

Recovery After Hurricane Gilbert: Implications for Disaster Preparedness in the Fishing Industry in Jamaica

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ABSTRACT

Hurricane "Gilbert's" direct hit on the island affected the fishing industry to a considerable extent. There was almost a complete loss of active traps at sea with approximately 5% of all boats being damaged.

Fishing beaches were considerably affected island-wide, but damage was greatest along the northeastern coastline especially from Portland to St. Mary. Storm surge caused significant reef damage down to approximately 20 m especially among the ramose (branching) corals. Most severe trap and boat losses came from this section of the island. Nursery areas were affected by erosion and reduction in blade length. Also noticeable were reductions in juvenile fish numbers in nursery areas. The long term effects of this damage coupled with severe overfishing cannot be precisely predicted at this time, but are likely to be considerable.

Damage to the oyster culture industry was also severe with an estimated 50% loss of grow-out (production) rafts with oysters, put at approximately J\$75,000.

The Artificial reef at Jackson's Bay, Clarendon was affected by storm surge and tyre modules were swept ashore. Replacement costs would be about \$13,000. Deeper artificial reefs suffered less damage.

Fishermen suffered significant earning losses especially trap or fish pot users who suffered approximately 90% trap losses. Total islandwide fishing beach trap, boat, and fisheries infrastructure losses have been put at approximately J\$25 million by the Ministry of Agriculture's Fisheries Division.

The Jamaican government attempted to assist fishermen who had suffered losses by means of rehabilitation programmes partially involving special credit arrangements for boats and engines.

The effects on fishery resources have been considerable, especially in the northeast part of the island. Other complex ecosystem interactions between fishes and the damaged reef are more subtle and more long term, and these effects will only become more apparent with time. Short and medium term effects may be much in keeping with observations made after hurricane Allen in 1980, when abnormally great quantities of various macroalgae grew in the reefs smothering some corals already affected by storm damage. Further monitoring of the fishery effects of hurricane Gilbert are recommended.