REDUCE FISH LOSS & BOOST LIVELIHOODS

# Policy Brief

**Postharvest fish losses and fish consumption in coastal communities along San Bernardino Strait and Samar Bays and Channels**

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## EXECUTIVE SUMMARY

Oceana commissioned a study to examine postharvest fish losses (PHFL) and fish consumption patterns in coastal communities along the Samar Sea, specifically in Northern Samar and Samar provinces. These losses have significant impacts on food security and the economic stability of local communities where livelihoods depend on fishing. Initial estimates put average post-harvest losses in the target areas (representative communities in the two provinces) at 40% - that is, 40% of the catch by volume is subject to physical and quality loss. These locales are also at the top of the list of areas in the Philippines with malnutrition and high poverty incidence.

## DESCRIPTION OF THE PROBLEM

Postharvest fish loss (PHFL) refers to the measurable reduction in the quantity, quality, or monetary value of fish, after the fish is caught and before it is sold to consumers. PHFL is a critical issue in the Philippines, where fish is a dietary staple and a key source of micronutrients and animal protein. The catch of fisherfolk is almost entirely used for domestic consumption, so not only is that a loss of income for the fisher, but a loss of food for the community. The fishing sector faces increased demand from population growth and challenges from climate change and unsustainable fishing practices exacerbate overfishing and the decline in fish stocks.

Most households in Samar (60.5%) and Northern Samar (75.1%) experienced food insecurity during 2018, well above the national average of 54%. According to the National Nutrition Council, incidence of stunting, wastage, and iodine deficiency suggest an insufficient intake of protein and fish on a provincial scale. The high poverty rates and food insecurity in these regions make efficient use of fish catches essential. Notably, the species with highest volumes of loss are sardines, anchovy, and slipmouth—which are all commonly consumed by low-income groups.

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## OVERVIEW OF RESEARCH

This report provides baseline information on postharvest losses and fish consumption in select municipalities in Northern Samar and Samar provinces. Our study gathered data in specific coastal communities along the Samar Sea through the Informal Fish Loss Assessment Method (IFLAM) and stakeholder interviews, focus groups, and workshops. The study also analysed existing data provided by the Bureau of Fisheries and Aquatic Resources (BFAR), the Philippine Statistics Authority (PSA), and other relevant agencies.

The findings show fish quality losses were the most prevalent, resulting from inadequate handling and storage, which leads to spoilage and receiving less money at the market. Physical loss, where the product is thrown out entirely and caused by factors like bad weather or harmful algal blooms, were particularly significant in aquaculture. Market force losses, where fish were sold for a lower than optimal price, were most profound in areas with complex supply chains, as the fish passes through multiple traders before reaching the consumer. The estimated PHFL were significant, at 38.39% in municipalities along San Bernardino Strait, and 40.34% in those along Samar Bays and channels.

The study also analyzed the postharvest fish handling practices, finding that inadequate landing facilities and cold storage contribute significantly to quality losses, such as fish being exposed to air and sun in open markets. The lack of commercial-scale processing facilities and training in proper fish handling further exacerbates these losses.

## CURRENT STATUS

Despite national government commitments to reduce post-harvest fish loss, there is insufficient implementation. Ensuring equitable and effective infrastructure investment is challenging, particularly evident in the historically underutilized government-established Community Fish Landing Centers (CFLC), which were developed without adequate input from potential users. They lack essential equipment and facilities (e.g. cold storage). Additionally, the marketing system for fish and fisheries commodities is poorly organized, resulting in increased fish and income losses. Lastly, there is a need for better integration of fisheries management into broader nutritional and food security programs.

## POLICY RECOMMENDATIONS

Oceana recommends the following policies to reduce post-harvest fish losses to improve the quality and value of the catch, increase the value fishers receive, support sustainable livelihoods for coastal communities, and provide more affordable and accessible fish for consumers.

### On reduction of post-harvest fish loss

- Establish robust fish catch monitoring and reporting systems, ensuring accurate data on fish catch.
- Train women and mobile peddlers in postharvest handling and processing to minimize quality loss.
- Limit catch volumes of species with high PHFL during peak fishing seasons to reduce physical and market force loss.
- Establish an organized marketing system to connect fishers and aquafarmers with buyers, enhancing market linkages in the fish distribution chain.
- Implement area- and species-specific price regulating mechanisms to control fish prices and ensure fair profits for fishers and aquafarmers.
- Develop off-site or on-site cold storage and processing facilities for a year-round supply of fresh products and to reduce postharvest fish losses.
- Refurbish non-operational CFLCs into multi-purpose facilities for storage, processing, and tourism.

### On fish consumption and mitigation of micronutrient deficiency

- Integrate the fisheries sector into KADIWA1 stores, improving market access and storage, and process high-nutrient fish species to reach communities with limited access to fish.
- Utilize readily available fish species in nutritional improvement programs to combat undernutrition and deficiencies:
    - For wasting and stunting: Frigate tuna, Anchovy, Milkfish, Round scad, Rabbitfish, and Sardines can provide 16%-26% of the Recommended Energy Intake (REI) of protein per meal.
    - For Vitamin A deficiency: Rabbitfish, Milkfish, Anchovy, and Frigate tuna can provide 10%-15% of the Recommended Nutrient Intake (RNI).
    - For Iron deficiency: Anchovy, Sardines, Frigate Tuna, and Milkfish can supply 8%-12% of the RNI for Iron.