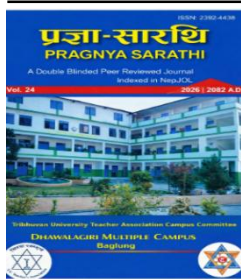


---

**Publisher: TUTA, Dhawalagiri Multiple Campus, Baglung, ISSN: 2392-4438**


---

**Article information**

Received: 12 February 2026  
Review: 15 February to 8 March 2026  
Revision: 10 March to 3 April 2026  
Accept: 9 April 2026  
Published: 15 April, 2026  
DOI: <https://doi.org/10.3126/ps.v24i1.92767>  
Available: [www.nepjol.info/index.php/ps](http://www.nepjol.info/index.php/ps)

---

**Fishing Gear, Trapping Method, and Tool Materials used by Majhi People of Majhi Basti, Parbat**

**\*Dammar Singh Khatri<sup>1</sup>**   
Dhawalagiri Multiple Campus, TU, Baglung, Nepal  
**Email:** dambar32khatri@gmail.com  
**\*Corresponding Author**

**Surakshya Sapkota<sup>2</sup>**  
BSC Students of Dhawalagiri  
Multipel Campus, Baglung  
**Email:** ssurakshya56@gmail.com

---

**Abstract**

This paper is based on the results of the Mahji people's fishing practices and their tools. Fishing is the act of catching fish. It is significant practices that ensure food security by providing a primary source of protein and sustaining the livelihood of marginalized communities. The study examined fishing gear, materials, and trapping methods used by minor communities along the Kaligandaki River near Maldhunga, Parbat District. A qualitative field survey method was used. Nine people from the Majhi community participated. Nets are dominant fishing implements, followed by Tiryari and bamboo baskets. Thali, hammering devices, umbrella traps, and Kudelo are used depending on fishing conditions. The Majhi people are inclined to the hybridization of modern and traditional resources. Local craftsmanship and skill-based production are used in fishing operations. Finding highlights of fishing practices in the area represents a transitional system in which modernization coexists with indigenous knowledge. The indigenous knowledge of fishing was observed in the field. Besides this, these practices are in crisis due to livelihood and lack of support.

**Keywords:** fishing implements, Majhi people, traditional fishing

## Introduction

Nepal is rich in water resources, having 6000 small and large rivers (DoFD, 2014). These rivers are inhabited by a large number of aquatic fauna, including fish. About 7,31,500 ha area of Nepal is related to the fisheries sector, which includes river, lakes, streams, paddy fields, reservoirs, and village ponds (Shrestha, 1994). These fish are captured using both conventional and unconventional methods (Gurung, 2003). The conventional fishing implement represents traditional fishing gear, such as a cast net, a gillnet, and hooks. These devices do not harm small fish and capture only large fish. The unconventional implements include explosives, electricity, and poison, which kill the fish in mass, and mass destruction of the fish population takes place. Locally prepared tools using available materials are termed conventional methods, whereas implements purchased from the market are non-conventional methods (Khatri, 2022). Traditional fishing and fisherfolk fishing is carried out by different methods using cast net, gill net, loop net, line and hook, basket, and some unconventional methods have emerged in recent years using explosives, electricity, and poison (Gurung, 2003). Many communities in Nepal, including the Tharu, Majhi, Malaha, Dunuwar, Kewat, Bote, Musahar, Mukhiya, Darai, Kumal, Dangar, Jalari, and others, rely on fishing as a means of subsistence and mostly use cast nets, gill nets, loops, lines, hooks, and baskets in their traditional fishing methods, especially the Bote/Majhi of the Midland plains and hills use cast nets to capture Katle (*Acrossocheilus hexagonolepis*) and Mahseer (*Tor tor*) (Mali, 2008). The Magar/Gurung people of the Midland hills use fish snaring, trapping, lift nets, cover pots, and scoop nets to catch snow trout (*Schizothorax spp*) and katle (*Acrossocheilus hexagonolepis*) (Shrestha, 1994). These implements are made from traditional skills and capture average-sized fish, and the fish population remains constant throughout the year.

The Tharu people use various types of net traps, such as the hoop net (helka), a small square net with a handle (tapi), a casting net (jal), and hooks as fishing implements (Khatri, 2010). A wide range of fishing tools, from conventional to more contemporary, are utilized in Nepal. Typical tools include hook and line, baskets (Dadiya), gill nets (Kandejaal), cast nets (Jaal), and even hand fishing using bare hands or rerouting water bodies, mainly used in the mid-hill region (Khatri et al., 2022). These implements are prepared at home by using local materials, and they are easy to handle in water.

