

Parque Nacional Altos de Nsork  
Strategy Document

*A Consortium  
to Improve Natural Resource Governance and Management  
in the Monte Alen-Monts de Cristal CBFP Landscape*



## Parque Nacional Altos de Nsork Strategy Document

### I. Members and Roles of Planning Team

Name	Title & Organization	Role
Francisca Eneme	Directora, INDEFOR	Director of the government agency with the former legal responsibility and the current technical capacity to manage the national system of protected areas.
Santiago Biyane Mba	Jefe, Sección de Medio Ambiente, Delegación Regional, Ministerio de Pesca y Medio Ambiente, Bata	Local representative of the Ministerio de Pesca y Medio Ambiente which has current legal responsibility for managing the national system of protected areas.
Domingo Mbomio	Tecnico, ECOFAC/ANDEGE	ANDEGE lead for developing a management plan for PNAN
Candido Obama	Conservador de Parque Nacional Altos de Nsork, INDEFOR	Chief field representative of INDEFOR for PNAN with responsibility for developing and implementing its management plan.
Roberto Ncogo	Jefe, Departamento Cartográfico, INDEFOR	Chief of INDEFOR's GIS lab and responsible for developing coverages of the national system of protected areas and managing all spatial data.
Benito Mba	Técnico sociólogo, INDEFOR/ANDEGE	ANDEGE socio-economic research in PNAN buffer zone communities
Ángela Mang	Técnico sociólogo, INDEFOR/ANDEGE	ANDEGE socio-economic research in PNAN buffer zone communities
Diodado Obiang	IUCN/CARPE, Jefe Departamento Forestal, INDEFOR	IUCN/CARPE focal point for EG, ANDEGE member, field botanist and forester
Unnamed	Presidente/Vice-Presidente de Aconibe	Representative of village in PNAN buffer zone
Unnamed	Presidente/Vice-Presidente de Mindong	Representative of village within PNAN buffer zone
Christopher Kernan	Country Director, Conservación Internacional	Responsible for developing and implementing CI's program of conservation activities in EG; providing technical advice to INDEFOR, ECOFAC, and the Ministry of Pesca y Medio Ambiente

## II. Information/Data Gathering

### a. Physical

Category	Existing	Needed	Strategy for acquisition
PNAN boundaries	PNAN boundaries exist in GIS;		
Satellite imagery	2004 Landsat image available, heavily clouded	Cloud free recent imagery Radar imagery for topographic map	2009: Include purchase of recent imagery in 2009 INDEFOR project funding request to GoEG.
Rivers, streams, lakes, water courses	Mapped in GIS, partially verified in the field	Verify water bodies and watercourses in the field.	2009-2010: Visual interpretation of remote-sensed imagery 2009-2010: Ground-truthing of visual interpretation
Roads	Mapped in GIS, verified in the field	Update reflecting recent road construction	2008-2010: field verification with handheld GPS as part of INDEFOR/ANDEGE field missions.
Foot trails	Lacking	Map in GIS of currently used foot trails within PNAN;	2009-2010 INDEFOR/ANDEGE maps foot trails in PNAN with handheld GPS.
Buffer zone	Lacking	Buffer zone formally defined and its location mapped in GIS.	2009-2010: ANDEGE, working with INDEFOR Cartography Department, maps buffer zone in GIS.
Buffer zone villages	Mapped in GIS, verified in the field		

