Use of the HCV framework in Mozambique

A summary of workshop outputs

ProForest Ltd.
South Suite
Frewin Chambers
Frewin Court
Oxford
OX1 3HZ

Telephone
+44 (0)1865 243439

Email
info@proforest.net

Website
www.proforest.net

Table of contents

1. Introduction

The identification and management of High Conservation Value areas is an important part of sustainable land use planning and a requirement of FSC-certified forest management. However, the concept of High Conservation Values is not yet widely understood by forest and land managers. WWF Mozambique aims to develop some guidance material aimed at increasing the wider understanding and use of the HCV concept. It is hoped that this will:

- Build consensus amongst key stakeholders on the main conservation priorities and how these can be managed within productive landscapes;
- Increase the ability of forest managers to meet the international standards for sustainable forest management such as FSC.

The first widely accepted guidance document for understanding and applying the concept was the ProForest High Conservation Value Forest Toolkit[1] which outlines the generic values and explains how they can be interpreted for use at a country level.

It is hoped that this process of *national interpretation* will contribute to 1) a process of national land use assessment and zoning for development of production forests and plantations and; 2) a national process for development of standards for concession management that are compatible with the international standards of sustainable forest management.

1.1. Maputo workshop

A capacity building workshop was held in Maputo, Mozambique between 14th and 16th May 2007. The objectives of the workshop were:

- To build a wider understanding of the concept of HCVF
- To identify areas where the concept may be used in Mozambique
- To develop a deeper understanding of each of the values
- To identify sources where more information can be obtained

A list of the participants at the workshop is appended in Annex 1.

1.2. Outcomes from the discussion

The outcome of the discussion process is presented here. This report has been jointly produced by ProForest and WWF Mozambique. This document will be aimed at

[1] The High Conservation Value Forest Toolkit, ProForest (2003) available from www.proforest.net

forest managers, certifiers, conservationists and people involved in land use planning. It aims to do the following:

- Explain each value with reference to the local context
- Provide guidance on how values can be identified in the field
- Provide guidance on appropriate management for each value
- Provide guidance on what type of activities are *not* acceptable in high conservation value forest in Mozambique

It is hoped that this will contribute to the development of guidance material that can facilitate the application of HCVF within Mozambique. The ultimate objective is to develop capacity in best practice for land use planning and forest management.

2. Introduction to High Conservation Values

The HCV concept was developed by the FSC and incorporated into the Principles and Criteria for Sustainable Forest Management in 1999[2]. It is built on the notion that certain forest areas have *critical value*, either because they support threatened biodiversity, provide ecosystem services or provide basic needs for local people.

The concept is useful because it suggests that any area *may* have one or more of these values. It moves us away from the problem of defining an area's value in terms of it's 'naturalness' (definitions like 'primary' 'secondary' 'pristine' 'natural' or 'semi-natural' are not very helpful in this regard). HCV is based on the idea that an area is not *de facto* of high conservation value unless one or more of the values are present.

Since the concept emerged, there has been considerable interest in the application of this concept within certified forests, but also in areas where natural ecosystems are under pressure for conversion to other land uses.

A practical approach to the HCV concept is outlined in the Toolkit for High Conservation Value Forests[3]. It defines six High Conservation Values (HCVs, see Table 1) and suggests the use of the concept as a framework to interpret information available from a range of sources, involving relevant stakeholders in a process of decision making. The process should focus on three things:

1. Identifying areas of forest with values that are consistent with the six HCVs
2. Deciding how these areas can be managed so that the values are maintained or enhanced

[2] FSC PRINCIPLES AND CRITERIA FOR FOREST STEWARDSHIP FSC-STD-01-001 (1996)

[3] Toolkit for High Conservation Value Forest. ProForest (2003)

3. Identifying ways to monitor the effectiveness of the management.

While focussed on the use of the concept in forest an area, this toolkit contains many pointers that apply equally well to other land uses where the concept could be applied.

