

# Center for Community-Based Resource Management (CBRM)

Natural Resources Institute, University of Manitoba

## CBRM Database

<b>Date:</b>		<b>Entry Number:</b>	<b>1054</b>
<b>Case Study Name:</b>	Exploring management strategies for community-based forests using multi-agent systems; A case study in Palawan, Philippines		
<b>Authors:</b>	Campo, P. C., G. A. Mendoza, P. Guizol, T. R. Villanueva, and F. Bousquet		
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<b>Region:</b>	Southeast Asia		
<b>Country:</b>	Philippines		
<b>Ecosystem Type:</b>	tropical rain forest		
<b>Social Characteristics:</b>	gateway community		
<b>Scale of Study:</b>	district/municipality		
<b>Resource Type:</b>	forestry (timber)		
<b>Type of Initiative:</b>	community network		
<b>Community Based Work:</b>	resource management		
<b>Keywords:</b>	community-based forest management, multi-agent systems, participatory management, companion modeling,		

	role-playing games
<b>Summary:</b>	<p>This paper describes the experiences and lessons learned in applying a multi-agent systems (MAS) model to study the dynamics and complex interactions among stakeholders in the management of community based forests. The MAS model is developed using the companion modelling (ComMod) approach, which allows for a collaborative development of the model between the stakeholders and researchers. This approach involves the development and application of role-playing games (RPGs) and computer simulation as learning tools and to validate the model. Inferences are drawn from the learning and negotiation processes that the stakeholders and researchers underwent in the collaborative development of the MAS model. These processes ultimately led to the development of a collaborative resource management plan. The approach and the MAS model were applied to a case study involving a community-based forest managed by three villages in the island of Palawan, Philippines.</p>