

# IMPLEMENTATION COMPLETION MEMORANDUM (ICM)

TF Name: Biodiversity Conservation and Community Natural Resource Management Project in the Nanay River Basin

TF Number: GEF – MSP – TF028672

Report Date: Report Completed on: June 6, 2005

Program: GEF Medium Sized Program (MSP)

Net Grant Amount: \$ 748,305.00

Donor(s): Global Environmental Facility

Approval Date: September 2001

Closing Date: July 2004

## A. GRANT OBJECTIVES

### Original Statement of Grant Objectives

*Provide original statement of objectives from the approving grant or cleared IBTF*

The objective of the grant is to contribute to the conservation of the unique and globally important biological diversity of the upper and middle Nanay River Basin (NRB) through the adoption of sustainable natural resource management practices, diversification of economic options by local stakeholders, and the consolidation and management of protected areas. The specific objectives of the project include:

- 1) Contribute to the conservation and sustainable use of the unique biodiversity of the NRB through the direct and indirect participation of key stakeholders;
- 2) Contribute to the conservation through the active and participatory planning and monitoring of the natural resources;
- 3) Test and validate alternative sustainable management practices in the Nanay River Basin to reduce pressure on natural resources;
- 4) Develop monitoring and evaluation techniques for natural resources by the local communities;
- 5) Develop biodiversity inventories, zoning, and maps of ecologically critical zones.

### Changes to Grant Objectives

*If original objectives have been changed, explain the nature of the revisions and the justification for them.*

The grant's objectives have been consistent through project implementation.

### Achievement of Grant Objectives

*Discuss and rate the extent to which the activity achieved its relevant objectives.*

The project was successful in achieving the grant's objectives by promoting a conservation of the unique biodiversity and by reducing the pressure on the natural resources. The project successfully contributed to the certification of forestry permits for communities in the river basin, and a monitoring and evaluation system has been developed in the communities. This system has revealed that illegal exploitation of natural resources has been curtailed and gold dredging has ceased in the basin. Likewise, illegal fishing has decreased compared to the baseline, indicating that the adoption of alternative uses of natural resources in the project's area has been successful.

The objectives of the grant have been met **satisfactorily**.

## **B. OUTPUT**

### *Achievement of deliverables*

*1. Discuss and rate the actual output or deliverables completed, compared to the expected output, for each component of the grant.*

The grant activities were comprised by the following four project components:

1. Legal, Policy, and Management Tools;
2. Strengthening Institutional Capacity for Biodiversity Conservation;
3. Diversification of Sources of Income;
4. Collection and Dissemination of Biodiversity Data; Monitoring and Evaluation of the Project.

Below is a short description of the expected and actual outputs associated with each component.

### **(1) Legal, Policy, and Management Tools**

This component aimed at the development of specific tools for the creation of a protected area in the Nanay river basin, promoting policies and natural resource management practices that ensure conservation of the biodiversity of the area.

#### **Expected Outputs:**

- a) Development of zoning and mapping of ecological and economic zones;
- b) Community adaptive management plans for key natural resources<sup>1</sup>
- c) Proposal to establish a new protected area (community reserve) for the Upper Nanay River, promoted by the communities involved;
- d) Categorization of the Allpahuayo Mishana National Reserve (RNAM);

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<sup>1</sup> These natural resources plans are mainly for: *irapay* palm, round wood, sawn timber wood, *ungurahui*, medicinal fibers, barks, wild fauna, and key fisheries.

- e) Development of a Master Plan for the RNAM and its corresponding dissemination among key stakeholders; and
- f) Development of an integral conservation strategy (and preliminary integrated outlook through to 2012) for land use in the middle and upper Nanay river basin;
- g) Participatory evaluation of socio-economic conditions and resource management practices in the basin;

The project has contributed to the zoning of the river basin and to the development of cartography and thematic maps of the region, characterizing the key ecological regions and the zones prone to economic activities along the river basin. The project also developed specific adaptive plans for the management of key natural resources in 27 communities in the river basin. For instance, three communities now have forestry management plans and forestry permits. Forestry management plans for three other communities are being processed and are about to be approved, along with *irapay* palm tree management plans for 12 additional communities. These outcomes exceed the initial target indicators of the project<sup>2</sup>.

Among the key policy and legal outputs developed under the project are (i) the establishment of *Allpahuayo Mishana* as a National Reserve; (ii) the approval of the reserve's master plan<sup>3</sup> (which was discussed and agreed upon with communities, zonal and management committees, and other stakeholders in Iquitos through 25 workshops, endorsed by INRENA); (iii) the enactment of regional ordinances declaring the Nanay River Basin a zone out-of-bounds for mining and activities that degrade the vegetation cover; (iv) a closed season for commercial fishing in the Nanay River Basin; and (v) a simplified set of rules governing the exploitation of community and local forests in the Loreto region. Another achievement was the exclusion of the Nanay River Basin forests from the Loreto regional forestry concessions program. Finally, under this component a Nanay River Basin conservation strategy was developed and approved through a series of participatory workshops, and the local population is currently working on a proposal to declare and convert the Upper Nanay River Basin into a protected area.

The outputs of this component are rated *Highly Satisfactory*.

## **(2) Strengthen Institutional Capacity for Biodiversity Conservation**

This component sought to strengthen and improve the capacity of local institutions and community groups to promote and guarantee a greater conservation of the River Basin's unique biological diversity.

### **Expected Outputs:**

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<sup>2</sup> The project's logical framework aimed at having "at least 10 communities with legally documented – managed areas under sustainable production systems"

<sup>3</sup> The approval of the reserve's master plan went through a participatory process whereby it was extensively discussed and agreed upon with communities, zonal and management committees, and other stakeholders in Iquitos through 25 workshops, all which were endorsed by INRENA.

- a) Institutional/organizational building through the establishment and functioning of two zonal committees (including an officially registered association of non-commercial fishermen), along with a Coordinating Unit for the whole river basin. Support to the establishment and operation of the Management Committee for the Allpahuayo Mishana National Reserve;
- b) Over 250 community leaders trained in participatory conservation, participatory monitoring and evaluation, legislation on natural resources and community organizations, conflict resolution techniques, and fulfillment of other project-related community tasks;
- c) Logistical support provided for the management and control of the territory and resources by the local communities in the basin;
- d) Support for the legal recognition of 14 rural communities (*comunidades campesinas*) and for the titling of their traditional territories;

The project contributed to the establishment of key local organizations such as the: (i) *Native and Small Farmer Communities Coordinator for the Nanay River Basin*<sup>4</sup>; (ii) the *Allpahuayo–Mishana National Reserve Management Committee*; and (iii) the *Diamante Azul Fishermen’s Community Association*, all of which are legally recognized. These organizations are still operating and contribute to the monitoring of the area’s biodiversity in addition to the conservation of its resources. Other management organizations currently being formed are in the process of applying for legal recognition. It is important to note that achieving an enhanced institutional capacity to manage protected areas through the organization and consolidation of Zonal Committees is a task that goes beyond the time frame and scope of the project. Nonetheless, the project has set in motion the establishment of key organizations, thereby contributing to greater cohesion among key stakeholders.