2.1. National Interpretation

For this approach to work efficiently, the six generic values need to be interpreted at a national level. This is to provide more specific information and guidance relevant to land managers in each country. It is an important stage in the application of the HCV process, as it makes it easier for land managers to identify what features of their land would be considered high conservation value in the national context. National interpretation is important because the generic values include terms like "significant", "critical" and "concentration" which need to be qualified according to the local context. Secondly, because appropriate management of high conservation value depends on the level of threat to that value, (for example from changing land-use) which can vary dramatically between countries.

The process of national interpretation is also a useful way to build consensus in the way each value is understood and applied. Ultimately this enables more consistency in the use of the concept within the country, which helps land managers, government regulators and certifiers understand each other.

Part 2 of the Global Toolkit provides guidance on the process of national interpretation. National interpretation of the values can be undertaken by a technical working group, or a broad based multi-stakeholder group. An ideal team will have:

- **Expertise:** the expertise of the members of the group or team needs to cover the full range of topics included in the HCVs, including biological, environmental services and social aspects.
- **Range of views:** defining HCVs should always be based on the best available scientific information, but deciding on the threshold level at which a 'value' becomes a 'High Conservation Value' is inevitably a subjective judgment. The outcome will depend on the membership of the group. As a result, it is important to try to make sure that the membership represents an appropriate range of views and perspectives.
- **Practical experience:** it is very important that the group or team includes people with real, current, practical experience to ensure that the interpretation and accompanying guidance are appropriate, implementable and accessible to land managers.

The process should also make use of the widest possible stakeholder involvement, for example, in reviewing of the outputs from the technical group. Care should be taken to ensure comments received from stakeholders are publicised in a transparent manner.

Table 1

The six high conservation values	
HCV1	Forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia).
HCV2	Forest areas containing globally, regionally or nationally significant large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance.
HCV3	Forest areas that are in or contain rare, threatened or endangered ecosystems.
HCV4	Forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control).
HCV5	Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).
HCV6	Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

2.2. The role of HCVs in the responsible management of natural resources in Mozambique

Responsible land management in Mozambique is difficult to achieve. This is for a number of reasons, for example

a) The absence of effective processes for territorial mapping and land use planning and the consequent spread of un-controlled (itinerant) agriculture,

b) The lack of implementation of key legal requirements and,

c) The prevalence of wildfires

Legislative measures:

Land use planning is essential if population spread and the uncontrolled spread of agriculture is to be prevented. However, there is currently no nationally operating

process to plan and control the spread of urbanisation or small scale agriculture. Without a formal land use plan for forest areas, there is no effective control over the itinerant agriculture that is threatening many forest areas. Participatory community area mapping is a requirement of forest concession management planning (see below) however it is not known if this is normally carried out.

Implementation of legal requirements

The Mozambican forest regulation (2002) requires forest concessionaires to produce a forest management plan. The production of the plan must include a consultative process for identifying areas of community use and identifying areas for biodiversity conservation. A guidance document exists for the preparation of a management plan (DNTF, 2007). This is accompanied by the guidance on carrying out EIA, and producing a social development plan for the concession, which ensures local people's needs are incorporated into forest management. However this does not provide detail on appropriate conservation measures or the management of the areas zoned for biodiversity.

The problem of fire:

Fire is a major threat to all types of ecosystems in Mozambique. The spread of wildfire threatens protected areas throughout the country. Fire is used by local communities to clear land, to ward off snakes and elephants and to facilitate hunting. The use of fire in this way is particularly problematic within protected areas and buffer zones, but all natural vegetation outside the protected areas.

The potential use of the HCV concept

The true sustainable management of forest areas will need the proper implementation of existing legal requirements, in, for example, the active and informed participation of local people in land zoning agreements, and the adequate sharing of benefits from land resource management through benefit sharing agreements which reflect the local peoples legal right to make use of forest resources. Additional requirements may need to be set for biodiversity management within commercial forest concessions and hunting reserves, or the design of plantations to respect the value of the existing natural vegetation.

Some conservation priorities must be tackled at the national level through increased investment in government oversight and infrastructure. However, a responsibility also falls on the private concession holders to ensure conservation values are maintained wherever they occur. The concept of HCVs and the development of this

guide may be useful for the implementation of better environmental management within privately managed concessions.

