

Linking Conservation and Development in a Time of Rapid Change at Nam Et-Phou Louey National Protected Area, Lao PDR

Key lessons for conservation and development

1. The change from subsistence farming to cash crops has increased incomes but also caused negative social impacts which are commonly overlooked along with implications for forest conservation
2. Distribution of benefits to local communities does not adequately target those who bear the costs of conservation
3. Communities care how decisions about forest and land management are made and implemented, not only their outcomes
4. Continued dialogue with villagers is required to enable conservation and development managers to understand and adapt to changing preferences for use of land and natural resources

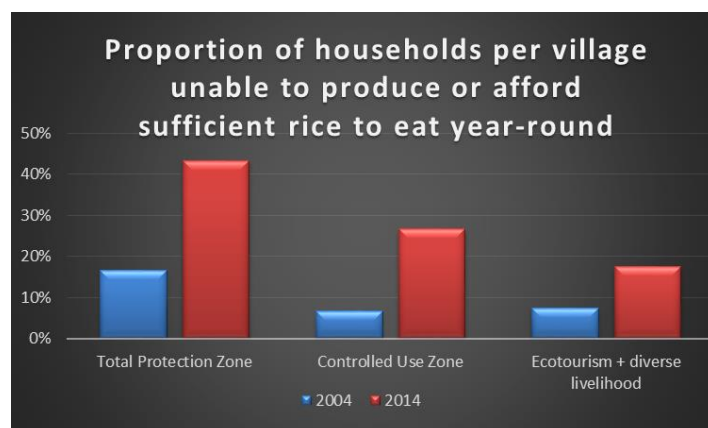
Background This project aims to a) contribute social understanding in a time of rapid change in livelihoods, land use, and social practice, and b) provide practical tools for practitioners to incorporate local perspectives, including those of the poor, into management decisions. Research took place in 3 villages: 1 bordering the Controlled Use Zone of the NPA where people practice shifting cultivation; 1 adjacent to the Total Protection Zone where farming had become less rotational, and a 3rd benefiting from ecotourism alongside more diversified livelihoods. Research comprised 4 streams:

1. Agricultural field monitoring + collection diaries to detail natural resource use for 33 households
2. Focus groups + interviews in 100 households to explore changes affecting villagers' quality of life
3. Fine-scale remote sensing analysis of land-use change
4. Design and testing of a participatory tool exploring local views of natural resource issues (page 4)

The change from subsistence farming to cash crops has increased incomes but caused negative impacts which are commonly overlooked

Although cash crops have enabled economic development, negative social impacts have arisen with implications for forest conservation. Transitions towards permanent farming have led to greater inequality, high levels of debt (see table) and dietary implications through reduced availability of wild foods in the landscape, which may be exacerbated by use of pesticides. The rapid changes in farming fail to reduce pressure on forest resources, in particular high value NTFPs. Targeting these challenges calls for adaptive and context-sensitive conservation policy, for instance: Rethinking regulations on forest use to contribute more to local livelihoods (e.g. controlled extraction and sale of NTFPs such as red mushrooms); increased attention to impacts on food availability; and reorganization of the existing contract farming arrangements to avoid worsening inequality.

Village (n=100 households)	Annual average household farming income (m kip)	Average household debt (m kip)	Average cultivated land per household (hectares)
Controlled Use Zone	8.81	0.88	1.85
Ecotourism, diversified livelihoods	7.05	1.65	1.27
Total Protection Zone	5.63	4.97	1.15
Total Average	7.15	2.41	1.40



Distribution of benefits to local communities does not adequately target those who bear the costs of conservation

There are inequalities between villages and different groups within villages. Regarding costs of conservation, villages adjacent to the Total Protection Zone bear a greater burden, evidenced by relative shortages of land (see table) and lower rice sufficiency (see graph). Some villages receive more benefits such as livestock, credit schemes and ecotourism, despite suffering lesser costs. Within villages, the poorer and less powerful are more restricted by protected area rules due to high potential fines and more likelihood of prosecution. Development projects and land-use planning have not targeted the poor sufficiently to compensate. For example, credit schemes are often not good for the poorest as they are more averse to debt risk.



Communities care how decisions about forest and land management are made and implemented, not only their outcomes

When the NEPL NPA boundary was demarcated, consultation involved presenting villagers with a pre-determined boundary. In some cases villagers agreed due to promises of livelihood benefits. Few benefits have arrived and the sense of injustice felt is undermining support for the protected area and increasing the burden for conservation managers. In addition rules on forest use are not applied evenly to all groups of villagers. Many villagers will be punished for clearing park land for cultivation. In one village 1 in 6 households were fined in a single year. But there is inconsistency, with a minority of more powerful villagers getting away with land clearance. There would be broader support for park rules among communities if applied more consistently. These concerns should be incorporated into land use planning to foster lasting solutions.



Continued dialogue with villagers is required to understand and adapt to changing preferences for land and natural resources

A huge variety of natural resources are collected from around NEPL NPA. But dependence and preferences change over time and so continued dialogue with villagers is needed. For example, rats are commonly used as meat, an important subsistence protein source. But rats can become a serious pest in intensive maize production, and switch from ecosystem service to “disservice”. Reduced use of rats as food then results in greater demand for alternative wild meat. Livelihoods and aspirations of villagers are also changing with reduced emphasis on shifting cultivation and emerging preferences for livestock rearing and permanent farming. Increasing claims are therefore being made for productive land inside the NPA, sometimes at old village locations. The manual for participatory dialogue (see page 4) aims to bring such information to decision-makers for adaptive management. To capture these dynamics through research, a combination of methods is needed such as interviews, observation and collection diaries¹.

CESAD is the participatory tool for Community Ecosystem Service Assessment and Dialogue in National Protected Areas. The short manual was designed and piloted alongside Government and NGO conservation practitioners in response to demand for enhanced dialogue with communities around NPAs. CESAD can help ecosystem managers to involve local stakeholders in the generation of knowledge about land and natural resource uses. The tool consists of focus group discussions involving different groups of community members within a village, including women and poor groups, about the ecosystem challenges and opportunities they face. Its use may be prioritized in villages known to have particular issues regarding natural resources. CESAD is intended to be repeated regularly and may serve to support less frequent participatory land-use planning. The manual details steps to be taken in preparation, how to conduct the focus group discussions and also how to record and report results to incorporate them into management decisions.

The CESAD manual can be downloaded from www.nordeco.dk or contact Neil.Dawson@uea.ac.uk

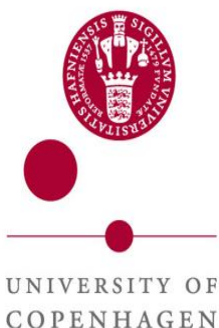
Further information and funding

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¹Rasmussen, L. V., Mertz, O., Christensen, A. E., Danielsen, F., Dawson, N., & Xaydongvanh, P. (2016). A combination of methods needed to assess the actual use of provisioning ecosystem services. *Ecosystem Services*, 17, 75-86. Further journal articles are in the review process



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