

Extension from Forests to other Ecosystems and across Landscapes

Introduction

The HCV concept was originally developed for use in forest ecosystems but its application in other ecosystems is equally valid. This leads to a consideration of what the priorities are for this process (e.g. in what systems the HCV approach is most likely to be a useful conservation tool), as well as the practical issues associated with widening the scope of the use of the HCV concept. This note has been compiled by Dr. Anders Lindhe, who is a trained forest ecologist with a background of working with education, standard-setting and cross-sectoral consensus-building.

Background

Created as a new FSC Principle 9 in 1998, the concept of High Conservation Values was naturally very much focused on forests. However, a potentially wider scope appears already in the original definition of HCVF 'category 3', where the term ecosystems, as in '*forest areas that are in or contain rare, threatened or endangered ecosystems*' refers also to other, non-forest ecosystems.

Since its conception, the HCV approach has taken on a life of its own and been applied in many situations and contexts also outside forest certification. It has become an important part of conservation planning as well as an instrument to steer ecosystem conversion away from areas of high biological, social and cultural values. This has necessitated a broadening of the original focus. As one example, the draft Principles and Criteria of the Roundtable of Sustainable Palm Oil refer to '*areas that contain one or more High Conservation Values*' rather than to HCV forests. Also within the FSC there is a growing recognition that the concept needs to be extended to more fully address other valuable ecosystems, as reflected e.g. in the recent report from the FSC Plantations Review Policy Group. Thus, the question is hardly *if*, but *how*.

A proposed framework

Initially, there needs to be an examination of what issues need to be tackled, and how, for the HCV concept to be robustly applied across non-forested landscapes as well as forests. Realistically, a number of issues will then need to be considered further by one or more working groups. I am convinced that everyone that has grappled with application of the HCV concept in various parts of the world has their own list of issues that need to be resolved. To help get things started, I have also tried to identify some potentially important topics – you may want to add others as we go along. However, before turning to these specific issues it may be useful to check that we're all operating within a reasonable similar discussion framework. Thus, based on the provisions in the HCV Charter, my reading is that:

- Although the heading addresses other *ecosystems*, I believe it is more inclusive, and also more in tune with the 'across landscapes' approach and the Charter, to consider High Conservation Value *Areas*. This approach has the added benefits of being less biased towards environmental (as opposed to social) aspects, and may also help us to avoid lengthy debates about how to define various ecosystems.
- Expanding the definitions is probably not a major problem per se. Simply substituting the word 'forest' in the original FSC definitions with the term 'areas' will do most of the trick. However, the current 'near natural state' point of reference for large landscape level forests (HCVF 2) may need to be broadened in order to accommodate non-forested HCV landscapes that have significant biodiversity values in spite of, or even due to, e.g. quite intensive human burning and cattle grazing regimes.
- In addition to forests, High Conservation Value Areas may contain e.g. various kinds of grasslands, wetlands, coastlands, river margins and estuaries. In principle lakes and marine ecosystems should be considered as well. However, given the differences

between land and water ecosystems and the six months timeframe, it may be most effective to focus first on terrestrial environments and leave aquatic systems for later.

- The HCV methodology is a logical chain that starts with assessment and identification, moves on to consultations and management planning, and then establishes a feedback loop through monitoring. I believe that for the purposes of this discussion group, it makes sense to focus on the first links in the chain, i.e. issues to do with identification and assessment. As a minimum, we should try to identify what components of the HCVF toolkit need to be expanded/adapted to be applicable to assessment of non-forested HCV areas.
- The core of the HCV concept is the dual focus on environmental and social aspects of the landscape. However, for various reasons work on HCV forests has often centred on the biodiversity-based values of HCVFs 1-3, sometimes at the expense of analyses of the social values of HCVF 5 and 6. I believe that the discussion group needs to keep this past bias in mind and make conscious efforts to keep social issues on par with environmental ones.
- Last but not least - the HCV concept is still quite young and it has been used by many different stakeholders in very various settings in different parts of the world. Not surprisingly, there has been a range of different interpretations on which (forest) areas that qualify as HCVFs. Some have considered most sites of significant environmental or social value to be HCV areas. Others have reserved the label for the 'best of the best'.

The Network Charter rests upon the original FSC definitions. These set the bar quite high. For the biodiversity-related HCVFs 1-3, the 'value context' is *national* or *super-national*, i.e. only forests that possess either nationally, (super-national) regionally or globally significant concentrations of biodiversity (or ecosystem qualities) qualify. Similarly, although here the context is necessarily local, the formulations relating to HCVs 4-6 refer to environmental services in *critical* situations, areas *fundamental* to meet basic needs, or *critical* to maintain traditional cultural identity.

