Mid-Term Evaluation

GEF Project 00047680

Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System

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Dominican Republic, July 2009
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<tbody>
<tr>
<td>APR</td>
<td>Annual Progress Report</td>
</tr>
<tr>
<td>CBO</td>
<td>Community Based Organization</td>
</tr>
<tr>
<td>CC</td>
<td>Comité de Cuenca (Watershed Council)</td>
</tr>
<tr>
<td>CDC</td>
<td>Comité de Desarrollo Comunitario (Community Development Committee)</td>
</tr>
<tr>
<td>CDEEE</td>
<td>Corporación Dominicana del Estado de Energía Eléctrica</td>
</tr>
<tr>
<td>CDZ</td>
<td>Comité de Desarrollo Zonal (Zonal Development Committee)</td>
</tr>
<tr>
<td>CEDAF</td>
<td>Centro de Desarrollo Agroforestal y Forestal</td>
</tr>
<tr>
<td>CEPROS</td>
<td>Centro de Estudios y Promoción Social, Inc.</td>
</tr>
<tr>
<td>CODOCafe</td>
<td>Corporación Dominicana de Café</td>
</tr>
<tr>
<td>CTL</td>
<td>Comité de Trabajo Local</td>
</tr>
<tr>
<td>DIARENA</td>
<td>Dirección de Información Ambiental y Recursos Naturales</td>
</tr>
<tr>
<td>EGEHID</td>
<td>Empresa de Generación Hidroeléctrica Dominicana</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation of the United Nations</td>
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<tr>
<td>FONDO-MARENA</td>
<td>Fondo Nacional para el Medio Ambiente y los Recursos Naturales</td>
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<tr>
<td>FUNDASEP</td>
<td>Fundación de Azua y Elías Piña</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<tr>
<td>IDIAF</td>
<td>Instituto de Investigaciones Agropecuarias y Forestales</td>
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<tr>
<td>INAPA</td>
<td>Instituto Nacional de Aguas Potables y Alcantarillados</td>
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<tr>
<td>INDRH</td>
<td>Instituto Nacional de Recursos Hidráulicos</td>
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<td>INVI</td>
<td>Instituto Nacional de Viviendas</td>
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<td>JICA</td>
<td>Japanese International Cooperation Agency</td>
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<td>GEF</td>
<td>Global Environmental Facility</td>
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<tr>
<td>Acronym</td>
<td>Full Form</td>
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<tr>
<td>GHG</td>
<td>Green House Gas</td>
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<tr>
<td>GO</td>
<td>Governmental Organization</td>
</tr>
<tr>
<td>M &amp; E</td>
<td>Monitoring and Evaluation</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
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<tr>
<td>ONAPLAN</td>
<td>Oficina Nacional de Planificación</td>
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<tr>
<td>PES</td>
<td>Payment for Environmental Services</td>
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<tr>
<td>PID</td>
<td>Participatory Innovation Development</td>
</tr>
<tr>
<td>PIR</td>
<td>Project Implementation Review</td>
</tr>
<tr>
<td>PROCARYN</td>
<td>Proyecto de Protección y Manejo Sostenible de la Cuenca Alta del Río Yaque del Norte.</td>
</tr>
<tr>
<td>SEA</td>
<td>Secretariat of Agriculture</td>
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<tr>
<td>SEE</td>
<td>Secretariat of Education</td>
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<tr>
<td>SEMARENA</td>
<td>Secretariat of Environment and Natural Resources</td>
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<td>SEOP</td>
<td>Secretariat of Public Works</td>
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<tr>
<td>SLM</td>
<td>Sustainable Land Management</td>
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<tr>
<td>SWAP</td>
<td>System Wide Approach</td>
</tr>
<tr>
<td>SY</td>
<td>Sabana Yegua</td>
</tr>
<tr>
<td>TFCA</td>
<td>Tropical Forest Conservation Act</td>
</tr>
<tr>
<td>UAM</td>
<td>Unidad Ambiental Municipal</td>
</tr>
<tr>
<td>UNCCD</td>
<td>United Nations Convention on Combating Desertification</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>USD</td>
<td>US Dollar</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>WEF</td>
<td>Watershed-wide Environmental Fund</td>
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Annex 3  Interview Guide
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1 Executive Summary

The population of the Upper Watershed System is 77,000, living in around 60 villages. Rural village community members are economically depressed with 80-100% of households living in poverty. Basic services as access to drinking water, electricity, primary education or road infrastructure are in precarious conditions. Farmers are heavily dependent on subsistence agriculture, with limited access to markets, opportunities for employment and sources of alternative income. Almost all of the area outside of protected area system is deforested, being dedicated to agriculture and grazing.

The project area drains into the Sabana Yegua Dam, which was completed in 1978 to provide irrigation, electricity, and domestic water services to over 610,000 people. Families downstream of the dam place access to irrigation water at the top of their list of agricultural priorities. However the total volume of the hydrologic resources in the area is less than 4% greater than the current demand, and will not be sufficient to meet future needs for domestic use, irrigation and the maintenance of aquatic ecosystems. Sedimentation, due to degradation of the Upper Watershed System, is estimated to reduce reservoir capacity by 1% per year and to date has resulted in a loss of 13 % of total capacity. Loss of reservoir capacity also jeopardizes opportunities to generate hydroelectric power, in order to mitigate the country’s critical problems with energy supply without increasing dependence on the use of fossil fuels.

Mayor problems or threats hampering development in the watershed system were identified as:
- Conversion of forest and shade coffee to other land uses, which has left 70% of non-protected areas without tree cover.
- Application of inappropriate land-use technologies on steep slopes (e.g. burning, hillside tillage, and reduced fallow).

The project “Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System”, provided with GEF funds, aims at tackling these challenges and reverse current trends. The project started in operational terms in March 2006 and is planned to conclude in October 2011.

The Project Goal is defined as follows:

“Promotion of sustainable development of the human and natural resources of the Upper Sabana Yegua Watershed System”.

The Project Objective focuses on the implementation of GEF generated activities that will lead to long term sustainable land management throughout the entire Upper Sabana Yegua Watershed System, expressed as follows:

“To promote the sustainable land management in the Upper Sabana Yegua Watershed System, in order to achieve global environmental benefits within the context of sustainable development and poverty reduction”.

The five outcomes of the project focus on:

1. The creation of a favourable environment of policies, programs, planning frameworks and tools for SLM.

---

1 Official project start 31 October 2005.
2 The project’s timeframe was adapted in 2008 due to implementation delays caused by two tropical storms (Noel and Olga) in 2007/2008.
2. The creation of the necessary capacities among local and institutional stakeholders for planning, regulation and support of SLM initiatives.

3. The promotion of access to finance and other forms of incentives necessary to make SLM-related activities economically attractive.

4. Improvement of the livelihood and wellbeing of the population in the watershed system.

5. Learning, evaluation and adaptive management.

Implementing agency is the Dominican NGO Fundación Sur Futuro and responsible UN organisation UNDP. The Secretariat of Environment and Natural Resources (SEMARENA) represents the Dominican Government.

According to GEF guidelines, after having concluded half the project time, an external and independent mid-term evaluation had to be carried out.

UNDP, on behalf of Fundación Sur Futuro, contracted consultant services to carry out this mid-term evaluation to review the project’s progress so far and to provide guidance for the forthcoming implementation phase. The basic project document states that a mid-term review is to take place for rendering any necessary adjustments for improving achievement of the projects’ objectives. Considering the magnitude of this project in terms of outcomes and activities and the complexity and extension of its influence area (1,600 km²), this mid-term evaluation provides the opportunity to get to know project success or failure and prompt necessary adjustments.

The mission of the mid-term evaluation was realized between 15 to 25 June 2009 in the Dominican Republic, in the capital Santo Domingo and the project intervention area accordingly.

Based on an in-depth review the evaluator team came to the following findings:

### Assessment of the project design

The original project design addresses all major problems related to land-use systems (HS), identified most underlying root causes for such problems (MS) and identified most, even though not all barriers significant for adequate problem solutions (MS).

The Project Goal and the Project Objective determine precisely what should be done to overcome all significant problems (both HS).

The assessment related to the design of the project outcomes resulted in the following rating:

<table>
<thead>
<tr>
<th>Outcome 1</th>
<th>Policies, programs and planning frameworks and tools favourable to SLM being applied.</th>
<th>HS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 2</td>
<td>Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>HS</td>
</tr>
<tr>
<td>Outcome 3</td>
<td>Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed.</td>
<td>HS</td>
</tr>
<tr>
<td>Outcome 4</td>
<td>Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>MS</td>
</tr>
<tr>
<td>Outcome 5</td>
<td>Learning, evaluation and adaptive management</td>
<td>HS</td>
</tr>
</tbody>
</table>
Outcome 4 was rated MS due to its questionable conceptual linkage to the project objective.

With respect to **indicators at the project objective level**, there can be identified serious deficiencies in this part of the project design which have serious effects on project implementation and thus should be adapted (see recommendations).

There are also shortcomings of **indicator formulation at the outcome and output level**. Several indicators lack significance, are difficult to measure or are not conceptually linked to the next level within the Local Framework Matrix.

The project design is well linked with **national policies and development plans**.

All relevant **stakeholders** have participated actively during the project formulation process.

In general terms the lessons and experiences generated by the Sabana Yegua Project could be **replicated** for the design and implementation of other watershed management projects in other regions of the country. Most project activities are well integrated into national initiatives supported by several governmental and non-governmental institutions (including Fundación Sur Futuro) and will continue after the project’s completion.

It is considered as an **error not having included Protected Areas** in the project area because mayor areas with serious erosion problems are excluded from project actions.

**Assessment of the project implementation approach**

Apart from reviewing the project design there was also an assessment of the approach Fundación Sur Futuro developed to implement the project.

The **internal organizational structure** of the project team, set up by Fundación Sur Futuro is adequate and thus rated as S.

The **project staff** contracted by Fundación Sur Futuro dispose at all levels of adequate technical **capacities** and can demonstrate formal educational background (university or technical school studies) accordingly. There are minor technical shortcomings, but mayor ones with respect to facilitation and social skills (MS).

All **facilities** visited in the context of the mid-term evaluation mission appear to be in good conditions and well-equipped. **Logistics** seem to be good organised and allow a smooth project implementation. Hence facilities and logistics could be rated as HS.

The **M & E system** was set up with support from UNDP country offices. It is clear in its approach and works well in daily application. There should also be an emphasize on measuring quality and not just quantity.

The intended **local governance structure** is evaluated as S.

With respect to **local peoples active participation** and **local organizational development** there are several aspects that still should be improved. The project team has focused capacity building of farmers mainly on training in technical issues. Although technical issues are important, apart from that, there are a series of capacities that are strongly related with SLM and in general are rather weekly developed. These capacities being developed (see chapter on recommendations) are decisive for organisational and social long-term sustainability and guarantee that the local population can develop on their own appropriate land use technologies.

