, civil servants, traders, livestock breeders, fishermen, police officers, construction workers, entrepreneurs, employees, and laborers.

4. Religion

The majority of Bukit Pinang Village residents are Muslim, totaling 7,314 people (89.17%). Other religious affiliations include: Catholic: 505 people (6.16%), Protestant: 359 people (4.38%), Buddhist: 20 people (0.24%), Hindu: 4 people (0.05%)

5. Education

The educational attainment of Bukit Pinang Village residents is as follows: Kindergarten graduates: 240 people (2.93%); Elementary school graduates: 2,864 people (35.02%); Junior high school graduates: 1,557 people (19.04%); Diploma (D1-D3): 237 people (2.90%); Bachelor's degree holders: 440 people (5.38%); Postgraduate degree holders: 44 people (0.54%)

General overview of fish farming

The fish farming business managed by *Pokdakan* Danau Rejang Raya started in 2019. *Pokdakan* Danau Rejang Raya owns floating net cages (*keramba jaring apung* or KJA) with self-owned land and self-funded capital. The cultivated fish commodities include Nile tilapia (*Ikan Nila*), common carp (*Ikan Mas*), striped catfish (*Ikan Patin*), and giant gourami (*Ikan Gurame*). The total land area used for farming is 833.33 m².

The fish farming process carried out by the Danau Rejang Raya group utilizes floating net cages (KJA), which are placed in deep water bodies such as reservoirs. The KJA farming location is relatively calm to avoid storms and is easily accessible. The KJA consists of nets, plastic drum floats, and rafts.

The initial process of setting up floating net cage farming involves:

1. Constructing the KJA frame using *ulin* wood, which is water-resistant.
2. Determining the location before installing the KJA. Once the location is chosen, the pre-assembled raft with the floating net is placed in the designated area.
3. Positioning the KJA in a way that it does not face the wind current directly. Once properly positioned, anchors are lowered into the water to stabilize the KJA, preventing it from being carried away by water currents.
4. Stocking fish seedlings once the KJA setup is complete.

Every month, *Pokdakan* “Danau Rejang Raya” sells 30-50 kg of farmed fish at prices ranging from IDR 28,000 - IDR 40,000 per kilogram. The farmed fish are sold exclusively within Samarinda City, with direct sales being the primary method of distribution. Regular customers purchasing in bulk may receive special discounts.



Figure 1. Floating Net Cages (KJA) of the Rejang Raya Lake Fish Farmers Group

Profile of the Danau Rejang Raya fish farming group

The Danau Rejang Raya Fish Farming Group (*Pokdakan Danau Rejang Raya*) is one of the fish farming groups under the guidance of the Fisheries Office of Samarinda City, East Kalimantan. The group was established on September 9, 2019, in Jl. Ringroad 2, Bukit Pinang Village, Samarinda Ulu District, Samarinda City, and was officially recognized by the Fisheries and Marine Affairs Office of Samarinda City on April 26, 2021.

The commodities cultivated by the group include Nile tilapia (*Ikan Nila*), striped catfish (*Ikan Patin*), common carp (*Ikan Mas*), and giant gourami (*Ikan Gurame*), using a floating net cage (*keramba jaring apung* or KJA) farming system. The Danau Rejang Raya Fish Farming Group currently has 10 active members, led by Mr. Jali. The group is classified as a "Madya" level farming group, holding Certificate Number 800/0392/400.07, as it has met specific requirements and consistently participates in programs initiated by the Fisheries Office.

Respondent identity

The research conducted at the Rejang Raya Lake Fish Farmers Group (*Pokdakan*) in Bukit Pinang Subdistrict, Samarinda Ulu District, Samarinda City, revealed that the youngest fish farmer was 27 years

old, while the oldest processor was 70 years old. Age significantly influences an individual's ability to learn, understand, and accept innovations (Sugiono, 2007).

Based on field data, the respondents from the Rejang Raya Lake Group consisted of 8 males and 2 females. The educational background of the fish farming group members varied: Elementary school (SD): 2 individuals (20%); Junior high school (SMP): 1 individual (10%); Vocational high school (SMK): 3 individuals (30%); Bachelor's degree (S1): 4 individuals (40%)

Most respondents from the Rejang Raya Lake Fish Farmers Group had been engaged in fish farming since 2019, with a total business experience of five years at the time of the study.

