**March 2025**
**Communities in Sulawesi Establish Temporary Closure**

## Introduction

Octopus (*Octopus cyanea*) is categorised as a sedentary/domestic reef-associated biota that lives in 0–150 m depth. Male and female adults usually die shortly after spawning and brooding, respectively. The biological characteristics of this species could be a basis for designing appropriate fisheries management action. Specific management strategies are addressed by mainstreaming community-led actions to maintain octopus biomass in their fishing ground.

Octopus, with their fast-growing nature, is deemed responsive to community-led management responses such as temporary closure. Additionally, management action like temporary closure is a suitable approach for the local communities to learn about community-based fisheries management. Furthermore, by letting the octopus grow in size, fishers can gain more income/economic benefit with larger and higher quality octopus.

The temporary closure of the octopus fishery is initiated as management measures action by the communities in the targeted UoCs. There are three common main goals of temporary closure, the first one is to allow small-size octopus to reach maturity and optimal size to be caught. The second is to allow mature octopus the time to spawn and brood, thus recovering the octopus population in the closure area and fishing ground adjecent to it. The third one is to maintain the coral reef ecosystem, not only from octopus fishing activities but also from excessive and/or harmful fishing pressure.

Decisions for the temporary closures are designed and agreed upon by the communities based on the available octopus fisheries data through a series of fisheries meetings, colloquially known as Data Feedback Sessions (DFS). Community members, such as fisher households and community-level buyers, will decide on several actions to implement the temporary closures, i.e. timeline, closure period and location, closure preparation, also other related agreements. Communities also decide to recognise and formalise the temporary closure through village regulations and village head decree.

## Updates on Temporary Closure in Sulawesi

From September 2024 to February 2025, 11 communities supported by 5 partners have implemented 12 temporary closures (Table 1). Average closure area implemented across UoCs is 105.17ha (±38.79) with average closure period duration 12.63 weeks (±0.39).

Table 1 Number of temporary closure by communities in Sulawesi from September 2024 to February 2025

| Province | Regency | District | Management Unit | Community | Supporting Partner | Number of Temporary Closure |
|---|---|---|---|---|---|---|
| Sulawesi Utara | Minahasa Utara | Likupang Barat | Bulutui | Bulutui | YAPEKA | 1 |
| Sulawesi Utara | Minahasa Utara | Likupang Timur | Likupang Dua | Likupang Dua | YAPEKA | 1 |
| Gorontalo | Pohuwato | Popayato | Torosiaje | Torosiaje | JAPESDA | 1 |
| Sulawesi Tengah | Banggai | Luwuk Timur | Uwedikan | Uwedikan | JAPESDA | 1 |
| Sulawesi Tengah | Banggai Kepulauan | Totikum Selatan | Kalumbatan-Lobuton | Kalumbatan, Lobuton | LINI | 2 |
| Sulawesi Tengah | Banggai Laut | Banggai Utara | Popisi | Popisi | LINI | 1 |
| Sulawesi Tenggara | Wakatobi | Kaledupa | Kadie Laulua | Sombano | FORKANI | 2 |
| Sulawesi Tenggara | Wakatobi | Kaledupa Selatan | Kadie Langge | Tanomeha | FORKANI | 1 |
| Sulawesi Tenggara | Wakatobi | Binongko | Kampo-Kampo | Kampo-Kampo | FONEB | 1 |
| Sulawesi Tenggara | Wakatobi | Binongko | Lagongga | Lagongga | FONEB | 1 |

Mean closure areas vary across communities with Torosiaje, Popisi, and Tanomeha that have larger closure areas above average line (Figure 1). Lagongga has the smallest closure area size with 10.00ha and Popisi has the largest closure area with 453.10ha.