Through more than a dozen intercommunity workshops, the project has provided crucial training to community leaders regarding conservation techniques, participatory monitoring of biodiversity, and legal and institutional frameworks of natural resources management. These workshops were carried out with the participation of local assemblies and leaders from all parts of the basin through hands-on, experience-based training. The project also strengthened the logistical management through the purchase of key communications (including 14 radio equipment stations distributed among the participating communities). These equipments also enhanced monitoring and enforcement capabilities of the communities. The project contributed to the legal recognition of the 14 rural communities and to the titling of its traditional territories.

The outputs of the activities developed under this component are rated *Satisfactory*

### **(3) Diversification of Sources of Income**

This component sought to alleviate the pressure on natural resources in the Nanay River Basin from predatory economic activities practiced by both local communities and

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<sup>4</sup> Coordinadora de Comunidades Nativas y Campesinas de la Cuenca del Nanay; el Comité de Gestión de la Reserva Nacional Allpahuayo – Mishana; Asociación de Pescadores Comunitarios Diamante Azul.

outsiders through the testing, adoption and diversification of sustainable alternative economic activities.

### **Expected Outputs:**

- a) Testing and validation of sustainable resource management practices, including the promotion of at least 10 alternative productive activities.
- b) Elaboration of ten handbooks on alternative options for the sustainable management of natural resources and biodiversity in the NRB produced and distributed to users and communities in the basin.

The project contributed to the testing and use of alternative economic activities by local communities that are less degrading to the natural resources of the NRB. The project promoted alternative productive activities aimed at diversifying producers' sources of revenue, and not to depend on resources from predatory activities.

The project promoted and tested ten commercial alternatives in selected communities in the Nanay River Basin including: (i) *fish farming* for consumption and for ornamental purposes (40 ponds were built by 2004 in seven communities, 10 ponds built in 2003 have been actively harvesting fish); (ii) 25 *agroforestry systems* in five communities; (iii) arts and crafts (in five communities); (iv) production of *herbal medicines* (production centers were established in three communities, including the KINIÍ microenterprise which has standardized production of 10 herbal medicines); (v) production of oils and natural scents (such as *ungurahui* oil in seven communities); (iv) marketing of medicinal barks, herbs and plants (three communities); (vii) promotion of use of *irapay* palm leaves for roofing strips (*crisnejas*) (27 communities); (viii) processing of roundwood from white sand forests (*varillales*) (10 communities); (ix) wild fauna management (27 communities); and (x) sustainable processing of wood for timber mills (3 communities)<sup>5</sup>. The project also contributed to the elaboration of 14 handbooks and leaflets on the use of alternative uses of natural resources.

In view of the costs involved, these activities were promoted among a select group of families within the selected communities. However, due to time constraints, proper linkages to markets have yet to be established. It is expected that these linkages between producers and traders will be developed by the participating communities on their own beyond the scope of the project.

The outputs of this component are rated *Satisfactory*.

#### **(4) Collection and Dissemination of Biodiversity Data; Monitoring and Evaluation of the Project**

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<sup>5</sup> The whole Nanay River Basin has an extension of about 17, 507 km<sup>2</sup> (or roughly an area the size of Kuwait). There are 25,000 people scattered through the NRB (but mainly concentrated in the lower Nanay, close to Iquitos – the main market). The communities range in size and thus, it is difficult to ascertain the specific number of families that have participated from each community in this component.

This component aimed at improving data and research collection on the biodiversity of the NRB. It also sought to measure changes in the communities' behavior towards the use of natural resources and conservation of biodiversity by using key indicators to assess changes in the physical and environmental conditions of the project area.

### **Expected Outputs:**

- a) Establishment of indicators for monitoring the use and management of biophysical resources in the NRB;
- b) Establishment of indicators for monitoring the testing and adoption of alternative economic activities by local communities in the NRB;
- c) Project impact assessment; and
- d) Community natural resource evaluation (through a matrix applied in 15 communities).

The project developed biodiversity inventories for the upper and middle NRB. It also contributed to the periodic monitoring of environmental degradation of the natural resources, though some of the monitoring had limitations. For instance, due to high cost, measurements in the rate of deforestation in critical areas of the NRB using satellite images were not carried out (no such images were available from other institutions). However, this information was obtained through other sources (i.e. PROCLIM project), which determined a decline in deforestation in the area<sup>6</sup>. Monitoring activities also included the measurement of levels of heavy metals contamination from mining activities in the NRB. These levels were measured twice during the life of the project, and showed a decline in overall concentrations. While these are encouraging results, additional monitoring is required and these results are not to be conclusive. It was agreed that more time and efforts are needed for reliable measurement of changes in the levels of contamination in the area mainly through monitoring mercury pollution. The monitoring was carried out primarily by the communities, but was also complemented by INRENA and the ecological police<sup>[kcw1]</sup>.

Using a baseline and a matrix with specific criteria and indicators to monitor the evolution and degradation of natural resources in the NRB revealed the following trends during the lifetime of the project:

- Gold mining dredging ceased;
- Illegal extraction of wood for sawn timber decreased by 89%
- Illegal extraction of roundwood decreased by 82%
- Illegal extraction of wood for firewood and posts decreased by 77 %
- Illegal extraction of *irapay* palm decreased by 85%
- Informal fishing decreased by 73%

The project also established indicators for monitoring the testing and adoption of alternative economic activities by local communities in the NRB, as highlighted in the outputs section above (for component 3). The population ultimately developed the capacity to monitor and assess its own progress in project implementation. This was achieved through workshops and technical assistance in the interpretation of specific

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<sup>6</sup> It is worth noting that deforestation depends to a large extent on a series of external factors to the project.

indicators, baselines, and a matrix developed by the project for each community. Mechanisms were also developed to facilitate the flow of information among communities, thereby serving as a comparative basis. Today, as a result of these efforts, communities exercise greater control over their resources, assess the progress in the reduction of predatory activities, and are actively on the lookout for illegal and depredatory activities by outsiders. In spite of some limitations in this component mainly related to high costs of monitoring, there were some important outputs derived from these activities that reveal significant information on the evolution of natural resource management in the NRB and the impact of the project.

The outputs of this component are rated *Satisfactory*.

*2. Discuss and rate as to how well the grant output met the quality standards of the recipient and the beneficiary.*

The outputs produced under the grant met the quality standards of the recipient and the beneficiary and are rated as *highly satisfactory*.

