

Information sources and links

Introduction

Whilst there is much existing information that can be used in HCV work, it is not always easy to find. This leads to a need to consider existing sources (GIS themes, existing maps, mapping tools, websites, software, databases, etc.) and develop innovative ways to link these sources with the user community along with the necessary guidance for their proper scientific use. A second and more difficult challenge is to develop analytical tools and methods that lead to the identification of HCVs for different forest ecosystems around the world using a standardized approach. This note has been compiled by Dr. Jim Strittholt, Director of the Conservation Biology Institute, who has particularly extensive experience in using mapping technologies to address ecological assessments and conservation planning projects.

Background

The intent of FSC Principle 9 is to identify High Conservation Values (HCVs) for different forest ecosystems around the world in an ecological meaningful and pragmatic way. Forest ecosystems are all similar in their vegetation in that they are dominated by tree species, but they differ in many other ways as well – composition, structure, and function. They often possess very different natural disturbance regimes and are to a large degree the product of their individual human use histories. Some forest ecosystems are naturally rare while others have become rare due to human influences.

In order to be an effective means of steering conversion or degradation away from natural forest ecosystems identified as having high value and aiding forest management in maintaining notable conservation values in a working forest landscape, the identification of HCVs must be based on science and it must be based on spatially explicit data and information. This requires the coordination of numerous spatial themes at multiple scales and is to a large extent dependent upon informative maps in the end.

There is a growing amount of useful data and information pertinent to HCV mapping, but it is not always easy to find or combine together. Part of the discussion needed is to consider existing sources (GIS themes, existing maps, mapping tools, websites, software, databases, etc.) and develop innovative ways to link these sources with the user community along with the necessary guidance for their proper scientific use. A second and more difficult challenge is to develop analytical tools and methods that lead to the identification of HCVs for different forest ecosystems around the world using a standardized approach. As we learn from experience, the hope is that the mapping of HCVs will become increasingly more accurate, ecologically meaningful, and systematically replicable.

A proposed framework

There needs to be an examination of what issues need to be addressed for the HCV concept to be successfully applied. I offer a few major topics to get discussion started, but I am certain other topics will emerge and eventually be discussed. Prior to listing a set of discussion topics, here are some of my own initial thoughts.

- There are some useful global, regional, and national spatial datasets that exist (e.g., global and national land cover datasets, protected areas, and major human infrastructure) that could be applied to HCV mapping, but there are numerous obstacles to their use, including: (1) some practitioners do not know these data exist or, if they do, some data are difficult or impossible to obtain; (2) it is time consuming and

expensive to search, compile, and use these data for HCV mapping on a case-by-case basis; (3) it is difficult to gain contextual insight when the main focus of certification is at the site scale; (4) little technical guidance exists on the proper use and integration of pertinent spatial data to map HCVs; (5) much more work needs to be done to define ecological thresholds that distinguish those areas that require complete protection from those that require special management to retain their values; and (6) many practitioners do not have the scientific background or mapping expertise to use what is available.

- There are some significant data and information gaps for some important values (e.g., forest structure, focal species distribution and habitat needs, and forest change) in many areas. Since certification is an ongoing process, there needs to be the necessary guidance provided to operate in an imperfect data world while continually striving for better and more complete data and synthesis to meet the expectation. As the precautionary principle emphasizes, the lack of the necessary data to understand an important set of values does not excuse our ignorance or inability to obtain the necessary information to address the issues properly.
- Spatial data used in HCV mapping needs to occur or be considered at multiple scales. This is easy to state but far more difficult to apply, especially with little guidance and almost no standards.
- Not all data pertinent to identifying and mapping HCVs is necessarily spatial. Therefore, it is important to develop ways to integrate spatial and non-spatial data that results in scientifically defensible and standardized delineations of HCVs.
- Robust methods need to be developed that uses existing data and information to map HCVs meaningfully and consistently while major data gaps are filled and incorporated over time.
- Perhaps there is an emerging need for a resource for FSC practitioners that address some of these items. For example, one strategy is to develop an easy-to-use website that FSC practitioners can rely on for important datasets and contextual synthesis. A prototype for what could potentially become a global resource is being developed for the boreal forest region of North America. Would such a resource, if global in scope, be cost effective and lead toward greater standardization of HCV mapping? Is this simply too ambitious at the global scale? How would such a resource stay relevant and be funded over the long-term?

Suggested topic for discussion

What are the existing data and case studies (i.e., groups or individuals who have interpreted the data to identify and sometimes map HCVs), and the possible strategies for establishing and maintaining the data needed to adequately identify HCVs in a changing world?

What do we need to know to inform High Conservation Values in different parts of the world? What are some of the major data building blocks and data gaps? Are there any emerging global or regional standards?

What are the known sources of data for determining HCVs? How can the world access these sources? Is there a relatively easy way to help end users find and properly use pertinent data for assessing HCVs?

Existing Comments

One important source of data for determining HCVs that has been used in the Western Hemisphere is the Natural Heritage database maintained by NatureServe. This spatial database has already been referred to by toolkits developed for that part of the world and the bulk of the information is freely available online. Unfortunately, this information is presently limited to the Americas (predominantly North America). Should NatureServe be expanded to cover the rest of the world, it would be an ideal resource for HCV assessments internationally.

*Lim Teck Wyn, RESCU
(Network Participant)*

What issues of definitions, spatial scale/resolution, and monitoring need to be solved for the key data themes for mapping HCVs?

How should natural disturbance regimes be handled in assessing HCVs and how does that affect data collection and dissemination?