For fish and other diversity conservation, conventional methods are somewhat effective. Nowadays, people use various techniques to catch fish, including modern and industrial tools. The increasing demand for captured fish in the market directly influences fishing techniques, leading fishermen to use irrational and unwise methods that may harm the ecosystem. From past studies, uncontrolled fish harvesting can severely deplete fishery resources, depriving local fishers of their primary source of subsistence (Dugan et al., 2010; Thapa & Dahal, 2009). The irrational and unscientific practice of catching fish is increasing day by day. Besides, overfishing, irrational fishing, use of small-mesh nets, use of explosives, electrofishing, and free access to poisons (herbal and chemical), as well as the introduction of exotic species, are the main conservation threats to fish

diversity in common practice (Dhital & Jha, 2002). The primary goal of this study was to identify the various fishing implements used by local fishermen, as these techniques directly influence the fish fauna. This study will explore baseline information on the fishing methods and implements used by the local fishermen in Maldhunga, Parbat.

### **Materials and Methods**

This study was carried out in "Majhi Basti of Maldhunga," situated along the banks of the Kaligandaki River, which lies at the border between the Kushma parbat and Baglung districts. It is a small community primarily inhabited by the Majhi, who are traditionally engaged in fishing. This research adopted a field-based descriptive and ethno-biological research design to document the fishing practices. The study lasted three months, primarily in May, June, and July of 2025. The selection of this period was due to better ecological conditions in the river, which made it easy to observe fishing activity. In these months, the water is clear, and fish migrate to the river's upper reaches to breed. For data collection, the purposive sampling method was used. The respondents were selected using snowball sampling to identify key informants. During data collection, the field was visited four times using a structured observation checklist to ensure systematic recording of fishing tools, techniques, and contextual practices. Fishermen were visited, and their tools and techniques were observed in different places in Majhi Basti, Maldhunga.

The data were collected from 9 respondents using observation, interview, and questionnaire methods. The number of respondents seems very low, but the qualitative analysis prioritizes data replication over the number of respondents. The secondary data were collected from books, journals, research papers, online sources, reports, government documents, etc., and other relevant literature. This study was carried out in "Majhi Basti of Maldhunga," situated along the banks of the Kaligandaki River, which lies at the border between the Kushma parbat and Baglung districts. It is a small community primarily inhabited by the Majhi, who are traditionally engaged in fishing. This research adopted a field-based descriptive and ethno-biological research design to document the fishing practices. The study lasted three months, primarily in May, June, and July of 2025.

The selection of this period was due to better ecological conditions in the river, which made it easy to observe fishing activity. In these months, the water is clear, and fish migrate to the river's upper reaches to breed. For data collection, the purposive sampling method was used. The respondents were selected using snowball sampling to identify key informants. During data collection, the field was visited four times using a structured observation checklist to ensure systematic recording of fishing tools, techniques, and contextual practices. Fishermen were visited, and their tools and techniques were observed in different places in Majhi Basti, Maldhunga. The data were collected from 9 respondents using observation, interview, and questionnaire methods. The number of respondents seems very low, but the qualitative analysis prioritizes data replication over the number of respondents. The secondary data were collected from books, journals, research

papers, online sources, reports, government documents, etc., and other relevant literature.

## Result and Discussion

### Result

The results show that nets are prioritized tools for catching fish. The Mahni people of the selected area use Nets for fishing. Tiyari and basketballs are widely used by these people, but they focus on the Net. Umbrella traps and Kudelo are not in priority, but they are also used. Nylon dominates (100%), indicating modernization. Bamboo remains significant (66.7%), reflecting traditional practices. Metallic materials are used mainly for hooks and tools. The net is used frequently (100%), indicating it is the primary fishing gear.

**Table 1**

*Types of Fishing Implements (gear) Used (n = 9)*

Fish gear	Number	Percentage(%)
Net	9	100
Tiyari	6	66.7
Basket	5	55.6
Hook	2	22.2
Thali	2	22.2
Hammer / Hammering Tool	2	22.2
Umbrella-type Trap	1	11.1
Kudelo	1	11.1

**Table 2**

*Materials Used in Fishing Implements (n = 9)*

Fishing material	Number	Percentage (%)
Nylon	9	100
Bamboo	6	66.7
Iron	3	33.3
Steel	2	22.2

The Majhi people use different tools. The tools used by the Majhi people are listed in Table 1, which were collected from interviews. The interview result is justified by the field observation. Net, Tiyari, Basket, Hook, Thali, Hammer, Umbrella-type trap, and Kudelo are tools used for fishing by the Majhi people, and they are observed in use during their fishing. Participants reported using these tools for fishing. Tiyari and baskets were historically used by the Majhi people. Hooks, thali, hammering tools, umbrella traps, and kudelo were used by fewer respondents. This indicates that the Majhi people used a variety of fishing tools according to necessity and ease. This indicates that fishing practices in the study area involve both primary fishing gear (nets) and supplementary traditional tools.

