

NOTICE OF PUBLICATION



AQUACULTURE COLLABORATIVE RESEARCH SUPPORT PROGRAM

RESEARCH REPORTS

Sustainable Aquaculture for a Secure Future

Title: Aquaculture restoration in the tsunami zone, Ach Province, Indonesia

Author(s): Kevin Fitzsimmons, University of Arizona, 2601 East Airport Drive, Tucson, Arizona 85706 USA

Date: August 19, 2008 Publication Number: CRSP Research Report 08-240

The CRSP will not be distributing this publication. Copies may be obtained by writing to the authors.

Abstract: Banda Aceh, at the north end of the island Sumatra, took the full brunt of the December 2004 tsunami. Over 33,000 households in the region had registered their primary income as being generated from aquaculture before the disaster. Along the coasts the majority of aquaculturists were small-scale shrimp farmers, operating family owned ponds (tambaks) of less than a hectare each. All of the shrimp produced were marketed locally. No freezing facilities were present, so shrimp could only be sold on ice or as dried products. Even before the tsunami, many of the farmers were plagued with low growth and survival rates resulting from poor water quality and several diseases. A virtual monoculture of shrimp, multiple-reuse of effluent waters, removal of mangroves and other vegetation and overfed ponds had contributed to a significant reduction in production in the years immediately prior to the tsunami. The tsunami itself essentially destroyed all the coastal ponds of Aceh province. The wave rushed over most of the villages built on the coastal berms and pushed much of the village contents into the ponds. Virtually all of the dikes, control structures, canals and other infrastructure elements were completely obliterated. Many of the shrimp ponds had been constructed in the coastal lagoons behind the beaches where most of the population lived. The lagoons had contained extensive mangrove forests before the shrimp ponds removed a considerable percentage of them. In addition to the farms destroyed, the local aquaculture research and extension station at Ujong Battee was almost completely destroyed and the regional fisheries and aquaculture trades school in Ladong lost an entire bus load of faculty and students en-route to a picnic when the waves struck.

This abstract is excerpted from the original paper, which was published in *World Aquaculture*, 39(1): 41-43,66 (March 2008).

CRSP RESEARCH REPORTS are published as occasional papers by the Program Management Office, Aquaculture Collaborative Research Support Program, Oregon State University, 418 Snell Hall, Corvallis, Oregon 97331-1643 USA. The Aquaculture CRSP is supported by the US Agency for International Development under CRSP Grant No.: LAG-G-00-96-90015-00 and by collaborating institutions. See the website at <pdacrsp.orst.edu>.