The methodology developed by the grant for monitoring progress on natural resources, the research results, advances on the legal and institutional framework, and the piloting of alternative sources of income which do not degrade the environment are considered highly useful beyond the scope of the project. Those outputs are appreciated by the recipient institution (the Peruvian Amazon Research Institute – IIAP) and a wide range of beneficiaries and local communities since the information and mechanisms tested and developed promote an alternative approach and attitude towards biodiversity and natural resources in the NRB.

The World Bank received all the reports and project documentation as well as dissemination/promotional materials (slides, CDs, etc.) produced by the grant.

Overall, the dissemination process was successfully done through several channels, including radio, local newspapers, workshops, seminars, and through personal communication among community members.

*For activities where the output is a report or a dissemination event such as a workshop, conference, training, or study tour, discuss and rate the following aspects:*

*3. Quality 4. Presentation 5. Dissemination 6. Overall Success*

*Discuss and rate the overall success of the output or dissemination event*

### *3. Quality*

The quality of the documents, presentations, studies, reports, and handbooks was highly satisfactory. Considering that many communities do not read nor write, the materials were highly illustrative and sensitive to their local conditions.

### *4. Presentation*

The mode of presentation likewise was highly satisfactory in that it was sensitive to the local communities and often was presented in native languages. The presentations, particularly those delivered by IIAP were clear, concise, and targeted to the objectives sought.

#### 5. Dissemination

The dissemination efforts were developed through a specific strategy developed by IIAP, and were characterized as ongoing and efficient. These efforts included workshops (mainly done in the field), assemblies, seminars, videos, radio spots, and local newspapers. There was a series of capacity building and training activities based on the local conditions.

#### 6. Overall Success

Overall the dissemination, training and capacity building activities can be rated as **Highly Satisfactory**.

#### Attach Report or applicable document

Annex 1 summarizes the dissemination outputs and a summary of its impacts.

## **C. OUTCOME**

### 1. Achievement of developmental results

*Discuss and rate the actual developmental results, compared to the expected outcomes, for each component of the grant.*

#### **Expected Outcomes:**

- Adoption of conservation and sustainable development policies and legislation by state agencies for a rational management of natural resources along the NRB.
- Design and pilot a participatory approach for integral sustainable development for the Nanay River Basin, replicable to other areas in the Peruvian Amazon;
- Increase local institutional capacity to coordinate local efforts in conservation of natural resources;
- Engage local communities along the NRB to gradually become the key element in charge of biodiversity conservation, motivated by their change in environmental awareness, behavior, and through the benefits they obtain from it;
- A better understanding of the importance of the biodiversity along the NRB;
- A better understanding of the evolution of the depredatory activities and the physical changes along the NRB;
- A participatory effort by communities to assess the project and its role within conservation efforts.



**Component 1.** The grant served to trigger the elaboration of a proposal for the establishment of a new protected area. This proposal was drafted and presented to local, regional, and national level government institutions who endorsed the creation of the *Allpahuayo - Mishana National Reserve (AMNR)*. This protected area, in the proximity of Iquitos, is characterized for its high level of endemism of species, and for the number of new species to science (particularly birds), some of which have been cataloged during the life of the project. In order for this conservation policy to take place, the project supported: (i) preliminary and feasibility studies to determine the uniqueness and importance of the area; (ii) the enactment of legal documents and instruments categorizing the AMNR; (iii) technical documents outlining the NRB conservation strategy; and (iv) the development of management plans, administration plans and biological inventories. These plans are being implemented and the AMNR is now established and is managed with the support of local communities and INRENA (The IIAP continues to provide technical support). The only shortcoming in this component is the land use planning, which was not developed due to time and budgetary constraints. Nonetheless, the groundwork and framework have been established to facilitate the implementation of this activity beyond the scope of the project. Consequently, in spite of the highly positive outcomes attained, it is rated *Satisfactory*.

**Component 2.** The grant allowed for the generation of greater environmental awareness in the communities, and for the establishment of an organizational structure which led the monitoring and conflict resolution efforts. It also verified compliance with the management and master plans in the area. For this purpose, two zonal committees (that comprised the ‘management committees’) and a protected area committee (with the participation of key stakeholders) were established. As stated above, the key organizations established are the: (i) *Native and Small Farmer Communities Coordinator for the Nanay River Basin*; (ii) the *Allpahuayo–Mishana National Reserve Management Committee*; and (iii) the *Diamante Azul Fishermen’s Community Association*, all of which are legally recognized and continue to operate beyond the life of the project. In order to guarantee an active engagement, from the outset there were ongoing training activities and workshops attended by different communities. Considering the changes in behavior, and the active participation of the community in conservation efforts, these activities appear to have been highly beneficial. With the assistance of local residents, the project succeeded in decreasing the level of unsustainable and predatory activities practiced by inhabitants of the basin as well as outside extractors of natural resources. For instance, gold mining in the NRB has stopped, according to several sources; there is much less indiscriminate fishing from commercial boats; the illegal extraction of timber has declined noticeably; and the exploitation of *irapay* palm tree (*Lepidocaryum tenue*) leaves is in most cases now managed in accordance with pre-established plans. The outcomes of this component can be rated as *Highly Satisfactory*<sup>7</sup>.

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<sup>7</sup> Among the environmental benefits outcomes are the following: Illegal exploitation of natural resources has been curtailed, because, according to monitoring tools employed by the population, all gold dredging has now ceased, the illegal extraction of wood for sawn timber has declined by 89 percent, the illegal extraction of wood for firewood and posts has dropped 77 percent, the illegal extraction of *irapay* has fallen 85 percent, and the number of illegal fishermen has decreased 73 percent, compared to the initial baseline

**Component 3.** The grant successfully led to the design and piloting of alternative economic activities that promote the conservation of critical natural resources. Some of these pilots proved to be successful in promoting sustainable activities through the diversification of sources of income. For instance, aquaculture activities, which were carried out in a participatory manner, have been tested and replicated in areas beyond the scope of the project. As stated above, 50 fish ponds were built within the lifetime of the project, and contributed to the substitution of damaging activities such as depredatory fishing and logging by aquaculture (fish farming). The fish were sold in Iquitos and were used for local consumption. As an example of the income potential of these activities, during the 2003-2004 season, one family in the community of San Martín was able to sell 333 kilograms of fish (280 units of different types of fish like shad, *paco*, *gamitana* and *boquichico*), which represented an income of \$ 2,157.70 Soles (approximately US\$654). Another case study in the community of Samito revealed that a family sold 800 kilograms of fish, generating an income of about \$3,832.50 Soles (or about US\$1,161).