The materials used in fishing implements were categorized by material. Synthetic, natural, and metallic are the main types that come under this category. Nylon is a highly used material. It is used to make nets and Tiyari. The Mahhi people used bamboo for making baskets and traditional traps. The basket was as shown in Figure 2. Iron and steel were used for hooks, thali, and hammering tools. The result shows that although synthetic materials (nylon) dominate, traditional materials like bamboo are still in practice. The mesh sizes reported ranged from 5 to 25 mm and from 5 to 50 mm. The majority of respondents reported using mesh sizes up to 50 mm. Less than 20% preferred smaller mesh sizes (5–25 mm). This variation suggests selective fishing practices targeting different sizes of fish species. All respondents reported that their fishing implements were hand-woven. This indicates that the preparation of fishing gear is largely based on traditional craftsmanship and local skill rather than industrial production.

Majhi people use different fishing gear according to the season, river flow, and the type of fish to catch. In moderate water conditions, they use the net, especially the cast net, commonly called ‘Jaal’. They throw by taking one end in the left arm and the free end of the net extended over the river with the help of the right hand. The edge of the net is encircled by small iron balls; due to this, the net expands circularly and dips into the river. Fishermen pull the rope, and fish are gradually trapped in the encircled area. Fishing by scoop net is mainly practiced during the rainy season. At that time, the water level is high, and the water speed is high. The scoop net has a long wooden support and, at the tip, a circular net. They simply fixed against the water current, and fish caught easily. A Gill net is another type of fishing gear that is used during the winter season. In the winter season, the water level is low, and fishermen can easily cross the river to set the net across the river.

**Figure 1**  
Cast Net (Jaal)



**Figure 2**  
Kudelo



**Figure 3**  
Scoop Net



**Figure 4**  
Tiyari



**Figure 5**  
Hook



The gill net was fixed across the river in the evening and collected the next morning. A hook is used to catch large-sized fish by applying bait at the tip of the

hook. A basket used to collect the fish. It is mostly bamboo made by them with their hand skills. Kudelo is a bamboo-made device used in rivers with low water conditions. It is fixed in one place, and water flows through by diverting it. The other fishing practices, like umbrella fishing, fishing by hand, and hammering, are small-scale practices. Some fish are not very active and attract in wheat powder. They collected with the help of an umbrella. Hammering on fishing activity is seen on winter season. During this time, the water in the river is very low, and fish hide themselves under the stones. Fishermen strike stones with a hammer, and fish die due to vibration. They come to the water's surface and are collected with bare hands.

## Discussion

Fishing activity is a traditional occupation of Nepali ethnic groups. These people are distributed throughout Nepal, and many live near the riverbank. They have traditional knowledge to make fishing gear to catch the fish by different methods. The current study provides a traditional method of fishing among the people of minor communities and examines the relationship of their livelihood with the capture fishery. The traditional knowledge about the fishing gear, handling methods, and materials used to make these devices is sustaining their way of life around the river coastal area. The current scenario matched with the Food and Agriculture Organization, which emphasizes fisherman use their skill by combining both modern and traditional methods (FAO, 2010). So, the fishing methods used by these communities include both traditional and modern methods. The material used to make the gear is nylon thread. This material is applied to all devices to make them rigid and durable. Fishing people used tools that enabled them to catch fish with less maintenance. This finding supports the finding that adoption of synthetic materials in inland fisheries has significantly enhanced catch efficiency and reduced maintenance costs (Dugan et al., 2010). The Majhi people do not have the means to use gear due to their economic conditions. Their fishing practices depend on the local resources and tools. They used local resources to make fishing tools. They prepare bamboo materials. They prepare a basket from bamboo materials. They use Kudelo, a small tool they can prepare themselves. Thus, the Majhi people used locally prepared tools. This finding aligns with the finding that bamboo traps and baskets are widely used to catch fish in the periphery of Kathekhola (Khatri et al., 2023). The variation in mesh size (5–50 mm) indicates adaptability in fishing strategies. Smaller mesh sizes are used for catching small fish species. Larger mesh sizes allow for the capture of medium-sized fish. Therefore, they use different types of tools depending on the conditions and the target size of the fish they want to catch. This suggests an understanding of fish size selection and seasonal fishing patterns. This supports the assertion by Dugan et al. (2010) that small-scale fishers possess a nuanced ecological understanding that informs their harvesting decisions. Thus, the purpose and target fish size determine which tools to use. The observations show that all implements are hand-woven, highlighting the importance of traditional skills within the community. This reflects cultural continuity and community-based production systems. It also suggests limited mechanization and commercialization of fishing gear production in the