Local peoples participation in the, in most cases, recently established local governance mechanisms, still remains reactive, responding to the project team taking initiative to convoke for meetings and leading the development of action plans. A laudable exception occurred after tropical storms Noel and Olga. CDCs and CDZs organised themselves successfully in order to manage reparation of the damages caused by the storms. In due consideration of all positive
aspects of local people’s participation and capacity building and taking into account the identified
deficits, the state of the art is valued as MU.

Fundación Sur Futuro cooperates and collaborates with a broad array of other service provider
organizations. Most of these cooperations / collaborations work well. Only in the case of local
NGO CEPROS and with some GOs at national level, the mode of working together could be
improved. All in all the aspect of cooperation / collaboration with other service providers of the
implementation approach is valuated as MS.

The Project cost estimates are USD 4,434,695.00 of Global Environment Facility (GEF) funds to
be implemented by Fundación Sur Futuro with support from UNDP during the project life cycle
(June 2005 to June 2010). GEF funding is covered by the GEF program area of Land
Degradation which also applies for desertification and deforestation.

The total GEF funding is sub-divided by co-funding of outcomes 1, 2, 3 and 5. Outcome 4 is
entirely financed by non-GEF sources, mainly coming from Dominican Government entities.
Budget for outcome 2 represents 48% of the whole project budget because of the central
importance of this outcome for project success.

In general terms, all outcomes show a significant difference between planned and executed
costs in the first project year 2006, where less than the 30% of the amounts planned for
outcomes 1, 2 and 3, were disbursed. This occurred, because project implementation was
influenced by two decisive aspects:

• First, the signature of the project document was in October 31, 2005 but the date of the first
disbursement took place in August 1, 2006. In consequence, the project team had to wait 10
months for the first disbursement of money.

• Second, due to contest and management of exoneration mechanisms, the acquisition of the
project vehicles took 8 months, after the project had started.

From the second project implementation year 2007 onwards, the relation between planned and
executed remain over 70% in outcomes 1, 2 and 3. In 2008 a new decrease in the delivery rate
could be identified due to the effects of tropical storm Olga that crossed the region in December
2007. The local communities remained isolated for six months delaying the implementation of
project activities, forcing Fundación Sur Futuro to implement an alternative emergency project
with funding coming from the Office of the First Lady, for road rehabilitation and aid assistance to
harmed people.

The type of transferring funds is cash transfers directly to Fundación Sur Futuro. The
organizational capacity of Fundación Sur Futuro for financial management was evaluated by
Price Waterhouse Coopers with satisfactory results, before initiating the above mentioned fund
transfers. Disbursements of project funds are made through request to UNDP on a quarterly
basis. Funds for the first quarter are advanced, according to the Annual Operational Plan, and
funds for the following quarters are transferred after proper reports and FACE sheets are
submitted to UNDP. For transferences there are 15 organized accounts. The financial planning
of Fundación Sur Futuro is submitted to periodic examinations by UNDP and programmatic
supervision.

All externally contracted, independent financial audits have shown that Fundación Sur Futuro is
capable of managing such a project in financial terms.

Regarding long-term sustainability of project interventions, the project team still have some
strong challenges ahead. There should be improved the following issues to ensure long-term
sustainability:

• Focus strongly on having the local governance structure working at the project end.
If the aim of the project intervention is to develop and / or strengthen core competencies of all relevant stakeholders, so that these could manage the watershed on their own in the future, the project team has to broaden its capacity development strategy in this respect.

The delays in developing financial mechanisms to guarantee long-term financing of SLM practices put seriously at risk all other project interventions. The project team has to strongly focus on these issues.

Assessment of the project outputs

The project team of Fundación Sur Futuro has implemented activities according to the project’s planning framework. In the following the performance of the project team against planned targets will be highlighted according to a rating for the different project outcomes (see table below).

<table>
<thead>
<tr>
<th>Outcome 1</th>
<th>Policies, programs and planning frameworks and tools favourable to SLM being applied.</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Outcome 4</td>
<td>Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>S</td>
</tr>
<tr>
<td>Outcome 5</td>
<td>Learning, evaluation and adaptive management</td>
<td>MS</td>
</tr>
</tbody>
</table>

In the framework of outcome 1 there are deficits with respect to developing viable policy agreements for SLM and not existent co-funding of the project’s annual operative costs by other agencies than GEF.

The performance of the project team according to outcome 2 and 4 is satisfactory.

Until present no financial mechanisms for SLM are already working, as stated as targets for outcome 3. In many cases the project team has recently initiated and / or not progressed with financing mechanisms.

Although the project’s M & E system is well established, nonetheless the project team has not analyzed experiences yet and does not provide valuable information to other stakeholders (outcome 5).

Risks for the sustainability of project interventions have been assessed against established criteria and resulted in the following:
Outcome / Output | Category
--- | ---
Outcome 1. Policies, programs and planning frameworks and tools favourable to SLM being applied. | I
Outcome 2. Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed | MI
Outcome 3. Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed. | P
Outcome 4. Livelihood and wellbeing of population in the Watershed System improved. | I
Outcome 5. Learning, evaluation and adaptive management | I

Based on the above project assessment in the following will be presented the mayor recommendations for project improvement. These recommendations reflect the ‘external’ point of view and opinion of the evaluators, contracted for carrying out the mid-term evaluation. Evaluators took into account their own personal experiences in similar development interventions inside and outside the country and lessons learnt, greatly published, of other projects in the same thematic area.

**Recommendations for project design**

The evaluator team provides a detailed proposal for adjusting project indicators at the project objective level and also for the project outcome level.

We also recommend integrating new issues which would improve the project design significantly:

- Local initiative on regulating land tenure
- Harmonizing conflicting government policies
- Focus on climate change
- Re-thinking strategy for Protected Areas

We also recommend changing the focus of the following underlying project approaches:

- From *Production Models* towards *Innovation Development by Farmers*.
- From *Transfer-of-Technology* towards *Facilitation of Change Processes*.

**Recommendations for project implementation**

Due to the importance of these recommendations for the project implementation we present them in the original length as stated in chapter 6.2.

**Outcome 1**

1. For improving interventions in the thematic context of project outcome 1, we recommend the following actions:

---

3 The following categories were used to rate the risks of achieving sustainability:
Probable (P) - there are severe risks that affect this dimension of sustainability;
Moderately probable (MP) - there are significant risks that can affect this dimension of sustainability;
Moderately Improbable (ME) - there are moderate risks that affect this dimension of sustainability;
Improbable (I) - there are no risks that affect this dimension of sustainability.
The two policy agreements ‘Protocolo de entendimiento para la promoción del manejo sostenible de tierras en las cuencas de la presa de Sabana Yegua’ from 11 June 2008, signed by representatives of all relevant local and national Gos, NGOs and churches and ‘Encuentro de socialización de los principios de manejo sostenible de la tierra con sindicos y regidores de las comunidades de Padre las Casas, Constanza, Guayabal y Bohechio, Monte Bonito, Arroyo Cano, Las Lagunas, Los Frios y Buena Vista del Yaque’ from 12 February 2009, signed by representatives of local government administrations, are not clear to signing parties. Expectations of, for instance, the municipalities are that Fundación Sur Futuro will launch a program where they participate.

Apart from these policy documents, we recommend to focus on the development of practical policies which are related directly to the real world of participating stakeholders.

Examples for such policies are participatory land-use plans, developed together with all relevant stakeholders at the level of rural communities. These plans are policies which define clearly simple soil management principles for all community members for the environmental surroundings of a community. Since such principles are defined by community members themselves, they also have to determine sanction mechanisms for those community members who break these rules.

The convincing advantages of applying this approach are related to the following facts:

• Rules (policies) are understandable to those who should fulfil them;
• Rules (policies) are realistic, as they are based on a concrete and real life situation (the surroundings of a village);
• Rules are likely to be fulfilled since villagers define the sanction mechanisms and will apply social control to make other community members to fulfil the rules.

2. The target of having 400 Farm Management Plans in place is considered as too high, concentrating too much energy and resources on ‘achieving’ a target, instead of emphasizing quality.

We consider a target of having 2 farm management plans with respect to each of the 5 models in each zone in place as enough for serving as demonstration models for other farmers. This would mean to have 90 farm management plans developed. In each case the project team should centre attention towards quality (of each plan) instead of having many in place.

3. Since recently the project team started focusing on Spatial Planning at the municipal level. Despite this issue has not been planned in the original project design, it is considered as very important for integrating SLM practices into spatial planning for municipal development. We recommend supporting at least two municipalities in Spatial Planning and utilizing the experiences made in the municipality of Constanza.

4. The GIS system developed by Fundación Sur Futuro and DIARENA should be made accessible to other relevant stakeholders. One of these stakeholders might be the municipalities which could improve significantly their planning and monitoring systems, utilizing GIS technology.

Outcome 2

Project interventions related to outcome 2 are the most relevant with respect to achieving direct project objectives. The below suggested improvements intend to strengthen the implementation of project activities:

1. Core competencies for managing natural resources in a sustainable manner, go far beyond technical skills and environmental awareness. If the aim of the project intervention is
to develop and / or strengthen core competencies of all relevant stakeholders, so that these could manage the watershed on their own in the future, the project team has to broaden its capacity development strategy in this respect. Thus, apart from already running capacity development actions, we recommend the project team to adapt its capacity building approach and emphasize other core competencies.

The term capacity entails the ability of people, teams, organizations and societies to recognize development challenges, to prepare and commit themselves for the development of effective strategic solutions and to implement them successfully.

Even though core capacities vary between the different stakeholders, depending on its role and nature (for instance GO, NGO, local people), yet there are certain capacities that are common for all stakeholders:

- Clear position with respect to sustainable land management
- Existence of a clear and performance oriented organisational structure
- Existence of planning, monitoring and evaluation mechanisms
- Technical and administrative capacity to tackle principle organisational challenges (in this case related to SLM) – human and other resources
- Ability to communicate effective and efficiently – internally as well as with other stakeholders
- Democratic decision making mechanisms in place
- Capacity to negotiate with other stakeholders
- Capacity to (collectively) learn from experiences

2. The new municipal law assigns environmental planning and control competences to the municipalities, in particular to the Municipal Environmental Units (UAMs). All municipalities within the Upper Sabana Yegua Watershed System do no dispose of the required capacities to assume these new competences. Nonetheless the issue is an important mechanism for decentralizing power from the central to the local government.

According to the importance of this issue and related to building up local capacities, it is strongly recommended to support municipalities during the establishment of UAMs and the training of qualified personal. A special focus, of course, should be on developing capacities related to SLM.