3. Understanding the High Conservation Values in Mozambique

3.1. Understanding HCV 1

HCV 1.1 Protected areas:

Protected areas are included in the definition of High Conservation Value areas because they themselves protect conservation values. All protected areas need to be recognised and protected, but the management of the surrounding land uses must also be made compatible with these objectives.

The way this is usually achieved is through the establishment of buffer zones, and defining the appropriate uses for the buffer areas.

In Mozambique there are six categories of protected areas. These are:

- National Parks
- National Reserves
- Hunting Areas (Hunting Concessions)
- Forest Reserves
- Private Game Reserves
- Sites of historical or cultural value

National Parks and National Reserves should have buffer zones defined and delineated. The buffer zone should extend a minimum of *5 km* form the park boundary. The appropriate management of the buffer zone is to be defined by the park authorities in consultation with neighbouring land users. The main objectives are normally to safeguard the park from three major threats: fire, agricultural incursion and poaching.

The other types of protected areas have no obligatory buffer zone.

Identification

Areas within the 5km buffer zone of a National Park or National Reserve will normally be considered HCV areas.

In areas within 5km of a park or reserve, but where a buffer zone has not been delineated on the ground, will also be considered HCV areas under the precautionary principle. The responsibility rests with the land manager to establish that the proposed land management is compatible with the protection of the values contained in the national park/reserve.

Management

Appropriate management of the land within buffer zones will need to be agreed in writing with the park/reserve authorities and approved by the Ministry of Tourism. In practice this management will be limited to non extractive activity, subsistence collection activity and hunting by traditional means.

HCV 1.2 Concentrations of threatened or endangered species

Interpretation:

Information on the distribution and abundance of threatened and endangered species is sparse, and it is difficult to define areas with this characteristic with such limited knowledge. However, any area where significant number of national red list species[4] do occur should be considered an HCV area and be managed accordingly. Note that this will apply to areas supporting a concentration of an individual species, as well as a concentration of a number of species.

Identification:

Based on current knowledge, only three areas are known to hold exceptional concentrations of species that are on the national red data -list. These are:

- Concentrations of wild dog (EN) in Niassa reserve and Quirimbas National Park
- Concentrations of rhino (species) around Quirimbas National Park
- Concentrations of wild dog and several threatened bird species at Marromeu complex within the Zambezi delta

It is certain that this represents a major under-estimate of the natural areas supporting significant concentrations of threatened species. However, without more detailed information it is not possible to identify areas that support this value.

[4] Found on the national red data list of protected species: Ministry of Agriculture (2001)

A report on the Rapid Assessment and Prioritisation of Protected Areas Management of the Mozambican protected areas network undertaken in 2006 with participation of all park managers of protected areas suggests that more thorough investigation is carried out.

Forest reserves and concentrations of threatened flora:
One aspect that remains completely un-investigated here is the existence of concentrations of threatened species of flora. In Mozambique, a network of forest reserves was established in the 1950s and 1960s to ensure the conservation of some important timber species and areas of botanical interest. However the recent study by WWF[5] has highlighted the high levels of degradation and habitat disturbance in most of these reserves and questions the ability of the network to fulfil its objective. The report recommended de-gazetting a number of reserves that had experienced such sever degradation that they have ceased to perform any useful conservation function. This leaves open the question of how important concentrations of threatened or endangered flora are to be safeguarded in Mozambique. Clearly more information is needed on the botanic diversity and the levels of threat and endemism. However, once this information has been obtained it may not prove possible to further expand the network of protected areas to conserve such sites. **One possibility is that important areas for botanical diversity are identified and protected within commercial reserves. This could be achieved by placing a requirement on private concessionaires to carry out assessments for this value as part of the preparation of management plans.**

Management

Management of areas supporting concentrations of threatened mammal/bird species should focus on the monitoring of wildlife populations, through recording of observation and secondary signs (dung, tracks etc). A programme of control of hunting and poaching must also be established. The Ministry of Tourism has developed programmes for community outreach, communication and participatory involvement in the control of hunting and poaching. These should be the starting point for the management of threatened species.

