Executive Summary

INTRODUCTION

The independent state of Papua New Guinea (PNG) occupies the eastern half of New Guinea, the world's largest and highest tropical island and one of the last major tropical wilderness areas on earth. Although New Guinea and nearby smaller islands remain substantially covered with tropical forest and are known to have an immensely rich and highly endemic flora and fauna, much of this biota remains undocumented, as evidenced by spectacular discoveries of both plants and animals during Conservation International's recent RAP biodiversity surveys on the island (e.g. Richards 2007).

Although information about patterns of diversity and endemism of plants and animals is largely lacking for New Guinea, these data are vital to inform and support conservation decisions in the face of increased threats to forests and their biodiversity from logging and subsistence gardening (e.g. Shearman et al. 2009), and from new challenges arising from the rapid development of resource projects including the massive Liquified Natural Gas project. To address this lack of information CI's RAP program committed to undertake a series of biodiversity surveys in poorly-documented areas of PNG with the aims of 1) detecting and describing new and poorly-known species of plants and animals, 2) assessing threats to ecosystems upon which local communities depend, and 3) encouraging conservation through sustainable use of these ecosystems and their constituent species. These data are being made available to government agencies and non-governmental organizations (NGOs) operating within PNG to support their efforts to protect the country's unique biodiversity and ecosystems.

SCIENTIFIC PRIORITIZATION AND SITE SELECTION

To incorporate a more rigorous scientific approach to the selection of biodiversity survey sites in Papua New Guinea and to identify the largest gaps in existing biodiversity survey data, the RAP team formed a partnership with the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO) to conduct a survey gap analysis using the .NET Survey Gap Analysis tool.

On 19th September 2008, a workshop at the Conservation International Asia-Pacific Field Division Headquarters in Atherton, Australia, considered the results of the survey gap analysis and selected three primary sites for RAP biodiversity surveys in Papua New Guinea to be conducted during 2009-2010. Workshop participants used the gap analysis results in conjunction with expert knowledge to identify RAP sites that might have the most positive impact on existing or proposed conservation activities in Papua New Guinea. They also considered the impacts of logistical and social issues on the likely success of RAP surveys at proposed sites. Two of these sites, the Nakanai Mountains and Muller Range, were surveyed during 2009. The 2010 survey was postponed. One additional site in the upper Strickland Basin that was surveyed during 2008 is also covered in this report.