3. Considering that the project area is vast and that it is difficult with limited funding (GEF funds) to achieve all, partly ambitious, outcomes, the project’s implementing agency (Fundación Sur Futuro) should integrate an approach of delegating project implementations to other service provider organisations who could demonstrate proven experience and organisational structures to perform in SLM practices. Applying this ‘outsourcing’ strategy, the Fundación Sur Futuro project team could be even more efficient and achieve more in the given time-frame. On the basis of observed capacities of other service providers, we recommend to outsource project implementation partly to the following organisations:

- CEPROS – the local NGO disposes of sufficient experience and capacity to take over the implementing responsibility of all SLM and capacity development activities in its area of action (municipality Padre Las Casas – corresponding to the same project zone).
- CODOCAFE – could take over total responsibility of all actions related to strengthening coffee growers.
Outsourcing should not only refer to assuming responsibility for carrying out activities, but should be based on a written commitment to achieve agreed targets in a given time-frame. Fundación Sur Futuro should also hand over sufficient financial resources, so that these service providers have enough flexibility to achieve targets.

4. Having two very similar governance mechanisms (CDC and Juntas de Asociaciones Campesinas and CDZ and Coordinadora de Juntas de Asociaciones Campesinas accordingly) in place, confuses local people, duplicates efforts and does not make use of existing structures.

In the evaluators’ opinion, a development intervention first of all should take existing local governance structures into account and secondly should look to improve these existing ones before creating new ones. Creating new organisations is a human and financial resources demanding and time-consuming process.

We recommend verifying again if in all cases the establishment of CDC and CDZ is the most adequate measure for creating local governance structures or if the already existing structures could be adapted to meeting SLM objectives.

5. Referring to surface area, the greater part of the Upper Sabana Yegua Watershed System is used by extensive cattle breeding, in particular by big ranchers. Heretofore the project team has not developed an appealing alternative production model for extensive cattle breeding on big ranches. For big ranchers, who do not even live in the watershed system but in outside, mere economic aspects may not be the only ones based on which big ranchers make decisions about land use. The project team have not yet analyzed the opportunity costs of extensive cattle breeding, although this is a basic data for developing economic alternatives.

We recommend to urgently emphasizing the development of an attractive alternative model for extensive cattle breeding on big ranches, jointly with ranchers. If this implies to allocate additional, not so far considered funding resources, this need should be discussed with mayor project partners – UNDP, GEF and SEMARENA – to identify a way on how to address this need.

6. The preponderant part of the watershed’s soils would be most adequately managed by forestry land-use regimes. Fomenting forest management plans demonstrates the economic viability of forest management land-use regimes to local people and therefore is the by far best promotion tool for motivating local people to reforest degraded areas. In this respect, an interesting possibility is fomenting forest management, for example in the Forest Reserves in Arroyo Cano, Villarpando y Guanito. In Los Teteros community the project has already supported the development of a Forest Management Plan on private property (Mr. Iluminado de los Santos Ferreras) on 125 ha. The existing natural forest is managed in a sustainable manner and provides economic benefits to its owner who also manages a small sawmill.

According to the biophysical characterization (PROYECTA, 2007) in Arroyo Cano, the communities request management plans for the management of mahogany plantations. Also the social work can be coordinated for the communities of this Forestry Reserves. Communities situated within the Forestry Reserves are not aware of the legal status of these reserves and currently practice agriculture, cattle breeding, charcoal and firewood extraction.

7. Relevant stakeholders’ capacity building in the project context centres mainly at the local level. In some cases the project team should also focus on strategically strengthening actors at the national level if these actors are very relevant for project success. During the mid-term evaluation mission, the strengthening of the following actors at the national level seems important in the project context:
• SEMARENA – PES Office: jointly developing the PES scheme for the Upper Sabana Yegua Watershed System.

• GTI: establishing and strengthening of the Local Working Group (CTL) in the context of combating desertification processes.

• SEMARENA – Office for Watershed Management of the Under-Secretariat of Soils and Water: exploring options for joint action.

Outcome 3
Outcome 3 is the most delayed project outcome. To ensure financial project sustainability, we recommend the project management to focus strongly on tackling the challenges related to identifying and becoming operational of the following financing mechanisms:

• Concluding and socializing the ‘Strategic and Financial Plan’ for assuring long-term financing of SLM actions with all relevant stakeholders.

• Establishing a PES scheme, based on the preliminary agreements with EGEHID and also integrating the irrigation water associations of the San Juan valley.

• Agreeing with the Secretariat of Finance on a debt-for-nature SWAP.

• Establishment in operational terms of a micro-credit program for investments in SLM.

It also seems very important to agree soon with SEMARENA what are the implications of the recently launched fund FONDO-MARENA for the above mentioned, rather locally focused funds. If necessary, also UNDP and GEF should be involved to this aspect become clear.

The evaluators have the impression that in the past the staff contracted by Fundación Sur Futuro was not able to respond adequately to the difficult challenges related to setting up the funds in the context of outcome 3. We recommend to contract specialists in this area, even if on a higher cost as originally planned.

Outcome 5
With respect to outcome 5 there are four recommendations for improving project implementation:

1. The emphasis of project monitoring is on proving if activities have been carried out according to planning. Planning intends to respond to the targets stated at project objective, outcome and output level. Activities of project staff are planned in a manner that they lead to achieving these targets. Fulfilment of planning is nearly exclusively based on comparing planned with carried out activities. This form of monitoring is fine for the field agent level, so that the staff at this level knows exactly what to do, but is not sufficient to measure project effects\(^4\). Numbers of farmers who attended training workshops and number of model farms installed do not reveal what trained farmers do after having participated at trainings and what makes exactly the difference of a model farm and a ‘common’ farm. Here we do not question the quality of work carried out by Fundación Sur Futuro personal but the quality of measurement of effects of this work.

The quality of data collected is important because it is finally the decisive factor on achieving the project objective or not. In conclusion, we recommend to adapting the M & E

\(^4\) We use the term ‘effect' instead of ‘impact' since impacts could only be measured with a significant time horizon (after a couple of years) and not directly after implementation of activities.
system in such a manner that quantity and quality data could be collected and analysed in order to be in the position to measure project success or failure.

2. Another important aspect regarding monitoring refers to the role that stakeholders play in the M & E system. Presently the only responsibility of data collection and analysis is with the project management, mainly Fundación Sur Futuro staff and partly UNDP staff. Other stakeholders provide data which are collected, sorted and analysed by project staff. One central aim of the project is to develop capacity of relevant stakeholders and even develop a local governance structure which will take over project implementation and management responsibilities after the GEF project has concluded. Thus, stakeholders are considered to be actors rather than passive beneficiaries. The capacity to monitor and evaluate undertakings is one core competency to be developed at the stakeholder level and which implies to stakeholders actively taking part in data collection, sorting and analysis. Therefore, the project team should take this seriously and develop mechanisms that allow other stakeholder to become active participants in the M & E system.

All project interventions target at improving living conditions for the population living within the Upper Sabana Yegua Watershed System and generating positive effects on downstream populations (water users). Hence, it seems meaningful to ask these actors how they perceive positive changes of their living conditions and their environment. Although the original project design did not foresee the participatory development of project indicators, positive changes at the very local level (e.g. communities) should be defined and measured by local people (see also recommendations).

For developing a participatory monitoring system we recommend the lecture of ‘Participatory monitoring and impact assessment of sustainable agricultures initiatives’ (Guijt, 1998)

3. The project has not yet analyzed experiences and derived lessons learnt and made these accessible to relevant stakeholders. Most important lessons learnt and success stories should also be published and made accessible to the interested public.

We recommend the following actions to be undertaken:

- initiating documented synthesis of project experiences;
- to put all important information on the website of Fundación Sur Futuro;
- to establish a library in the Padre Las Casas with all relevant project documentation as hard and soft copy and accessible to the interested public.

4. It also seems appropriate to send important information directly to relevant persons in the different project partner agencies, like e.g. JICO, SEMARENA, CEPROS, Municipalities, SUREF or CODOCAFÁ.

Cross-cutting recommendations

There are some issues which apply for some of the project outcomes and thus have a cross-cutting nature. These issues will be explored below:

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5 Titel in Spanish: ‘Cambiando Perspectivas para Observar el Cambio: Enfoques participativos para monitoreo del medio ambiente’
Strategic planning of second project phase

Based on the results of this mid-term evaluation and project staff’s own conclusions and the opinions of mayor project partners – UNDP and SEMARENA -, the project management should decide on the focal areas which should be central in the forthcoming project phase.

There is a huge number of minor and mayor issues to be improved which call for prioritizing those ones which are most likely to have central importance for project success. Project management is asked to weight different variables as:

- Funds available
- Human resources
- Organizational issues
- Ease to succeed
- Importance for long-term sustainability
- and others.

Planning for the next project phase should strategically address the most important issues, take into account lessons learnt and construct on project successes of the first phase.

Strategic personal recruitment

There are several delays in project implementation, in particular with respect to outcome 3, but also regarding single issues of other outcomes. On the other hand, there are enough funds available (see below) for addressing central issues to improve project implementation.

Apart from the above proposed outsourcing of project implementation to other service providers, there is a strong demand for recruiting qualified personal for particular issues which are central for project success. In particular we have identified the following areas:

- Strategic project implementation planning
- Facilitation of local change processes
- Farmers’ Innovation Development
- Establishment of a PES scheme
- Debt-for-Nature SWAP
- Systematization and documentation of project experiences and lessons learnt

The mode of contracting specialized professionals – consultants, full time or part time staff - and different options to combine the above mentioned areas, depend on the decision of the project management. We also recommend strongly to prioritize quality instead of prize of the services sought.

Conversion of funds between project outcomes

In chapter 4.2.4.2 we got to know that there are sufficient funds available in each project outcome budget lines. After having prioritized project interventions in certain areas, the project management together with UNDP and GEF should check if it is necessary to redesignate funds which have been assigned for achieving a certain outcome to another outcome where occur new need for funds assignment.
We recommend being very flexible with fund conversion in order to respond pragmatically to these need which aim at achieving the project’s objectives.

**Focus on quality**

Above have been examined several examples where the principal focus of the project team is to meet numeric targets (number of model farms, hectares reforested, etc.). We explored that only looking for achieving numbers will probably result in poor quality in many cases.

Hence, cross-cutting for all project interventions we recommend focusing not alone on quantity, but mainly on quality. The project addresses the first implementation period of the Master Plan for the Upper Sabana Yegua Watershed System in five years time. In this phase basic issues are being developed which later on will be up-scaled. Thus it is very important to centre now on quality because this will later be the standard being multiplied.

**Extension of project implementation**

In particular three issues with respect to time-frames were underestimated at the moment of project design:

- the time that it takes to change land-use culture and habits of farmers;
- the time that it takes to develop, establish and making work local governance structures;
- and the time that it takes to develop, establish and run mechanisms for financing SLM in the long-run.

Many development interventions have demonstrated that theses outcomes cannot be achieved in only five years. We recommend extending the project by an other year until October 2012 so that these important outcomes could be achieved. This proposal is based on the assumption that the existing financial resource suffice to cover the extension.
2 Introduction

The Project Implementation Unit for the Project ‘Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System’, co-financed by GEF and signed by this organization, the Government of Dominican Republic represented by the Secretary of State of Environment and Natural Resources (SEMARENA), and the Program of the United Nations for the Development (UNDP) is implemented by Fundación Sur Futuro a recognized Dominican NGO.

