



FOREST
STEWARDSHIP
COUNCIL



National Initiative Cameroon

FSC – CMR

B.P.: 16 467 Yaoundé – Cameroon
Tel.: +237 22 30 43 59-57/99 94 79 84

E-mail: akung34@yahoo.fr
noagody@yahoo.com
m.mbolo@fsc.org
Website: www.fsc.org

Fax: +237 22 30 43 59

GEF Project: Assessing HVC in SLIMF for certification purpose

Cameroon Component

Toolkit of HCV process for small and low intensity managed forest in Cameroon

Case of community forests

DRAT1

From participants of the January 30-31, 2008 workshop on activity:

2.3. National workshop to validate criteria developed for identification and monitoring of
HCV

Prepared by:

Dr. Marie Mbolo, Project technical and scientific coordinator
Parfait Mimbimi Esono, Project Administrative Coordinator

June 2008

Context

The present toolkit has been drafted within the framework of GEF-FSC-CIFOR project implementation in Cameroon. The project is carrying out in two community forest in Cameroon: Copérative des Paysans de la Lekié (COPAL) and Bimbia Bonadikombo Community Forest (BBCF).

The BBCF is situated in Limbe, South West Province. It has a surface area of 3735 ha. The BBCF was created in May 18, 2002 and comprises 05 (five) villages. BBCF signed a management agreement with the government on 2002. The vegetation of the BBCF is dominated by six main vegetation types that include; mangrove, fresh water swamp forest, littoral vegetation, coastal bar forest, Lowland forest and fresh water ecosystems. It is divided into 09 compartments for management purposes and 3 of these compartments (Dikolo, Likomba la Mbenge and Likomba Lelu with a surface area of 1200 ha) have been set aside as HCV forest for research, ecotourism and environmental education activities, namely.

The Copal community forest is located between Sa'a and Batschenga, Center Province. It has a total surface area of 4 800 ha. The Copal was created in June 21, 2001 and comprises 09 (nine) villages. Copal achieved the development of its Simple Management Plan in 2007 and signed the management agreement with the government in January 2008. The main vegetation types or ecosystems founded in the Copal community forest are as follows: forests with: primary and old secondary forests, riparian forests a long Sanaga and Afamba rivers, Swampy forests; savannas, fresh water ecosystems, rocky areas with a big rock covering more than 1ha, Agri-areas dominated by cocoa plantations and crops and fallows.

Within the GEF project implementation, both community forests have been implementing the HCV process since 2005.

The HCV process in practices consists to identify, manage and monitor HCV of a forest under management (Proforest, 2001; Nusbaum, 2007). In the present document community forests are targeted areas. For each HCV category, identification is assessing all values, their attributes i.e what they contain and their location. Management process is simply to identify threats for identified values and develop management or conservation techniques including informal ones used by local communities themselves. For monitoring, one should identify monitoring parameters and methods as well as the use of monitoring results.

The HCV process for Cameroon community forests as well as for other forests under management is to answer the following simple questions:

- What kind of values is found in the forest?
- For who are those values for specific interest/importance? Why?
- Where are those values located in the forest?
- What are or would be threats for these values?
- What should be done to maintain these values?
- How to manage them?
- What should be monitored?
- How should it be monitored?
- Which parameters should be used to insure efficient for the monitoring?

- How to valorize/use monitoring results?

Answering above questions during a national workshop held in Yaounde, January 30-31st, 2008 resulted to data outlined in the following paragraphs.

HCV.1 Areas containing globally, regionally or nationally *significant concentrations* of biodiversity values: Protected areas; Concentrations of threatened or endangered species; Concentrations of endemic species; Seasonal concentrations of species.