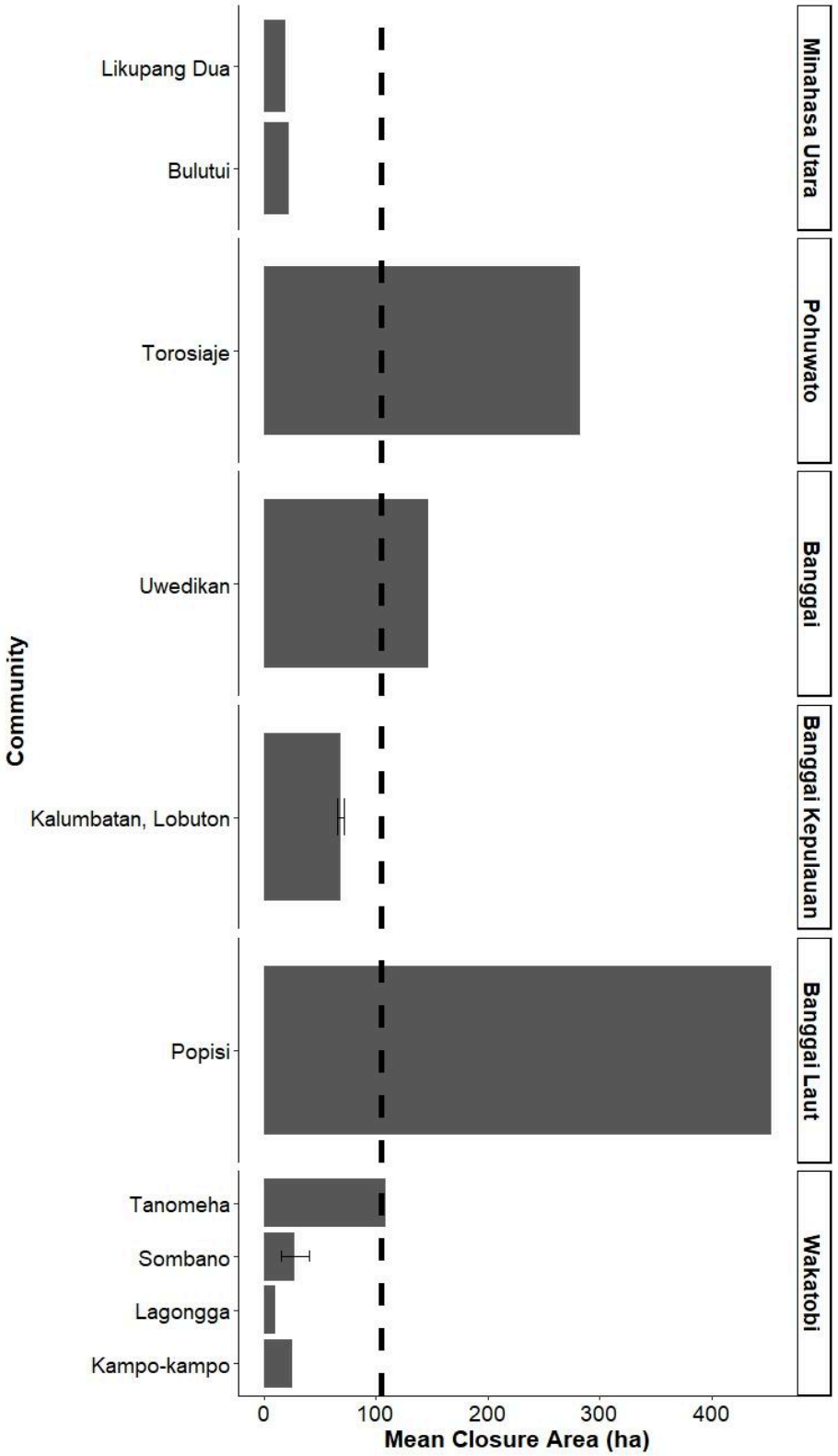


Figure 1 Average closure area (ha) with standard error bars by community and regency in Sulawesi from September 2024 to February 2025. Dashed line is the average closure area across 11 communities.

Communities in Sulawesi generally have agreed on a similar closure duration that is close to the average duration of all 11 communities (Figure 2). Sombano has the shortest mean closure duration which is 10.86 weeks (±2.43) compared to other communities in the same period.

