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LOCAL WISDOM AS A STRATEGIC APPROACH FOR SUSTAINABLE FISHERIES RESOURCE MANAGEMENT: A CASE STUDY IN THE RIVERINE WATERS OF BANYUMAS REGENCY, CENTRAL JAVA

Kearifan Lokal Sebagai Upaya Pengelolaan Sumberdaya Perikanan Berkelanjutan: Studi Kasus di Perairan Sungai Kabupaten Banyumas, Jawa Tengah

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ABSTRACT

The riverine ecosystems traversing Banyumas Regency through the Serayu Watershed (DAS Serayu) serve as strategic freshwater resource zones, supporting both ecological functions and local livelihoods through economically valuable fish species. However, anthropogenic pressures such as domestic waste pollution, land-use conversion, overfishing, and the use of destructive fishing methods have led to significant ecological degradation. This study aims to: (1) identify key issues in the management of riverine fish resources in Banyumas as common property resources, and (2) explore community-based local wisdom practices implemented for sustainable fisheries conservation. Conducted in February 2025 at the Pokmaswas Lestari Kaliku post in Rawalo Subdistrict, this research employed a qualitative descriptive approach, utilizing field observations, in-depth interviews, and FGDs with 38 respondents drawn from key institutions, including the Provincial Marine and Fisheries Office, Banyumas Fisheries and Livestock Office, local fishery extension workers, the Rekam Jejak Nusantara NGO, and 9 active community monitoring groups (Pokmaswas). Findings reveal that Pokmaswas have adopted various forms of traditional ecological knowledge as management instruments, including: (1) prohibition of hazardous fishing gear (poison and electric shock), (2) establishment of core conservation zones (fish sanctuaries), (3) periodic restocking of indigenous fish species, (4) enforcement patrols against illegal and destructive fishing practices, and (5) public education and outreach initiatives on river ecosystem conservation. These practices demonstrate not only ecological effectiveness but also the critical role of community participation in achieving sustainable fisheries management. In conclusion, local wisdom-based approaches prove to be strategic and effective in addressing complex aquatic

resource management challenges, offering an integrated pathway between conservation imperatives and the socio-economic needs of riverside communities.

Keywords: Common Property, Fishery Resources, Local Wisdom, Pokmaswas, Sustainable Management

ABSTRAK

Perairan sungai di Kabupaten Banyumas yang dilintasi oleh DAS Serayu merupakan kawasan strategis penyedia sumberdaya ikan air tawar bernilai ekonomis tinggi yang menjadi sumber penghidupan masyarakat. Namun, aktivitas antropogenik seperti pencemaran limbah domestik, alih fungsi lahan, penangkapan ikan bersifat *overfishing*, dan penggunaan alat tangkap destruktif telah mengakibatkan degradasi ekosistem sungai. Penelitian ini bertujuan; (1) Mengetahui permasalahan pengelolaan sumberdaya ikan di perairan sungai Kabupaten Banyumas sebagai sumberdaya *common property*, dan (2) Mengetahui bentuk kearifan lokal masyarakat yang diterapkan sebagai basis upaya pelestarian sumberdaya perikanan berkelanjutan di perairan sungai Kabupaten Banyumas. Penelitian dilakukan pada Februari 2025 di Posko Pokmaswas Lestari Kaliku, Kecamatan Rawalo, Kabupaten Banyumas dengan pendekatan metode kualitatif deskriptif melalui observasi, wawancara mendalam, dan FGD dengan total 38 responden seperti Dinas Kelautan dan Perikanan Provinsi Jawa Tengah, Dinas Peternakan dan Perikanan Kabupaten Banyumas, Penyuluh Perikanan Kabupaten Banyumas, LSM Rekam Jejak Nusantara, dan 9 Pokmaswas Kabupaten Banyumas. Hasil penelitian menunjukkan bahwa Pokmaswas menerapkan berbagai bentuk praktik kearifan lokal; (1) pelarangan penggunaan alat tangkap berbahaya (racun dan setrum), (2) pembuatan zona inti suaka perikanan sebagai upaya konservasi, (3) *restocking* bibit ikan spesies asli secara berkala, (4) program pengawasan (patroli) terhadap praktik penggunaan alat tangkap ikan terlarang (*destructive fishing*), serta (5) sosialisasi dan edukasi pelestarian ekosistem sungai dalam kegiatan masyarakat. Praktik tersebut berperan sebagai instrumen penting dan kontribusi nyata masyarakat dalam pengelolaan perikanan berkelanjutan. Dengan demikian, pendekatan berbasis kearifan lokal terbukti efektif dalam menghadapi tantangan pengelolaan sumberdaya perairan, serta mampu menjembatani kepentingan konservasi dan pemanfaatan ekonomi masyarakat sekitar.