UNDP, on behalf of Fundación Sur Futuro, contracted consultant services to carry out a mid-term evaluation to review the project’s progress so far and to provide guidance to the following implementation phase. The basic project document states that a mid-term review is to take place for rendering any necessary adjustments for improving achievement of the projects’ objectives. Considering the magnitude of this project in terms of outcomes and activities and the complexity and extension of its influence area (1,600 km²), this mid-term evaluation provides the opportunity to get to know project success or failure and prompt necessary adjustments.

This report is organized following the procedures and policies for monitoring and assessment of UNDP/GEF and guided by the Terms of Reference specified by UNDP (see annex 1). The principal objective of this mid-term evaluation is:

- to assess the viability of the project design;
- to check and document the progress of the project implementation;
- to highlight the level of target achievement;
- to document lessons learned;
- and to recommend design adjustments and specific actions that could improve the project.

Achievement of development outcomes is given one of the following ratings: highly satisfactory (HS), satisfactory (S), marginally satisfactory (MS), marginally unsatisfactory (MU), unsatisfactory (U) and highly unsatisfactory (HU), following the guidance document of Procedures of the Program Implementation Review PIR 2008. This rating system clearly identifies strengths and weaknesses with respect to design or progress.

Evaluation was carried out by applying the following set of methodologies:

- Desk review of all relevant project documents, reports and information of relevant websites and other relevant recent literature;
- Interviews of representatives of counterpart organisations and other relevant stakeholders in Santo Domingo and the project region (see documentation of interviews);
- Interviews of project staff of Fundación Sur Futuro in Santo Domingo head office, in Padre las Casas project area office and during the field visits;
- Interviews of individual farmers;
- Focal group meetings and discussions with community members and farmers;
- Field visits – demonstration plots, model farms, etc.;
- Evaluators’ own observation.

External evaluators worked independently, with the support of the Project Implementation Unit and the UNDP Officers. The on-site evaluation mission was carried out between 14 June and 25 June 2009.
From 17 June until 20 June the facilities of Fundación Sur Futuro in Padre las Casas were visited. There, a plan for meeting key local actors and visit target project sites were elaborated. Field trips were organized to five zones: Padre Las Casas, Guayabal, La Siembra, Las Lagunas and Las Cañitas. Different project outputs as nurseries, model farms, demonstration plots, coffee processor facility, centre of sustainable agriculture, fixed and mobile erosion traps, a micro-hydropower plant, a forest management plan, a sawmill and a reforestation plot were inspected. Also meetings with local community members and its organizations at different levels (Community Development Committee, Zonal Development Committee, producer groups and different CBOs) were performed.

This report embraces all findings and recommendations of the mid-term review – carried out in June-July 2009 – of the Project ‘Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System’. 
3 Development context of the project

The population of the Upper Watershed System is 77,000, living in around 60 villages. Rural village community members are economically depressed with 80-100% of households living in poverty. Basic services as access to drinking water, electricity, primary education or road infrastructure are in precarious conditions. Farmers are heavily dependent on subsistence agriculture, with limited access to markets, opportunities for employment and sources of alternative income. Almost all of the area outside of protected area system is deforested, being dedicated to agriculture and grazing.

The project area drains into the Sabana Yegua Dam, which was completed in 1978 to provide irrigation, electricity, and domestic water services to over 610,000 people. Families downstream of the dam place access to irrigation water at the top of their list of agricultural priorities. However the total volume of the hydrologic resources in the area is less than 4% greater than the current demand, and will not be sufficient to meet future needs for domestic use, irrigation and the maintenance of aquatic ecosystems. Sedimentation, due to degradation of the Upper Watershed System, is estimated to reduce reservoir capacity by 1% per year and to date has resulted in a loss of 13% of total capacity. Loss of reservoir capacity also jeopardizes opportunities to generate hydroelectric power, in order to mitigate the country’s critical problems with energy supply without increasing dependence on the use of fossil fuels.

Stakeholders

In the Sabana Yegua watershed system there is a wide diversity of stakeholders involved in land-use and land degradation issues.

At the local level, the most significant group are smallholder farmers who produce principally agricultural crops for subsistence, mostly on steep and degraded slopes. Vast areas are also utilized by ranchers with extensive cattle breeding, frequently using burning as means for land preparation. Another significant group are coffee growers, principally using traditional shade production systems, occupying small areas in higher elevations (above 900 m.a.s.l.) of the upper watershed system (around 2.2% of the total area); despite their limited extent, many of these areas are of crucial importance for water production.

Primary level community-based organizations (CBOs) in rural areas play an important social and growing economic role. These encompass mutual help unions and associations, and in some cases are focused on specific production systems, as in the case of organizations of coffee growers. In some parts of the project area there are also second level CBOs, at community level (community umbrella organisations). A number of CBOs and community umbrella organisations are legally registered.

Local government is represented by municipal authorities in urban centres and, at the community level, by alcaldes who are responsible for conflict resolution and regulation. Municipal authorities are obliged by law to establish environmental management units (UAMs), although no municipality has done this so far because of severe budget limitations. Central government is represented at the community level in the form of teachers and health workers. They are, however, few in number and widely dispersed in relation to the need for their services. Government institutions such as the Secretariat of Agriculture (SEA) and SEMARENA are highly centralized and have limited local presence and impact.

At the regional and national level, land degradation also affects the interests of domestic water consumers, electricity consumers and larger agricultural operators, who occupy relatively large areas of flatter, more fertile land downstream of the Sabana Yegua dam and are highly
dependent on water from for irrigation. Among the principal central government organisation
relevant to the project are SEA (responsible for developing and implementing agricultural policy,
including agricultural extension), SEMARENA (responsible for developing and implementing
environmental policy and applying environmental regulations), the Secretariat of Education SEE
(responsible for ensuring education), the National Hydrological Institute INDRHI\(^6\) (responsible for
establishing, maintaining and regulating irrigation infrastructure) and the Secretariat for Public
Works SEOP (responsible for establishing and maintaining road infrastructure). The Agricultural
Bank BANGRICOLA and private sector commercial institutions provide finance. Due to fastidious
legal requisites for loans their attention to small-scale farmers is very limited. CODOCAFE is a
public-private partnership organisation which provides technical assistance to promote coffee
production, processing and marketing and has a significant importance for coffee growers.

Non-governmental organizations play an important role at various levels. Church-based
foundations, as for instance FUNDASEP, promote community development and basic service
provision. The NGO CEPROS facilitates since 31 years smallholder farmer self-organisation and
sustainable agricultural development.

A number of private sector institutions, both national and international, provide or channel
funding and technical support, including the Sur Futuro Foundation and the Kelloggs
Foundation.

Project Rationale

The problem to be resolved by the project can be summarized as follows:

“Degradation of soil and vegetation resources in the Upper Sabana Yegua Watershed
System leads to increased vulnerability to environmental shocks, decreased agricultural
production, reduction in access to basic services (water and electricity), demographic
instability, loss of carbon reserves and loss of ecosystem resilience”

The problems described above can be attributed principally to two processes or threats:

- conversion of forest and shade coffee to other land uses, which has left 70% of non-
  protected areas without tree cover;
- applying inappropriate land-use technologies on steep slopes (e.g. burning, hillside tillage,
  and reduced fallow).

The loss of ecosystem resilience is best measured in the Upper Sabana Yegua Watershed
System through a proxy indicator, forest cover. Most tree cover in this zone is that found within
shade coffee plantations, which cover only 2.2% of the area. There are very little natural forests
left in the landscape. Currently, 80% of land in the productive (non-protected) landscape (71,300
ha) is subjected to use which is incompatible with its biophysical characteristics.

These processes can in turn be attributed to a number of root causes:

- Farmers typically have limited access to financial capital or to “safety nets” and therefore
tend to favour land management options which promise short term returns for a minimum of
investment, and minimize risks.
- At the same time, in most cases they only have limited knowledge of alternative production
technologies, many of which were developed for other conditions and, when applied on
steep dry zone hillsides, typically lead to severe land degradation and expose the farmer to
high levels of vulnerability of crop failure.

\(^6\) Although INDRHI is part of SEMARENA it maintains relative independence. Therefore it is mentioned
here as an individual stakeholder.
The potential to generate and apply alternative technologies is in turn constrained by the limited understanding on the part of farmers and the institutions (both governmental and NGOs) which support them, of the complex biophysical and social-cultural factors which interact in land degradation processes.

Land use decisions are also influenced by economic factors: the conversion of coffee plantations to other, less SLM-friendly uses, is motivated to a large extent by the low prices which farmers typically obtain for their coffee, due to shortcomings in their production and processing practices.

Shortage of labour, as a result of emigration due to livelihood failure, is also a disincentive for the application of labour-intensive practices compatible with SLM, and tends to favour damaging low-input practices such as burning and extensive cattle raising.

Finally, there is limited capacity to coerce resource managers to desist from damaging practices; the existing laws are scarcely applied in practice.

There are a number of significant barriers to the implementation of solutions to the above mentioned problems and their causes:

- Insufficient and inadequately developed and applied policies
- Limited institutional capacity
- Limited human and social capital at local level
- Lack of access to adequate and appropriate finance and incentives

In order to tackle the above mentioned problems, a Master Plan has been prepared for the Upper Sabana Yegua Watershed System. Nonetheless the Master Plan focuses largely on technical solutions. Experience from the first two years of its implementation suggests that this approach will not lead to the underlying causes of land degradation being effectively addressed. Under the baseline scenario, deficiencies in institutional capacities, local human and social capital, and the context of policies, regulations and incentives will result in significant levels of land degradation continuing to occur.

GEF support focuses on removing the barriers to implement sustainable land management, specifically through integrating SLM issues (including a landscape approach, an analysis of tradeoffs between social and environmental concerns, integrated and cross-sector planning, and land functionality analysis) into the revision and implementation of the Master Plan. By the GEF alternative, solutions to land degradation are implemented in the Upper Sabana Yegua Watershed System which will be sustainable in the long term and compatible with national goals of poverty reduction. These solutions will be considered to adjust the Master Plan for the Watershed System and, through the dissemination and replication of lessons learnt, will lead to more effectively combat land degradation throughout the Dominican Republic.

The project reverses the effects of land degradation in order to maintain and enhance ecosystem integrity, stability, functions and services, thus qualifying under the GEF Operational Programme #15 within SLM-2 with elements of SLM-1 by providing:

- Capacity building at the national and local level in developing policy and financial mechanisms to support SLM, and for implementation of sustainable land use and sustainable agriculture, grazing, and forestry practices.
- On-the-ground investments in sustainable agriculture, grazing, and forestry models.
- Investments in project management systems and inter-agency coordination mechanisms and capacities to implement SLM.
The project is expected to enhance sustainable land management directly on at least 9,000 ha of land during its life, with a total indirect effect on the management of the entire area for a total of 166,000 ha after the full implementation of the Master Plan after 15 years.