## b. Biological

Category	Existing	Needed	Strategy for acquisition
Terrestrial animal biodiversity	<ul style="list-style-type: none"> <li>No recent studies;</li> <li>Past studies are uneven quality;</li> <li>Data not organized and analyzed to create a monitoring baseline;</li> </ul>	<ul style="list-style-type: none"> <li>Population surveys of PNAN indicator species: gorilla, chimpanzee, elephant to create a monitoring baseline;</li> <li>Population surveys of IUCN Red List species to create a monitoring baseline;</li> <li>Population surveys of other primates and large mammal species to create a monitoring baseline;</li> </ul>	<ul style="list-style-type: none"> <li>2009-2011: CI/ANDEGE lead baseline population surveys of indicator species in PNAN;</li> <li>2010-2011: CI-GoEG ministries implement the monitoring program called for in Estrategia;</li> <li>2010-2011: GoEG implements National Biodiversity Institute to coordinate and organize biodiversity data;</li> </ul>
Terrestrial plant biodiversity	<ul style="list-style-type: none"> <li>CUREF completed a vegetation map of Río Muni that covered the area of PNAN; a 1980s FAO forest inventory included the area of PNAN;</li> <li>there have been no recent vegetation studies and no evaluation of the impact of logging that took place within the PNAN boundaries before the park was decreed</li> </ul>	<ul style="list-style-type: none"> <li>Botanical surveys;</li> <li>Plant community definition and mapping;</li> <li>Forest inventory and structure survey;</li> </ul>	<ul style="list-style-type: none"> <li>2009-2011: CI/ANDEGE leads botanical surveys in PNAN;</li> <li>2009-2011: CI/ANDEGE/INDEFOR carries out plant community mapping and field verification in PNAN;</li> <li>2010-2011: MdeAyB leads forest inventory of PNAN;</li> </ul>
Freshwater biodiversity	<ul style="list-style-type: none"> <li>Almost no data;</li> </ul>	<ul style="list-style-type: none"> <li>Basic taxonomic freshwater survey;</li> <li>identification of critical and keystone species;</li> <li>ecological characterization of freshwater communities</li> </ul>	<ul style="list-style-type: none"> <li>2009-2010: ANDEGE carries out exploratory surveys with IUCN/CARPE funding;</li> <li>2010-2011: comprehensive FW baseline survey of PNAN as part of EG national biodiversity research program called for in Estrategia;</li> <li>2011: Implement FW monitoring for adaptive management;</li> </ul>
Landscape ecological processes	<ul style="list-style-type: none"> <li>Migratory movements of many large vertebrates take place (elephants, buffalo, etc.) but their routes are undocumented;</li> <li>Raffia palm forests are known to be critically important for elephants but their status and location undocumented;</li> <li>Hydrologic dynamics unknown;</li> </ul>	<ul style="list-style-type: none"> <li>Map of the movements of elephants and other large vertebrates involving PNAN;</li> <li>Map of Raffia swamps;</li> <li>Seasonal and spatial hydrological patterns in PNAN;</li> <li>Description of key processes of PNAN forest dynamics and regeneration;</li> <li>Identification and mapping of key PNAN ecotones;</li> </ul>	<ul style="list-style-type: none"> <li>2009-2010: CI/ANDEGE maps likely PNAN migratory corridors based on information gathered in indicator species surveys;</li> <li>2009: ANDEGE/INDEFOR maps and ground-truths location of Raffia in/near PNAN and makes status assessment;</li> <li>2010-2015: CI/ANDEGE field studies of PNAN/ regional hydrological dynamics;</li> <li>2010-2015: CI/ANDEGE field studies of</li> </ul>

	<ul style="list-style-type: none"> <li>• Forest regeneration processes unknown for PNAN;</li> </ul>		PNAN forest dynamics;
Threats to biodiversity	<ul style="list-style-type: none"> <li>• Unsustainable hunting, agriculture, timber harvesting are acknowledged threats to PNAN biodiversity;</li> <li>• There has been no recent systematic analysis and/or mapping of PNAN threats;</li> <li>• Impact on PNAN of recent economic changes in EG is unknown;</li> </ul>	<ul style="list-style-type: none"> <li>• Identification and mapping of current threats to PNAN biodiversity;</li> <li>• Socio-economic understanding of the contexts of each of these conservation threats;</li> </ul>	<ul style="list-style-type: none"> <li>• 2009-2010: CI/ANDEGE completes participatory CAP analysis of PNAN;</li> </ul>