A threat analysis (or impact assessment) should be carried out for any extractive activities planned for these areas. Any management activities that appear likely to diminish of damage feeding or breeding habitat of the target species will need to be amended.

HCV 1.3 Concentrations of endemic species

Interpretation:

A number of areas within Mozambique are known to support significant concentrations of endemic species. Some of these areas are already gazetted as

[5] WWF/DNFFB Assessment of the Forest Reserve Network in Mozambique (2005) Available from WWF Mozambique

Forest Reserves (e.g. Licuati FR) or fall within National Reserves (e.g. the woody grassland habitat of the Pondoland Tongoland Centre of Endemism within the Maputo Special Reserve). Others remain poorly protected, such as the Chimanimani Centre of Endemism. (See National Biodiversity Conservaiton Srategy for Mozambique 2004[6]). Endemic bird areas include Bazaruto National Park, Banhine National Park and Zambezi delta.

Identification:

The following areas are considered to support significant concentrations of endemic species:

- Marromeu within the Zambezi delta
- Licuati Forest Reserve (Pondoland Tongoland Centre of Endemism)
- Woody grassland habitat of Maputo Special Reserve
- Inselberg rocky outcrops at Namuli, Chimanimani and Gorongosa

Other areas of remaining natural vegetation within these centres of endemism are highly likely to support concentrations of endemic species. Particular attention should be paid where any of the following conditions are met:

- The area is less degraded by recent human activities than most areas within the zone
- The area borders with a protected area or is part of a larger forest area that connects one or more protected areas
- The area contains examples of naturally isolated habitats, such as islands, isolated mountain groups or outcrops of unusual bedrock
- The area links different altitudinal zones, contain salt licks or extensive riparian forest areas.

An endemic species inventory should be required for all areas that meet one or more of these conditions.

Management

Management of these areas will be the same as for HCV1.2

HCV 1.4 Temporal concentrations and concentrations of migratory species

Interpretation:

[6] Estratégia e Plano de Acção para a Conservação da Diversidade Biológica de Moçambique (2004)

In Mozambique, a number of areas have been identified as important migratory corridors for populations of the African elephant (*Loxodonta africana*). These are areas through which important populations of elephant pass on their annual migrations between different feeding habitats. While these areas do not give rise to significant concentrations themselves, they are considered important to maintaining important (and highly threatened) populations of migratory species.

Identification:

One of these, an area that connects the Maputo Special Reserve to Thembe game reserve in RSA and Ndoumu Game Reserve in Swaziland, has already been gazetted as a trans-boundary reserve around an important migratory corridor.

Other important corridor areas are proposed for gazettement. These are:

- Rovuma River: an important route across the border with Tanzania between the reserves of Niassa and Quirimbas.
- Zambezi river corridor: between Hunting block No. 9 and Chemba (Manica Province)
- Zinave National Park and Banhine National Park (Inhambane and Gaza Provinces)

Management:

The first priority for these areas is that the suitable habitat is delineated and mapped. At present it is not clear where the boundaries of these proposed corridors should be established.

Once mapped, it is suggested that within the corridor areas, priority be given to two compatible land uses: Hunting concessions and Community managed conservation areas. It is proposed that no activity involving the conversion of natural vegetation should be permitted in these areas.

3.2. Understanding HCV 2

HCV 2: Large landscape level ecosystems where most or all naturally occurring species are present in their natural patterns of distribution or abundance

Interpretation:

This value is intended to highlight the importance of any large area of natural vegetation that is relatively undisturbed by recent human activity. Such an area will

retain natural ecological processes, and most naturally occurring species in their natural patterns of distribution and abundance.

During the workshop initial discussion on this value was possible, but a detailed interpretation has not been prepared.