In accordance with OP15 guidance, the project will address the linkages between land degradation and poverty by promoting the protection of the natural capital on which local livelihoods depend, empowering communities and municipalities to respond to the multidimensional aspects of poverty, and promoting financial instruments which contribute directly to the generation of income and employment and the provision of basic services, thereby directly compensating investments in SLM and serving to reduce the impacts of poverty as a root cause of land degradation. Secondary benefits of relevance to OP15 will be the reduction of GHG emissions through carbon sequestration, and protection of biodiversity through habitat restoration.

The initiative is a full size OP15 project in the Caribbean basin.

Project Goal, Objective, Key Strategies and Outcomes

The project promotes sustainable land management as one essential component of sustainable rural development in the Upper Sabana Yegua Watershed System. Although it includes some components of education, generation of employment and satisfaction of basic needs, it does not on its own aspire to addressing completely all aspects of sustainable rural development. The Project Goal is therefore defined as follows:

“Promotion of sustainable development of the human and natural resources of the Upper Sabana Yegua Watershed System”.

The Project Objective focuses on the implementation of GEF generated activities that will lead to long term sustainable land management throughout the entire Upper Sabana Yegua Watershed System, expressed as follows:

“To promote the sustainable land management in the Upper Sabana Yegua Watershed System, in order to achieve global environmental benefits within the context of sustainable development and poverty reduction”.

The overall project strategy is to focus over a 5 year period on removing the barriers to achieving SLM in the Upper Sabana Yegua Watershed System, integrating SLM principles and “jump-starting” the Watershed System Master Plan, and therefore increasing its effectiveness and sustainability of the during the subsequent 10 years and beyond. The project is expected to enhance sustainable land management directly on at least 9,000 ha of land during its life and 62,800 ha in 15 years, with a total indirect effect on the management of the entire area for a total of 166,000 ha after the full implementation of the Master Plan after 15 years. Key strategies to be applied are the following:

- Use of a public-private partnership as a conduit between the Dominican government and the local level stakeholders.
- A gradual transfer of implementation responsibilities from the Sur Futuro Foundation to local governance and stakeholder participation structures, leading to the development of the social, human, and financial capital required to achieve long-term participatory management.
- Consolidation of fragmented policy, social, and financial approaches to land management into a more synergistic framework.
- The use of inductive processes to promote SLM, such as the provision of information, opportunity, and incentives, rather than controls on land use through zoning and penalties.
• Creation of a four-level participatory coordination structure, which will facilitate communication among stakeholders (from local to national level) and the democratic development of community level political solutions to problems.

• Investment in the capacity of younger generations to manage governance structures and manage livelihoods in a sustainable manner, in order to ensure the long-term sustainability of project results and counteract the weakening of social and human capital by emigration.

• Promotion of the generation and channelling of funding for SLM, from diverse sources, including innovative schemes and existing credit mechanisms, within a context of watershed level strategic financing plan.

• Linkage of SLM initiatives to poverty reduction initiatives, in order to address the poverty-related causes of SLM and at the same time maximize the potential of land management activities to contribute directly to poverty reduction.

• Promotion of a gradual shift from annual crops to those that produce permanent cover, soil conservation, or non-agricultural opportunities that create consciousness or reduce the pressure on the resource base.

The five outcomes of the project focus on:

6. The creation of a favourable environment of policies, programs, planning frameworks and tools for SLM.

7. The creation of the necessary capacities among local and institutional stakeholders for planning, regulation and support of SLM initiatives.

8. The promotion of access to finance and other forms of incentives necessary to make SLM-related activities economically attractive.

9. Improvement of the livelihood and wellbeing of the population in the watershed system.

The fourth outcome, which focuses on the reduction of poverty as a barrier to SLM, will be entirely co-financed.

10. Learning, evaluation and adaptive management.

The project “Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System” started in operational terms in March 2006\(^7\) and is planned to finish in October 2011\(^8\).

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\(^7\) Official project start 31 October 2005.

\(^8\) The project’s timeframe was adapted in 2008 due to implementation delays caused by two tropical storms (Noel and Olga) in 2007/2008.
4 Project assessment

The core of the mid-term evaluation focused on the assessment of the project in different terms. The review concentrated on evaluating:

11. the project design;
12. the project implementation approach;
13. and all project outputs.

Sub-chapters 4.1 to 4.3 emphasize the outcomes of the mission accordingly.

4.1 Assessment of the project design

In the following the original project design will be assessed against the underlying root causes of the mayor problems related to land degradation and desertification processes in the Upper Sabana Yegua Watershed System, principal barriers hampering problem resolution and the planned project goal, objectives, key strategies, outcomes, outputs and its indicators for measuring achievements.

Indicators will be assessed on the basis of fulfilling internationally recognized criteria to be SMART – specific, measurable, achievable, relevant and time-bound.

4.1.1 Assessment of Underlying Problems, Root Causes and Principal Barriers

The original project design has appropriately identified the mayor problems land degradation and desertification processes in the Upper Sabana Yegua Watershed System provokes:

- Increased vulnerability to environmental shocks
- Decreased agricultural production
- Reduction in access to basic services (water and electricity)
- Demographic instability (migration)
- Loss of carbon reserves
- Loss of ecosystem resilience

The identification is consistent, logical and based on reality found on the ground and thus considered as HS (highly satisfactory).

As underlying root causes of these mayor problems has been identified the following ones:

- Farmers typically have limited access to financial capital or to “safety nets” and therefore tend to favour land management options which promise short term returns for a minimum of investment, and minimize risks.
- At the same time, in most cases they only have limited knowledge of alternative production technologies, many of which were developed for other conditions and, when applied on steep dry zone hillsides, typically lead to severe land degradation and expose the farmer to high levels of vulnerability of crop failure.
The potential to generate and apply alternative technologies in turn constrained by the limited understanding on the part of farmers and the institutions (both governmental and NGOs) which support them, of the complex biophysical and social-cultural factors which interact in land degradation processes.

Land use decisions are also influenced by economic factors: the conversion of coffee plantations to other, less SLM-friendly uses, is motivated to a large extent by the low prices which farmers typically obtain for their coffee, due to shortcomings in their production and processing practices.

Shortage of labour, as a result of emigration due to livelihood failure, is also a disincentive for the application of labour-intensive practices compatible with SLM, and tends to favour damaging low-input practices such as burning and extensive cattle rising.

Finally, there is limited capacity to coerce resource managers to desist from damaging practices; the existing laws are scarcely applied in practice.

All these identified root causes are viable and contribute to the core problems described above. Nonetheless there are root causes that have not been identified in the original project design:

- Analyses carried out during the project preparation phase led to the conclusion that formal land tenure is not a significant root cause of land degradation and therefore does not require significant attention by the project. It was assumed that local recognition of de facto ownership is normally sufficient to protect farmers' investments in land management, and farmers often have access to informal or alternative sources of credit which does not require formal proof of tenure. According to studies carried out in other areas of the Central Mountain (Cordillera Central) region, a study carried out on behalf of Fundación Sur Futuro, the project implementation entity and interviews of local farmers through the mid-term evaluation team, revealed that the lack of formal land tenure is a significant reason why farmers do not invest in long-term investments and do not have access to credit with reasonable interest rates.

- Another root cause for land degradation that has not been adequately addressed in the project design is conflicting government policies. It is common practice that the Secretariat of Agriculture facilitates bean and other seed of short-term crops to farmers without any restriction regarding the areas where these could be sawed. In practice, farmers cultivate short-term crops in many cases on steep slopes, getting in conflict with restrictions in the frame of the Environmental Law 64-00 that does not allow the cultivation of short-term crops on slopes steeper than 60%.

- A root cause for farmers deforesting and not allowing to natural tree vegetation coming up is the restrictive policy of the Dominican Government regarding tree utilization in the past that lead to an anti-tree culture among farmers, in particular smallholders. Having natural trees on farmers compounds, in the perception of farmers still contains the risk that the government has the option to punish them (even to put them in jail) if they fell trees. In consequence it is saver to not have or not allowing the natural regeneration of trees coming up on ones property.

As the identification of root causes for core problems is directly linked with the identification of the most important barriers and the design of the project intervention strategy, it is assessed as MS (marginally satisfactory).

The project design considers the following barriers as significant for the implementation of solutions to the above mentioned problems and their causes:

- Insufficient and inadequately developed and applied policies
• Limited institutional capacity  
• Limited human and social capital at local level  
• Lack of access to adequate and appropriate finance and incentives  

Besides these barriers there are others, directly linked to the above identified root causes. These are in particular:

• Inadequately coordinated government policies (conflict of interest of different policies)  
• Lack of formal land tenure  
• Scepticism of farmers with respect to forest trees (in contrast to fruit trees)  

There are three more barriers as originally identified, hampering SLM practices. Hence identification or barriers is assessed as MS.

4.1.2 Assessment of Project Goal and Objective  

According to the original project design, the Project Goal is defined as:  

‘Promotion of sustainable development of the human and natural resources of the Upper Sabana Yegua Watershed System’.  

The project goal addresses the critical issues underlying land degradation, focuses in broad terms on what should be done and identifies clearly the area where the project will be carried out. It is sufficiently precise and realistic as a vision that is viable to be achieved. In consequence it is assessed as HS.

The Project Objective focuses on the implementation of GEF generated activities that will lead to long term sustainable land management throughout the entire Upper Sabana Yegua Watershed System, expressed as follows:  

‘To promote the sustainable land management in the Upper Sabana Yegua Watershed System, in order to achieve global environmental benefits within the context of sustainable development and poverty reduction’.  

Besides focusing on what should be implemented in the project framework (promoting sustainable land management), the project objective relates the project area to the wider context of benefits at the global scale which is decisive regarding GEF projects. The project objective also focuses attention on two underlying root causes for land degradation and desertification processes, namely unsustainable development and poverty that should also be addressed by the project. The objective also emphasizes that the project intervention focus on promoting sustainable land management and not already focus on generating impacts as cannot be expected from the first phase of implementation of a 15-years Master Plan for the Upper Sabana Yegua Watershed System.

The project objective is realistic and precise and thus can be assessed as HS.