c. Socio-economic

Category	Existing	Needed	Strategy for acquisition
Stakeholder identification and characterization	<ul style="list-style-type: none"> <li>• Some anecdotal socio-economic knowledge among Guinean technical staff;</li> <li>• Little quantitative data about PNAN stakeholders;</li> <li>• Little analysis of PNAN stakeholder dynamics;</li> <li>• No analysis of socio-economic linkages to PNAN biodiversity status;</li> <li>• No spatial analysis of PNAN stakeholder activities;</li> <li>• Insufficient data for PNAN socio-economic monitoring baseline</li> </ul>	<ul style="list-style-type: none"> <li>• Identification of the stakeholder groups with key roles in influencing natural resource use activity</li> </ul>	<ul style="list-style-type: none"> <li>• CI, INDEFOR, and ANDEGE collaborate on completing CAP situation-stakeholder analysis for PNAN including facilitated community workshops in PNAN buffer zone</li> </ul>
Economic activity mapping	<ul style="list-style-type: none"> <li>• Little systematic information mapping of current economic activity within PNAN or its buffer zone;</li> <li>• Locations of current timber harvesting activity is undocumented;</li> <li>• No maps of natural resource use in PNAN buffer zone villages;</li> <li>• No maps and other documentation of agricultural activity in PNAN buffer zone;</li> <li>• No quantitative information about the location and extent of wildlife damage to agriculture in PNAN buffer zone;</li> </ul>	<ul style="list-style-type: none"> <li>• Spatial analysis of PNAN economic activities in PNAN and its buffer zone;</li> <li>• Maps of timber harvesting, agriculture activity; NTFP use, etc.;</li> <li>• Quantitative and spatial analysis of wildlife damage to agriculture in PNAN buffer zone;</li> </ul>	<ul style="list-style-type: none"> <li>• 2009-2015: CI, INDEFOR, and ANDEGE collaborate on GIS verified village resource mapping in PNAN buffer zone communities;</li> <li>• 2009-2010: CI/ANDEGE/INDEFOR Cartography Department collaborate on socio-economic field research to document the locations and intensity of timber and NTFP harvesting (including bushmeat) within PNAN and its buffer zone;</li> <li>• 2009-2010: CI/ANDEGE field research documents wildlife damage to agriculture in PNAN buffer zone;</li> </ul>
Identification of threats to biodiversity	<ul style="list-style-type: none"> <li>• Most threats identified for PNAN are generalizations from other areas;</li> <li>• Specific PNAN threats undocumented with local data;</li> <li>• Locations of PNAN-specific</li> </ul>	<ul style="list-style-type: none"> <li>• Locally collected data that document PNAN threats;</li> <li>• Maps of the locations of PNAN threats;</li> <li>• Data that measures the intensity of PNAN-specific threats;</li> <li>• Data and analysis of the socio-economic context</li> </ul>	<ul style="list-style-type: none"> <li>• 2009-2011: CI/ANDEGE collect and analyze data on PNAN threats;</li> <li>• 2009-2010: CI/ANDEGE/INDEFOR map the locations of PNAN threats;</li> <li>• 2009-2012: CI/ANDEGE/INDEFOR collect and analyze data on the socio-economic</li> </ul>