Kata Kunci: *Common Property*, Kearifan Lokal, Sumberdaya Ikan, Pokmaswas, Pengelolaan Berkelanjutan

INTRODUCTION

The Serayu River Basin (DAS) is one of the important water areas in Central Java that crosses several regencies, including Banyumas. Several of the largest tributaries in this area, such as the Klawing River, Logawa River, and Tajum River, flow through Banyumas Regency (Susanto, 2018). This river flow has great potential as a source of freshwater fish, both for local consumption and economic commodities. Local fish such as nilem (*Osteochilus hasselti*), wader (*Rasbora lateristriata*), and bader (*Barbonymus gonionotus*) have high commercial value and are a source of livelihood for the surrounding community (Wardiatno et al., 2017). However, the rampant anthropogenic activities such as pollution, land conversion, overfishing, and destructive fishing have caused the degradation of fish resources (Sardjono et al., 2019). This condition reflects the weak management of water resources, especially in maintaining the sustainability of local fish species with high economic value in the river area of Banyumas Regency.

In the context of fisheries resource management, the urgency to implement management with a local wisdom-based approach is becoming increasingly important. Fisheries resources, especially in public waters such as rivers, are included in the category of common property

resources, namely shared resources that can be freely accessed by the community (Ostrom, 1990). This open access system results in the absence of strong control over exploitation, thus risking ecosystem damage (Berkes et al., 2000). Therefore, community-based management supported by local wisdom values is one approach that can bridge the needs of utilization and conservation. Local knowledge that has been passed down from generation to generation is believed to be able to create a resource management system that is in harmony with environmental sustainability (Satria & Matsuda, 2004).

In the management of river water resources in Banyumas Regency, the existence of the Community Supervisory Group (Pokmaswas) is one of the important actors in local wisdom-based fisheries management. Pokmaswas was formed to assist the government in supervising and preserving fisheries resources in public waters (KKP, 2021). This group not only plays a role in supervision, but also becomes a pioneer in the implementation of customary rules such as the prohibition of fishing in certain seasons or the use of environmentally friendly fishing gear. The active involvement of Pokmaswas reflects a collaborative model between the community and the government in maintaining the sustainability of fish resources based on local values that have proven effective in several similar cases (Fauzi & Anna, 2005).

There are several previous studies that show that management based on local wisdom and indigenous communities (community-based management) can be an effective solution in conserving aquatic resources. Satria and Matsuda (2004) studied the awig-awig system in Bali which regulates the use of waters according to custom and has succeeded in maintaining the sustainability of resources. Then in Maluku, the sasi system has also been proven to be able to increase fish stocks and protect aquatic habitats by regulating harvest times and no-take zones (Zerner, 1994). A similar study by Arifin (2011) in Central Kalimantan found that local rules of the Dayak community in managing lakes and rivers were able to suppress excessive exploitation. On the other hand, comprehensively, Widarmanto (2018) explained that forms of local wisdom in preserving natural resources already exist in each region, such as Lebak land in East Kalimantan; Coastal Waters Management of Tanjung Barari Village in Biak; Way Muli Rumpon System in Lampung; Sentarum Lake Management in West Kalimantan; Coral Reef Management in Jemluk Bali; Panglima Laot and the management of Rawa Singkil in Nangroe Aceh Darussalam; Lubuk Larangan in Jambi; lubuk larangan, spatial planning of banua/huta, sacred place 'naborgo-borgo' or 'harangan rarangan' (forbidden forest) in Mandailing, North Sumatra; and so on. These studies show that the local wisdom approach in fisheries management is an important step that should be developed in other areas, including the management of waters in Banyumas Regency.

