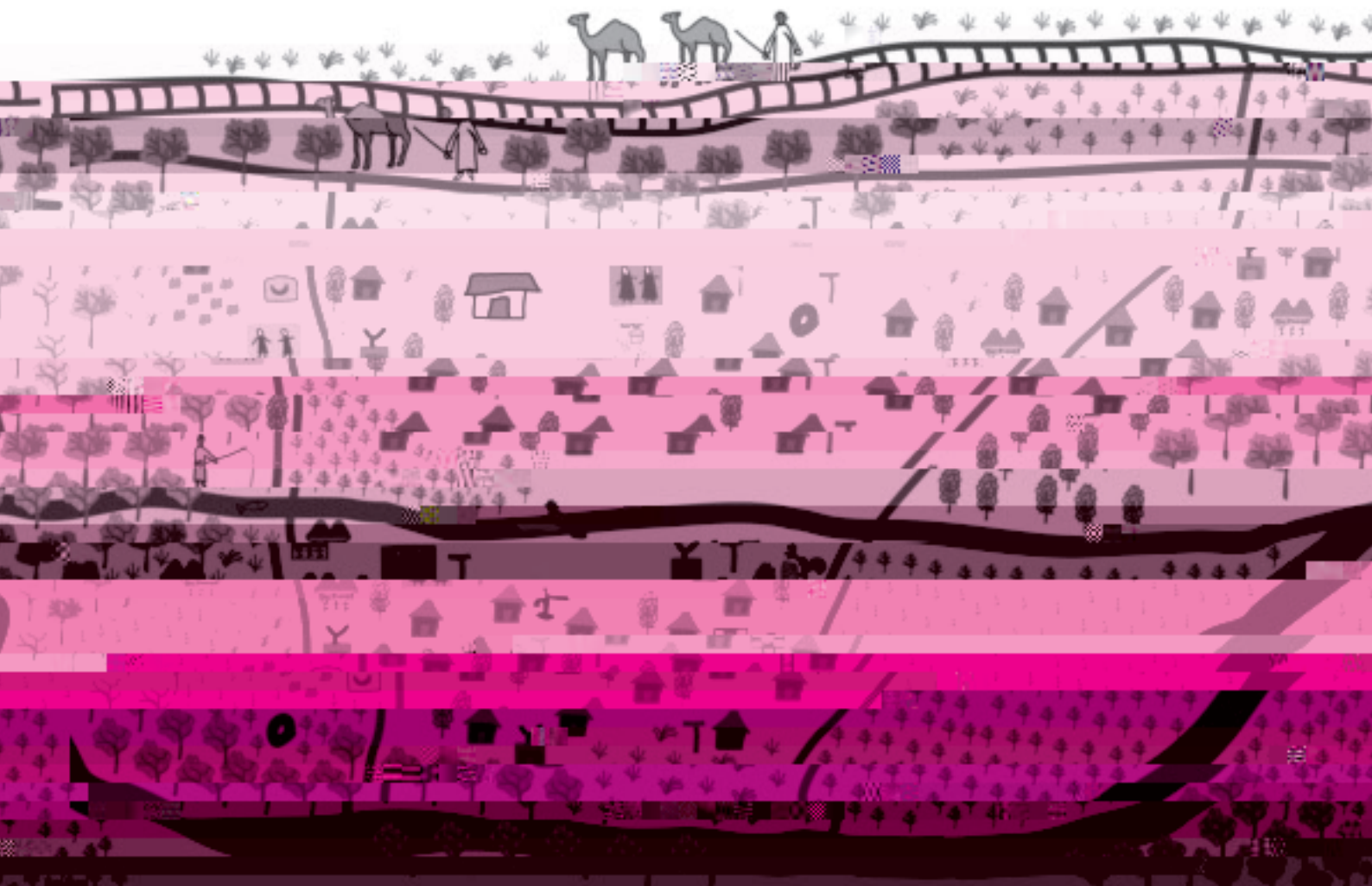




Learning from Landscapes



The IUCN Forest Conservation Programme 2008

This *arborvitae* special reviews best practices in assessing landscape values. It is based upon on-the-ground experiences of the Ecoagriculture Partners Landscape Measures Initiative and IUCN's Livelihoods and Landscapes Initiative.

*arborvitae*special

Conservation organisations have been attempting to improve local peoples' livelihoods whilst at the same time conserving the natural environment for several decades. Many features of landscape approaches discussed in this **a b** *vitae* special are unchanged from earlier integrated rural development, integrated conservation and development and ecosystem approaches to solving complex rural problems. The success rate of all of these 'integrated' approaches has however been the subject of much debate. The problem has been that the proponents of achieving the dual objectives of conserving nature and improving livelihoods rarely established ways of measuring the progress that they were making. The critical question is whether there are fundamental flaws in the concepts underlying integrated approaches or whether it is simply that we have failed to work out how to measure our success.

