



UDC 639; DOI 10.18551/rjoas.2023-04.20

ANALYSIS OF COMMUNITY PARTICIPATION AND THE IMPACT OF ILLEGAL FISHING ON CATCH PRODUCTION OF FISHERMEN IN LAKE BANGKAU

Hairiyani Siti*, Mahyudin Idiannor, Mahreda Emmy Sri

Faculty of Fisheries and Marine Science, University of Lambung Mangkurat,
Banjarbaru, South Kalimantan, Indonesia

*E-mail: mahyudin.idiann01@gmail.com

ABSTRACT

Bangkau Village is one of the villages in Hulu Sungai Selatan Regency. The problem faced in Hulu Sungai Selatan Regency in the field of fisheries is the low level of community participation in efforts to preserve fish resources. This study aims to analyze the optimization of community participation in the supervision of Illegal Fishing and the impact of Illegal Fishing on fishermen's catch production during 2014-2022. This research was conducted in the waters of Lake Bangkau, Kandangan District, Hulu Sungai Selatan Regency. The data analysis technique in answering the objective, namely descriptive analysis of the percentage, was carried out by measuring research variables by means of a Likert scale. As well as analysis of quantitative descriptive data, namely comparing the production level of fishing catches for 2014-2022. Community participation in dealing with the problem of illegal fishing in Lake Bangkau, Hulu Sungai Selatan Regency, namely 25.90% of the people thought it was very good, 23.81% thought it was good, 24.95% thought it was sufficient, 11.24% thought it was not good and 14.10% the community thinks it is not good. The impact of illegal fishing supervision on the catch production of fishermen in Lake Bangkau, Hulu Sungai Selatan Regency (2014-2022) has been proven by the production of fishermen's catches in Lake Bangkau increasing every year.

KEY WORDS

Illegal fishing, Lake Bangkau, participation, impact, fishermen.

Law of the Republic of Indonesia Number 45 of 2009 concerning Amendments to Law Number 31 of 2004 concerning Fisheries, Fisheries are activities related to the utilization and handling of fish resources which include processes before production, during production, processing and marketing carried out within the scope of the fishery business unit . One of the potential swamp waters as a fish producer in South Kalimantan is Lake Bangkau. The topology of Lake Bangkau Swamp includes a group of inland swamps which are surrounded and influenced by Bangkau swamps which vary between dry and rainy seasons with an area of approximately 615.5 hectares.

Bangkau Village is one of the villages in Hulu Sungai Selatan Regency (Windiawati, 2021). The problem faced in Hulu Sungai Selatan Regency in the field of fisheries is the low level of community participation in efforts to preserve fish resources. Handling Illegal Fishing requires deep understanding and commitment, namely how far the monitoring efforts have been carried out properly and correctly by the supervisory apparatus and community groups in Hulu Sungai Selatan Regency. This study aims to analyze the optimization of community participation in the supervision of Illegal Fishing and the impact of Illegal Fishing on the production of fishermen's catch during 2014-2022.

MATERIALS AND METHODS OF RESEARCH

This research was conducted in the waters of Lake Bangkau, Kandangan District, Hulu Sungai Selatan Regency. The primary data will be taken from the area of Lake Bangkau with a total of 35 respondents consisting of the Head of the village of Bangkau Lake, the Village Secretary, Village Officials, the people of Lake Bangkau, fishermen outside the Lake Bangkau area, the HSS District Fisheries Service, the Police as the PPNS Fisheries



Supervisory Committee, POKMASWAS, Satpol PP, TNI, Investigators and Polairud members on duty in HSS District.

The data analysis technique in answering the objectives, namely descriptive analysis of percentages, was carried out by measuring research variables by means of a Likert scale measuring data either in the form of social or individual characteristics when conducting questions and answers in the field presented in the form of a questionnaire (Sugiono, 2010). As well as analysis of quantitative descriptive data, namely comparing the production level of fishermen's catches in 2014-2022.

RESULTS OF STUDY

The results of the analysis of community participation in dealing with the problem of illegal fishing in Bangkau Lake, Hulu Sungai Selatan Regency, were carried out by taking samples of 35 respondents. Based on the results of the research, primary data was obtained regarding the supervision of illegal fishing cases, community coordination with the government regarding illegal fishing rules and the impact of illegal fishing and government integrity in handling illegal fishing which is described in the following points.