As I interpret it, there will be many areas that are e.g. locally biologically significant, or that help to meet basic needs without being fundamental to do so, that must be adequately addressed in land use planning and management without necessarily carrying the HCV label. I believe it is useful for the group to keep in mind, and if necessary discuss, this distinction in order to maintain the high standards and the utility of the HCV concept.

Anders Lindhe

Suggested topic for discussion

HCV 1-3: How much (accessible and user-friendly) knowledge is there on non-forest ecosystems like grasslands and wetlands with biodiversity values of national-global significance in various parts of the world? To what extent are gaps addressed by on-going initiatives?

HCV 1-4: What assessment methodologies are useful to identify HCVs 1-4 in the field?

Existing Comments

Measurement of wood density in combination with dbh could be a good way to measure HCV in forests. It would save going through the time consuming business of identifying trees. Wood density gives a very good idea of the type of trees (early successional or late successional) that occur in the sample, while in combination with diameter measurements in fixed plot sizes it can be used to calculate basal area and biomass, which can be used as good indicators of forest structure integrity.

Unfortunately this only works for trees.....

Perhaps other people have additional ideas for other biomes?

Ferry Slik

Thanks for your comments. You point to the importance of finding simple, structural indicators to overcome the time consuming business of species identification. I absolutely agree. I haven't worked with density/dbh measurements, but I have lots of experience of working with similar, more subjective approaches based on identifying microhabitats/structures, e.g. various kinds of deadwood, as potential biodiversity sites within forests as a cost-effective alternative to conventional species inventories in boreal and temperate forest. It works very well - at least at the site/stand level, and I guess that in more complicated tropical ecosystem that's the only feasible way if you want to make assessments that are relevant to a broader set of organism groups/taxa.

We haven't really tried to extend the approach to the landscape level. That is probably quite challenging but it may be worth to try. In principle I guess approaches based on assessing easily identified ecosystem features/structures/properties could be adapted to e.g. grasslands and wetlands as well, at least as long as we're talking fairly limited areas.

Anders Lindhe

I can't get on the HCVF discussion site for some reason, but I wonder if I am able to make a helpful (?) suggestion for evaluating HCVs for ecosystems other than forests.

I am working on biodiversity within farmland as part of the Unilever Sustainable Agriculture programme.

We have been trying to figure out ways to promote and describe landscape diversity and landscape value as habitat within predominantly-farmed landscapes.

The paper by Butler *et al* in Science 315 382-384 (2007) provides a formal structure for assessing habitat dependent on the "ecological needs" of species or ecosystems that require

conservation. Although the paper describes how farmland landscape can be related to its value for species of BAP birds in the UK, the general idea could be applied across a wide range of habitats and different ecosystems.

The underlying concept is to develop a "tick list" for the species or ecosystem of interest's requirements [the Ecological Needs] (e.g. nest sites, food for fledgelings, tall trees to sing from, a critical area to roam in, adequate rainfall, regular dry seasons etc.) and then determine if the landscape under consideration provides these.

If it does, then management should maintain them.

If it does not, then it MAY be possible to add them to the landscape.

If this is not possible then **the landscape is of less "Conservation Value" than one which includes all the critical elements.**

I'm not sure if or how this type of thinking would fit into the HCV process, but it does seem to be a powerful - yet simple- concept.

I would like to add that Unilever have no financial links with the research group that developed the Ecological Needs thinking.

*B. Gail Smith, Sustainable Agriculture Research Manager
Unilever Supply Chain Technology Unit*

I was interested in your comments, Gail about evaluating HCV for farmland. I don't know a great deal about the HCV concept but was wondering if any links have yet been made with the idea of High Nature Value (HNV) farmland (and forestry) which is currently being explored by the European Environment Agency and has been defined for farmland as follows:

1. Farmland with a high proportion of semi-natural vegetation
2. Farmland dominated by low intensity agriculture or a mosaic of semi-natural and cultivated land and small-scale features
3. Farmland supporting rare species or a high proportion of European or world populations.

HNV was included in the European Rural Development Programme as an indicator for the success or otherwise of its biodiversity aims. Member states are currently at the stage of trying to define what HNV means on a country level. Are any HCV practitioners involved in this process and are links being made between the two concepts? I would have thought some of the HCV tools and techniques might be of use here.

*Katrina Marsden, Agriculture and Rural Development Policy Officer
RSPB Scotland*

HCV 1-4: Are there 'short-cut' methodologies, e.g. remote sensing, that can be used to identify potential HCV 1-4 areas in the absence of site-specific data?

HCV 4: Is there a need to assess and focus on other/additional environmental services in non-forested compared to forested areas?

HCV 5-6: Is there a need to assess and focus on other/additional subsistence, social and cultural aspects in non-forested compared to forested areas?