Identification

Identification of values for this HCV category consists on answering the following questions:

1. Which endangered or endemic plant or wildlife species at regional or national level is living in the forest under management? To answer this question, one should consult documents on endangered and endemic species established at regional and national levels. These included: IUCN Red lists, Lists of protected plants and wildlife species at national (MINFOW) or regional level (COMIFAC, CEFDHAC, etc);
2. Which plant and wildlife species are endangered or endemic at the local level? In fact, local endemic and endangered species are not always well known at the national level. Such species could be identified through interviews with local communities and research activities. Exemple: *Halopegia azurea* (*Marantaceae*) which leaves are used to prepare cassava steaks (batons de manioc) is an endangered species at the level of Copal i.e Batschenga, Sa'a, Obala and surroundings; people from those areas are now obliged to buy those leaves in Yaounde (60 km from Batschanga).
3. Is there an area within the community forest were seasonal species are found? During what season? For how long? Which species?

Attributes

For this purpose, values of this first HCV category should be presented as lists of:

- wildlife species endangered at the regional or national level,
- endangered plant species at the regional or national level,
- endangered wildlife species at the local level,
- endangered plant species at the local level,
- endemic plant species at the regional level,
- endemic wildlife species at the regional level,
- endemic plant species at the national level
- endemic wildlife species at national level
- endemic plant species at local level
- endemic wildlife species at local level
- seasonal species

Location

Once values have been identified, they should be located i.e to answer the question: Where are they found in the forest under management (community forest). The question should be answered through interview with local communities, inventories, social economic studies. The location of identified values should be presented as:

- Name of places where species are encountered;
- GPS coordinates or places where species are encountered;
- Participative maps of distribution areas of species. For seasonal species, participative maps of areas where they used to stay/live. Maps should be drafted in close collaboration with local communities.

Management

Threats

Stakeholders identified two categories of threats for HCV1: human related and environmental related.

Human-related: Poaching and illegal trade of wholly-protected species, logging and timber harvesting because of engine noises resulting of habitat destruction or habitat fragmentation, Bush fires, , farming mainly slash & burn agriculture, unsustainable NTFP harvesting techniques.

Environmental related: long dry season due to climate change, epidemics and wild fires

Management/conservation techniques or strategies

Stakeholders have identified a variety of management or conservation techniques that should be used according to each local context. Among all is the effective involvement of the whole population in decision making, during identification and location process. Also important is education and sensitization of targeted groups. These techniques and strategies are:

- Education, sensibilisation
- Involvement of the whole population in decision-making process And sensitization of target groups
- Whole/integral protection
- Education, sensitization of stakeholders
- Domestication des espèces sauvages et domestiques Domestication of wild species
- Nurseries setting
- Z I C G C Delimitation of hunting areas (ZICGC)
- Subventions aux initiatives Funding of Initiatives
- Exploitation à faible impact Implementation of reduced impact logging (RIL)
- Respect des plans de zonage Compliance with zoning plans
- Couloirs coupe feux Firebreak corridors
- Aménagement des points d'eau Creation of water points
- Coordination avec les services de santé et campagnes de vaccination Coordination with health services and vaccination campaigns
- Protection des espèces végétales servant d'abri ou d'aliments Protection of plant species used as habitat or food for wildlife
- Enrichissement de la forêt Forest regeneration through enrichment
- Mesures répressives contre les contrevenants Repressive measures against law breakers
- Accueil de chercheurs/ Recherche scientifique Researchers' welcoming/scientific research
- Comité de Vigilance Development of monitoring committee
- Media release of sentences against lawbreakers

Monitoring

Monitoring parameters

Monitoring parameters or strategies include:

- Nesting monitoring
- Empreintes ou traces des animaux/ Marks or tracks of wildlife
- Régimes alimentaires/ Feeding needs
- Espèces exploitées/ Harvested species
- Inventaire et suivi des densités/ Inventory and monitoring of species densities
- # rapports de réunions tenues, affichage, séances d'éducation environnementale, etc./ Reports of organized meetings, posting, and environmental education sessions (kinder garden, schools), etc.
- Existence d'un programme d'élevage, Centres de formation, Pépinières, etc./ Implementation of a wildlife farming centre, training centres, and nurseries, etc
- Number of domesticated species, number of individual per domesticated species, areas enriched, etc.