Based on this description, several main problems can be formulated that are the basis for this research. The potential for local fish resources with high economic value in the river waters of Banyumas Regency which face the threat of degradation due to uncontrolled utilization, then the nature of fisheries resources as common property and open access requires effective management efforts so that their sustainability is maintained. In addition, the local wisdom of the community around the river has great potential to be used as a basis for sustainable management, but has not been studied scientifically. Therefore, the objectives of this research are: (1) To find out the problems of managing fish resources in the river waters of Banyumas Regency as common property resources, and (2) To find out the forms of local wisdom of the community that are applied as a basis for efforts to preserve sustainable fishery resources in the river waters of Banyumas Regency.

METHODS

Time and Place

The research was conducted in February 2025 during the socialization activity of Rembug Gayeng for Serayu River Basin Management (DAS) which took place at the Kaliku Lestari Pokmaswas Post, Rawalo District, Banyumas Regency, Central Java.

Method

This research uses a qualitative approach with a descriptive method, which aims to deeply understand the practice of local wisdom in sustainable fisheries resource management. The descriptive qualitative approach was chosen because it is able to provide a comprehensive picture of social, cultural, and ecological phenomena from the perspective of local actors and the dynamics of interactions between stakeholders (Creswell, 2014; Moleong, 2017). Then, the location and research subjects were selected purposively by emphasizing the complexity and magnitude of the potential of fisheries resources, especially the river waters of Banyumas Regency and the existence of local communities who actively participate in their management.

The data collection method was carried out through two types of sources, namely primary data and secondary data. Primary data was obtained directly from the field through participatory observation during in-depth interviews and FGDs with respondents. In-depth interviews and FGDs were conducted to explore collective perspectives and build a more holistic understanding of local wisdom-based management strategies. This technique allows researchers to obtain contextual and actual information related to local wisdom practices in fish resource management (Sugiyono, 2019). Meanwhile, secondary data was obtained through literature studies, both from the Central Java Provincial Marine and Fisheries Service (DKP), the Central Statistics Agency (BPS), the Banyumas Regency Fisheries Community Monitoring Group (Pokmaswas) as well as policy and program reports from government agencies, scientific journals, and publications from other valid sources. The secondary data is used to support the analysis and interpretation of field findings and provide a comprehensive reference framework (Neuman, 2014).

In general, the research activities were carried out with various respondents such as the Central Java Provincial Marine and Fisheries Service (4 people), the Banyumas Regency Animal Husbandry and Fisheries Service (4 people), Banyumas Regency Fisheries Extension Officers (3 people), the Rekam Jejak Nusantara Non-Governmental Organization (NGO) (2 people) engaged in fisheries conservation, and nine Pokmaswas active in the Banyumas area including: Pokmaswas Kalijaga (Ajibarang), Pokmaswas Arus Lestari (Gumelar), Pokmaswas Lingsang Ciwera (Gumelar), Pokmaswas Lestari Kaliku (Rawalo), Pokmaswas Jaka Mina (Patikraja), Pokmaswas Lembah Tajum Lestari (Jatilawang), Pokmaswas Jaga Kali (Sokaraja), Pokmaswas Pesona Situ Pameling (Jatilawang), Pokmaswas Pager Lestari (Kemranjen) with a total of 25 people. So that the total respondents involved were 38 people.

Tools and Materials

The tools and materials used include in-depth interview guides, guidelines for Focus Group Discussions (FGD), voice recorders, stationery, and visual documentation devices such as cameras and maps of the Serayu Watershed area.

Data Analysis

Data analysis was conducted descriptively qualitatively, where this method can describe existing problems in isolation based on data that has been obtained in the field in the form of interview results, observations, and documentation, then reviewed to be described and then conclusions drawn from existing problems (Anggraini, 2016). Related to primary data, this data allows researchers to build a comprehensive narrative about local practices that contribute

to fish resource management and collaborative dynamics between stakeholders. Then based on secondary data, it can be used as support in strengthening the interpretation of the social and ecological conditions of the research area.