Other activities were also promoted and tested with different levels of success. For instance, the development of arts and crafts using local plants and resources in five communities did not prove to be as lucrative and sustainable as fish farming, but nonetheless was successful. For instance, before the implementation of the project there was some income generated from the sale of arts and crafts, but in a minor scale, and with a reduced volume. With improvements in the design and finishing of the products (bags, wallets, hammocks and hand-held fans), the quality improved, the price almost doubled, allowing artisans to increase their sales and income by almost 50 percent. Furthermore, before the project began, the sale volume of wallets was 20 to 30 units per year, for the whole group of artisans. Through the improvements made through the project, they were able to sell 156 and 182 small bags respectively for 2004 and 2005. Likewise, before the project started three communities stated that they used to sell less than 6 hammocks per year. During 2004 29 hammocks were sold. For 2005, the hammocks sold increased to 57. The same increase in sale volume occurred with bags, which production technology was unknown for the artisans, hence none were produced before the implementation of the project. In 2004, 83 bags were sold and 123 units in 2005.

On the other hand, the production of *herbal medicines* and the establishment of production centers in three communities (Santa María, Anguilla y Mishana, which established the KINIÍ microenterprise that has standardized production of 10 herbal medicines), the production of oils and natural scents in seven communities, and the promotion of use of *irapay* palm leaves for roofing strips (*crisnejas*) in 27 communities are successful examples of alternative economic activities. For instance, KINNI was able to market 11 different types of products made from herbal medicines, by means of syrups, lotions, ointments and soaps. In 2004 a total of 6,995 units of such products were sold by KINNI.

The NRB is the largest producer of Round-wood and of *Irapay* palm in Loreto. Management plans have been developed under the project for the sustainable management of these resources in the middle and upper Nanay. The methodology included technical assistance and consultation workshops led by the Project team (IIAP) with selected communities. By means of maps and satellite images, the communities

selected the areas to be tested (in parcels of about 500 ha). Capacity building for the development of a forestry inventory was carried out, and the proposal has been submitted to INRENA for its endorsement. Simultaneously, the communities receive capacity building on sustainable forest management, its legal marketing, and procedures in being certified. The outcomes of this exercise include the formalization of permits for forest use in three communities (*Tres Unidos, Salvador Pava* and *San Juan de Ungurahual*). The project also led to the formalization of permits for the use of *Irapay* palm in 10 communities. Capacity building and technical assistance has been provided to 27 communities on the design and applicability of management plans for the *Irapay*, round wood, palm fibers, bark and medicinal plants.

These projects were based on a series of technical documents elaborated to determine the demand, feasibility and value added of proposed economic activities, and their relation to local and regional markets. Among the studies carried out were the feasibility studies for fish farming for consumption and ornamental purposes, which complemented the elaboration of this key activity. Likewise, a study was developed on agroforestry practices, and on the management of wild fauna. In few instances, the project coordination unit concluded that it was neither not feasible nor necessary to carry out some of the proposed studies. For instance, the study to promote ecotourism in the Nanay River was cancelled after it was determined that the watershed was not suitable for this activity due to the high incidences of malaria, the presence of mining dredges, and lack of minimal infrastructure. Thus this activity was also not developed under the scope of the project.

In addition, the project contributed to the elaboration of 14 handbooks and leaflets, which summarized the methodology for alternative uses of natural resources<sup>8</sup>. This activity was unexpectedly ambitious since only a limited number of manuals for each of the ten alternative productive activities were produced in the three years that the project lasted.

In sum, while few of the proposed studies and manuals were not produced, most of the piloted economic activities did produce the desired effects, contributing to positive outcomes and measurable environmental benefits (to be described below). The Nanay River Project has therefore contributed to the replication of several of these alternative schemes in similar ecosystems in the Amazon basin. The outcomes of this activity are therefore rated as *Satisfactory*.

**Component 4.** The project developed reliable technical reports on the status of biodiversity in the NRB and on the evolution of some threats. One of the key outcomes of the project was the active involvement of the communities along the NRB in the monitoring and even enforcement of environmental conditions. The radio equipment allowed the communities to maintain communication about external loggers, fishers and miners in the region. Likewise, a matrix system with specific indicators and criteria served as a basis for the periodic assessment of the activities developed under the project as well as on the quality of the natural resources of the Basin (some of the results are highlighted in the outputs section above). The project produced a series of surveillance reports, and technical reports of the locally systematized experiences. This activity

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<sup>8</sup> Six of the leaflets deal with fauna or forest management, rather than production technologies.

proved to be crucial in the process of environmental awareness-raising and in developing an integrated feeling of ownership among the different communities in the NRB. The outcomes of this component are therefore rated as *highly satisfactory*.

The overall achievement of development results for the project is rated as *Satisfactory*.

Annex 2 summarizes the outcome indicators and its compliance per component.

## 2. Relevance

*Rate how well this activity was consistent the development priorities of the country, the Bank's country assistance strategy (CAS) and the Bank's sector strategy.*

National Priorities. The Peruvian government is committed to promoting biodiversity conservation and ensuring that economic activities are carried out in a sustainable manner. This is evidenced by the growing number of critical ecosystems assigned as protected areas, (which now cover about 14% of the national territory). Within this context, the grant has complemented the efforts by national agencies such as INRENA and the regional government in promoting conservation and sustainable use of natural resources in critical ecosystem rich in biodiversity such as the Nanay River Basin in the Peruvian Amazon. One of the latest protected areas to be established within the National System of Protected Areas (SISNANPE) is the Allpahuayo – Mishana National Reserve, created under the framework of the project.

In addition, the project also has a national relevance since the Nanay River Basin – one of the most biodiverse ecosystems in the Amazon region, – is the main source of water for the city of Iquitos (the largest city in the Peruvian Amazon, with approximately 400,000 inhabitants). Iquitos is also the main market upon which a number of communities that spread along the length of the basin depend. The NRB has been gradually affected by highly predatory activities—such as the use of dredges for gold mining; the illegal extraction of wood for sawn timber and round wood for construction; firewood; the illegal extraction of the *irapay* palm leaf; and indiscriminate fishing. As illustrated above, the project has contributed to the slowdown of some of these threats, and in some cases such as with the mining dredge the communities have succeeded in halting some of the predatory activities.

Relevance to the Country Assistance Strategy (CAS). The Peru CAS identifies sustainable development, growth (including a rational use of natural resources), and environmental protection among its key pillars. It also recognizes the importance of Peru as a mega-diverse country that should promote conservation of its biological wealth. The CAS also recognizes the need for social development through community participation and organization in the development of productive sectors such as agriculture and forestry. Among its overarching objectives, the CAS also makes reference to the need for a broad-based improvement in the country's poverty rates. The *Biodiversity Conservation and Community Natural Resource Management Project in the Nanay River Basin* remains in line with these strategic priorities and development lines of action.