The results of primary data collection regarding the analysis of Illegal Fishing Case Supervisors in this case concerning public opinion regarding illegal fishing cases in Hulu Sungai Selatan Regency, the role of government, government assertiveness, the role of village assistants and an assessment of government regulations relating to illegal fishing cases can be seen in Table 1:

Table 1 – Monitoring of Illegal Fishing Cases

Parameter	Score					Percentage (%)				
	1	2	3	4	5	1	2	3	4	5
Cases of illegal fishing	29	1	3	0	2	82,86	2,86	8,57	0,00	5,71
Government role	3	9	12	8	3	8,57	25,71	34,29	22,86	8,57
Government strictness	3	8	8	10	6	8,57	22,86	22,86	28,57	17,14
The role of the village assistant	2	1	6	13	13	5,71	2,86	17,14	37,14	37,14
Assessment of government regulations	0	10	8	5	12	0,00	28,57	22,86	14,29	34,29
Average percentage based on percentage descriptive criteria						61%				

Source: Primary data, 2023.

Table 1 shows the results of the percentage assessment of community participation in the analysis of surveillance of illegal fishing cases, obtaining an average result of 61% (optimal) concerning community opinion regarding illegal fishing cases in Hulu Sungai Selatan district, the government's role, government assertiveness, the role of village assistants and assessment of government regulations relating to cases of illegal fishing.

The results of primary data collection regarding community and government coordination regarding illegal fishing cases in this case involve coordination between the community and the government, local government strictness against criminal acts, fisheries law regulations in dealing with criminal acts against illegal fishing, investigator performance in carrying out criminal investigations and the fish catches of fishermen before illegal fishing occurred are presented in the following table:

Table 2 – Community and Government Coordination on Illegal Fishing Cases

Parameter	Score					Percentage (%)				
	1	2	3	4	5	1	2	3	4	5
Coordination between the community and the government	1	3	10	12	9	2,86	8,57	28,57	34,29	25,71
Local government pressure	2	5	11	10	7	5,71	14,29	31,43	28,57	20,00
Regulation of the law against illegal fishing	2	4	11	10	8	5,71	11,43	31,43	28,57	22,86
Investigator performance	2	1	12	9	11	5,71	2,86	34,29	25,71	31,43
Fish catches before illegal fishing occurred	3	2	1	3	26	8,57	5,71	2,86	8,57	74,29
Average percentage based on percentage descriptive criteria						75%				

Source: Primary data, 2023.



Table 2 obtained the results of primary data collection regarding the performance of investigators in handling community and government coordination of illegal fishing cases in this case concerning coordination between the community and the government, the firmness of the local government against criminal acts, fisheries law regulations in handling criminal acts against illegal fishing, The performance of investigators in carrying out investigations of criminal acts and fish catches for fishermen has an average maximum functional performance of 75%.

The results of primary data collection regarding the rules and integrity of handling illegal fishing are related to fish catches after illegal fishing occurs, the continuity of Regional Government Regulations and Fisheries Laws, the application of sanctions against illegal fishing, public understanding of the rules of crime and the integrity of the investigation team towards settlement problems are presented in Table 3:

Table 3 – Rules and Integrity for Handling Illegal Fishing

Parameter	Score					Percentage (%)				
	1	2	3	4	5	1	2	3	4	5
Fish catch after illegal fishing	23	6	3	1	2	65,71	17,14	8,57	2,86	5,71
Continuity PERDA and UU	1	4	18	5	7	2,86	11,43	51,43	14,29	20,00
Application of sanctions against illegal fishing	1	2	12	11	9	2,86	5,71	34,29	31,43	25,71
Community understanding	1	2	8	12	12	2,86	5,71	22,86	34,29	34,29
Integrity of the Investigation Team and the Government	1	1	8	16	9	2,86	2,86	22,86	45,71	25,71
Average percentage based on percentage descriptive criteria						66%				

Source: Primary data, 2023.

Table 3 shows the results of primary data collection regarding the rules and integrity of handling illegal fishing related to fish catches after illegal fishing occurs, continuity of Regional Government Regulations and Fisheries Laws, application of sanctions against illegal fishing, public understanding of crime rules and team integrity investigators on the optimal average problem solving that is equal to 66%.

Table 4 – Average Value of Community Participation in Addressing Illegal Fishing Problems in Lake Bangkau Hulu Sungai Selatan

Community participation	Percentage
Supervision of Illegal Fishing Cases	61%
Community and Government Coordination of Illegal Fishing Cases	75%
Rules and Integrity for Handling Illegal Fishing	66%
Average	67,33% (maximum function)

Source: Primary data, 2023.

The average amount of increase in Fishermen Catch Production Data in Lake Bangka for 2014-2022 is presented in the following table:

Table 5 – The average number of increases in Fishermen Catch Production Data in Lake Bangka for 2014-2022

Year	Annual Increase in Fish Production (Ton)	Percentage increase (%)
2014-2015	139,83	9,12
2015-2016	54,76	3,27
2016-2017	55,58	3,22
2017-2018	118,94	6,67
2018-2019	400,42	21,05
2019-2020	69,07	3,00
2020-2021	344,56	14,53
2021-2022	260,93	9,61

Source: Data Primer, 2023.