	<p>threats unmapped;</p> <ul style="list-style-type: none"> <li>• Intensity of PNAN-specific threats unmeasured;</li> <li>• Socio-economic drivers of PNAN-specific threats un-analyzed;</li> </ul>	of PNAN threats;	origins of PNAN threats;
Institutions	<ul style="list-style-type: none"> <li>• Roles of MdePyMA, MdeAyB, INDEFOR, and INAP in PNAN management are unclear;</li> <li>• Roles of conservation NGOs such as ANDEGE and CI in PNAN management unclear and untested;</li> </ul>	<ul style="list-style-type: none"> <li>• Clear listing and characterization of all institutions and organizations in the government sector, private sector and non-profit sector with activities bearing on biodiversity in PNAN;</li> <li>• Clear GoEG policy for the role of national and international conservation NGOs developed and endorsed by GoEG;</li> </ul>	<ul style="list-style-type: none"> <li>• 2008: CI/ANDEGE complete an an institutional analysis of environmental sector institutions that identifies conflicts, gaps, confusions, etc. and recommends solutions;</li> <li>• 2009: CI/ANDEGE hold a series of seminars to present the results of its institutional analysis to relevant ministries and to develop a roadmap to resolve conflicts;</li> </ul>
Legal	<ul style="list-style-type: none"> <li>• National Biodiversity Strategy, Forestry Law, Environmental Law exist;</li> <li>• These and earlier laws contain conflicts, confusions, and contradictions;</li> </ul>	<ul style="list-style-type: none"> <li>• Systematic reconciliation of environmental sector laws and regulations;</li> <li>• Compilation of all existing environmental laws in electronic and printed forms; Analysis and clarification of laws and clauses in force; Identification of conflicts; Recommendations for resolving conflicts</li> </ul>	<ul style="list-style-type: none"> <li>• 2008: CI contracts with ANDEGE systematic compilation of EG's environmental sector laws;</li> <li>• 2008-2009: CI contracts with ANDEGE to compile laws, provide an analysis of conflicts, and provide recommendations to resolve conflicts;</li> <li>• 2009: CI/ANDEGE organize and hold technical workshop with all ministries and agencies participating to review existing laws, present conflicts, present recommendations for resolution, prepare legal documents for decrees creating key coordinating mechanisms;</li> <li>• 2009-2011: CI/ANDEGE, in collaboration with GoEG ministries prepare technical and legal documents needed to issue regulations and modify laws in order to rationalize EG environmental sector laws;</li> </ul>

### III. Creating a Public Participation Strategy

The PNAN public participation strategy will engage with stakeholders in two ways: 1) engagement by participation in the analysis of conservation targets, current ecological disruptions stressing those targets, and the identification of the human activities that cause such stresses, and the analysis and identification of the human socio-economic groups that carry out these stress-causing activities; and 2) engagement with the human socio-economic groups carrying out stress-causing activities through a conservation strategy to lessen the ecological stress by modifying their behavior.

The first category of engagement seeks participation from the public as a source of information, knowledge, analysis, and consensus. For example, facilitated workshops with technical participants – biological researchers, ministry technical staff, park guards - are often the best source of detailed information about conservation targets and their current ecological status and the most critical group in reaching a technical consensus on the optimal conservation management focus. Community workshops are useful for collecting and analyzing information about the human socio-economic activities that are causing ecological stresses on biodiversity and as part of developing a consensus among stakeholders about the need and the nature of an intervention. Both can be usefully involved in analyzing potential conservation strategies to modify stress-causing human activities.

Planificación para Áreas de Conservación (CAP) methodology, developed by The Nature Conservancy and widely accepted in Latin America as a standard for site-level conservation planning, will be the methodological framework for public engagement. Through CAP, the Planning team will systematically gather information from various sources including documents, expert interviews, and public meetings. The planning team will follow the CAP stepwise analysis: 1) information will be gathered, organized, and synthesized to identify a limited number of conservation targets that represent a conservation area's biodiversity; 2) the ecological health of these conservation targets will be assessed in terms of the current status of their key ecological attributes and field measurable quantitative indicators of the status of these attributes will be defined; 3) the current ecological health of all targets at a site will be combined for an estimate of the overall ecological health of PNAN; 4) human activities that contribute to the degradation to one or another key ecological attribute will be defined as "sources of stress" and will be assessed for their contribution to ecological stress faced by the conservation targets and the irreversibility of their impact; 5) the rankings of all sources of stress will be combined across all conservation targets to give a ranking of sources of stress for PNAN; 6) the socio-economic context of the sources of stress human activities will be analyzed using situation diagrams and discussed in public participatory workshops to identify key socio-economic groups and key activities influencing the source of stress; and 7) potential conservation strategies will be identified and analyzed for the location of the intervention and their potential to influence the pathways, socio-economic groups, and activities represented in the situation diagram.