Uses of monitoring results

Monitoring results will be used for:

- The SMP review
- Elaboration du PSG/ The SMP drafting
- Révision des stratégies de patrouilles et de contrôle/ Patrolling and controlling strategies review
- Amélioration des thèmes et stratégies de sensibilisation/ Improving sensitization areas and strategies Improving management techniques/conservation
- ImprovingIn

HCV2. Areas containing globally, regionally or nationally significant large landscape level ecosystems, 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*

Stakeholders in Cameroon have firstly remind ecosystem definition as follow: “En écologie, un **écosystème** désigne l'ensemble formé par une association ou communauté d'êtres vivants (ou biocénose) et son environnement géologique, pédologique et atmosphérique (le biotope). In ecology, an **ecosystem** refers to a set made up of an association or a community of living beings (or biocoenosis) and its geological, pedological and atmospheric environment (biotope). Les éléments constituant un écosystème développent un réseau d'interdépendances permettant le maintien et le développement de la vie. Elements making up an ecosystem build a network of interdependencies that allow maintenance and development of life”. This definition will be used all over the present document.

Identification

Attributes

For this HCV category, landscapes of world regional or national significance that could be found in a community forest are undisturbed ecosystems. Identification of values related to this HCV category

consists of answering the following question: which undisturbed ecosystems are found within the forest under management? The answer includes the following ecosystems:

- Mangroves
- Primary forests
- Old secondary forests
- Savannah
- Swamp clearing forests, salines or bays, swamp forests
- Lakes and watercourses

Lists of characteristic species enabling definition of listed ecosystems are required.

Location

Once values have been identified, they should be located i.e to answer the question: Where are they found in the forest under management (community forest). The question should be answered through interview with local communities, inventories, social economic studies. The location of identified values should be presented as:

- Name of places where identified landscapes are encountered;
- GPS coordinates of areas occupied by identified landscapes
- Maps of distribution areas of those landscapes

Management

Threats

The following activities or phenomenon have been identified as threats for HCV2 within community forests:

- Timber harvesting <0>
- {0>Pêche <}>0{> Fishing <0>
- {0>Carbonisation <}>0{> Bushfires and wild fire <0>
- {0>Coupe de bois de chauffe <}>0{> Fire wood extraction <0>
- {0>Tarissement des points d'eau <}>84{> Drying up of water points

Management/Conservation techniques or strategies

Management techniques or strategies for HCV2 attributes include among others:

- {0>Implication de toute la population dans la prise de décisions ET sensibilisation des groupes cibles <}>99{>
- Involvement of the whole population in identification and decision-making Processes and sensitization of target groups <0>
- {0>Patrouilles de surveillance et de contrôle <}>47{> Monitoring and control patrols <0>
- {0>Sanctions et répression <}>10{> Punishment and and sanction <0>s
- {0> Mise en place de placettes permanentes <}>64{> Setting up permanent sampling plots <0>
- {0> Sylviculture <}>0{> Sylviculture <0>
- {0> Accueil de chercheurs <}>45{> Researchers' welcoming <0>
- {0> Campagne de nettoyage (sacs plastique, déversement des ordures et eaux usées, etc .) <}>0{> Cleaning campaigns (plastic bags, management of wastes and used water), etc.) <0>
- {0> Lagunage <}>0{> Lagooning <0>
- {0> Protection intégrale <}>100{> Complete ban/whole protection/integral protection <0>

- Education, sensitization of all stakeholders <0>
- {0>Domestication des espèces sauvages et domestiques<}100{>domestication of species <0>
- {0>Z I C G C<}100{>Delimitation of hunting areas (ZICGC) <0>
- Firebreak corridors <0>
- {0> Mapping and materialisation of protected area <0>

Monitoring

Monitoring Parameters

- Destroyed areas natural or human related within identified landscapes <0>
- {0>Espèces exploitées<}100{>Harvested species within identified landscapes <0>
- {0>Activités et acteurs<}0{>Activities and related actors at the surroundings <0>
- {0>Nbre d'espèces plantées<}0{>Number of planted species within the identified landscape <0>
- {0>Nbre de personnes (groupes cibles) impliquées<}0{> Number of arrested lawbreakers and control reports <0>
- {0>Nbre de contrevenants interceptés et rapport de surveillance<}0{>Monitoring of permanent sampling plots (number of plant species, presence animal species, tree circumferences, ...) <0>
- {0>Surface plantée<}0{>Grown area <0>
- {0>Nbre de rapports scientifiques<}0{>Number of scientific reports <0>
- {0>Fréquence des campagnes et taux de participation<}0{>Frequency of campaigns and participation rate<0>
- {0>Dispositifs de lagunage<}0{>Lagooning parameters <0>

