Temporary octopus reserves: Monitoring of its impact on the marine habitat in Mahafaly seascape, South West Region, Madagascar (poster presentation)

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Fishery is among the top 3 sectors in Madagascar that generates important income for the country. Among the exported fisheries products figures the octopus which are mainly come from the littoral zone of the South west Region. More than 75% of the fishermen in this region practice octopus fishing. Since 1996, the exportation of the octopus has increased and so the fishing effort. The analysis of the catches conducted by some NGOs and fisheries products collectors has shown a decline in the size of the octopus specimen which suggested the decline of the state of the resources. Since then, management measures have been suggested to ensure the sustainability of the resources, the activity and its impact: such as setting a minimum size for catch, implementation of temporary reserves. The certification process of the activity through MSC process was also launch in 2016. WWF intervenes in the Mahafaly seascape in the southwestern region of Madagascar to support 15 fishermen villages in implementing the marine resources community management and their integration into this MSC certification process. In this intervention area, the octopus fishing represents 60% of the income of the fishermen. WWF has promoted the temporary octopus reserves among the octopus fisheries management measures.

In 2018, 538 ha of reserves in 10 villages were closed for octopus fishing for 3 months, from July to September. To assess the effectiveness of this measures, we monitored the ecological and socio-economic impacts looking at the fishing effort and catches before, during and after the reserves opening. Coral reef health surveys have been also conducted (cover rate of the benthos, recovery rate of corals, and the percentage of live and dead corals).

The monitoring results for 2018 shows that average 3.3 kg per person per day of octopus were harvested from 538 hectares of reserves during the opening tide benefited 1,706 fishermen. The coral reefs health status before and after reserve opening is similar. There is an isodominance between living and non-living corals.

The monitoring should be continued for the next years to be able to provide reliable data to meet MSC indicators.
Key words: fishermen, octopus, monitoring, temporary octopus reserves, MSC, coral cover