The octopus fishery in Kisiwa Panza, Zanzibar and opportunities for collaborative management

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Kisiwa Panza is a 13.5 km chain of mangrove-linked islets off the SW coast of Pemba, Tanzania and within the Pemba Channel Conservation Area (PECCA), declared 2005. Only one island is permanently inhabited. The islands are fringed to the south by inter-tidal flats bound by reef crests 0.25-2 km offshore, representing extensive fishing grounds for villagers and migrants.

A quantitative and qualitative baseline survey (2014) showed >90% of villagers engage in fishing. Octopus (Octopus cyanea) is the most important resource for the family (67% respondents) followed by fish (ranked by 47% respondents as first and second-most important). Other resources include sea cucumbers, cowries, shellfish and seaweed.

Octopus are caught on foot (predominantly women), using fins and mask (exclusively men) and some scuba. Metal rods and spear guns are the most common gears. The majority of catch is exported to Europe via Tanga.

70% of octopus fishers ranked the resource status as poor, attributing this to introduction of snorkel equipment (1990s), use of scuba, population increase, disrespect of traditional resting periods, and coral reef destruction. Catch data (1.5 months, 2015) indicates overfishing with 62% of catch ≤600g and 39% ≤400g.

PECCA legislation provides opportunities for collaborative management via the Shehia Fisheries Committee (SFC). Existing laws and regulations show inconsistencies and the SFC is not functional.

Villagers have established a pilot 3-month no-take-zone. The opening will coincide with the start of Ramadhan, 2015. By-laws are being progressed via customary village laws and simultaneously through the Department of Fisheries Development. Catch monitoring and enforcement measures have been established at the village level.

Preliminary results indicate that certain aspects of fisheries collaborative management are possible under the current legislation but recommendations for improvements include the clarification of SFC procedures for standard operation and by-law formulation.