Uses of monitoring results

- Amélioration des stratégies de surveillance et de contrôle<}75{>Improvement of monitoring and controlling strategies <0>
- {0>Révision du PSG<}100{>SMP review <0>
- {0>Elaboration du PSG<}100{>SMP drafting <0>
- Improvement of conservation or management techniques and strategies.

HCV3. Areas that are in or contain rare, threatened or endangered ecosystems

Identification

Attributes

Attributes of HCV3 are threatened, endangered or rare ecosystems found within the forest under management (community forest). Stakeholders identified the followings:

- {0>Terrain à forte pente<}0{>Steep slopes <0>
- {0>Marécage à marantacée<}0{>Marantaceae swamps <0>
- {0>Marécage à raphia<}67{>Raphia swamps <0>
- {0>Forêts ripicoles<}100{>Riparian forests <0>
- {0>Forêt galerie<}50{>Gallery forest <0>
- {0>Lacs et rivières<}100{>Lakes and watercourses <0>
- Rocky or saxicolous vegetation

When possible, composition of those ecosystems should be defined in terms of animal and plant species encountered.

Location

Once values have been identified, they should be located i.e to answer the question: Where are they found in the forest under management (community forest). The question should be answered through interview with local communities, inventories, social economic studies. The location of identified values should be presented as:

- Name of places where ecosystems are encountered;
- GPS coordinates of areas occupied by those ecosystems
- Maps of distribution areas of those ecosystems

Management

Threats

The following threats have been identified by stakeholders:

- {0>Exploitation de bois<}100{> Timber harvesting <0}
- {0>Pêche <}100{> Fishing,
- {0>Différents types d'exploitation Aménagement des infrastructures (routes, ponts, maisons.....)<}0{> Infrastructure development (roads, bridges, houses, etc.)<0}
- {0>Défrichement pour l'agriculture<}0{> Slash & burn agriculture,
- Clearing for agriculture purpose.<0}

Management/Conservation techniques or strategies

- Complete ban i.e integral/wholly protection <0}
- {0>Patrouilles de surveillance et de contrôle<}100{> Monitoring and control patrols <0}
- {0>Sanctions et répression<}100{> Punishment and sanctions against law breakers
- Regulation of {0>Réglementation des activités<}0{> activities <0}
- {0>Sensibilisation<}0{> Education and sensitization of stakeholders, mainly local communities <0}
- {0>compensation<}0{> Compensation through PES
- {0>Partage équitable des retombées<}0{> Fare sharing of benefits

Monitoring

Monitoring Parameters or strategies include:

- Destroyed areas natural or human related within those ecosystems <
- {0>Espèces exploitées<}100{> Biodiversity in terms of plant and animal species encountered within those ecosystems <0}
- {0>Activités et acteurs<}100{> Activities (types) in areas surroundings identified ecosystems and actors (number) related

Uses of monitoring results

- Amélioration des stratégies de surveillance et de contrôle<}75{> Improvement of monitoring and controlling strategies <0}
- {0>Révision du PSG<}100{> SMP review <0}

- {0>Elaboration du PSG<}100{>SMP drafting
- Improvement of conservation or management techniques
- Improvement of sensitization and education strategies, channels or methods

HCV4:<0> {0>Zones qui fournissent des services environnementaux fondamentaux dans des conditions critiques (ex :<}0{> Areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control) <0}

Identification

Attributes

Identification of HCV4 consist of answering the question: which areas within the community forest are providing environment services (eg: spring protection, watershed protection, erosion control, etc) or are basic for critical situations? Answering this question, stakeholders identified the following attributes:

- Protection areas for watercourses and springs are generally forests
- Erosion control areas are also forests or savannahs,
- Wildfire control areas include {0>Forêts<}100{>forests, <0}{0>Brise vent<}0{>wind breaks <0>and {0>Espèces ignifuges<}50{>fireproof species
- Watershed protection areas include {0>Forêts galerie<}84{>gallery forests, riparian forests and <0}{0>Forêts à fortes pentes<}59{>steep slope forests
- Shade-providing areas are generally riparian forests

When possible, composition of those ecosystems should be defined in terms of animal and plant species encountered.

