

Small-scale fisheries in an estuarine environment: the case of New Washington-Batan-Banga estuaries

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In this study, the case of New Washington-Batan-Banga Bay, an estuarine body of water in Panay Island, Philippines is presented. Capture fisheries data such as fishing methods, amount of catch, and species caught were collected during the 12-month study period. In addition, a census was conducted among fishers operating in the study area to collect additional information on fishing operations and relevant socio-economic data. Interviews with key informants, fishers, local leaders and various stakeholders provided information on the social, political and economic processes in the coastal community.

The estuarine fishery in the study site is traditionally composed of crabs, shrimps and fish species such as snappers and groupers. These fishery resources are exploited using a variety of fishing gears that include stationary fishing gears (traps and lift nets), pots, nets and lines. Figure 1 shows the variety and percentage of fishing gears used by local fishers in New Washington-Batan estuaries. The most prominent fishing method is the use of traps. These traps include the shrimp trap locally called tiggabacoe, fish corral taba, filter net tangab/saluran, lighted lift net bentahan, baited lift net batak-batak, and barrier net sirada. Among non-stationary gears, the most numerous gears used are pots, crab lift nets, lines and a variety of gillnets.

Among the environmental parameters, tides influence fishing operations and catch most. In gears such as filter nets, shrimp traps and fish corrals catch were highest during days when tidal level difference between the high tide and low tide was high. In days when tidal level difference was low, some fishers do not go out to fish while for those who did, fish catch were relatively lower. Other fishing gears such as lift net, pots, lines and nets were not tide-dependent, although pot operations may be affected by the lower supply of “trash fish” caught by traps which are used as pot baits.

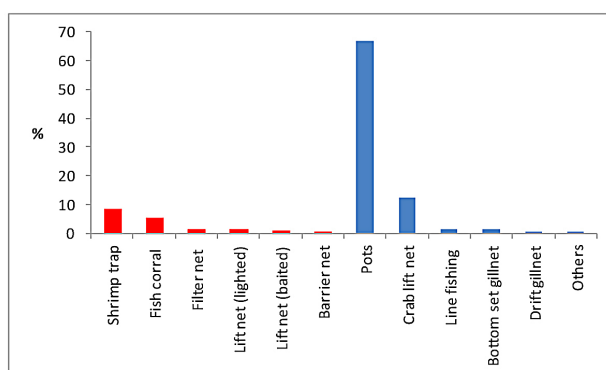


Fig. 1. Dominant fishing gears used by fishers in the New Washington-Batan estuaries to catch fish. Red bars represent gears that are stationary. Blue bars represent fishing gears that are portable.

Respondents revealed what they consider were the most pressing issues and concerns regarding their fishery and livelihood. These include weather and climate issues, theft and vandalism, increasing competition for the resource, and reduction in fish catch and income. In recent decades, catch has declined as a result of many factors such as the open-access system, decrease in fish stocks, degradation of aquatic habitats, unsustainable fishing practices, and issues in management and enforcement of laws. With climate issues for example, the impacts of natural calamities such as a very powerful typhoon on the small scale fisheries was studied.

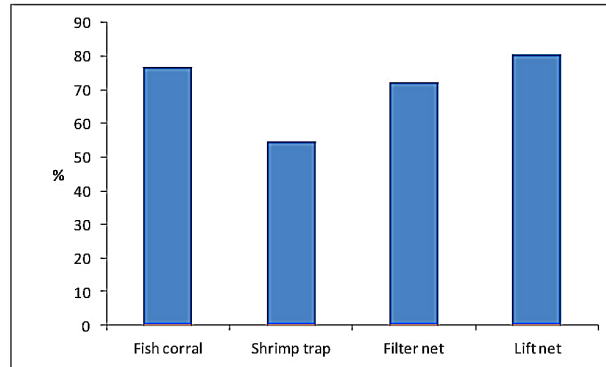


Fig. 2. Damage of stationary fishing gears as a result of an extreme weather event.

Based on the ecological, social, governance and fisheries data gathered, additional recommendations in the management of the estuarine fishery are presented.