Indicators defined for measuring the achievement of the project objective figure as follows:
<table>
<thead>
<tr>
<th>Description</th>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consensus reached on a new 5-year plan (2010-2015) for the management of the watershed system with SLM principles</td>
<td>1 Master Plan</td>
<td>1 new 5-year plan within the context of the master Plan by year V</td>
<td>As the Master Plan shows significant shortcomings it is very import to review and reformulate it in order to ground SLM interventions in the Upper Sabana Yegua Watershed System on a sound technical, institutional and socio-economic base. Management Plans and guiding documents regarding Protected Areas, are not considered.</td>
<td>S</td>
</tr>
<tr>
<td>Amount of land with appropriate use (use in-line with the bio-physical characteristics of the area)</td>
<td>72% Inappropriate use (62,953 ha)</td>
<td>Inappropriate land use reduced to 62% (53,953 ha) by the end of year V</td>
<td>There is no comprehensible explanation regarding the impacts expected to be achieved by reducing inappropriate land use by 10%. Data the indicator is based on suppose that the project area is 87,434 ha. Data obtained during project implementation show that outside protected area there are only 71,300 ha. Data obtained during project implementation demonstrate that outside protected areas only 30.8% are inappropriately utilized. The indicator refers to future land use areas also covered by indicator ‘ecosystem restored as measured by forest cover in the Watershed System’. There is a certain overlap of both indicators. The indicator is very ambitious regarding the area to be managed in a sustainable manner and falls short in relating this area with a minimum number of farmers.</td>
<td>MS</td>
</tr>
<tr>
<td>Description Indicator</td>
<td>Baseline Level</td>
<td>Target Level</td>
<td>Assessment</td>
<td>Validation</td>
</tr>
<tr>
<td>-----------------------</td>
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</tr>
<tr>
<td>Soil erosion</td>
<td>9,505,000 t/yr of soil erosion</td>
<td>Soil erosion rate of Watershed System reduced to 8,500,000 t/yr by the end of project in year V.</td>
<td>The area with inappropriate land use inside protected areas is nearly the same as outside protected areas (inside 20,000 ha and outside 21,900 ha). Nonetheless the project does not intervene inside protected areas where half the erosion takes place.</td>
<td>U</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Technically it is not feasible to attribute the reduction of the erosion rate in the watershed system to project interventions in a time frame of only 5 years. There are numerous variables (e.g. precipitation regime, macro economic development) outside influence of the project management that have much more influence on the erosion rate than project interventions. Actually there is no viable monitoring system installed that could provide viable and reliable data on erosion. It was expected that the study with respect to design and establishment of a sedimentation and erosion monitoring system (PROYECTA, 2008) contributes to address this aspect but did not provide the intended outcome. The indicator as it is formulated currently is not viable for attributing soil erosion reduction to the project interventions.</td>
<td></td>
</tr>
</tbody>
</table>

| Volume of acumulated sediments in SY dam (original storage capacity is 479.9 millions of cubic meter) | 117.6 MCM of sediment (24.5% of total capacity reduced) | Rate of sedimentation mantainted to within tolerable limits to produce no more than. 118.2 MCM by year V | A bathymetric study of the Sabana Yegua reservoir, carried out in 2008 by INDRHI in coordination with Fundación Sur Futuro showed that only a 13 % of the reservoir’s capacity is sedimented (and not a 24.5 % as supposed by the project baseline). Technically it is not feasible to attribute the reduction of the sedimentation rate of the Sabana Yegua reservoir to project interventions in a time frame of only 5 years. There are numerous variables (e.g. precipitation regime, macro economic development) outside influence of the project management that have much more influence on the sedimentation rate than project interventions. Due to the above explained uncertainties, the indicator is not viable. | U |
Due to the assessment results regarding indicators at the project objective level, there can be identified serious deficiencies in this part of the project design which have serious effects on project implementation and thus should be adapted (see recommendations).

### 4.1.3 Assessment of the Project Outcomes and Outputs

The project outcomes will be assessed against its logical linkage with and contribution to achieving the project goal. Each outcome will be assessed on its own and all outcomes together as a conceptual unit.

**Outcome 1**

The project outcome 1 is defined as:

‘Policies, programs and planning frameworks and tools favourable to SLM being applied’.
Each of the aspects addressed by the outcome, i.e. policies, programs and planning mechanisms are very important to sustainable land management be embedded in a long-term planning and regulatory framework. Thus, outcome 1 is considered to be highly relevant for the achieving the project objective and in consequence is rated as **HS**.

<table>
<thead>
<tr>
<th>Description Indicator</th>
<th>Baseline Level</th>
<th>Target Level</th>
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<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning instruments incorporating SLM, implemented by agencies, municipalities, NGOs, and local organizations</td>
<td>0</td>
<td>2 Zone Development Plans per year for a total of 9 Plans by year V</td>
<td>Development plans for a clearly defined territory are viable planning tool that also allows integrating all relevant stakeholders. Nonetheless the number of development plans to be elaborated depends on a series of social and environmental characteristics of the landscape and thus should not be determined in advance.</td>
<td>S</td>
</tr>
<tr>
<td>Reformulated Master Plan approved with consensus and funded to incorporate SLM principles</td>
<td>0</td>
<td>One (1) Master Plan reformulated, approved and financed by year V</td>
<td>The Master Plan for the management of the Upper Sabana Yegua Watershed System is the basic planning tool for all interventions in the area. As the Master Plan shows serious shortcomings regarding its rationale and planned interventions, it is absolutely necessary to review and reformulate it.</td>
<td>HS</td>
</tr>
</tbody>
</table>

Both indicators are viable and allow to measure achievement of outcome 1. On the other hand, in the Dominican Republic there are critical contradictions between policies of different government institutions. For instance, the Secretariat of Agriculture (SEA) distributes cash crop seeds to farmers. The state owned Banco Agrícola provides loans to farmers. Both government institutions do not limit cultivation of cash and subsistence crops to certain environmental conditions, resulting that many, if not most, crops in hillside areas are cultivated on steep slopes, causing heavy erosion. This proceeding clashes with regulations according to the Law for Environment and Natural Resources (Ley 64-00) that prohibits agriculture on slopes steeper than 60%.

Given the above situation, which is just an example of contradicting government policies, it seems necessary to align these policies, at least at the level of the watershed system.

**Output 1.1**

The first output of outcome 1 is expected to be: ‘**SLM principles harmonized into the policies, programs and planning frameworks of key government institutions**’.

Output 1.1 is highly relevant for achieving outcome 1 and addresses the mayor conceptual deficit at the outcome level, identified above – **HS**.
Output 1.2

The second output of outcome 1 is expected to be: ‘System developed for the management of information related to SLM, in support of the participatory watershed planning system and policy formulation’.

Having an information system installed, is a precondition for sound planning. Thus, output 1.2 is very important and focuses on an elementary element for sound SLM — HS.

Despite its importance it is not clear why output 1.2 is considered to be related to outcome 1 instead of outcome 5.

Output 1.3

Output 1.3 is determined as: ‘Implementation strategy for future phases of the 15 year SY initiative designed and agreed among all stakeholders’.

Besides the undoubtedly importance of a GIS for watershed management, it is also important to have a knowledge management system in place. A system where all knowledge regarding land use issues is collected and organised has not been considered neither been associated with outcome 1 nor with outcome 5. This is a considerable shortcoming of the project design.
The reformulated Master Plan will provide the planning framework for future interventions in the Upper Sabana Yegua Watershed System. Apart from this planning tool there must also be an intervention strategy between all relevant stakeholders. Output 1.3 is a cornerstone for achieving outcome 1, and thus is assessed as HS.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Funding secured for implementation of 2nd 5-year phase.</td>
<td>Average implementation cost for 3 year period 2007-2009</td>
<td>80% of funding for Annual Operations secured. by the end of 2009</td>
<td>Funding is fundamental for every implementation strategy. It is also important to consider funding for the second 5 year implementation interval right whilst the first one. Until the end of the project it will become clear which funds are required for future implementation. It is also crucial to ensure the bulk of funding required. Thus assure an 80 % of future funding is absolutely necessary in this context. What is difficult to understand is why this indicator figures here, embedded in outcome 1, output 1.3, instead of outcome 3 that is about long-term financing.</td>
<td>S</td>
</tr>
</tbody>
</table>

Limiting an implementation strategy to mere funding issues, is a very narrow conception of what a strategy is about. In principle an implementation strategy is understood as a much broader concept, addressing also issues of institutional arrangements, responding organisational and operational challenges, or, as stated in wikipedia: ‘A **strategy** is a plan of action designed to achieve a particular goal’.

**Outcome 2**

The project outcome 2 refers to:

‘**Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed**’.

Stakeholders’ capacity is crucial for the project interventions’ long term sustainability. Only if all relevant stakeholders dispose of core competencies for applying SLM mechanisms, the project interventions will generate long term impact. In consequence, outcome 2 is considered to be highly relevant for achieving the project objective and therefore is rated as HS.
### Description and Baseline Level

<table>
<thead>
<tr>
<th>Indicator</th>
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<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reports of violations of environmental regulations that are effectively processed</td>
<td>0%</td>
<td>Eighty (80%) percent of reports of violations of environmental law effectively processed by year II and 90% by year V</td>
<td>The indicator is easily to measure.</td>
<td>MU</td>
</tr>
<tr>
<td>Local perception of effectiveness of regulation, planification and technical support</td>
<td>0%</td>
<td>Forty (40)% of local population of the Watershed System considers favourably the regulatory and logistic to SLM principles by year II and 80% by year V</td>
<td>The indicator is measurable, although with a considerable effort (surveys).</td>
<td>U</td>
</tr>
</tbody>
</table>

Although both indicators focus on measuring strengthened capacity, they do not focus on most core capacities to be in place if the most important stakeholders are supposed to manage the Upper Sabana Yegua Watershed System effectively and efficiently. The term capacity entails the ability of people, teams, organizations and societies to recognize development challenges, to prepare and commit themselves for the development of effective strategic solutions and to implement them successfully.

Even though core capacities vary between the different stakeholders, depending on its role and nature (for instance GO, NGO, local people), yet there are certain capacities that are common for all stakeholders:

- Clear position with respect to sustainable land management
- Existence of a clear and performance oriented organisational structure
- Existence of planning, monitoring and evaluation mechanisms
• Technical and administrative capacity to tackle principle organisational challenges (in this case related to SLM) – human and other resources
• Ability to communicate effective and efficiently – internally as well as with other stakeholders
• Democratic decision making mechanisms in place
• Capacity to negotiate with other stakeholders
• Capacity to (collectively) learn from experiences

In the light of not addressing most of the above described capacities, the indicators for measuring capacity development are rated as U.

Output 2.1

Output 2.1 refers to ‘Participatory governance structures and procedures for watershed planning for SLM functioning’.

A governance structure that allows all relevant stakeholders to actively participate in exchange of ideas, discussions and finally decision making, ensures SLM practices to be applied by a wide range of actors and so finally generating tangible impacts at the watershed level. Therefore output 2.1 is valued as HS.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Establishment of Watershed and Zone Development Committees</td>
<td>0</td>
<td>1 WC and 9 ZDCs created and functioning in SY watershed by 2006</td>
<td>Having a decision making and coordination structure at the watershed system level and also at a lower level, called zones in the context of the project at hand, is very important to assure that all relevant stakeholders take part and are included in all watershed wide undertakings. A decision making and coordination structure at the watershed level is a fundamental institutional condition for effectively and efficiently address sustainable land use issues. The creation of zone</td>
<td></td>
</tr>
</tbody>
</table>

Output 2.2

The focus of output 2.2 is on ‘Land management and production models to support SLM are developed and adopted’.