RESULTS

This research activity was carried out in the socialization agenda at the Posko Pokmaswas Lestari Kaliku, Rawalo District, Banyumas Regency, Central Java in February 2025. This research is a collaborative agenda between the Central Java Marine and Fisheries Service and the Faculty of Fisheries and Marine Sciences, Jenderal Soedirman University in the development and management of the Serayu Watershed with a focus on river water studies in Banyumas Regency. As is known, the Serayu Watershed crosses 5 (five) regencies in Central Java Province such as Wonosobo, Banjarnegara, Purbalingga, Banyumas, and Cilacap. Thus, the river waters in Banyumas Regency were chosen as the focus of the study because they are crossed by the Serayu Watershed and there are various complex and unique problems because in the management of its water resources it involves the fisheries Pokmaswas as a control based on local wisdom. The focus of the study area can be seen in Figure 1 (map of river waters in Banyumas Regency).

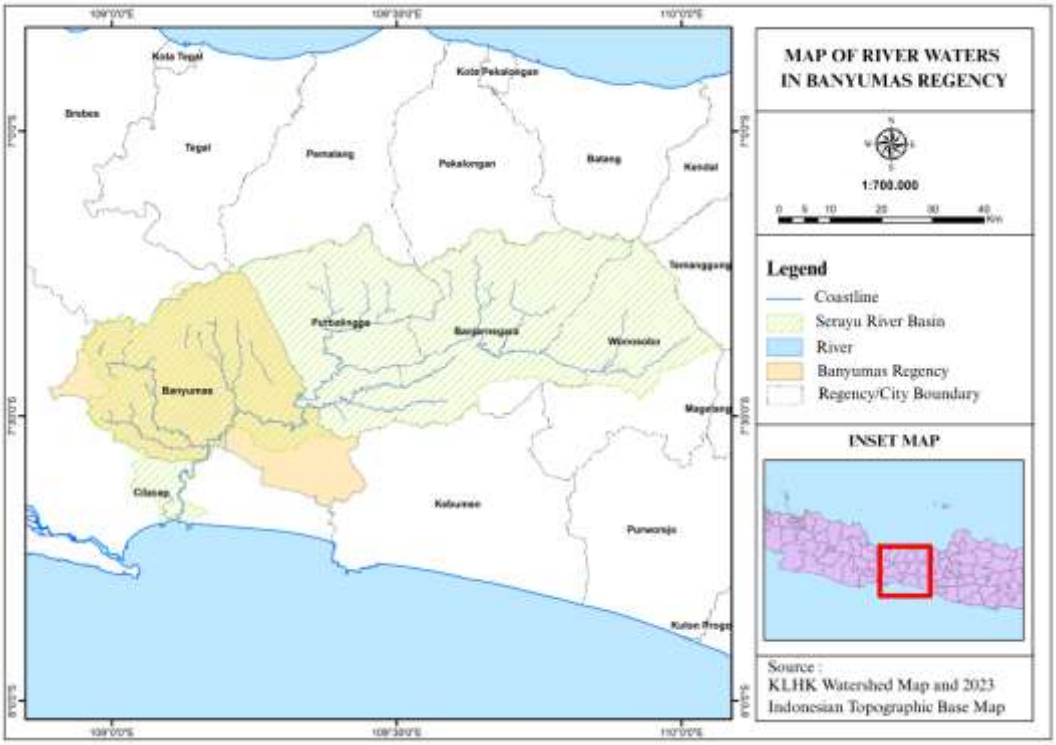

Figure 1. Map of River Waters in Banyumas Regency

Based on the data and information obtained from 9 (nine) Pokmaswas involved in the research, including: Pokmaswas Kalijaga (Ajibarang District), Pokmaswas Arus Lestari (Gumelar District), Pokmaswas Lingsang Ciwera (Gumelar District), Pokmaswas Lestari Kaliku (Rawalo District), Pokmaswas Jaka Mina (Patikraja District), Pokmaswas Lembah Tajum Lestari (Jatilawang District), Pokmaswas Jaga Kali (Sokaraja District), Pokmaswas Pesona Situ Pameling (Jatilawang District), Pokmaswas Pager Lestari (Kemranjen District). So based on this, it is interesting to study the forms of local wisdom applied by Pokmaswas in Banyumas Regency (can be seen in Table 1).