Identification

It appears that in Mozambique, the areas of natural vegetation that are likely to meet this description are already reserved within protected areas. Those identified during the workshop were:

- Niassa reserve
- Gorongoza reserve (including the proposed extension)

In addition two areas already proposed as new reserves may also have this value. These are:

- The primeiras and segundas islands.
- Palma area

It is thought unlikely that individual commercial forest concessions or hunting reserves will be large enough or intact enough to support this value, although areas where a concession or reserve borders with a protected area may be considered part of the same landscape level ecosystem.

Management:

Management of any commercial concession or reserve that is thought to be part of a landscape level ecosystem will need to ensure landscape level processes are maintained. This may include:

- Preventing fragmentation of habitats
- Allowing for or facilitating animal migrations
- Ensuring the maintenance of all habitat types present within the landscape

3.3. Understanding HCV 3

HCV 3: Rare threatened or endangered ecosystems

Interpretation:

This HCV corresponds to particular habitat types or ecosystems that are threatened by man activity and can be considered 'endangered ecosystems'. For the purposes of

this guide an ecosystem is defined as 'a range of closely linked habitats where specific associations of plants and animals can be defined'. Thus an area would be considered under this HCV if it were:

a) a recognised ecosystem or collection of habitat types

b) naturally rare or significantly under threat from man's activity

The National Biodiversity Conservation Action Plan[7] for Mozambique has already identified some threatened ecosystems. It is proposed that this forms the basis for the definition of this HCV.

Identification:

Ecosystems that are identified as threatened in the NBCS are:

- Evergreen montane forest (Chimanimani mountains)

Other ecosystem types that should be considered here

- Coastal forest with *Icuria dunensis* (e.g. Moma District)

Management

Ecosystems that are not already represented within protected areas should be given the highest priority here, and should be considered candidate areas for the establishment of new protected areas. However although some of these ecosystems are within protected areas they remain threatened by encroachment (e.g. Evergreen montane forest of Chimanimani.) in these cases two measures are required:

1. The production of management plan for the protected area that focuses on community participation in habitat protection, threat mitigation, and alternative compatible land uses.
2. Identification of examples of these ecosystems should be a requirement within all private concessions. Where they occur, the concessionaire will need to identify land uses compatible with the maintenance of the ecosystem. Land uses that are regarded as compatible include:
    a. Controlled hunting
    b. Subsistence hunting by traditional means

No forms of conversion of the natural vegetation should be permitted in these areas.

3.4. Understanding HCV 4

HCV 4.1 Areas providing a critical function in the protection of a water catchment

[7] Estratégia e Plano de Acção para a Conservação da Diversidade Biológica de Moçambique (2004)

Remains un-defined

HCV 4.2 Areas providing critical function in the control of soil erosion Forests providing critical function in the control of soil erosion:

Remains un-defined

HCV 4.3 Areas providing a critical function in the prevention of the spread of catastrophic fire

Interpretation:

In Mozambique the control of fire is a major priority in almost all parts of the country and for all land uses. Controlling fire is a high priority issue for all land users, both private sector (concessionaires) and state bodies responsible for protected areas. There are mechanisms in place to encourage concessionaires and communities to participate in fire protection measures that apply uniformly across different land types.

It is therefore not considered necessary to highlight the importance of any one type of habitat or vegetation type in preventing the spread of fire. All areas of natural vegetation in Mozambique have identical value in this regard.

3.5. Understanding HCV 5

HCV 5: Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health).

Products and services derived from the forest:

In Mozambique, rural communities living close to forest areas use many products and services derived from the forest itself. These include:

- Food: Bushmeat, wild fruits, tubers, fish, honey
- Materials: Reeds, palm leaves, Bamboo poles, clay
- Medicines: Many different plants
- Fuel: Fuelwood and charcoal

Levels of use

The level or intensity of use of the different products generally depends on the level of infrastructure and development within the community, with more remote villages

being more dependent (though this may not be an effective indicator of dependence on the forest).

In most villages located near forest concessions it is expected that local people will be dependent on the forest for a number of products.

Legal requirements relating to basic needs

Community use of the area should be recognised during the preparation of the forest management plan for all forest concessions. There is a requirement to identify and recognise the customary rights of local communities (which apply if the community has been in situ for longer than 5 years), which will include hunting and collection activities.