Location

- Name of places where identified areas are encountered;
- GPS coordinates of identified areas
- Maps of distribution of identified areas

Management

Threats

Main threats identified by stakeholders as follows:

- Timber harvesting <0>
- {0>AISB<}100{>Slash and burn agriculture
- Infrastructure development (roads, bridges, houses, ...);
- Clearing for agriculture purpose

Management/Conservation techniques or strategies

- Complete ban i.e integral/wholly protection <0>
- {0>Patrouilles de surveillance et de contrôle<}100{>Monitoring and control patrols <0>
- {0>Sanctions et répression<}100{>Punishment and sanctions against law breakers
- Regulation of {0>Réglementation des activités<}0{>activities <0>

- {0>Sensibilisation<}0{> Education and sensitization of stakeholders, mainly local communities <0}
- {0>compensation<}0{> Compensation through PES
- {0>Partage équitable des retombées<}0{> Fare sharing of benefits

Monitoring

Monitoring Parameters

- Destroyed area natural or human related <
- {0>Espèces exploitées<}100{> Biodiversity in terms of plant and animal species encountered within the areas <0}
- {0>Activités et acteurs<}100{> Activities in areas surroundings and actors related

Uses of monitoring results

- Improvement of monitoring and controlling strategies <0}
- {0>Révision du PSG<}100{> SMP review <0}
- {0>Elaboration du PSG<}100{> SMP drafting
- Improvement of conservation or management techniques
- Improvement of sensitization and education strategies, channels or methods

HCV5: Areas fundamental to meeting basic needs of local communities (eg. subsistence, health, income-generating activities)

Identification

Attributes

Identification of attributes of HVC 5 is answering the following questions: What are basic needs of local communities of the forest under management? What is found in the forest under management and that fulfill those needs. Answering those questions, stakeholders identified the following attributes related to HCV5:

- Non Timber Forest Products (NTFP)
- Bushmeat
- Fish
- Medicinal products
- Fuel woods or wood for charcoal
- Timber
- Watershed
- Land
- Ecotourism

The first six attributes should be described through a list of species used by local communities. Areas covering watersheds should be described as well as land use tenure.

Location

Location includes areas where identified attributes are found within the community forest and could be presented as follows:

- Identification Développement des alternatives socio-économiques (micro projets...)
- Identification; development of social and economic alternatives (micro-projects...)
- Partenariats (lobby)
- Partnerships (lobbying)
- Renforcement des capacités de gestion des conflits
- Capacity building of the management committee on disputes/conflicts management, institutional organization,
- Capacity building of local communities on charcoal-producing techniques for better yield, organizing groups, market research, partnership agreements.
- Stakeholders (organized groups, market access, partnership agreements.....)
- Improving (communication) infrastructure
- Developing ecotourism track and tours
- Organizing and training of local communities on ecotourism
- Considering and promoting local knowledge (culture...)

Monitoring

Monitoring Parameters

- Species encountered on tours (inventory, available stocks, local priorities, behaviors, and habits)
- Valeurs écotouristiques les plus demandés
- Circuits développés
- Acteurs (groupes organisés et formés, accords de partenariats...)
- Number of harvested species for each identified attribute
- Parcelles de plantations, agroforestières
- Number of forest plantation plots
- Méthodes de carbonisation
- Charcoal-producing techniques
- NTFP and wood Harvesting techniques
- Fished species
- Trading and market networks as well actors for commercialized products
- Acteurs
- Méthodes et lieux de pêches
- Fishing techniques and areas

Uses of monitoring results

- Improvement of monitoring and controlling strategies
- Révision du PSG
- SMP review
- Elaboration du PSG
- SMP drafting
- Improvement of conservation or management techniques
- Improvement of sensitization and education strategies, channels or methods