Table 1. Forms of Local Wisdom Applied by Pokmaswas in Banyumas Regency

No	Forms of Local Wisdom	Follow-up	Implementation	Problem	Pokmaswas
1	Prohibition on the use of dangerous fishing gear (poison and electric shock)	Installation of prohibition signs at several points on the river	Implemented	Decrease in fish catches due to the use of dangerous fishing gear	Kalijaga, Jaga Kali, Pager Lestari, Lestari Kaliku
2	Creation of a "fisheries sanctuary" core zone as a conservation effort	Formation of Pokmaswas through village deliberation as the manager of the 200 meter core fisheries sanctuary zone (fishing is only permitted outside the zone)	Implemented	Uncontrolled fishing causes habitat degradation and a decline in fish populations	Arus Lestari
		Mangrove planting and plans to build seed cages in conservation areas	Plan	Various activities that degrade river ecosystems require awareness of the formation of conservation zones	Lestari Kaliku
		Development as an educational tourism area based on environmental conservation	Plan	Low public awareness (internal factor) and lack of adequate supporting facilities (external factor)	Lestari Kaliku, Arus Lestari, Lingsang Ciwera
		Creation of fish breeding and rearing zones as part of conservation	Implemented	Low fish population and catch in rivers	Jaga Kali, Lingsang Ciwera
3	Regular restocking of native fish species	Collaboration with the government to carry out periodic restocking	Implemented	Decline in fish population over time	Arus Lestari, Lembah Tajum Lestari, Pager

No	Forms of Local Wisdom	Follow-up	Implementation	Problem	Pokmaswas
					Lestari, Jaga Kali, Pesona Situ Pameling, Lestari Kaliku, Kalijaga
4	Supervision program (patrol) against the practice of using prohibited fishing gear (destructive fishing)	Establishment of periodic patrol teams as an effort to monitor fishing	Implemented	Many environmentally unfriendly fishing practices (destructive fishing) have been found	Lestari Kaliku, Jaka Mina, Lembah Tajum Lestari, Pager Lestari, Jaga Kali
5	Socialization and education on river ecosystem preservation in community activities	Along with the fishing event, socialization and education on river conservation was carried out	Implemented	Lack of public awareness of the importance of preserving river ecosystems	Lestari Kaliku
		Regular socialization on village agendas and other general community activities	Implemented	Many activities involving domestic waste disposal into rivers have been found, thereby polluting the ecosystem	Kalijaga, Pager Lestari, Jaga Kali, Lingsang Ciwera, Pesona Situ Pameling

Source: Primary Data (2025)

DISCUSSION

Based on the research that has been conducted, the results obtained show that river water resources in Banyumas Regency which are common property and open access for the general public have the potential to cause various ecological, social, and economic problems that certainly threaten their sustainability. The characteristics of open access mean that all individuals have the same rights to utilize resources without any clear limitations or regulations. In practice, this triggers excessive exploitation behavior, where each individual tends to maximize personal benefits from these resources without considering the long-term impacts on sustainability (Hardin, 1968; Berkes, et al., 2000).

The problems that arise include a decline in local fish populations, damage to aquatic ecosystems, pollution from domestic waste, overfishing and the use of fishing gear that damages the ecosystem (destructive fishing). This phenomenon reflects the condition of the tragedy of the commons, as stated by Hardin (1968), where shared resources that are freely

utilized without control will tend to experience degradation due to the lack of collective responsibility in their management. Therefore, there needs to be structured control and management, both in terms of formal regulations by the government and from community initiatives based on local wisdom.