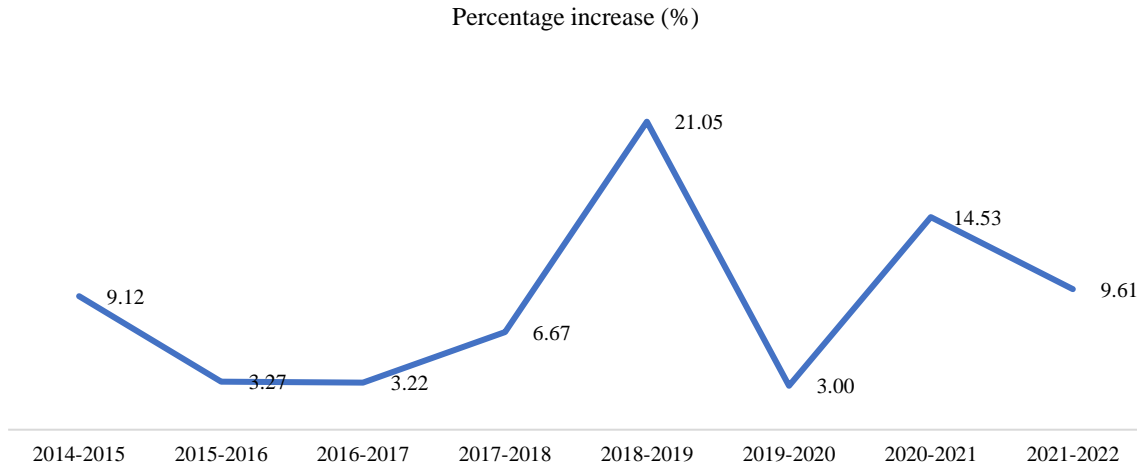


Figure 1 – Percentage of Increase in Production of Fishermen's Catch 2014-2022

The production of fishermen's catches in Lake Bangkau from 2014 to 2022 has increased every year. From 2014 to 2015 fish production increased by 139.83 tons with a percentage increase of 9.12%. From 2015 to 2016, the increase in fish production was 54.76 tons with a percentage increase of 3.27%. From 2016 to 2017 the increase in fish production was 55.58 tons with a percentage increase of 3.22%. From 2017 to 2018, the increase in fish production was 118.94 tons with an increase of 3.00%. From 2020 to 2021, fish production will increase by 344.56 tons with an increase of 14.53%. From 2021 to 2020, fish production will increase by 260.93 tons with an increase of 9.61%.

DISCUSSION OF RESULTS

Community participation in dealing with the problem of illegal fishing in Lake Bangkau, Hulu Sungai Selatan Regency, shows maximum functioning results with an average of 67.33%. The practice of illegal fishing is very detrimental to the people of Lake Bangka. Therefore it is necessary to increase supervision by optimizing human resources for supervisors, supervision facilities and infrastructure as well as law enforcement activities to tackle illegal fishing activities and also requires good cooperation between the community and the Fisheries government, Polairud and related stakeholders in carrying out surveillance activities, especially in the areas border that is vulnerable to cases of illegal fishing (Setiawan, 2016).

Surveillance is an important link in the fight against illegal, unreported, unregulated (IUU) fishing. Without supervision and control in the field, IUU-Fishing practices will get wilder and wilder. The success of supervision is very dependent on two main things, namely surveillance equipment and supervisory people. These two things form a fisheries surveillance system (Rahmayani, 2021). In Law Number 31 of 2004 concerning Fisheries, it is very clear that illegal fishing is rewarded with penalties and fines commensurate with the violations committed. But the facts speak otherwise, punishments and fines are not applied properly. Another lack of clarity is the sanction for bureaucrats in licensing and supervisory bureaucracy as well as maritime security that deliberately charge fees outside the provisions or pass offenders by collusion (Jaelani, 2014).

Illegal fishing is a word that is considered a legal case in Indonesia and abroad and in online and non-online media it is made into a legal reference that makes it interesting for research and even researchers. Overall illegal fishing from its literal meaning "Illegal" is an act that is wrong and not justified in law. "Fishing" is an action that is carried out thoroughly and uses prohibited fishing gear (Febrica, 2017). Activities that are inconsistent and committed violations that violate the rule of law and have severe sanctions (Aris Subagiyo, 2017).