area. This study shows that fishing practices are described as artificial fisheries, and this practice is used with locally made tools. This finding aligns with the finding of Gurung (2003), who noted that artisanal fisheries in Nepal depend heavily on manual skillfulness, which sustains traditional skills and local economies.

The finding highlights that fishing practices in the Majhi communities are not sustainable activities. They apply it as a cultural and traditional practice. They do not use it as a major profession. The fishing practice is shaped by experience, available resources, and knowledge gained from their elder. They continued to use the traditional skills and tools. Therefore, they are guided by indigenous knowledge, which helps to sustain both livelihood and cultural identity. The Majhi people's utilization of nylon materials and variation in mesh sizes indicates a pragmatic adaptation to changing environmental and economic conditions. The traditional practices of fishing are not for livelihood. Fish caught using traditional methods are insufficient to meet daily needs. Thus, Traditional methods alone are no longer sufficient to ensure adequate fish catch for daily life. This condition forces them to shift their practices to other professional practices. To enable fishers to optimize efficiency while maintaining traditional practices, it is required to support them in buying new tools and enhancing them for sustainability, thereby helping their livelihoods. This interplay between tradition and adaptation highlights the agency of marginalized communities. The Majhi negotiate their livelihood within structural constraints such as limited economic resources and restricted access to modern technology.

## Conclusion

The current study elaborated on the fishing activities of the Majhi people living along the riverbank. It provides information about traditional and some modern fishing techniques in that region. This research explores the capture fishery by the people, the fish caught with different gears, mainly homemade using local materials, as well as synthetic nylon. This research also emphasized the use of medium-sized fish nets so moderate-sized fish are valued rather than small-sized fish because of the mass exploitation of fish in the river by people using advanced fishing gear like explosives and electricity, which is illegal in Nepal. This research also suggests enhancing traditional fishing activity, a sustainable practice in the river for the Majhi people.

**Ethical approval for the research:** Not applicable

**Consent for publication:** Not applicable

**Conflict of interest:** The author does not have any conflict of interest with any institutions concerning this research

**Ethical conduct of research:** This paper is written ethically

**Disclosure:** The author used *Grammarly Premium* for language editing; all content is original.

## References

- Dhital, R. R., & Jha, D. K. (2002). Fish fauna of the Narayani River system and their impact on the fisher community, Chitwan, Nepal. *FAO Fisheries Technical Paper*, 431(2), 119–128.
- Dugan, P., Delaporte, A., Andrew, N., O’Keefe, M., & Welcomme, R. L. (2010). *Blue harvest: Inland fisheries as an ecosystem service*. WorldFish Center.
- Edds, D. R. (Year). [Incomplete reference—please provide full details].
- Gurung, T. B. (2003a). Fisheries and aquaculture in Nepal. *Aquaculture Asia*. Network of Aquaculture Centres in Asia-Pacific (NACA).
- Gurung, T. B. (2003b). Traditional fishers work to save fish species in Nepal’s lakes. World Wildlife Fund.
- Khatri, D. S. (2010). *Study on fishes of Mahakali River with reference to hill-stream fishes* (Unpublished master’s thesis). Tribhuvan University.
- Khatri, D. S., Kandel, M., & Gautam, P. R. (2023). Implements and practices of fishing in Kathekhola, Baglung, Nepal. *Pragnya Sarathi*, 21(1), 72–76. <https://doi.org/10.3126/ps.v21i1.59464>
- Rajbanshi, K. G. (2012). *Biodiversity and distribution of freshwater fishes of central Nepal Himalayan region*. Nepal Fisheries Society.
- Shrestha, J. (1994). *Fishes, fishing implements and methods of Nepal*. Smt. M. D. Gupta.

## About Authors

**Dammar Singh** Khatri is a zoology teacher at Dhawalagiri Multiple Campus, TU. His core area of interest is fisheries