In river resource management in Banyumas Regency, the community monitoring group (Pokmaswas) is a strategic actor in fisheries resource management. Pokmaswas has an important role in maintaining the sustainability of river water ecosystems through a local wisdom-based approach. As an organization formed by the community and facilitated by the government, Pokmaswas is tasked with supervising fisheries activities to ensure that they remain in accordance with conservation and sustainability principles (KKP, 2021). One of the key roles of Pokmaswas is to implement local wisdom practices in fisheries management and of course not only function as technical supervisors, but also as facilitators of local values that have been passed down from generation to generation in maintaining the balance of aquatic ecosystems (Widarmanto, 2018). Based on Table 1, it can be concluded that there are 5 (five) forms of local wisdom applied in sustainable river water management in Banyumas Regency, as follows:

1. Prohibition of the use of dangerous fishing gear (poison and electric shock)

One form of local wisdom applied by the community in the river waters of Banyumas Regency is the prohibition of the use of dangerous fishing gear such as poison and electric shock. As a follow-up, the local Pokmaswas has installed warning signs at several strategic points along the river. This policy was implemented as a response to the significant decline in fish catches due to destructive fishing practices. Community monitoring groups such as Pokmaswas Kalijaga (Ajibarang), Jaga Kali (Sokaraja), Lestari Kaliku (Rawalo), and Pager Lestari (Kemranjen) are pioneers in enforcing this rule. This practice is in accordance with the concept of community-based management which emphasizes active community participation in the conservation of fishery resources (Berkes et al., 2000).

2. Creation of core fishery sanctuary zones as a conservation effort

The development of marine sanctuaries is one of the efforts to maintain the sustainability of river ecosystems (Ariadi et al., 2024). The concept of a marine sanctuary basically creates a mini conservation area in a regional unit to protect individuals or populations within it (Fouad et al., 2022). The creation of a 200-meter core zone for a fishery sanctuary is another conservative step that reflects local wisdom in preserving fish habitat by setting a ban on fishing in the core zone and still allowing fishing activities outside its boundaries. The initiative was initiated through village deliberations and carried out by Pokmaswas Arus Lestari (Gumelar). Then, the development of an educational tourism area initiated by Pokmaswas Lestari Kaliku, Arus Lestari, Lingsang Ciwera is still hampered by a lack of facilities and low public awareness. Other areas such as Rawalo, Pokmaswas Lestari Kaliku plan to plant mangroves and build breeding cages to strengthen the function of the river ecosystem. The creation of a breeding zone and a fish rearing zone as part of conservation was implemented by Pokmaswas Jaga Kali and Lingsang Ciwera due to various problems such as the low fish population and catch. Regarding conservation, Pramono et al., (2019) in a case study of Senggaringan fish (*Mystus singaringan*) in the Klawing River explained that conservation strategies include mixing genetic stocks from various populations to increase genetic diversity, which can support restocking, domestication, and local fish farming programs in the future. Moreover, Pramono et al., (2018) also revealed the need for an inventory of fish diversity in aquatic ecosystems so that it can be the basis for fish conservation strategies. So it can be concluded that these efforts reflect the importance of an integrated approach between conservation, education, and community economic empowerment (Satria & Matsuda, 2004).

3. Periodic restocking of native species fish seeds

Fish restocking is an effort to add new endemic fish species to an ecosystem habitat (Felix et al., 2020). Local fish restocking activities are a real form of local wisdom-based conservation efforts that involve collaboration between Pokmaswas and government agencies. This activity is carried out periodically to restore fish populations that continue to decline due to exploitation pressure and habitat degradation. Pokmaswas Arus Lestari, Lembah Tajum Lestari, Pager Lestari, Jaga Kali, and Pesona Situ Pameling are the parties actively implementing this program. Restocking not only increases the availability of fish stocks in nature, but also maintains the sustainability of the livelihoods of communities around the river. In general, restocking activities are in line with the principles of ecological restoration which emphasizes the restoration of water systems in a sustainable manner (FAO, 2010). Based on the research, information was obtained that several local fish species found include brek fish (*Puntius orphoides* Valenciennes), nilem fish (*Osteochilus hasselti* Valenciennes), gabus (*Channa striata* Bloch), baung (*Mystus nemurus* Valenciennes), senggaringan (*Mystus nigriceps*), wader pari or baceman (*Rasbora argyrotaenia*), bloso (*Barbonymus balleroides*), palung (*Hampala macrolepidota*), and baung lundu (*Mystus micracanthus*), as well as several types of shrimp such as Galah shrimp (*Macrobrachium rosenbergii*).

