

## **JIMAR – PFRP ANNUAL REPORT FOR FY 2006**

P.I./Sponsor Name: Dr. Minling Pan  
Industry Economist, Pacific Islands Fisheries Science Center

Proposal Title: Economic Fieldwork on Pelagic Fisheries in Hawaii

Funding Agency: NOAA

NOAA Goal (Check those that apply):

- ☒ To protect, restore, and manage the use of coastal and ocean resources through ecosystem-base management
- ☐ To understand climate variability and change to enhance society's ability to plan and respond
- ☐ To serve society's needs for weather and water information
- ☐ To support the nation's commerce with information for safe, efficient, and environmentally sound transportation

1. Purpose of the Project (one paragraph)

The primary objective of this multi-year project is to provide detailed economic information especially cost of operation data on Hawaii-based domestic pelagic fishing vessels such as longliners, trollers and handliners, and charter boats. Cost-earnings report(s) (published as JIMAR/SOEST reports) on each of these fisheries has been prepared since the project began in 1994. As a result, the data from these studies have been used in a variety of economic and social analyses for these fisheries by PFRP projects-and by the National Marine Fisheries Service to support the fishery management in the Western Pacific Islands Region.

There are three main tasks under this project within FY2006:

- (A). Technological changes and the impact on fishing effort in the Hawaii-based longline fishery (received funds from PFRP FY2006), Co-PI: Mr. David Itano, JIMAR, Pelagic Fisheries Research Program, Univeristy of Hawaii);
- (B). A longline cost-earnings study on the Hawaii based longline fleet (partially funded by PFRP in FY2003), PI: Dr. Minling Pan; and
- (C). Blue marine evaluation (received funds from PFRF in FY2003, PI: Dr. Stewart Alan)

2. Progress during FY 2006 (One-two paragraphs, including a comparison of the actual accomplishments to the objectives established for the period, and the reasons for slippage if established objectives were not met):

Task A. (1) Completed person-to-person interviews with the owners and captains of 98 longline vessels, accounting for 80% of the total active vessels in 2005, to collect the cost-earnings information during FY2006. The total number of vessels actually targeted for the cost-earnings study was 105 even though total active vessels were 122. Some vessels were included into the study because they were newly entered the fishery and their individual total fishing trips in 2005 were less than 2 trips, or they had exited the fisheries when the fieldwork was conducted in 2006. Therefore, the actual response rate for this study was over 90%. (2) Completed database design and data entry with all data collected from the fieldwork.

Task B. (1) Completed the fieldwork study that was designed for investigating the fishing technology status and the cost and time course of technological changes in Hawaii based longline fishery. Captains and owners of 86 longline vessels (80% of 120 total vessels) were interviewed. (2) Completed database design and data entry with all data collected through the fieldwork. (3) Conducted statistic analysis to identify the important elements associated with fishing technology in determining effective fishing efforts and to investigate enhancement of the established technology and vessel or gear attributes to fishing operations and productivity

Task C. (Dr. Stewart Alan is responsible for the task, a progress report will be sent separately).

3. Plans for the next fiscal year (one paragraph):

Task A. (1) Examine the cost-earnings status of the Hawaii longline fleet based on the 2005 operation; (2) Explore the cost structure and identify the impact of the fuel price changes in the Hawaii longline vessels. (3) Write report and paper to document data collection and analytical results.

Task B. (1) Analyze the important elements related to fishing technology in determining effective fishing efforts; (2) Investigate enhancement of the established technology and vessel or gear attributes to fishing operations and productivity; (3) Identify the factors that affect technology adoption in the Hawaii longline fishery, (4) Write report and paper to document data collection and analytical results.

4. List of papers published in refereed journals during FY 2006.

Samuel Pooley and Minling Pan

2006. Economic Research on the NWHI – A Historical Perspective”, Atoll Research Bulletin volume 543, Proceedings of the Northwestern Hawaiian Islands (NWHI) Third Scientific Symposium, 2004 Honolulu, Hawaii.

5. Other papers, technical reports, meeting presentations, etc.

1. Minling Pan, Adam Greitermer, and Rusyan J. Mamiit, 2006. “Economic Valuation of Fishing Tournaments in Hawaii.” PFRP newsletter, Volume 11, Number 2, April-June 2006.

2. Presented a research on “Technology Changes and the Impact in Fishing Capacity in the Hawaii Longline Fleet” by Minling Pan and Quang D. Nguyen, in 2005 JIMAR PFRP (pelagic fisheries research program) PI meeting, December 5-7, 2005, at the East-West conference center, Honolulu.
3. Presented a research on “Economic Valuation of Fishing Tournaments in Hawaii” Minling Pan, Adam Greitermer, and Rusyan J. Mamiit, in 2005 JIMAR PFRP (pelagic fisheries research program) PI meeting, December 5-7, 2005, at the East-West conference center, Honolulu.
4. Gave a presentation on “Linkages of Fisheries Sectors to Hawaii’s Economy & Economic Impacts of Longline Fishing Regulations” by Cai, J., P.S. Leung, M. Pan, and S.G. Pooley, in Hanauma Bay Education Center on the evening of March 9, 2006 as a part of PIFSC outreach and education program. Honolulu, Hawaii.
5. Presented a research on “Technology Changes and the Factors Affecting Technology Adoption in the Hawaii Longline Fleet” Minling Pan and Quang D. Nguyen, in 2006 NOAA Fisheries Economics and Social Science Workshop, April 18-21, 2006, San Francisco, California.
6. Presented a research on “Technology Changes and the Impact in Fishing Capacity in the Hawaii Longline Fleet” Minling Pan and Quang D. Nguyen, in 92nd Science and Statistics Committee, the Western Pacific Region Fisheries Management Council, May 30-June 1, 2006. Honolulu, Hawaii.
6. Graduates (Names of students graduating with MS or PhD degrees during FY 2006. Provide titles of their thesis or dissertation):  
N/A
7. Awards (List awards given to JIMAR employees or to the project itself during the period): N/A
8. Publication Count (Total count of publications for the reporting period and previous periods categorized by NOAA lead author and Institute (or subgrantee) lead author and whether it was peer-reviewed or non peer-reviewed (not including presentations):

	JI Lead Author			NOAA Lead Author			Other Lead Author		
	FY04	FY05	FY06	FY04	FY05	FY06	FY04	FY05	FY06
Peer-reviewed						1			
Non-peer reviewed						1			

9. Students and Post-docs (Number of students and post-docs that were associated with NOAA funded research. Please indicate if they received any NOAA funding. For institutes that award subcontracts, please include information from your subgrantees):

Quang D. Nguyen, Ph.D. student in Department of Economics, University of Hawaii

Jae-Cheon Lim. Ph.D. student in Department of Political Science, University of Hawaii

10. Personnel:

- (i) Number of employees by job title and terminal degree that received more than 50% support from NOAA, including visiting scientists (this information is not required from subgrantees):

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- (ii) Number of employees/students that received 100% of their funding from an OAR laboratory and/or are located within that laboratory.  
N/A

- (iii) Number of employees/students that were hired by NOAA during the past year:

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11. Images and Captions. (JIMAR will be including images in the annual report. Please send two of your best high-resolution, color images (photo, graphic, schematic) as a JPEG or TIFF with a caption for each image. Hardcopies of images can be dropped off at the JIMAR office if no electronic versions are available.



● Caption 1: A research surveyor conducting interviews in a Hawaii Longline Vessel -- Economic Fieldwork Study 2006