Group dynamics

The group dynamics of the Rejang Raya Lake Fish Farmers Group can serve as an indicator of a group's performance success. The effectiveness of group management is reflected in the functioning of all group components (Chairperson, Secretary, and all members). Their interactions contribute to the efficiency and effectiveness of the group's performance (Agustine & Haqiansyah, 2020). A well-functioning fish farming group is characterized by the dynamism of its members, which is determined by key elements such as group objectives, structure, task functions, atmosphere, development and guidance, cohesion, effectiveness, pressure, and hidden intentions (Kharisma & Abdusysyahid, 2023). A dynamic group is one that continuously exhibits enthusiasm and motivation to work.

The analysis of group dynamics indicators for the Rejang Raya Lake Fish Farmers Group is presented in Table 2.

Table 2. Group Dynamics Indicator Scores for the Rejang Raya Lake Fish Farmers Group

No.	Group Dynamics Indicator	Group Score
1	Group Objectives	9.00
2	Group Structure	9.00
3	Task Functions	9.00
4	Group Development & Guidance	9.00
5	Group Cohesion	9.00
6	Group Atmosphere	9.00
7	Group Pressure	8.00
8	Group Effectiveness	8.90
9	Hidden Intentions	9.00
Total Score		79.90

The table above shows that the cumulative score for group dynamics is 79.90, which falls within the high (dynamic) category. A breakdown of the key indicators is as follows:

1. Group Objectives
Every group, regardless of its form, has objectives to achieve through its activities. According to Yusuf (2009), group objectives refer to a unit consisting of two or more individuals working together toward a common goal and making collective decisions. The group objective indicator received a score of 9.00, which falls within the 7.01–9.00 range, indicating a high (dynamic) category. This suggests that all group members share the same objectives.
2. Group Structure
Group structure regulates interactions among members to achieve objectives. The analysis of group structure considers individual roles within the group, as each member has responsibilities based on their position (Huraerah & Purwanto, 2010). This indicator received a score of 9.00, classifying it as highly dynamic. This is because all members are involved in decision-making.

3. **Task Functions**
Task functions refer to efforts made by group members to achieve their goals. Santoso (2004) explains that task functions aim to facilitate and coordinate group efforts in addressing collective issues. This indicator received a score of 9.00, indicating a high level of dynamism, as all members successfully fulfill their respective roles and responsibilities.
4. **Group Development & Guidance**
This refers to all aspects necessary for maintaining and developing a group, including cooperation, membership acceptance, and social integration (Huraerah & Purwanto, 2010). This indicator received a score of 9.00, classifying it as highly dynamic, as all members actively participate in group activities.
5. **Group Cohesion**
Group cohesion reflects the members' sense of belonging and commitment to the group. Higher cohesion leads to increased motivation and involvement in achieving group goals. A cohesive group fosters stronger loyalty, involvement, and interpersonal bonds (Zulkarnian, 2014). This indicator received a score of 9.00, indicating a high level of dynamism, as members work together cohesively.
6. **Group Atmosphere**
Group atmosphere, also known as group morale, describes the overall mood of the group—whether it is enthusiastic, indifferent, or apathetic. Factors affecting group atmosphere include tension, friendliness, camaraderie, freedom, physical environment, and democracy (Ibrahim, 2002). This indicator received a score of 9.00, signifying a dynamic group with positive relationships and a supportive environment.
7. **Group Pressure**
According to Soedarsono (2005), group pressure can serve as motivation to achieve group goals. It helps members strengthen their opinions and solidify their interactions within the group. This indicator received a score of 8.00, still within the high category but lower than the others. This is due to some members being unaware of group rules and norms that must be followed.
8. **Group Effectiveness**
Group effectiveness is the ability to complete tasks efficiently and satisfactorily while progressing toward future goals (Soedarsono, 2005). It is measured by the achievement of objectives and member satisfaction. This indicator received a score of 8.90, slightly lower than the maximum score, as not all members fully receive and process the information provided.
9. **Hidden Intentions**
Hidden intentions refer to unspoken feelings or desires within a group. These can include personal aspirations that are not formally stated but still influence group dynamics (Huraerah & Purwanto, 2010). This indicator received a score of 9.00, indicating high group alignment, as all members share the same group objectives without personal agendas.