A community use zone must be established as part of the forest management zoning. The community use zone should be derived through a *participatory* process that involves the local leaders.

Identification

Wherever there are signs of local peoples dependence on the land area for basic needs, a land zoning plan needs to be prepared that identifies a community use zone. This is required whether or not the level of use would be defined as *critical*.

Maintaining HCV5

It was suggested that the existing process of management planning within forest concessions will be sufficient to safeguard this value where it occurs. Therefore, if a community use zone has been established in partnership with the relevant local communities, it is suggested that no additional requirements should be placed on forest concessionaires relating to the maintenance of HCV 5.

Management of the community use zone should be defined by the community in consultation with the concessionaire, but should respect sustainable levels of exploitation. In practice this means extraction of wildlife and products for subsistence use only. No commercial extraction of timber or game meat can be permitted.

3.6. Understanding HCV 6

HCV 6: Forest areas critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities).

Cultural associations with forest areas

In addition to the requirement for the recognition of customary rights to forest areas, Mozambique has a legally recognised land category of ***sacred forest*** (within the sites of historical and cultural values) which applies to this value. The notion of a sacred forest usually implies the location of a burial ground or grave site, or the place where a certain cultural ritual takes place. Many forest rituals are related to traditional ceremonies asking for rain and traditional treatment. e.g. Snake collection from forest area in Namarroi District, Zambezi Province.

Existing legislation:

Sacred forests are defined in the forest law as areas of historic and cultural value. Local communities can apply to have sacred forest areas legally gazetted in their name, through the acquisition of a formal licence to the area. The formal designation of a sacred forest implies that the community has obtained a licence to own the area, and it is therefore excised form the forest concession or management unit. However, to date there are only two recognised sacred forests in Mozambique: Licuati in Maputo province (legally established in 1950) and Chirindzena, in Gaza province. No sacred forests have been recognised *in forest concessions*. The average size of a sacred forest area is thought to be less than 60 ha.

Maintaining HCV 6

Given the small number of sacred forest sites that already exist, it is unlikely that this measure is effectively safeguarding the cultural associations that are present.

It will be necessary for the land manager to investigate the potential existence of cultural associations during the process of participatory community land zoning that is required during the production of the management plan. Guidance on conducting an assessment of cultural links to the forest can be found in Methodology developed by ORAM.

However, if the customary rights of local communities are fully recognised and community use areas are established, as is legally required under the national forest management planning guidelines, it is likely that many cultural values will be maintained in this way. The safeguarding of HCV 6 is therefore dependent on the implementation of the existing forest law.

Annex 1 List of participants

Name	Organisation	Tel no.	Email address
Maria Magaia	SPFFB SOFALA	825096950	Jojoca3m2@yahoo.com.br
Almeida Almeida	DNIA - MINAG	824577040	almeidaalmeid@yahoo.com.br
Alima Issufo	DNTF-MINAG	823099160	aissufo@map.gov.mz
Sérgio Gomes	ORAM	824781580	ORAMSEDE@TVCABO.CO.MZ
Abel Nhabanga	DNAC - MITUR	827228070	ANHABANGA2@YAHOO.COM.BR
Domingos Condjo	DNAC-MITUR	827382820	dcondjo@yahoo.com.br
Rito Mabunda	WWF	824894840	ritomabunda@wwf.org.mz
Salomão Bandeira	Biologia - UEM	843983290	sband@zebra.uem.mz
Camila de Sousa	IIAM - MINAG	82 4149500	Camila.sousa@teledata.mz
Cidália Mahumane	DNAC - MITUR	82 4137820	Cida72cida@yahoo.com.br
Samira Izidine	IUCN	82 31 57 380	Samurai.iucn@tvcabo.co.mz
Manuel Poio	DNGA - MICOA	82 9113740	mvictorpoyo@yahoo.br
Benard Guedes	FAFE - UEM	82 47 49 830	besoguedes@uem.mz
Teresa Alves	IIAM - MINAG	-	tealves@gmail.com