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The Economy and Environment Program for Southeast Asia (EEPSEA) was established in May 1993 to support training and research in environmental and resource economics across its 10 member countries: Cambodia, China, Indonesia, Laos, Malaysia, Papua New Guinea, the Philippines, Sri Lanka, Thailand, and Viet Nam. Its goal is to strengthen local capacity for the economic analysis of environmental problems so that researchers can provide sound advice to policymakers.

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A Park for the People, Not for the Powerful: The Case for **Protecting** Cambodia's Ream **National Park**

EEPSEA POLICY BRIEF . No. 2001-PB5

For the past decade, efforts to manage in a sustainable way the once bountiful natural resources of Cambodia have been confounded by short-term commercial interests. Protection of the environment is seen as a luxury in a country where the majority lives under the poverty line. Budget constraints and pressing social needs work against parks.

A team of researchers of the Parks Society of Cambodia and the Ministry of Environment, led by Thanakvaro Thyl de Lopez, a Cambodian researcher currently at the University of Cambridge, takes a hard-nosed look at the economics of Preah Sihanoukvarman "Ream" National Park. 🛶

A summary of EEPSEA Research Report 2001-RR5, Policy Options for Cambodia's Ream National Park: A Stakeholder and Economic Analysis by Thankvaro Thyl de Lopez (University of Cambridge, Magdalene College, Cambridge CB3 OAG, UK; contact: Thanakvaro.De.Lopez@aya.yale.edu)

Local communities lose most if the park is destroyed

After a year of fieldwork, an inventory of 37 hectares of mangrove forests, and more than 600 households and 1,300 visitors interviewed, the research team draws pessimistic conclusions. Given the uncertainties surrounding long-term protected area planning, most Cambodian policymakers are likely to favour the more immediate benefits of development. Without international transfer of funds for conservation, Ream National Park will be destroyed. Local communities, whose traditional livelihoods depend on the conservation and sustainable use of the park, stand to lose most; industrial loggers and commercial fishing fleets stand to gain most from the wanton exploitation of timber and marine resources.

The Jewel of the South

Located in an idyllic part of Cambodia's coastline, in the Province of Kompon Som, the "jewel of the south" is the scene of a daily struggle between the conflicting interests of park authorities, local communities, and commercial fishermen and loggers. The Park covers 21,000 hectares of terrestrial and marine habitats. Approximately 26,600 people live within its boundaries. The landscape is generally mountainous. Special features include mangrove forests, evergreen forests, beaches, rocky shores, coral reefs, and islands.

The objective of the study is to determine how the establishment or destruction of the Park distributes benefits and costs among different stakeholders. Five surveys were undertaken to provide social, economic, and ecological data for cost—benefit and stakeholder analyses. These included a survey of 15% of households in local communities, three different surveys of park visitors and tourists in Kompong Som, and a forest inventory of the Park's mangroves.

Sustainable collection of firewood, construction material, medicine, and food provide local communities with a net income of approximately US \$160,000 per year. The Park is essential to local villages where the average per capita income is less than US \$100 a year. Commercial trawlers and loggers operating illegally in the Park threaten traditional livelihoods. Logging activities have heavily disturbed the Park's mangroves. Some

areas have average timber volume of less than 15 cubic metres per hectare. Similarly, the annual catch, estimated at more than 3,000 tonnes per year, exceeds sustainable yields. While the area has historically supported subsistence activities, commercial fishermen are to blame for over-fishing. Unless existing environmental laws are strictly enforced, the fish stock of Ream will eventually collapse.

The potential to turn the park into a major tourist destination is real. There is strong interest among Cambodian and foreign visitors for the recreational services of Ream. 88% of park visitors are either satisfied or very satisfied with their experience of Ream. More than 90% of all tourists interviewed in Kompong Som declare themselves interested in visiting Ream National Park.

Three Paths for the Park

With these figures in hand, the research team then determined the costs and benefits of three different management options:

 The experimental park scenario corresponds to the base case where some level of protection is achieved, but fisheries eventually collapse.

- The ghost park scenario assumes that all timber and fish are harvested, destroying the area.
- 3. The **dream park** scenario only allows subsistence activities, recreation, education, and research.

At a 10% discount rate, the dream park has the highest net present value (US \$11.9 million). This compares with US \$10.0 million for the ghost park and US \$9.8 million for the experimental park. Although the dream park scenario has the highest net present value, it exceeds that of the ghost park by less than US \$2 million. However, protection scenarios allocate the bulk of the Park's benefits to local

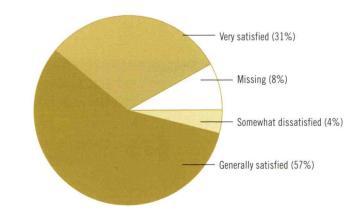
communities. The dream park case confers three times more benefit value to villagers compared to the ghost park case, that is, US \$2,729 per household versus US \$919 per household. The distributional analysis shows that local communities would stand to lose most if the park were destroyed.

Villagers Have Their Say

The issue arises whether local communities truly understand the stakes of conservation and development.

Many policymakers surmise that the villagers of Ream are too uneducated to grasp the concepts of costs and benefits. To answer this question, the research team

Visitors' satisfaction with the park (% of foreign visitors)



Distribution of net present value by stakeholder group (US\$)

		Experimental Park	Ghost Park	Dream Park
Net Present Value 10% discount rate	Local communities	7,298,621	4,262,848	12,663,776
	Local communities (per household)	1,573	919	2,729
	Visitors	17,538	0	463,364
	Commercial fishermen	2,705,094	2,430,496	0
	Commercial loggers	0	3,298,200	0



systematically surveyed the households of Ream. More than half of all households interviewed are concerned about illegal fishing. Local communities strongly support park authorities and conservation measures. Villagers perceive illegal fishing and deforestation as major environmental problems in Ream National Park. An overwhelming majority (68%) of villagers are satisfied or very satisfied with park management. More than 95% agree that hunting, illegal fishing, and commercial logging must not be allowed in the Park. Local communities demand that environmental laws be strictly enforced and authorities put end to the "ongoing anarchy." The highest priority for villagers is that government allocate more resources to effectively protect the park.

It is clear that local communities wish Ream to be a park for the people, not for the powerful. As long as conservation allows for the sustainable use of natural resources, rangers and park authorities will have the unflinching support of the villages of Ream against powerful commercial interests. Consequently, the study recommends that the Ministry of Environment promote cooperation with international donors and nongovernmental organizations to secure funding for efficient park management; that all commercial activities within the Park be immediately stopped; and that communal management of forest and fishery resources be extended to involve local villagers.

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