The Planning Team's use of CAP will be an iterative process. The Planning Team accepts that method will yield conservation hypotheses that must be tested by application and field monitoring of the key ecological attribute indicators, and refined by iteration



and adjustment. The Planning Team will emphasize the role of socio-economic analysis as an integral part of the methodology and will use situation-stakeholder diagrams elaborated with the participation of the stakeholders themselves. The Planning Team will develop the situation diagrams through facilitated discussions in public meetings and through individual interviews where more appropriate. The Planning Team accepts that participatory development of a graphical representation of the socio-economic context creating impacts on biodiversity creates a common understanding useful for reaching a consensus and agreement on conservation interventions. High priority conservation interventions, the human and non-human resources necessary to implement them, and a schedule of implementation are the foundation of a management plan.

The PNAN public participation strategy includes the involvement of local communities, stakeholder groups, the private sector, the NGO community and the government in management plan implementation. The nature of each group's involvement will be developed in part using CAP situation diagramming carried out in community meetings and with stakeholders. These diagramming sessions will be important in explaining the interventions to affected groups, establishing an understanding about the reasons for the interventions, and recruiting participation in their implementation.

#### **IV. Strategy for Formal Recognition of PNAN Management Plan**

- The MdePyMA and MdeAyB have joint legal responsibility to develop a management plan for PNAN.
- MdePyMA has the legal authority to approve protected areas management plans.
- MdeAyB, through INDEFOR, has technical staff with the capacity to prepare a PNAN management plan.
- Neither MdePyMA nor MdeAyB have the financial resources budgeted for developing a management plan for PNAN.
- CI and Guinean NGOs such as ANDEGE can provide technical support to MdePyMA and MdeAyB to develop a PNAN management plan.
- The strategy to gain formal recognition of a PNAN management plan is: 1) provide technical support for the creation of a PNAN management plan; 2) continue field research activities in PNAN so that a management plan can be based on credible and current biological and socio-economic data; 3) hold stakeholder workshops in the communities of PNAN to understand their interests and elicit their management suggestions; 4) prepare a draft PNAN plan working closely with MdeAyB and MdePyMA; 5) carry out a public education/sensitization campaign to introduce the draft PNAN management plan and its objectives to a broad range of PNAN stakeholders; 6) prepare a final PNAN management plan in collaboration with technical staff of MdePyMA and MdeAyB that meets the legal and technical format required for presentation by MdePyMA for internal GoEG approval; 7) support formal ministerial approval of the PNAN management plan.
- FY09 tasks in support of this strategy include: 1) frequent contacts with MdePyMA, MdeAyB, and other ministries to support the process of creating PNAN; 2) biological and socio-economic field research to establish the information needed to develop a credible PNAN management plan; 3) stakeholder workshops in the communities of PNAN to understand their interests and elicit their management suggestions; 4) a public sensitization campaign in the PNAN buffer zone to introduce and explain the

purpose of PNAN; and 5) preparation of a draft PNAN management plan. ANDEGE, supported by a CARPE sub-grant, is the lead NGO for these FY09 tasks.

- The FY09 benchmark is for the PNAN management plan to be 100% designed.
- FY10 benchmark will be for a PNAN management plan to be in appropriate legal and technical format for internal GoEG review.
- The 5-year benchmark for formal recognition of a PNAN management plan is to have a PNAN management plan fully developed through collaboration with the technical staff of MdePyMA and MdeAyB. Formal recognition of the PNAN is dependent on a decree creating PNAN and this is a political process beyond the control of the consortium.