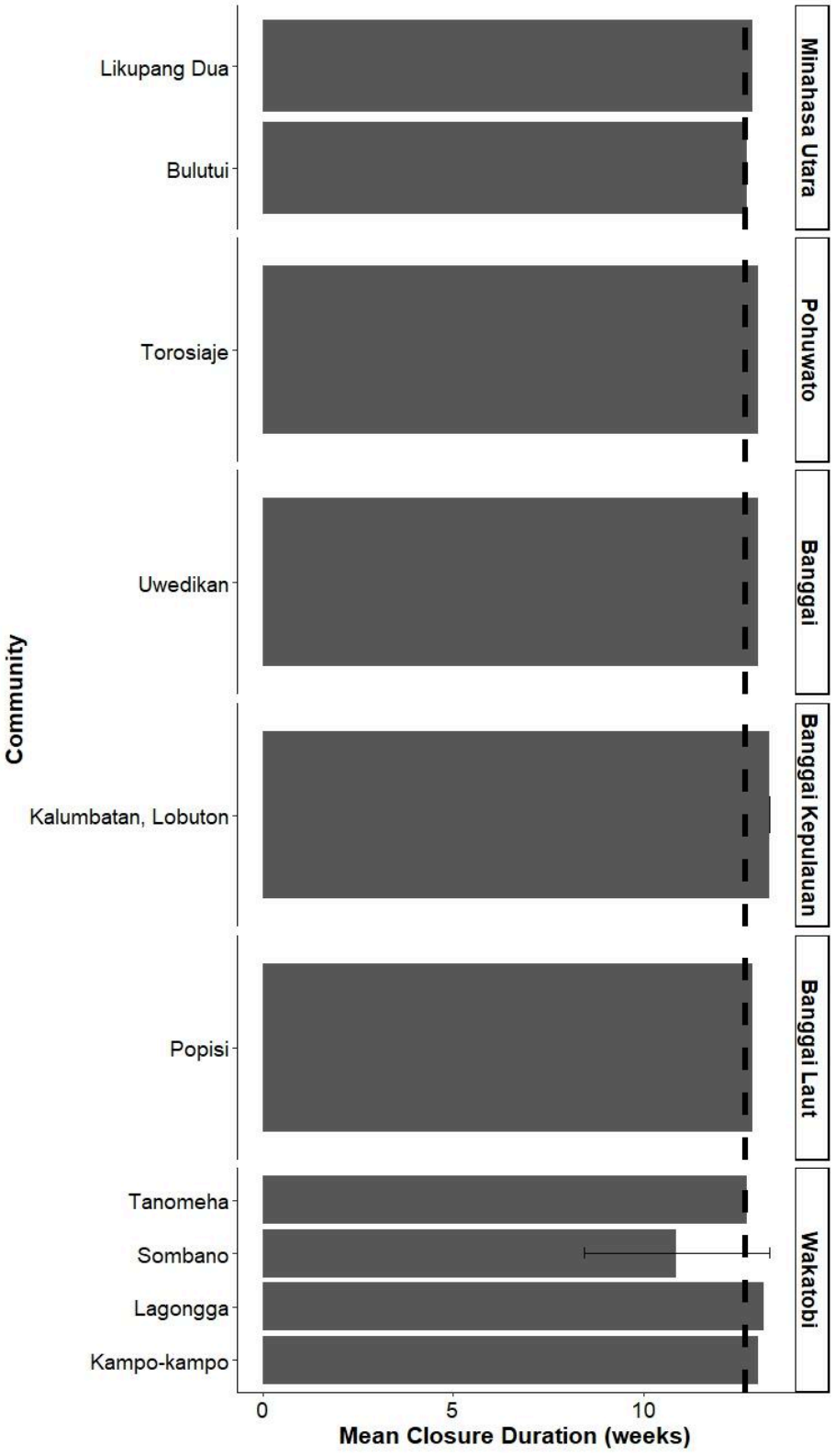

Figure 2 Average closure duration (weeks) with standard error bars by community and regency in Sulawesi from September 2024 to February 2025. Dashed line is the average closure duration across 11 communities.

After the agreement to establish temporary closure, fishers and communities that attend the meeting socialise the decision to other community members and fishers. The communities also communicate the decision to neighbouring villages and fishers regarding the regulation, especially on closure location and duration.
To measure the effectiveness of temporary closure, fisheries data is constantly being collected, especially before and after closure period. The results of the temporary closure implementation are used to evaluate management responses with the communities and other related stakeholders. This is part of the regular data feedback session and is considered important by the community because fisheries management groups want to understand the effectiveness of temporary closure. Based on the analysis, the community can improve and make adaptive management decisions regarding their octopus fisheries management.

**Appendix**


Appendix 1 Temporary closure preparation in Kalumbatan-Lobuton was attended by government officials

Appendix 2 Temporary closure socialisation in Popisi

Appendix 3 Community members setting up temporary closure marker in Popisi

Appendix 4 Community leader in Torosiaje is leading the closure ceremony

Appendix 5 Community members in Sombano is praying for the temporary closure

Appendix 6 Community members in Tanomeha is praying for the temporary closure

Appendix 7 Community members in Lagongga is praying for the temporary closure

Appendix 8 YAPEKA's staff is leading a discussion on the temporary closure opening in Bulutui

Appendix 9 Community members in Torosiaje is discussing the opening ceremony preparation

Appendix 10 Customary leaders in Kampo-Kampo is leading the opening ceremony

Appendix 11 Fishers in Kampo-Kampo during the opening of temporary closure

Appendix 12 Fishers caught an octopus during the opening of temporary closure

Appendix 13 Enumerators recording fishers' catch during the opening of temporary closure