Our central argument in this **a b** *vitae* is that landscapes are shaped by the decisions of multiple stakeholders.



Developed country resource managers with strong institutions, plenty of knowledge and an ability to enforce agreements see the landscape approach as a technical challenge where experts design an optimal landscape. People working in developing countries with weak institutions, a poor knowledge base and challenges to enforcing agreements see landscape approaches as more of a social challenge. These parallel schools of thought contain differences both in how decisions are made and how the landscape is divided. All may have their merits in the right situation.

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4 'Lally Principles'

A review of new principles to negotiate and measure outcomes with stakeholders developed by [J. Lally](#), IUCN, EP and Cornell University, [J. Lally](#), EP and colleagues from WWF and University of Utrecht

A team of landscape practitioners from IUCN, EP and Cornell University met at an isolated chalet in the Swiss mountain village of Lally to debate how to better measure change in landscapes. We were concerned that the problem was not for us to assess other peoples' landscapes but rather for us

to work with local stakeholders so that we could together learn about, and influence landscape change.

The resulting 'Lally Principles' constitute ideas about how organizations concerned with achieving conservation, production and

livelihood outcomes within a landscape level framework should manage the process of intervention and interaction.

The principles are given below and a fuller discussion of each principle can be found at: www.landscapeasures.org

1. U e c a i e . Initiatives must ensure that local stakeholders are part of the process, and that gender perspectives are applied. Projects should not arrive with ready-made solutions, but need to earn their seat at the negotiating table by offering plausible contributions to meeting the needs and aspirations of local people.

2. I e i k i e d f a c i a i . Negotiating desirable scenarios and effective measures of progress towards their achievement requires an inclusive, well-managed, transparent and equitable facilitation process.

3. S h a e e h i f h e c e . Ideally the process should be owned by local stakeholders and institutions.

4. U d e a d i i i a c e . Success requires an understanding of the role of local institutions (i.e. formal resource management and economic institutions, informal customs and groupings and the relationships between these institutions).

5. F c a d c a e f c i . It is easier to reach agreement with multi stakeholder groups if negotiations focus on landscape functions (i.e. flows of goods and services).

6. S e a c h f e g i e . There is usually some trade-off between production (e.g. agriculture) and conservation. Win-win situations are rare – a basic principle is to seek scenarios where we can win more and lose less.

7. R e c g i e d i f f e c a e . The scale of a landscape should be determined by

the landscape function or issue of concern; it is better to focus problem-solving and management at the over-arching problem being addressed.

8. B e g i a a d e a d . Begin the process of negotiating and assessing performance on a small scale and expand progressively as one gains experience and networks of collaborators – but never forget the landscape-scale approach.

9. U d e a d a d c a e d a i c . Use tools such as participatory mapping and drawing (visualization), historical context analysis and digital elevation models to build an understanding of what influences the landscape.

10. E e c e a i f . Reach agreement amongst stakeholders on what an improved state of the landscape would look like. Visualization can again be valuable, with participants drawing desirable and undesirable outcomes.

11. S e e c a i a d i d i c a c a e f . Negotiate aims and a small number of easily measurable indicators of desirable future states of the landscape (i.e., outcome indicators). Indicators should be effective in detecting changes in the landscape and are considered important by stakeholders.

12. C h e c e h e i e i d i c a e . Indicators should cover four areas

- Biodiversity values and ecological functions
- The productivity of agricultural and natural resource systems
- The livelihoods of the population disaggregated by social groups, especially

those whose livelihoods are resource-dependent

- Institutional arrangements for the governance of the landscape, including laws and customs, regulations, and norms of behaviour

13. M a k e a d e - f f e i c i . Negotiations of outcomes and measurement indicators will be credible only if they recognize the trade-offs that need to be addressed in the landscape.

14. E b e d a c k i g e a e i g - e a a g e e a a g e e . Indicator sets and their measurement should be revisited, updated and discussed with all stakeholders.

15. P e e h i g h - e c h f d i i g h e c e . Remote sensing and GIS techniques are excellent slaves but poor masters.

16. L e a f f a i e . Just as conflicts and trade-offs must be made explicit, similarly, failures must be recognized and management must respond to them.

17. E b a c e c h a g e . Outcomes of negotiation processes will be temporary, and must be re-visited on an ongoing basis.

18: I d e i f a k e h d e . Transparent decisions are needed about how geographically wide the group of involved stakeholders is drawn from.

19: B e a a e a b h e i e . Inform all stakeholders about what can and cannot be achieved by engaging in the process.