Approaches aiming at transferring production models are not likely to succeed, as smallholder farmers and farmers in marginal conditions (as in the case of the SY watershed system) do not present a homogeneous mass that could adapt standardized models. Each farmer family presents a very particular case considering socio-economic variables and ecological conditions of the farmstead.

Instead, contemporary approaches to SLM, as, or instance, participatory technology development or learning-through-action, focus on developing farmers’ ability to engage in SLM
practices by fostering farmer-to-farmer knowledge exchange and social learning (e.g. farmer experimentation). The heart of these approaches is on single SLM technologies that can be adapted to the particular conditions of each farmer. It is more about having a basket full of options where the farmer himself / herself decides which one he / she utilizes, than offering him / her a limited set of recipes.

Nonetheless, production models are important to understand specific productive options in detail, technically, as well as economically and in organisational terms. Therefore they have a value as information base but not as a recipe to be transferred.

Due to the above highlighted conceptual deficiencies, output 2.2 is rated as U.

The indicators below are assessed against its significance for measuring output 2.2 as was originally designed, i.e. in correlation with the original logic or concept.

<table>
<thead>
<tr>
<th>Description Indicator</th>
<th>Baseline Level</th>
<th>Target Level</th>
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<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of land management and production models developed and tested</td>
<td>1 Agroforestry model under development</td>
<td>Five models (coffee, improved agroforestry, forestry, animal husbandry and roading) by 2007</td>
<td>The indicator is clear in its scope and easy to measure. The indicator does not refer to the quality of the models being developed.</td>
<td>MS</td>
</tr>
<tr>
<td>Quantity of producers adopting the components of production models in coffee, agroforestry, animal husbandry and forestry</td>
<td>0</td>
<td>250 producers (5% of total per 1998 census) have adopted the production models by 2007, 500 (10%) by 2009 and 2,000 (50% of producers) by 2017</td>
<td>The quantities of producers supposed to having adopted components of the production models are clear and measurable. The target of 500 (10 %) of farmers having adopted productions models by the end of the project seems to be too small as being considered for having a level that assures self-promotional effects afterwards. For having a critical mass of farmers that can be serve as multipliers to other farmers, at least a 25 % or 1,500 farmers are considered as appropriate.</td>
<td>MU</td>
</tr>
</tbody>
</table>

Output 2.3

Output 2.3 is determined as: ‘Knowledge among local population to reduce technical problems that influence production models, land degradation and ecosystem recovery’.

To strengthen farmers’ knowledge regarding SLM practices addresses another root cause of unsustainable land use practices as identified in the project rationale but only emphasizing issues related to technical problems appear to be of a rather limited perception of the broad variety (e.g. economic, organisational) of problems related to knowledge deficiencies.

In accordance output 2.3 validated as S.
### Output 2.4

Output 2.4 emphasizes the following: *‘Project and agency technical capacity to promote SLM developed’*.  

Technical capacities (concerning SLM) of Fundación Sur Futuro as implementing agency as well as the project team are crucial for successful project implementation. Hence the output is **HS**.

<table>
<thead>
<tr>
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<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of farmers receiving timely technical assistance on practices for SLM increased</td>
<td>0</td>
<td>500 farmers by 2008, 2000 by 2013 and 3000 by 2017.</td>
<td>The indicator measures indirectly the agency’s and project team's capacity regarding SLM. It is feasible to measure the indicator, since it is clear in its scope and time-bound.</td>
<td><strong>MS</strong></td>
</tr>
</tbody>
</table>

### Output 2.5

Output 2.5 refers to *‘A broad environmental education program established for communities within the Upper Sabana Yegua Watershed System’*. 
Environmental education of the local populations supports understanding of the underlying issues of sustainable land management. People that understand basic environmental issues are able to understand the rationale SLM is based on. Due to the outstanding importance of output 2.5, it is rated as HS.

<table>
<thead>
<tr>
<th>Description Indicator</th>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage of curriculum integrating local watershed content</td>
<td>0</td>
<td>20% (about 13,000 persons) of the Watershed System population with environmental awareness by 2009</td>
<td>20% of the population can be considered as a critical mass for change to be happening. Thus the level of local people to be trained in environmental issues is satisfactorily. The measurement of the indicator is easy and the time-frame clearly determined. There is no statement about the minimum quality criteria of educational awareness rising.</td>
<td>S</td>
</tr>
<tr>
<td>Number of students that receive locally-specific content in environmental education</td>
<td>0</td>
<td>2,500 students trained in environmental issues in SLM by 2007 and 5,000 by 2009</td>
<td>Although 5,000 pupils seem to be a large number, nonetheless a target expressed as a percentage would be more meaningful regarding the level of change expected. The indicator is easily to measure and clearly time-bound.</td>
<td>MS</td>
</tr>
</tbody>
</table>

**Outcome 3**

The project outcome 3 focuses on achieving the following:

 `'Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed'`

To have financing schemes for SLM practices in place is another crucial conceptual aspect for assuring long-term sustainability of development interventions in the Upper Sabana Yegua Watershed System. Hence, outcome 3 is also considered to be highly relevant for achieving the project objective and, in consequence, is valued as HS.

<table>
<thead>
<tr>
<th>Description Indicator</th>
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<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td># of farmers who have had direct benefit/support from at least one of the financing schemes</td>
<td>0</td>
<td>500 farmers by year III, 2000 by year VIII, and 3000 by XVII.</td>
<td>Measuring the number of farmers who have benefited from the financing mechanisms is a viable manner to measure achievements with respect to the outcome. The number of 3,000 farmers having benefited is relevant (60.4 %), ambitious but realistic. There are 4,670 farmer and cattle rancher families in the Upper Sabana Yegua Watershed System(^9).</td>
<td>HS</td>
</tr>
</tbody>
</table>

\(^9\) Source: Master Plan for the Upper Sabana Yegua Watershed System, 4-30
### Description Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
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<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of money in the funds generated for operational costs of a SLM in the Watershed System</td>
<td>0</td>
<td>US$1,000,000 generated by year II and $2,000,000 by year V.</td>
<td>The indicator is clear in its scope and easy to measure.</td>
<td>MS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The amounts of money at target level seem to be achievable, at least by year 5 of project implementation.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nonetheless there is no consistent rationale why these amounts of money are targeted.</td>
<td></td>
</tr>
</tbody>
</table>

Both indicators are meaningful with respect to their scope and directly related to outcome 3 and sufficiently satisfactorily for measuring achievements.

One of the central economic issues in watershed management is about developing financing schemes which link water producers with water consumers and motivate the latter ones to pay something for the services the former provide in a regular context for free. Thus it would have been preferable to determine an indicator directly related to financing schemes regarding Payment of Environmental Services, namely water.

### Output 3.1

Output 3.1 addresses funding issues as by ‘Funding strategy for the Watershed System developed’.

Long-term funding for SLM activities in the Upper Sabana Yegua Watershed System is crucial for project activities’ sustainability in financial terms. In consequence output 3.1, it is rated as HS.

<table>
<thead>
<tr>
<th>Indicator</th>
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<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing of administrative costs and investments through resources generated by the financial plan.</td>
<td>0</td>
<td>50% of administrative costs and project investments by 2008</td>
<td>The indicator stresses only on indirect quantitative outputs related to a funding strategy in place and not on the quality aspects related to the strategy.</td>
<td>MS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The level of financing project administrative costs and investments (50 %) by year 4 of project implementation, seems to be too ambitious, taking into account that co-financing processes take a long time to become effective.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nevertheless, the indicator is clear in its scope and easy to measure.</td>
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</tbody>
</table>

### Output 3.2

The outreach of output 3.2 is defined as: ‘Payment for Environmental Services schemes established which promote SLM’.

PES schemes are an extraordinarily viable option for ensuring long-term financing of sustainable watershed management. Developing a PES scheme for the Upper Sabana Yegua Watershed System is a ‘must’ for the project. Due to the importance for project success, output 3.2 is assessed as HS.
### Output 3.3

The outreach of output 3.3 is defined as: **Debt-for-nature SWAP schemes established which promote SLM**.

Debt-for-nature SWAP schemes are an interesting option for accessing funding for sustainable land management practices. In view of the sometimes difficult political processes related to accessing this funds and considering the limited resources available to the project team, output 3.3 is assessed as **MS**.

<table>
<thead>
<tr>
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<th>Target Level</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount collected</strong></td>
<td>0</td>
<td>$400,000 by 2007 and $936,000 by 2009</td>
<td>Based on experiences in the Upper Yaque del Norte Watershed where there are invested around $600,000 the year, the targeted levels for funding appear feasible. The target level is clear, specific and time-bound</td>
<td>HS</td>
</tr>
<tr>
<td><strong>Proportion of funds generated disbursed for reinvestment in SLM</strong></td>
<td>0</td>
<td>90% disbursed for reinvestment in SLM in each year.</td>
<td>The disbursement rate of 90% requires a highly efficient or externally financed fund management facility. The former does not seem viable taking into account general performance of similar entities in the Dominican Republic. Thus the latter is a viable option which should be expressed accordingly in the indicator.</td>
<td>MS</td>
</tr>
</tbody>
</table>

There lacks a quality indicator referring to the institutional setting a functioning PES schemes must be embedded in.

<table>
<thead>
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</tr>
</thead>
</table>
| **Quantity of money collected** | 0 | $250,000 collected by nature SWAP scheme by 2007 and $500,000 by 2009 | In view of the sometimes difficult political processes related to accessing this funds and considering the limited resources available to the project team the indicators outreach is assessed as:  
  - Unrealistic focussing on a certain amount of money generated by accessing funding by SWAP schemes.  
  - The time that takes it to achieve a SWAP scheme becoming reality is nearly impossible to predict because it depends largely by government institutions that have even not been integrated as project stakeholders and are difficult to influence from outside the State. | U            |
Proportion of funds generated disbursed for reinvestment in SLM

Baseline Level: 0

Target Level: 90% disbursed for reinvestment in SLM each year beginning at the end of 2006.

Assessment: If there would be funding, the disbursement rate of 90% requires a highly efficient or externally financed fund management facility. The former does not seem viable taking into account general performance of similar entities in the Dominican Republic. Thus the latter is a viable option which should be expressed accordingly in the indicator.

It would have been pertinent to formulate an indicator the project team could be made directly accountable for, instead of only emphasizing on aspects with respect to a SWAP scheme being in place.

Output 3.4

Output 3.4 focuses on the following aspect: 'Watershed-wide environmental fund (WEF) established which promotes SLM'.

Although there is no doubt regarding the importance of a watershed-wide environmental fund, it is difficult to differentiate this output from output 3.2. Based on the project documentation, the WEF is considered as an umbrella fund within which other, more specific funds can be integrated. Disposing of a WEF as project output is rated as HS.

