

**RELATIONSHIP BETWEEN DIRECT USE VALUES AND  
MANAGEMENT STRUCTURES  
OF MANGROVES IN THE PHILIPPINES**



**MARGIE S. GIANAN**

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR  
THE DEGREE OF MASTER OF SCIENCE  
(NATURAL RESOURCE MANAGEMENT)  
FACULTY OF GRADUATE STUDIES  
MAHIDOL UNIVERSITY  
2012**

**COPYRIGHT OF MAHIDOL UNIVERSITY**

Copyright by Mahidol University

**RELATIONSHIP BETWEEN DIRECT USE VALUES AND MANAGEMENT STRUCTURES OF MANGROVES IN THE PHILIPPINES****MARGIE S. GIANAN 5338174 ENRM/M****M.Sc. (NATURAL RESOURCE MANAGEMENT)****THESIS ADVISORY COMMITTEE: SANSANEE CHOOWAEW, Ph.D.,  
KULVADEE KANSUNTISUKMONGKOL, Ph.D., JONGDEE TOIM, Ph.D.****ABSTRACT**

The objectives of this study were: to estimate and compare the direct use values of mangroves between mangrove forests managed solely by a local community and mangrove forests co-managed by a local community and municipal government, to analyze management impact indicators on mangrove forests, and to determine the relationship between direct use values of mangroves and management impact indicators.

Quantitative and qualitative methods were employed in data collection and analysis. Structured questionnaires were used to interview heads of households. The respondents from four barangays in the municipalities of Bani (co-management) and Bolinao (community-management), Province of Pangasinan, Philippines were selected through simple random sampling. Data were analyzed using Microsoft Excel and SPSS 15.0. In-depth interviews were conducted with key persons from two municipal governments and four people's organizations. Field observations focused on the management activities, resource utilization and mangrove forests physical conditions. In-depth interviews and field observations were used to support the analysis of quantitative data.

No significant difference was found in the direct use values of mangroves between the two municipalities having different management structures. However, through one-way ANOVA analysis, significant differences were found across the barangays of each municipality. Analysis of management impact indicators showed more positive impact of co-management over community management. Furthermore, results of the standard multiple regression analysis revealed that five management impact indicators significantly affected direct use values of mangroves. Control, capacity building, financial resource and community compliance had significant positive relationship with direct use values whereas level of threat had significant negative relationship with direct use values. The regression model accounted for a 55% variation in the direct use values.

**KEY WORDS:** COMMUNITY-BASED MANAGEMENT/CO-MANAGEMENT/DIRECT USE VALUES/ MANGROVE FOREST

129 pages