The World Bank's Sector Strategy. The activities financed by the grant are in line with the guidelines proposed by the *Latin America Environmental Strategy* in that they promote an active and participatory approach by communities and government in the management and monitoring of natural resources. Likewise, the project enhances

environmental awareness and mainstreaming among community groups and local agencies.

### 3. Efficacy

*Rate how well the activity achieved its stated grant objectives.*

The overall project activities **fully achieved** the grant objectives since they contributed to biodiversity conservation through the involvement of local stakeholders in the diversification of sustainable natural resource economic practices and the consolidation of managed and protected areas. In spite of some limitations mainly due to time and costs, the level of achievement is considered as **highly satisfactory**.

### 4. Efficiency

*Rate the results of this activity relative to its associated costs, implementation times and economic and financial returns.*

Overall the executing agency (IIAP) adequately coordinated and managed the grant. The funds were efficiently applied to the execution of the proposed activities within the given time frame for implementation and achievement of grant objectives.

The efficiency is rated **Satisfactory**.

## **D. IMPACT**

### 1. Capacity Building Impact

*Rate how well this activity contributes to capacity building.*

The project contributed to enhancing technical and administrative capacity among local inhabitants and participating communities and by raising awareness on environmental and conservation issues among key stakeholders along the NRB. The establishment of Zonal Committees capable of forming Protected Area Management Committees with specific mandates was crucial in the participatory monitoring of project activities, environmental degradation trends, and enforcement. These institutional schemes have extended well beyond the time frame and scope of the project.

In addition, the project contributed to the capacity building of more than 250 community leaders in the following areas: (i) participatory conservation; (ii) monitoring and evaluation; (iii) legislative issues related to natural resources; (iv) communal techniques to conservation; and (v) conflict resolution. These trainings were implemented through 12 inter-communal workshops (with the participation of leaders from the whole river basin), local assemblies, and through hands-on local training. In addition, communities were provided with manuals and leaflets on the alternative use of natural resources, and

received training on the application of these alternative economic activities (i.e. aquaculture).

Some of the noticeable impacts have to do with concrete improvements in environmental quality. These are in part a result of the ongoing environmental awareness and capacity building, and through the active and participatory engagement by communities to protect and conserve their resources. For instance, in spite of the project's short time frame, gold mining along the NRB has ceased as a result of the initiatives and efforts of the local communities. Likewise, depredatory fishing has been drastically reduced, and the illegal extraction of timber has declined substantially.

The capacity building of the NRB's population has contributed to a change in perception and behavior regarding the natural resources and biodiversity conservation to the extent that the communities have expressed their desire to have control over their resources and activities so that these are developed in a sustainable fashion. The organizations representing the population are now widely perceived in the region as being committed to the management and conservation of the Nanay River Basin.

The impacts of this grant on capacity building are rated as *Highly Satisfactory*.

## 2. Sustainability

*Rate how likely the results will be sustained.*

The benefits of the project for the beneficiaries and the Nanay River Basin are still being experienced. Among the elements that may contribute to the sustainability of the project's activities are the following: (i) the decline in threats to biological diversity in the river basin will most likely be maintained because the local population now has the necessary knowledge and legal instruments as well as the commitment and determination to conserve its natural resources; (ii) the Allpahuayo Mishana National Reserve has been established and its management is shared with the local communities, INRENA and through technical assistance from IIAP; (iii) the Upper Nanay River Basin is in the process of becoming officially recognized as a protected area<sup>9</sup>; and (iv) regional ordinances have been issued banning mining and other activities that degrade the environment (including regulations for fishing activities and establishing a simplified set of rules governing the exploitation of community and local forests in the Loreto region). The population not only is committed to overseeing its territory, but also has developed through the project the necessary skills to do it. The communities also have established a radio-communications network, previously non-existent, which allows for a shared monitoring and enforcement of the river basin.

Nevertheless, it is clear that biological diversity conservation must be accompanied by management of natural resources based on sustainability criteria, given that the population inhabiting the Nanay River Basin requires both nutritional resources and economic revenue. Unless the proper combination of conservation and management is attained, it is likely that locals will abandon the sound practices they have learned. For that reason, the project aimed for the population to learn and pilot at least ten marketable

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<sup>9</sup> Although the new administration at INRENA would have to validate this proposal.

alternatives to diversify sources of income. However, given the short time frame of the project (three-year), this was only partially achieved, with a few communities developing such activities. Time limitations hampered the strengthening of linkages to local markets; if this were to occur, it could further enhance the sustainability of the alternative economic activities.

In addition, complementary projects by other organizations and initiatives are contributing to the project's sustainability in the region. For instance, the IIAP and Nanay river basin organizations are working together to attain financing for activities that would complement the benefits generated through the Nanay River Project. For instance, the BIODAMAZ project, financed through the Government of Finland and executed by IIAP, will lend continuity to activities related to the Allpahuayo Mishana National Reserve and its immediate service area. At the same time, the Municipality of Alto Nanay has allocated part of its budget to continue some of the activities initiated by the Nanay project, especially by promoting and supporting sustainable agro-forestry.

In addition, the Finnish agency and the Peruvian Government recently approved a project for the Nanay-Pucacuro biological corridor that largely complements and extends the experiences acquired by the Nanay project in conservation and community management for biodiversity conservation.

### 3. Follow-up Activities and/or Investment

*Provide a description of any follow-up activities or investments resulting from the original activity.*

There is a high likelihood that the project could be replicated in other lower Amazon jungle river basins, as many of them are subject to similar pressures on their natural resources. Their ecosystems are being degraded, with grave and even irreversible consequences in terms of biodiversity loss and impacts on local livelihoods and well-being.

From a methodological standpoint, the project is likely to be replicated in other basins of the lower Amazon as many share similar characteristics and are subject to the same pressures on their natural resources. However, the project's sustainability is moderately likely given that many of the impacts attained may not be fully assured, owing to the fact that the timeframe of the project was too short. At project closure, many of the commercial productive activities were just beginning to be adopted by some communities and some were not yet properly linked to markets.

For its part, and thanks to the experience acquired in this project, the IIAP has strengthened its capacity to coordinate and handle projects. It has also enhanced its capacity to work with a broad number of institutions. The project has therefore strengthened the position of the Institute to the point that in November 2004 the CAMBIE Foundation awarded IIAP a national prize for "Execution of the Best Sustainable Development Project" for its executing role on the Nanay Project.

At the same time, the IIAP is beginning execution of two projects that broadly replicate the successful experiences and lessons learned from the Nanay project regarding community management and participatory conservation of natural resources.

Lastly, and given the many positive outcomes of the project, IIAP is working on a proposal for a second phase to the Nanay River Project. This proposal has already been submitted to Peru's GEF focal point, and the Bank has been informed that there is interest at the national level to develop a full size project to replicate the lessons of this project in the Amazon basin.

