

Improving environmental and human well-being through protected areas and payments for environmental services in Cambodia

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Highlights

Evidence impact

- Ibis Rice Conservation Company Limited used the findings to inform its growth strategy to focus on increasing participation for its payments for environmental services program within existing villages in the Northern Plains. They now closely monitor farmer uptake of the program within a village as a key performance indicator.
- The findings have informed the Wildlife Conservation Society Cambodia to expand to Keo Seima Wildlife Sanctuary in Eastern Cambodia.

Factors that contributed to impact

- The Wildlife Conservation Society had strong regional presence and shared long-term relationships with government agencies and local communities in Cambodia.

Impact evaluation details

Title: [Measuring impacts of conservation interventions on human well-being and environ...](#)

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Status : Completed March 2020



Context

Out of concerns about environmental sustainability, the global community has adopted a series of international agreements and targets, and invested several billion dollars in biodiversity conservation. Despite this, there is relatively little evidence about whether conservation interventions work, why they work and under what circumstances.

Protected areas and payments for environmental services are widely adopted policies designed to provide benefits to local people conditional upon achieving an environmental outcome or change in behavior. The hypothesis that protected areas and payments for environmental services improve human well-being and changes behavior to enhance environmental outcomes has rarely been tested with empirical data.

Since 2002, the Wildlife Conservation Society has been supporting the government and local community partners to develop sustainable conservation models in the three protected areas: Kulen Promtep (established 1993), Chhaeeb (established 2002) and Prey Preah Rokha (established 2016) wildlife sanctuaries. The landscape is managed by the Provincial Department of Environment with oversight from the General Department of Administration of Conservation and Protection within the Cambodian Ministry of Environment.

The Wildlife Conservation Society implemented three payments for environmental services interventions aimed at complementing protected area management. These consisted of a direct payments scheme conditional upon protection of nests of globally threatened birds; a community-managed ecotourism intervention that provides conditional support if villagers engage in bird and habitat protection; and Ibis Rice that provides farmers with premium prices for rice if households comply with pro-environmental commitments. The aim of this evaluation was to quantify the impact of protected areas and payments for environmental

services on environmental and human well-being in the Northern Plains landscape of Cambodia. It built on a nine-year monitoring program initiated in 2008 and followed a quasi-experimental design in which a socioeconomic household survey was conducted with the same panel of households every three years (2008, 2011, 2014 and 2017) in control and treatment villages.

Evidence

This study found that households living inside the protected areas were not worse off relative to households in similar villages outside the PAs for any of the indicators considered. Households living inside the protected areas have improved their economic status at a greater rate than matched control households for the 2008-2017 period. No impact of protected areas was found for total rice harvest or household food security. Participation in the Ibis Rice intervention was found to be positively associated with increased economic status, increased rice harvest and improved food security for the 2014-2017 period. No impact was found for participation in the bird's nest protection intervention, while participation in the ecotourism intervention was found to have a positive association with household food security for the 2014-2017 period.

An analysis of the deforestation rates between 2000-2018 found that deforestation was significantly lower for points surrounding villages within the protected areas than for matched points in control villages. A further analysis of points surrounding villages within the protected areas to measure the effect of the Ibis Rice program found little evidence of reduced annual deforestation of villages that participated, except for two villages.

Evidence impacts

Informed the growth strategy to focus on recruitment within existing villages

Evaluation findings led the Ibis Rice Conservation Company Limited to focus its growth strategy on recruitments within existing villages rather than just extending to new territories. Although the Ibis Rice program was found to reduce clearance among participating farmers, minimal effects were observed for the total deforestation rates surrounding participating villages. The researchers take the results to suggest that there is a critical mass of proportional participation needed within villages for the Ibis Rice program to impact the deforestation rates and recommended that the program should focus on increasing participation within existing villages. Given this, Ibis Rice Conservation Company now closely monitors farmer uptake of the payments for environmental services program within a village as a key performance indicator.

Ibis Rice program expanded to the Keo Seima Wildlife Sanctuary

The evaluation findings informed the Wildlife Conservation Society Cambodia's decision to continue to expand in the Northern Plains and to develop a similar scheme in the Keo Seima Wildlife Sanctuary in Eastern Cambodia. The Ibis Rice program will be modified to suit the local situation while retaining aspects that led to its success in the Northern Plains.

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