Illegal fishing or taking fish by illegal means is a plan carried out using water or international transportation and outside waters, namely foreign and without clear permits and contrary to existing regulations. It is carried out consciously by certain individuals and regional fisheries in certain areas and has principles that are not fundamental. This act is a criminal act. So far, the existence of various fishery conditions in Indonesian waters which include the maximum value, has become a driving force for the emergence of certain actions in fishery areas and the environment carried out by the general public and ordinary fishermen. Criminal acts or fisheries crimes are referred to as (illegal fishing) is an act of catching fish, an act without a clear fishing license (SIPI) (Amirudin et al, 2006). Using fake fishing certificates (SIPI) (Akhmad et al, 2010). Licensing documents made by fishing vessels and fishing gear used.

Integrity in handling Illegal Fishing is a positive model that combines the phenomena of morality, ethics and legality. Integrity is concerned with good or bad behavior, right or wrong. The integrity of IUU-Fishing can be analogous to the law of gravity where if the handling of IUU-Fishing is not carried out in an organized manner then the cases that occur in the field will increase. Integrity in IUU-Fishing is a process that is followed so that the legality value can be obtained. Integrity is often used as a basis/reference to give birth to an advice or adage as well as the quality of work.

The Regional Government of South Hulu Sungai Regency (HSS) has stipulated Regional Regulation (Perda) Number 17 of 2005 concerning the protection of fish resources and the prohibition of fishing with stun and stun equipment. This regulation was specifically made and issued in the HSS Regency because it is true that in the HSS Regency fishing crimes are very common. The interesting thing about the existence of the HSS regional regulation is that it is a triangular area, namely HSU, HST and HSS which are very strategic for capturing fishery products. Prohibition provisions The Regional Government of South Hulu Sungai Regency (HSS) has stipulated Regional Regulation (Perda) Number 17 of 2005 contained in article 8 concerning the prohibition of producing, possessing, controlling, carrying and/using stun and stun devices or the like. Article 10 also explains the rules prohibiting the catching and/or trading of fish seeds (saplings) with high economic locations for consumption purposes. The consequences of these actions are explained in Article 11 concerning criminal provisions for illegal fishing, namely imprisonment for a maximum of 6 (six) months or a fine of up to Rp. 50.000.000,- (fifty million rupiah).

The government of Hulu Sungai Selatan Regency has also issued regional regulations on fisheries and has carried out continuous monitoring. Some of the sanctions that have been stipulated by the Hulu Sungai Selatan Regency government so far for perpetrators of fisheries crimes are Article 86 paragraph (1) and/or Article 84 paragraph (1) of the Law of the Republic of Indonesia Number 45 of 2009 concerning amendments to Law Number 31 of 2009. 2004 concerning Fisheries. Article 100 b Marine and Fisheries Sector Law of the Republic of Indonesia No 11 of 2020 concerning Cipta Kerja.

CONCLUSION

Optimizing community participation in monitoring Illegal Fishing and the impact of Illegal Fishing on fishermen's catch production during 2014-2022, namely 1. Community participation in dealing with illegal fishing problems in Lake Bangkai, Hulu Sungai Selatan Regency, namely 25.90% of people think it is very good, 23.81 % thought it was good, 24.95% thought it was sufficient, 11.24% thought it was not good and 14.10% people thought it was not good. The impact of surveillance of illegal fishing on the production of fishermen's catches in Lake Bangkai, Hulu Sungai Selatan Regency (2014-2022) has been proven by the production of fishermen's catches on Lake Bangkai increasing every year.

REFERENCES

1. Akhmad Solihin. 2010. Maritime & Fishery Law Politics. Bandung: Shades of Aulia.
2. Amirudin and Zainal Asikin, 2006. Introduction to Legal Research Methodology, (Jakarta:



- Raja Grafindo Persada).
3. Aris Subagiyo, 2017. Management of Coastal Areas and Small Islands, (Malang: UB Press), p.97.
 4. Jaelani, A. Q. (2014). Illegal unreported and unregulated (iuu) fishing: efforts to prevent and eradicate illegal fishing in developing Indonesia's maritime axis. *The Supremacy of Law*, 3.
 5. Rahmayani Nila. 2022. Analysis of the Effectiveness and Strategy of Illegal, Unreported and Unregulated Fishing (IUU-Fishing) Tools in Hulu Sungai Tengah Regency, South Kalimantan Province. Thesis. Master of Fisheries Science. ULM Banjarbaru.
 6. Setiawan, A., F. Supriyadi, G. E. Noor, M. Fadli and A. Mudimanto. 2016. Marine and Fishery Profiles of the Sangihe Islands Regency and the Talaud Islands Regency, North Sulawesi Province. PUSLITBANG Marine and Coastal Resources, Ministry of Maritime Affairs and Fisheries.
 7. Sugiyono, 2017. Research Hypothesis: Definition, Types, and Complete Examples. <https://penerbitdeepublish.com/Yogyakarta>.