Areas critical to local communities' traditional cultural identity: areas of cultural, ecological or religious significance for local communities

Identification

Attributes

Identification of HCV5 attributes is to answer the following question: what areas found within the community forest have cultural, religious, ecological and other significance for local communities? Answering this question, stakeholders identified areas with ecological, cultural, religious or historical significance for communities that one could find within a community forests. These areas or sites could be:

- Mangroves and areas protecting water sources,
- Slaves routes, historical monuments, graves, ancient villages, caves ;
- Sacred forests, Relics and religious vestiges.

For the HCV process, these areas, sites, monuments, should be identified within the community forest and listed.

Location

Identified attributes could be presented as follows:

- Name of places where identified attributes are found;
- GPS coordinates of identified attributes location
- Participative maps showing the location of all identified attributes

Management

Threats

The following issues have been identified as threats for Mangroves:

- Unregulated extraction of resources (timber, fish, and sand, etc.)<0>
- Agriculture industrielle,<54>Industrial farming <0>
- Braconnage, <89>Poaching <0>
- AISB,<100>Slash & burn agriculture <0>Absence de règlement sur la gestion des mangroves<0>Lack of regulation on mangrove management <0>
- Infiltration des étrangers (Nigeria, ...)<0>Foreigner's infiltration (from Nigeria, Benin, Mali, ...) <0>

Other areas for ecological, cultural, historical and religious significance for local communities are threatened by:

- Timber harvesting,
- slash & burn agriculture) <0>
- Acculturation <0>Acculturation <0>
- Développement des infrastructures<47>Building infrastructure <0>
- Brassage culturel<0>Cultural mixing

Management/Conservation techniques or strategies

For conservation and/or management of HCV6, stakeholders proposed the following management techniques or strategies:

- Integral ban/protection of identified attributes <0>
- Patrouilles de surveillance et de contrôle<100>Monitoring and control patrols <0>
- Organization of local communities
- Réglementation de la gestion de la faune, des ressources (halieutiques , fauniques, ligneux)<0>Regulation on wildlife, fishery and timber resources extraction <0>
- Sensibilisation, formation, information des acteurs<67>Stakeholders' sensitization, information, education and training <0>
- Partenariats<0>Partnerships <0>
- Reboisement<0>Reforestation <0>
- Développement des alternatives socio-économiques (micro-projets...)<89>Development of social and economic alternatives (micro-projects...)<0>
- Promotion of local knowledge
- Development of touristic tours

- Development of management and valorisation/promotion plan
- Research <0}
- Forbidden access to outsiders <0}
- {0>Réglementer la gestion et l'accès <0}> Development of regulations for Management and access of identified attributes
- Punishment and sanction<0} against laws and management regulations breakers

Monitoring

Monitoring Parameters

For the monitoring, the following parameters could be following up:

- destroyed areas within protected sites,
- harvested species,
- activities and actors related,
- sensitized actors (numbers, location,...).

Uses of monitoring results

Results of the monitoring could be used to:

- Improve monitoring and controlling strategies
- Draft or review the review SMP <0}
- {0>Amélioration des politiques-<0}> Improve policies as well as education, information and sensitization

Way forward

The present draft of HCV process for community forests in Cameroon is the first one that has been submitted to stakeholders' consultation and will be discussed during a national workshop in July 2008.

Acknowledgement

We would like to thank:

- Participants who attended the January 30-31, 2008 workshop for their hard working
- FSC IC and FSC Africa for their support
- UNEP/GEF for funding
- Communities in BBCF and Copal for their active participation in the project implementation
- Ze Serge Cyrille (I) and Atinda Rosine Itua students from the University of Yaounde I for field activities implementation
- The University of Yaounde I<0} for the collaboration
- The DAAD (German Academic Exchange Office), Goettingen Alumni Network and CeTSAF (Center for Tropical Science in Agriculture and Forestry)-Goettingen for enabling to present HCV process during the summer school in Goettingen at attend the DBC CoP9 in Goettingen in May 2008.