### 3. Follow-up Activities and/or Investment

Provide a description of any follow-up activities or investments resulting from the original activity.

Check, if applicable:

Investment:

Recipient/Other Investment;  Grant Project/Program;  Bank Project;  
 IFC Financial Project/Activity

IIAP has submitted a request for a follow-up project to the GEF. The proposed program will build on the lessons of the MSP.

Other Results:

Transferability of Know-How, Knowledge Base/Key Concepts;  Replicability, Modeling, Best Practices;  New Sectors or Products;  New Forms of Cooperation with Other Development Institutions/NGOs

## **E. PERFORMANCE**

### *1. Bank*

*Discuss and rate how well the Bank carried out specific responsibilities assumed by the Bank for this trust funded activity.*

The Bank's team fiduciary, monitoring and evaluation responsibilities were carried out in a satisfactory manner. The project was constantly monitored and evaluated by World Bank missions. The first such mission took place in October 2002; the second was in February 2003. A mid-term evaluation was conducted in May 2003, and in October 2003 there was another evaluation corresponding to the second half of the year. All the field data is available in comprehensive data bases. Likewise, financial audits were performed in accordance with the Bank procedures and reports made available.



The Bank's Managing Director (Mamphela Ramphela), Country Director (Marcelo Giugale) and other high level Bank officials visited the project site in March 2004. The visit served to illustrate the project benefits and the ongoing challenges faced by the communities. The project was highly praised by the Managing and Country Directors.

## 2. *Recipient*

*Discuss and rate how well the Recipient fulfilled the different tasks that were expected as part of the trust funded activity.*

The IIAP has kept constant track of project execution in order to respond swiftly to any external or internal factors that could have affected progress. In addition, in accordance with its institutional procedures, when the project ended it formed its internal Project Evaluation Committee, overseen by the Office of Scientific and Technological Cooperation. Management of the project is considered *Satisfactory*. The coordinator of the Project demonstrated to have great sensitivity towards the communities, high technical capacity and knowledge of the biodiversity of the region, and very good administrative skills. However, the coordinator would have benefited if there had been more staff to support his role in issues related to monitoring and evaluation, and ensuring that the documentation required for means of verification (project documentation) by activity and outcome would be available.

The project was executed through participatory mechanisms with the beneficiaries, who were the protagonists of the changes brought about both in applicable regulations and in their own communities.

The participation of other institutions in the project also contributed decisively to the achievement of its objectives.

## **F. LESSONS LEARNED / RECOMMENDATIONS**

*Discuss the most significant positive and negative lessons learned from the success or failure of the grant activity and make recommendations for different stakeholders.*

### Recommendations for the Bank

#### **I. Lessons learned**

The Nanay project provided a wealth of experience for the IIAP to learn from, and a number of lessons that should be shared throughout the Institute.

The project has been evaluated in terms of its performance, design, and management.

#### **Project Performance**

- 🕒 Strategic partnerships with oversight institutions, local or regional governments, and associations of communities are important for ensuring that they are co-participants in sustainable development activities;

- ⌚ It is necessary to address the causes of current environmental degradation: the lack of community control (extraction by outsiders), and the use of predatory practices;
- ⌚ Teaching the local communities to value and respect its resources has led to concrete benefits. It is important to raise awareness on environmental and conservation issues to the communities and lend constant support and empower them in the participatory design of management plans.
- ⌚ Law enforcement institutions are constrained by lack of capacity, resources or prone to corruption, and thus, alternative modes such as ILEL co-management promoted through local communities should be considered.
- ⌚ Further strengthening of local organizations through zonal committees and the Nanay coordination unit is critical.
- ⌚ Alternative commercially viable productive activities must be promoted and linked to markets with the help of competent institutions;
- ⌚ Strong commercial interests have to be considered in the design of subprojects (i.e. the proposed eco-tourism activities were rejected by outside pressure).
- ⌚ It is important to achieve empowerment of the local population and local management of its resources.

## **Project Design**

- ⌚ A proper balance needs to be struck among the goal, objectives, and outcomes of projects, on the one hand, and the financial scale and time frame of the project, on the other. In this case, some activities have to be realistic from the offset so that they do not turn into ambitious goals in relation to the project execution schedule;
- ⌚ Given that indicators are the basic tool for measuring progress or the achievement of a project's objectives, they must be carefully crafted and adapted if needed—they should be neither over-ambitious nor too modest, and should be designed to permit accurate measurement of the extent to which objectives are achieved.
- ⌚ Indicators must be reviewed every year when the annual work plan is drawn up, because they need to be compared with actual execution on the ground and, if necessary, adjusted to actual circumstances.
- ⌚ It required 3 years to achieve the results at the local level and so it cannot be emphasized enough how critical the time factor is, particularly when considering a large area as the NRB where the only means of transport for most communities is through canoes, and where there are limited means of communications. This is where the National Coordinator and task manager's role are central in their capacity to explain new concepts and new approaches in concrete terms, and to ensure that the main objectives of the Project are not diluted or lost over time.
- ⌚ It is important that the beneficiaries participate in both the design of project strategies and in the annual adjustments built into the annual work plan.
- ⌚ MSPs should be considered pilot projects with valuable lessons and experiences to be replicated in other areas with similar threats and problems. In this case, the lessons could help in the design of a second phase of the Nanay River

Project, which is being considered for other watersheds and basins along the Amazon region.

### Recommendations for the Recipient (Client)

#### **Project Management**

- ⌚ In projects of this type, it is not feasible to monitor biodiversity directly, but rather through practices that induce changes in the ways natural resources are exploited (this is not to say that measuring environmental quality improvements is not important, but the processes to get there are just as critical).
- ⌚ The personnel working in projects must be trained to manage and resolve disputes in rural communities that may arise during project execution (a working knowledge of local languages is of great importance).
- ⌚ The project should have employed full-time technical staff on the ground from the outset because full-time technical assistance with resource management is extremely important if the idea is to change deeply rooted patterns of natural resource use.
- ⌚ It is important that each project have at least one person in charge of project monitoring and evaluation, of organizing the means of verification, and of maintaining an early warning system for the project coordinator and for the IIAP offices monitoring the project.
- ⌚ It is important to involve the beneficiary population in project monitoring, since that raises the level of commitment to the changes brought about by the project.
- ⌚ Personalization or individualization of a project creates a rift with the institution that harbors it and which makes the actions it undertakes sustainable. That impairs the image of the project and of the executing agency.
- ⌚ A monitoring and evaluation system for the international cooperation projects that the IIAP is executing would facilitate decision-making for managerial staff.