4. Monitoring program (patrol) against the practice of using prohibited fishing gear (destructive fishing)

The monitoring program against illegal fishing practices or destructive fishing is also actively carried out *through* the formation of community patrol teams. Pokmaswas Lestari Kaliku, Jaka Mina, Lembah Tajum Lestari, Pager Lestari, and Jaga Kali have carried out routine patrols to ensure that the agreed rules can be enforced. The existence of patrols is very important in suppressing violations, especially in areas that are highly vulnerable to excessive exploitation without control. This social control function reflects the implementation of the concept of co-management, where monitoring of resources is not only carried out by the state but also by local communities who have emotional and social ties to their environment (Pomeroy & Berkes, 1997). The priority of this activity is certainly a conservation effort. Le Guen (1989) cit Rukayah et al., (2021). revealed that one of the efforts to protect a species from extinction is to carry out conservation efforts with the assumption that the natural population can be restored through: 1) temporary cessation of fishing gear operations that target the fish in question 2) strict regulation of the size of the fishing gear mesh and 3) efforts to restock fish of a certain size into public waters.

5. Socialization and education on river ecosystem conservation in community activities

Educational efforts are also an integral part of local wisdom carried out by the community through Pokmaswas. Socialization activities regarding river ecosystem conservation are carried out in various *forums*, such as fishing competition events and routine village agendas. Pokmaswas Lestari Kaliku, Pager Lestari, Jaga Kali, Lingsang Ciwera, and Pesona Situ Pameling are active in conveying conservation messages to the wider community. This education is important in building collective awareness not to throw garbage into rivers and to protect the ecosystem. According to Widarmanto (2018), local value-based education is very effective in creating behavioral change because it is rooted in social and cultural norms that already exist in society.

The existence of Pokmaswas in the management of river water resources in Banyumas Regency reflects the synergy between formal and informal institutions. In practice, Pokmaswas works collaboratively with government agencies, NGOs, and community leaders in implementing relevant customary rules, such as not catching fish during the spawning season or using environmentally friendly fishing gear. Other synergies such as in Sari et al., (2025)

which revealed that the role of forest farmer groups (KTH) in sustainable forest management with collaboration between farmers, the government, and other related parties is key to integrating conservation aspects with improving the welfare of communities around the Serayu Watershed. These things are in line with the co-management theory put forward by Berkes et al. (2000), where community-based management can increase the effectiveness of conservation and sustainability of natural resources. The existence of a management system based on a co-management system is expected to have a common vision between the community and the private sector as users with the government as the manager (Ariadi et al., 2024). Furthermore, the Pokmaswas approach which is rooted in local wisdom also contributes to raising public awareness of the importance of preserving river waters. Local knowledge combined with a strong institutional structure makes Pokmaswas an important pillar in community-based fisheries governance. Therefore, strengthening the capacity and institutions of Pokmaswas is a strategic step in maintaining the sustainability of river fisheries resources in Banyumas Regency.

CONCLUSION

Based on the research results, it can be concluded that the problem of fish resource management in river waters in Banyumas Regency is closely related to the nature of fishery resources as common property and an open access system. The practice of excessive exploitation, pollution of river ecosystems, overfishing, the use of dangerous fishing gear such as poison and electric shocks, and weak public awareness have caused the degradation of local fish populations that have high economic value. This indicates that the management system based on formal control is not yet effective enough, so an alternative approach is needed that can reach the root of the problem.

However, the existence of Pokmaswas has proven to be the main driver in enforcing local regulations, conducting supervision, and encouraging public awareness in water management based on local wisdom. The active role of Pokmaswas shows effectiveness in sustainable fishery resource management. Forms of local wisdom-based practices that have been carried out such as (1) prohibition of the use of dangerous fishing gear (poison and electric), (2) creation of core fishery sanctuary zones as a conservation effort, (3) periodic restocking of native fish species, (4) monitoring programs (patrols) against the practice of using prohibited fishing gear (destructive fishing), and (5) socialization and education on river ecosystem preservation in community activities, these practices are real implementations of local values which are one of the strategic solutions to integrate ecological preservation (fish conservation) and utilization needs. Thus, local wisdom-based management has been proven to have a significant contribution in maintaining the sustainability of fish resources in the river waters of Banyumas Regency.

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