## V. Vision and Objectives for PNAN

Desired state for the Parque Nacional Altos de Nsork	
Biodiversity	1) No species native to PNAN go extinct
	2) All natural habitats/ecological communities within PNAN are identified and protected/maintained
	3) All PNAN ecological processes are identified and protected/maintained
	4) PNAN has an active program of field research in biodiversity
	5) PNAN biodiversity information is accurate, current, and accessible in a GIS and other appropriate formats
	6) PNAN conservation and management priorities are identified through a scientifically informed analysis
Socio-economic	1) PNAN has accurate, current, and accessible socio-economic information available about human communities in its periphery and other stakeholders
	2) PNAN makes a contribution to traditional and artisanal livelihoods and to small-scale local industry.
	3) All exploitation of natural resources within PNAN is environmentally sustainable.
	4) the economic benefits from the exploitation of natural resources within PNAN is equitably distributed among appropriate local communities and stakeholders.
	5) The local, national, and global public is aware of the biodiversity, economic, and social values of PNAN
	6) PNAN management proactively addresses the impact of wildlife on PNAN agriculture
	7) PNAN management planning and implementation involves extensive participation of local communities and stakeholders
Governance	1) PNAN is supported by clear national biodiversity policy
	2) PNAN is supported by a legislatively established streamlined administrative structure, with clearly defined and accepted ministerial and agency responsibilities
	3) Local communities and key stakeholders are actively and meaningfully involved in PNAN governance
Natural resource management	4) PNAN has reliable access to sufficient financial resources to maintain effective management and protection
	1) PNAN management is guided by a scientifically based, focused, pragmatic, and adaptively flexible plan
	2) PNAN has the appropriate number of well-trained staff to implement effective management
	3) PNAN has appropriate infrastructure to implement effective management
	4) PNAN staff are adequately and appropriately equipped to implement effective management
	5) PNAN carries out a systematic and clear monitoring program to enable adaptive management

Objectives for Parque Nacional Altos de Nsork
1) To establish an accessible body of accurate and current biodiversity information immediately useful to protect and manage PNAN biodiversity and appropriate for establishing a monitoring baseline for adaptive management
2) To establish an accessible body of accurate and current socio-economic knowledge to effectively manage human activities negatively impinging on PNAN biodiversity and appropriate for establishing a monitoring baseline for adaptive management
3) To recruit, train, equip, and support staff capable of implementing PNAN biodiversity protection activities
4) To build a program of public awareness and education about the landscape's biodiversity, economic, and social values that reaches local, national, and global audiences
5) To acquire planned PNAN infrastructure and major equipment.
6) To establish a legal and policy environment for PNAN that is clear and supportive of protecting PNAN biodiversity
7) To establish stable and sufficient sources of funding for PNAN
8) To help establish and participate in streamlined government administrative structures for protected areas management.
9) To regularly revise and update the PNAN management plan based on biological and socio-economic monitoring programs, with the participation of local communities and stakeholders, and meeting high international standards.
10) To implement a program of support and participation in private sector and NGO activities that encourage biodiversity-compatible alternative livelihoods that benefit local communities

## VI. Elaboration of a Implementation Plan for PNAN

- The Guinean NGO ANDEGE will take the lead in developing an implementation plan for PNAN. ANDEGE will develop an implementation plan supported by a CARPE sub-grant.
- An implementation plan based on credible information and elaborated by ANDEGE with participation from local communities and government agencies will be a benchmark for FY10.
- The 5-year benchmark will be a fully elaborated PNAN implementation plan delivered to the MdePyMA in the appropriate legal and technical format for internal GoEG review and approval.