### *Recommendations in the implementation of similar projects*

1. In designing a similar project, it is important to strike an appropriate balance between the project's proposed outcomes, its financial scale, and the time allowed for execution. The outcomes should not appear to be over-ambitious; nor should the execution period appear to be too short.
2. In strategic partnership with other key institutions, the IIAP must jointly arrange for implementation of actions designed to lend continuity to the project's achievements by applying for international or domestic funding.
3. The project should be replicated in one or more basins considered priorities because of their high level of degradation. For that, a new project must be designed and financing sought.
4. A monitoring and evaluation system should be implemented for international cooperation projects executed by the IIAP.
5. The project evaluation should be shared with other projects executed by the IIAP with international cooperation financing.

6. All the experience acquired with this project should be systematized and published.
7. This evaluation still needs to be completed with an on-site verification by the evaluation team.

*Recommendations for the Bank*

Considering that the resources for the supervision of MSPs are limited, a joint supervision with projects in close by-areas would maximize the efforts. It is important to keep a close monitoring of internal dynamics in project coordination to provide the support needed and intervene when required.

*Recommendations for the Donor(s)*

It is recommended that that the donor fully understand the specific requirements and goals of the project and comprehend the challenges involved in supervising this kind of MSP, which often lacks the required funding for an adequate supervision.

*Recommendations for the Development Community*

## **G. PROCESSING**

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Task Team Leader: Renan Poveda

Date Submitted: August, 4, 2006.

Comment:

Manager: Abel Mejia

Date Approved:

Comment:

## Annex 1. Dissemination of outputs and a summary of impacts.

Means of Verification (MV)	Effect
Reports and consultations with communities	According to reports and consultations, relevant threats have declined by over 50%, a result considered highly positive. (Gold mining using dredges no longer exists; illegal extraction of wood for sawn timber has declined markedly in all communities; forest areas in the Nanay River Basin have been excluded from the forestry concessions process; the indiscriminate and destructive extraction of natural resources has diminished on average by over 50%; a regional ordinance was issued establishing a closed season for commercial fishing in the Nanay basin; and indiscriminate fishing and other practices harmful for fishing are thought to have declined by 73%.)
Information provided by the communities, INRENA, the Ecology Police, and others.	<ul style="list-style-type: none"> <li>• Gold mining dredging has ceased</li> <li>• Illegal extraction of wood for sawn timber: down 89%</li> <li>• Illegal extraction of roundwood: down 82%</li> <li>• Illegal extraction of wood for firewood and posts: down 77 %</li> <li>• Illegal extraction of irapay: down 85%</li> <li>• Informal fishermen: down 73%</li> </ul>
Studies of the levels of heavy metals in humans; DIGESA reports.	There is a downward trend in average values in blood and urine, but not in hair. However, statistical analyses indicate that the differences found are not yet statistically significant, possibly owing to the short lapse of time (six months) between samples.
A study supporting the establishment of a protected area.	Assistance was provided to the beneficiary population for preparing and presenting the proposal to INRENA
Training course records.	There are attendance records and/or reports on eight training and institution-building workshops in 2003 and 10 in 2004. There are no reports on workshops or activities related to training in monitoring and evaluation of the project or conflict resolution techniques. There are photos of some of the workshops that were carried out.
Technical reports and evaluations	They give an idea of the project's achievements.
Technical reports on monitoring implementation.	There are technical reports and the corresponding evaluations by outcome and activity.
Technical reports of locally systematized experiences.	Technical reports exist, but not for all experiences.
Reports of surveillance	The communities' monitoring boards record the status and manner in which natural resources are exploited by the community and by

	outsiders.
Two studies (Upper and Middle Basin)	They were conducted in the form of participatory diagnostic assessments
An overall report.	Contains the participatory evaluation
Two biodiversity assessments and inventories (Upper and Middle basin)	An inventory is available of natural resources in the Upper and Middle basin.
A comprehensive Nanay River Basin participatory conservation strategy document.	Document registering the beneficiaries' decision to implement a conservation strategy for the Nanay River Basin.
Regulations	The most active committee is the Allpahuayo – Mishana National Reserve (RNAM) committee
Attendance records	They indicate participation by representatives in said workshops

Reports of workshops and assembly minutes covering altogether 15% of the population in the Upper and Middle Nanay River Basin.	The documentation reviewed gives an idea of the agreements reached and contents of the workshops. However, formal reports and assembly minutes are missing for some workshops.
A technical document containing economic options for adding value to local products with a local or regional market, based on ecotourism (1 tourist lodge).	The activity was promoted but not pursued, due to opposition by outside groups.
Two technical documents containing economic options for adding value to local products with a local or regional	There is only one technical document showing the feasibility of fish farming for consumption and ornamental purposes.

market, based on local fish resources (two projects).	
Six technical documents containing economic options for adding value to local products with a local or regional market, based on agroforestry and forestry plots (development of at least six new cottage industries).	There is only one technical document showing the feasibility of the agroforestry option.
A technical document containing economic options for adding value to local products with a local or regional market, based on wild fauna management (1 project).	This document has not been drawn up, although the activity has been promoted.

Ten booklets containing the information produced.	14 booklets have been produced, including school primers, fliers, and other publicity materials.
A video for local and regional dissemination of the information produced	The video has not been made, but a book has been written on experience acquired with the Nanay project.
30 workshops	Attendance was not recorded for all workshops and the training strategy was changed. Instead of workshops, it was decided to provide “hands-on” training in the work place.
Local and regional dissemination of information produced.	Various presentations have been made on project outcomes and lessons learned. One article has been published on project outcomes, and there is a website with a summary of those outcomes.
Attendance at	A record was not kept of all these meetings. However, there are a

professional meetings, workshops, and educational centers.	few photos, reports, and attendance records testifying to the fact that they did take place.
Six workshops, fieldwork, and three local systematization reports (one per year)	In-depth and detailed monitoring analysis. It would have been interesting to have compilation or general summary matrices for an overall evaluation. The level of desegregation in the matrices is exhaustive and excellent for monitoring purposes.
Four workshops, fieldwork, and one final report on project implementation.	The IIAP is producing a final report. The World Bank has not yet produced its project completion review,

<b>Options for diversifying income generation promoted by the project</b>	<b>Validation</b> (validated, not validated)	<b>Dissemination</b> (Disseminated, partially disseminated, not disseminated)	<b>Adoption by the communities</b> (adopted or currently practiced; partially adopted; not adopted; information not available)
Ecotourism (In Mishana)	Not validated	Disseminated	Not adopted
Forestry with value added	Partially validated	Disseminated	Adopted
Production of irapay leaf roofing strips	Validated	Disseminated	Adopted
Preparation of herbal medicines (based on medicinal barks)	Validated	Partially disseminated	Adopted <sup>9</sup>
Use of the Ungurahui palm tree (Oenocarpus bataua) and production of Ungurahui oil.	Validated	Disseminated	Partially adopted
Crafts (new designs and finishings)	Validated	Partially disseminated	Partially adopted <sup>10</sup>