Challenges and solutions faced by fish farmers at Danau Rejang Raya

1. The Fish Farmers Group (Pokdakan) of Danau Rejang Raya, located in Bukit Pinang Village, Samarinda Ulu District, Samarinda City, faces several challenges in running their aquaculture business. One major issue is the high cost of fish feed, which continues to rise. At the same time, fish market prices fluctuate, making it difficult for farmers to generate significant profits.
2. To address this issue, a possible solution for Pokdakan Danau Rejang Raya is conducting training and socialization programs led by extension officers. These programs should focus on teaching fish farmers how to produce natural fish feed as an alternative to expensive commercial feed, helping to reduce production costs.

CONCLUSION

1. The Pokdakan Danau Rejang Raya was established in 2019 and is currently led by Mr. Jali. The group consists of 10 members and cultivates several fish species, including Nile tilapia (*Oreochromis niloticus*), striped catfish (*Pangasius hypophthalmus*), common carp (*Cyprinus carpio*), and giant gourami (*Osphronemus goramy*). They use floating net cages (KJA) that are self-owned and self-funded. The group is classified as a "Madya"-level fish farming group, with certification number 800/0392/400.07.
2. The cumulative score for the group's dynamics is 79.90, placing it in the high category (63–81 range). This indicates that the group's interactions and management function effectively, demonstrating strong engagement between leadership and members.

REFERENCES

- Agustine, S. R., & Haqiqiansyah, G. (2020). Dinamika Kelompok Pembudidaya Ikan Nila (*Oreochromis niloticus*) Di Desa Sepakat Kecamatan Loa Kulu Kabupaten Kutai Kartanegara. *Jurnal Pembangunan Perikanan dan Agribisnis*, 7(2), 121-130.
- Bastari, Bastari, et al. 2016 "Pesepsi Nelayan Tentang Profesi Nelayan di Desa Sungai Selodang Kecamatan Sungai Mandau Kabupaten Siak Provinsi Riau.
- Badan Pusat Statistik, (2021) *Kecamatan Samarinda Ulu Dalam Angka*
- Badan Pusat Statistik Kota Samarinda. 2022. *Kota Samarinda Dalam Angka 2022*. BPS Kota Samarinda.
- Afrianto, E., E. Liviawaty. 2010. *Penanganan Ikan Segar*. Penerbit Widya Padjadjaran, Bandung.
- Hanan, A. (2015). Pengaruh kedinamisan suatu kelompok terhadap fungsi kelompok (studi kasus pada kelompok perikanan di Kabupaten Bekasi Provinsi Jawa Barat). *Jurnal Penyuluhan Perikanan dan Kelautan*, 9(1), 29-42.
- Haqiqiansyah, G. (2016). Analisis dinamika kelompok tani nelayan di pesisir kota bontang. *Agriekonomika*, 5(1), 31-40.
- Kharisma, I. D., & Abdusysyaid, S. (2023). Dinamika Kelompok Pembudidaya Ikan (Pokdakan) Tunas Giri Makmur Di Kelurahan Lempake Kecamatan Samarinda Utara. *Jurnal Riset Rumpun Ilmu Sosial, Politik dan Humaniora*, 2(1), 01-11.
- Nazir. 2014. *Metode Penelitian*. Bogor: Ghalia Indonesia.
- Purwanto, H. A. (2006). *Dinamika Kelompok: Konsep dan Aplikasi*. Bandung (ID): Refika Aditama.
- Sugiyono. 2002. *metode penelitian bisnis*. bandung alfabeta
- Sugiyono. 2013. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: CV Alfabeta
- Sumantri, S., & Hastuty, S. (2018). Analisis dinamika kelompok tani kakao di desa Pengkendekan Kecamatan Sabbang Kabupaten Luwu Utara. *Perbal: Jurnal Pertanian Berkelanjutan*, 6(2), 30-42.
- Sugiharto, E., & Haqiqiansyah, G. (2022). Dinamika Kelompok Pada Usaha Ikan Lele Sangkuriang (*Clarias Gariepinus*) Kelompok Budidaya Ikan "Karya Sejati" di Kelurahan Sambutan Kota Samarinda. *Jurnal Pembangunan Perikanan dan Agribisnis*, 9(2), 36-49.
- Yusuf, Y (2009). *Dinamika Kelompok, Kerangka Studi dalam Perspektif Psikologis Sosial*. Bandung: Amrico.
- Zulkarnain, W. (2014). *Dinamika Kelompok*. Jakarta: PT Bumi Askara.