## VII. Creation of Monitoring Plan for PNAN

### Biological monitoring of indicator species

- The currently available biological information for PNAN does not allow credible conservation planning at a micro-zone scale within PNAN or its buffer zone. Because there is no baseline reference, adaptive management is not possible. An early objective in creating a monitoring plan for PNAN is to collect baseline data to establish a monitoring reference.
- The strategy for accomplishing this is to carry out biological field research focused on: 1) the population abundances and distributions of landscape indicator species found in PNAN: gorillas, chimpanzees, and elephants; and 2) a basic freshwater species and freshwater community survey that will also help define and set a baseline reference for appropriate freshwater monitoring.
- FY09 tasks contributing to this strategy include 1) a population survey of great apes and elephants in Río Muní (including PNAN) accomplished through a collaboration that includes ANDEGE, UNGE, MdeAyB, and the MdePyMA.
- The 5-year benchmark is to have in place in PNAN a monitoring program enabling adaptive management for all regional indicator species present in PNAN based on a credible baseline reference.

### Vegetation monitoring

- As with indicator species, currently available vegetation information for PNAN does not allow credible conservation planning at a micro-zone scale. The last forest inventory of PNAN was done in the late 1980s, the last vegetation maps were done in the mid-1990s; there is no record of the forest and vegetation changes that have taken place as a result of logging within PNAN before it was decreed a national park; there is no record of what has happened since logging stopped ten years ago. No maps of vegetation cover or deforestation derived from remote-sensed data have been credibly ground-truthed. Because there is no baseline reference, adaptive management of the forest and forest resources is not possible. An early objective in creating a monitoring plan for PNAN is to collect baseline data to establish a vegetation monitoring reference.
- The strategy for accomplishing this is to: 1) carry out vegetation field research focused on establishing ground-truthing plots to interpret remote-sensed data; 2) establish forest inventory plots to establish the species composition and structure of the forest in logged and unlogged areas; 3) use these data to update the mid-1990s vegetation maps with current information on the extent and location of deforestation and forest degradation. These maps will establish a baseline for forest and vegetation monitoring and adaptive management that can be monitored with remote-sensed imagery.
- FY09 tasks that contribute to this strategy include establishing ground-truthing plots in PNAN as a deliverable of ANDEGE's CARPE sub-grant.
- The 5-year benchmark is to establish within PNAN a network of permanently located vegetation plots distributed to provide ground-truthing for remote-sensed data at a resolution useful for credible adaptive management of PNAN vegetation and forests.

#### Socio-economic monitoring

- As with monitoring, PNAN suffers from having been neglected by past studies the most recent of which mostly were in the late 1990s. With the rapid growth and transformation of EG's economy in the last 10 years, such socio-economic information is out-of-date and consequently unreliable for current planning that affects people and communities within PNAN.
- A first objective for creating a monitoring plan for PNAN that includes socio-economic monitoring is to establish a credible baseline of information about the current socio-economic status of communities, people, and economic sectors in the buffer zone of PNAN.
- After establishing a socio-economic baseline, the objective will be to develop a program of routine data collection to detect socio-economic changes, particularly the positive or negative impacts of natural resource management activities in PNAN and its periphery.
- The strategy to accomplish these two objectives is: 1) train technical staff within the appropriate ministries and Guinean organizations to design and carry out socio-economic field research; 2) support these trained technical staff in carrying out socio-economic field studies focused on establishing simple quantitative measures of the current socio-economic status of PNAN buffer zone communities, people, and economic sectors, particularly as it relates to the use of forest resources; 3) continue socio-economic field studies to remeasure quantitative parameters of socio-economic status of PNAN communities, people, and economic sectors as part of adaptive management.

- In FY08 MdeAyB technical staff and ANDEGE received training in socio-economic field methods from Dr. Josefin Demmer, a consultant to ECOFAC. In FY09 ANDEGE will continue socio-economic field studies in the PNAN buffer zone as one of the activities in their CARPE sub-contract with CI, benefiting from their recent training. These socio-economic field studies will continue until a credible socio-economic baseline is established.
- The 5-year benchmarks are: 1) to establish a credible socio-economic baseline for PNAN with appropriate quantitative measures of the socio-economic status of PNAN buffer zone communities, people, and economic sectors; 2) to establish an active program of socio-economic monitoring that is producing data for adaptive management in PNAN.