<sup>9</sup> The three production centers in Santa María, Anguilla and Mishana, obtained profit in 2004 of 6,965.50 Soles. The total production cost for that year was 21,048.50 Soles, including labor, which the beneficiaries contribute with, being paid a daily salary of 10 Soles.



finishings)		disseminated	adopted <sup>10</sup>
Fish farming for consumption and ornamental purposes	Validated	Disseminated	Partially adopted <sup>11</sup>
Agroforestry and similar forestry related activities	Validated	Disseminated	Adopted
Wild fauna management	No information available	Disseminated	Partially adopted
Management and conservation of white sand forests ( <i>varillales</i> )	No information available	Disseminated	Partially adopted

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<sup>10</sup> Before the implementation of the project there was some income generated from arts and crafts sale, but in a lesser scale. With improvements in the design and finishing of the products (bags, small bags, hammocks and hand-held fans), the price almost doubled, allowing artisans to increase their income by almost 50 percent. For instance, before the project, the sale volume of small bags was 20 to 30 units per year, for the whole group of artisans. With the before mentioned improvements, they were able to sell 156 small bags for 2004 and 182 for 2005. The overall income generation from the sale of all the types of products was 7,240 Soles for 2004 and 11,115 Soles for 2005 (an increase of 34 percent from the previous year).

<sup>11</sup> Before the implementation of the project, no income for fish sale was generated. In the community of San Martin, the income of a family from fish farming, for the 2003-2004 season was 2,157.70 Soles, of which 497.50 Soles was for family consumption. Another case study in the community of Samito, shows that one family was able to generate 3,832.50 Soles as income from fish farming.

## Annex 2. Outcome Indicators and its Compliance per Component

<b>Outcome 1:</b>			
<b>Legal, policy, and management tools for biodiversity conservation created.</b>			
<b>Indicator 1:</b> A proposal for the establishment of a new protected area drafted and presented to local, regional, and national level government institutions.			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
A study supporting the establishment of a protected area.	YES	Good	Assistance was provided to the beneficiary population for preparing and presenting the proposal to INRENA
Documentary files; reports of meetings.	YES	Good	They help corroborate the work undertaken to produce the final document.
<b>Indicator 2:</b> Definitive legal categorization of Allpahuayo-Mishana.			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Legal instrument categorizing Allpahuayo-Mishana.	YES	Excellent	The Government of Peru has now declared it the Allpahuayo – Mishana National Reserve
<b>Indicator 3:</b> One overall Nanay River Basin conservation strategy document			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Technical documents outlining the Nanay River Basin conservation strategy.	YES	Good	The beneficiary population has prepared an overall Nanay River Basin conservation strategy.
<b>Indicator 4:</b> Two protected area management plan proposals			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Management plans	YES	Good	The beneficiaries developed their own plans for managing the resources they have traditionally been using.
Administration plans	YES	Good	The beneficiaries are formalizing the extraction of resources based on

			plans that meet regulatory requirements.
<b>Indicator 5:</b> Two land use planning documents			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Land use planning	NO	—	It was impossible to achieve land use planning during the life of the project, but the groundwork was laid for the future.
<b>Indicator 6:</b> Two biological inventories			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Inventories	YES	Excellent	An inventory has now been made of the natural resource potential of the upper and middle Nanay River Basin.

In some cases means of verification are shown as indicators and vice versa.

### **Other achievements contributing to Outcome 1**

Regional ordinances:

- N° 0063-2003, declaring the Nanay River Basin out of bounds for mining and other activities that degrade vegetation.
- N° 006-2004, declaring a closed season for commercial fishing in the Nanay River Basin.
- N° 022-2003, establishing Simplified Rules for Exploitation of Community and Local Forests in the Loreto Region.

The exclusion of Nanay River Basin forests from the forestry concessions process in Loreto.

### **Outcome 2: Partially achieved, performance acceptable.**

<b>Outcome 2:</b> <b>Stronger institutional capacity for biodiversity conservation</b>			
<b>Indicator:</b> Two zonal committees to comprise the management committees and protected area management committees with the participation of all stakeholders established and functioning			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>

Minutes of the installation of the committees and of agreements reached	YES	Acceptable	A Coordinating Office for Native and <i>Campesina</i> Communities in the Nanay River Basin, an Allpahuayo - Mishana National Reserve Management Committee, and an Association of Fishermen of the Diamante Azul community, legally constituted and registered in public registries.
<b>Indicator:</b> Local zoning committee leaders, community members, and management committee stakeholders receive training in project monitoring and evaluation, conflict resolution techniques, and in the fulfillment of tasks assigned to PAMCs by the Master Plan ( <i>Plan Director</i> ).			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Training course records.	YES (Partially)	Acceptable	There are attendance records and/or reports on eight training and institution-building workshops in 2003 and 10 in 2004 There are no reports on workshops or activities related to training in monitoring and evaluation of the project or conflict resolution techniques. There are photos of some of the workshops that were carried out.

**Outcome 3: Partially achieved, performance acceptable.**

<b>Outcome 3:</b> <b>Sustainable resource management and use through diversification of sources of income</b>			
<b>Indicator:</b> Ten commercial alternatives which diversify income generation through sustainable management and value added for local products are tested, disseminated, and adopted.			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
<i>Leaflets disseminating the new technologies</i>	YES (partially)	Acceptable	There are 12 leaflets on production and

<i>technologies</i>			management topics but only four alternative productive activities have proper manuals. Six of the leaflets deal with fauna or forest management, rather than production technologies. In our view, it was over-ambitious to hope for well-tried technologies for dissemination in manuals for each of the ten alternative productive activities in the three years that the project lasted.
<b>Evidence of community acceptance of the alternatives</b>	YES (partially)	Deficient	The minutes mainly record decisions on natural resource use. There are no minutes showing acceptance of other alternative productive activities providing value added, owing to the fact that these alternatives are pursued at the family, not the community, level.
Technical reports and evaluations	YES	Acceptable	They give an idea of the project's achievements.

#### **Outcome 4: Achieved with good performance**

<b>Outcome 4:</b>			
<b>Data on biodiversity collected and project implementation monitored and evaluated.</b>			
<b>Indicator:</b> The diversified use and local control over biodiversity are well documented and disseminated features of the project.			
<b>Means of Verification</b>	<b>Exists?</b>	<b>Quality of the MV</b>	<b>Effect</b>
Technical reports monitoring implementation.	YES	Good	There are technical reports and the corresponding evaluations, by outcome and activity.
Technical reports of locally systematized experiences.	YES	Acceptable	Technical reports exist, but not for all experiences.
Reports of surveillance	YES	Good	The communities' monitoring boards record

			the status and manner in which natural resources are exploited by the community and by outsiders.
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