4 '20 Questions' 4

Ecoagriculture Partners introduce a method of generating indicators of landscape performance in areas where biodiversity conservation, food production and poverty alleviation are all high priorities.

**C i e i G a: The a d c a e
c e e , a i a i , a d e e i d
b i d i e i a d e c e e i c e .**

C i e i C1: Does the landscape contain an adequate quantity and suitable configuration of natural and semi-natural habitat to protect native biodiversity?

C i e i C2: Do natural and semi-natural habitats in the landscape approximate the composition and structure of the habitats historically found in the landscape?

C i e i C3: Are populations of important species within the landscape biologically viable?

C i e i C4: Does the landscape provide locally, regionally, and globally important ecosystem services?

C i e i C5: Are natural areas and aquatic resources adequately buffered from productive areas and activities?

**P d c i G a: The a d c a e i d e
f h e a i a b e d c i f c ,
i e c k , h , f e , a d i d e d i b e
e c e .**

C i e i P1: Do production systems satisfy demand for food and agricultural products by consumers inside and outside the landscape?

C i e i P2: Are production systems financially viable and can they adapt to changes in input and output markets?

C i e i P3: Are production systems resilient to disturbances, both natural and human?

C i e i P4: Do production systems have a neutral or positive impact on wild biodiversity and ecosystem services in the landscape?

C i e i P5: Are species and varietal diversity of crops, livestock, fisheries and forests adequate and maintained?

**L i e i h d G a: The a d c a e
a i e h a c e h e i e i h d
a d e - b e i g f a c i a g h
e i d e h e e .**

C i e i L1:

mosaics have been limited to individual landscapes. Such studies can elucidate relationships between agricultural management and conservation outcomes in specific contexts (particular bioclimatic zones, crop production system, and so forth) but are not det

termine whether there are relationships between agricultural management and conservation outcomes in specific contexts (particular bioclimatic zones, crop production system, and so forth) but are not det

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The slopes of Mount Elgon in Uganda are densely settled, the population is increasing and land is scarce. The Mount Elgon National Park which protects the montane forests and upland heaths on the mountain is considered of national importance for its watershed

Landscape scale conservation and
development projects can use simple

REDD scenario or the oil palm investment scenario. When using the model, you can double click on the

The Tri-National de la Sangha (see map) is one of the priority landscapes whose conservation and development is supported by the Congo Basin Forest Partnership. The landscape includes the protected areas and production forests that come together where Congo, Cameroon and Central African Republic meet

landscape mosaic contributed to household incomes – baseline data was collected.

- A photographic baseline was assembled.
- The PROFOR forest – poverty toolkit was used to develop a poverty baseline



Wamena Regency is located at a high elevation with a dense human population mainly dependent on cultivation of sweet potatoes, potatoes and yams. The Lorentz National Park World Heritage site forms the border of the settled area and is subject to encroachment and extraction of timber and non-timber products. Consequently, there are land conflicts between the national park's authority and the local people.

Wamena is only accessible by air and this is placing severe constraints on development options. There are ambitious plans to build roads into the area, some of which would pass through the national park. If these roads are built significant land-cover change is likely to occur. We therefore worked with IUCN partners in the area to:

- Develop a simple simulation model of potential land-cover change and of the impacts that different development scenarios might have on local incomes and on the integrity of the park.
- Visualization of scenarios for the area leading to the development of maps of tribal territories.

By contrast, the Bomerai and the Bird's Neck area's are low lying with a very sparse human population whose subsistence is based on harvesting of wild sago. The area is recognized as having very high biodiversity values. It is now threatened by road construction to open up the area for mining,

The forest landscape of Ghana is characterised by a gradual transition from the humid forest ecosystem to savannah scrub. IUCN is working in the southwest of the country, an area with landscapes composed of cocoa agro-forests, logging concessions and some forest reserves. The landscape is densely settled, mainly by migrants from other parts of Ghana attracted by the cocoa boom and by employment in the area's gold mines. Several remnant forest patches in the area have been identified as Globally Significant Biodiversity Areas and have legal protection as a result.

The scale of the work is being determined by the traditional community organisations – the Stools, and we are working primarily with the chiefs of the Stools and

representatives of the communities that they represent. A number of landscape scale exercises have been conducted in the area including:

- Participatory visualization with local communities to explore scenarios for future changes in the landscape – it showed that intensification of the cocoa production sector had the potential to 'simplify' the landscape. The diverse agro-forest systems that yield a wide range of subsistence and commercial crops (Cola, Allanblackia, bushmeat etc) are at risk. Intensification could also lead to aggregation of land holdings in the hands of a few people and marginalisation of the majority.
- Simulation modelling of land-cover change. A simple model was built showing how different parts of the

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