Quantity of money collected

Baseline Level: 0

Target Level: $1,000,000 collected by 2007 and $2,000,000 by 2009

Assessment: In the face of a variety of announced or already in place funding opportunities, the target level is assessed as being realistic and achievable. It is also measurable and time-bound.

It would have been pertinent to also formulate a quality indicator addressing focal aspects of the WEF design.

Output 3.5

With respect to credits for SLM, output 3.5 stresses on: 'Innovative funding guarantee mechanism established to promote access to, and guarantee credit, for local rural development activities compatible with SLM'.

To guarantee credit for productive SLM investments is another important aspect for long-term financial sustainability. Current credit and loan mechanisms do not allow small-scale farmers to access this financing mechanism. Thus output 3.5 is valued as S.
### Description Indicator

<table>
<thead>
<tr>
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<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of money loaned for SLM activities based on guarantee fund mechanism</td>
<td>0</td>
<td>$400,000 disbursed for SLM activities from the Guarantee Fund by 2007 and $800,000 by 2009</td>
<td>There is no justification for the absolute amount of money foreseen to be loaned. It would have been more consistent to define a level (in %) of total investment capital needed than a fix amount. The indicator is precise, feasible and time-bound.</td>
<td>MS</td>
</tr>
<tr>
<td>Population with access to formal credit program</td>
<td>40 persons</td>
<td>2500 with access to formal credit in 2007 and 2500 additional persons by 2009</td>
<td>Half the farmer families by 2007 and all by 2009 with access to formal credit would have a significant impact on financing agricultural and natural resource management activities. Combining this indicator with the latter one means that on average each debtor would borrow $160. This amount seems to be an unreasonable low level. In consequence either this target should be lowered or the target money amount of the latter indicator should be risen.</td>
<td>U</td>
</tr>
</tbody>
</table>

### Output 3.6

Output 3.6 refers to another financing mechanism: *Establishment of environmental service exchange and incentive programmes for the Watershed System, which promote SLM*.

Providing social services to improve the livelihood and well-being of the population of the Upper Sabana Yegua Watershed System by a separate financing mechanism is a viable additional option to improve the general situation in the area. Notwithstanding experience shows that it should be assured by the design of this mechanism that the beneficiaries relate the benefit directly with SLM and understand that they receive it for improving farming practices. Output 3.6 is assessed as S.

<table>
<thead>
<tr>
<th>Description Indicator</th>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service exchange schemes designed and mainstreamed with approval criteria for development projects.</td>
<td>0</td>
<td>One (1) scheme developed for water service, health, education, housing improvements, and energy by 2006.</td>
<td>The indicator focuses clearly on what has to be developed for the financing mechanism could work. It is clear in its scope, only appears difficult to achieve in 3 years time.</td>
<td>HS</td>
</tr>
<tr>
<td>Area with management improved through environmental service and incentives exchange</td>
<td>2,400 hectares (2.7 millions plants) established</td>
<td>500 new ha. established with at least 590 thousand wood and fruit trees by 2007, and 600 new ha established with at least 700 thousand wood and fruit plants by 2009</td>
<td>This indicator does not focus on what the outcome approaches at. There is also an overlap with indicators for showing achievements of outcome 2. Hence it is not viable for measuring achievements of output 3.6</td>
<td>HU</td>
</tr>
</tbody>
</table>
Outcome 4

The project outcome 4 is defined as:

‘Livelihood and wellbeing of population in the Watershed System improved’.

One of the root causes for unsustainable land use practices is undoubtedly poverty of the local population. Thus, on the one hand it reasonable to focus on reducing poverty and improving livelihood and wellbeing of local people.

On the other hand, there is a risk to shift focus away from the principle project focus, which is fostering sustainable land use management. Outcome 4 is conceptually at the margin of a project design that wants to remove barriers for SLM and carries the risk the project to become a rural development intervention with a very broad focus on improving general conditions hampering rural development, even covering themes such as primary education, drinking water and electricity provision.

The above stated risk is even higher, as nearly all financing of outcome 4 comes from sources external to the principal project partners GEF, SEMARENA and Fundación Sur Futuro and the financing of outcome 4 counts for a 66 % of all project costs.

Due to this questionable conceptual linkage of outcome 4 with the project objective it is assessed as MS.

The indicators for measuring achievement of outcome 4 are assessed in the framework of the given outcome logic and not in absolute terms, considering the above stated conceptual uncertainties.

<table>
<thead>
<tr>
<th>Description Indicator</th>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration rate</td>
<td>To be determined during inception phase.</td>
<td>Rates stay the same or decrease</td>
<td>The migration rate is a sound quality and quantity indicator for measuring indirectly local people’s wellbeing. The target level is also reasonable and achievable, considering total population in the watershed system, problems identified and measures envisaged in the context of the project.</td>
<td>HS</td>
</tr>
</tbody>
</table>
| School age children attending school | 70% | Increased to 87% by year V | The indicator addresses directly one of the mayor causes for rural poverty, means illiteracy of young children. Root causes of children not attending school are:  
  - Few schools at a reasonable distance to homes of children.  
  - Poverty of parents  
  - Shortage of labour  
  As the project interventions try to remove the first two and the level of achievement is not at an unreachable scale, it seems possible to achieve a 87 % of children attending school. | HS |
### Description Indicator

<table>
<thead>
<tr>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of population whose livelihood is directly dependent on land exploitation has decreased.</td>
<td>To be determined in inception phase</td>
<td>Decrease dependency on agriculture and natural resource exploitation by 10% by year V (25% by year XV)</td>
<td>Creating new labour opportunities will improve the economic situation of the population of the Upper Sabana Yegua Watershed System. On the other hand, it is not obvious that an increased number of jobs outside agriculture and natural resource management per se will reduce pressure on natural resources, as intended indirectly by this indicator. This depends by a large extent on the general socio-economic conditions found in the watershed system. It is more seemingly that jobs left in agriculture will be occupied by migrants, mainly coming from Haiti. The indicator is also contradictory to the project goal targeting at covering large extensions of the watershed system with agroforestry and forestry land use systems. Both, require by far more labour force than current extensive cattle breeding and short rotation agricultural crops systems.</td>
</tr>
</tbody>
</table>

### Output 4.1

The outreach of output 4.1 stresses the importance of employment generation: *Increased employment generated*.

Creating new jobs in the Upper Sabana Yegua Watershed System is an important measure to improve economic conditions in the project area, although it is difficult to link this aspect to SLM. Consequently output 4.1 is rated as **MS**.

<table>
<thead>
<tr>
<th>Baseline Level</th>
<th>Target Level</th>
<th>Assessment</th>
<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of population (men and women) with access to employment</td>
<td>To be determined in inception phase</td>
<td>Increase by at least 10% by end of project (2009)</td>
<td>An increase of employment by 10 % is a realistic target, although it is not clear what is expected by achieving this percentage (rationale). It appears very difficult to measure the indicator.</td>
</tr>
</tbody>
</table>

### Output 4.2

Output 4.2 refers to: *Improvement in basic human service delivery that follows environmental practices*.

Improving basic human service delivery in the Upper Sabana Yegua Watershed System is an important measure to improve livelihood conditions in the project area, although it is difficult to link this aspect to SLM. Hence output 4.2 is rated as **S**.
Time savings in procurement of water and fuel. 
Increased access to electricity 
Drier, safer dwellings...

Baseline Level | Target Level | Assessment | Validation
---|---|---|---
5053 families | 10,000 families with domestic water delivered, 881 families with solar energy, 1500 families with fuel-efficient stoves, 56 families with houses delivered, by 2009 | It is not explicit what the target level numbers are based on. There is no comprehensible rationale for these goals. Regarding the number of families with drinking water, it is not clear if these include families in urban centres as well. With respect to electric energy it does not make sense to focus on just one form (solar energy) of energy generation. Fuel-efficient stoves lower the need for collecting firewood and may have positive impacts on the environment. Housing is an issue that should be related to the current needs (for example after topical storms Noel and Olga) and not fixed by a certain number. All target numbers are simple to measure. | MS

Percentage of literate adults increased.

Baseline Level | Target Level | Assessment | Validation
---|---|---|---
66% | Increased to 80% by 2009 | Adult literacy is a very important aspect of rural development and has direct and indirect linkages to managing the environment in a sustainable manner. The indicator is highly feasible, easy to measure and clear in its time frame. | HS

Access to health care services by women and children augmented.

Baseline to be determined at the inception phase of the project | Distance travelled and access to / time required to see a doctor reduced by 2009. | Good and nearby health care services are a very important to satisfy basic needs. Nonetheless there is no direct linkage with SLM. As the indicator is formulated it is very difficult to measure achievement. | MS

Outcome 5

The project outcome 5 is defined as:

“Learning, evaluation and adaptive management”.

All development interventions require a sound M & E system being in place, in order to be able to measure advance and to check if the project team is still on track (monitoring). Periodic evaluations allow to look from outside at the project implementation and design and to check if it is the right track.

A development intervention that focuses on changing current land management culture and habits and thus strives for innovation development has to integrate individual and social learning mechanisms.
Regarding the institutional and organisational long-term sustainability, it is central for project impact to have a participatory governance structure functioning after the project intervention has been concluded. This governance structure must allow all relevant stakeholders to be part of it and, at the same time, has to be effective and efficient in operational terms.

In conclusion, output 5 is also very relevant for project success – HS.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Zone committees directly manage implementation of project activities</td>
<td>No local management capability for design or implementation of project activities.</td>
<td>9 zones under management and one overall watershed management structure managing the master plan by year I.</td>
<td>The description of the indicator does not reflect what the target level is about. The existence of a watershed wide management structure (watershed council) should be integrated into the description. The target level is highly relevant and necessary for long-term sustainability of project interventions. To have the mentioned structures functioning at the end of the project seems very ambitious.</td>
<td>S</td>
</tr>
</tbody>
</table>

There are no indicators focusing on having a sound M & E system in place and regarding other mechanisms allowing stakeholders in general and in particular land managers to learn from their experiences and to integrate these lessons learnt in future planning.

Thus, although the outcome is highly relevant, its conceptual interpretation and operationalisation is rather poor.

**Output 5.1**

Output 5.1 stresses on transferring management responsibility with currently is with the project staff to participatory established management structures at the watershed system level: *Effective project implementation through adaptive management*.

As output 5.1 is crucial to guarantee long-term institutional and organisational sustainability, it is assesses as HS.

<table>
<thead>
<tr>
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<th>Validation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to date Information stored in NERIS system accessible to project and non project decision makers</td>
<td>0 at start of project. Baseline should then follow the M+E plan as the baseline standard</td>
<td>All geographic information and project management information available digitally by 2007.</td>
<td>Instead of having all information relevant for watershed management only available, the focus should have been on having developed an information management system. The indicator is achievable, precise and time-bound.</td>
<td>MS</td>
</tr>
</tbody>
</table>
Governance structure officials prepared to assume project leadership by 2009

Qualification of watershed council members at elections.

All officials receive management training

The indicator focuses on an activity (training) lieu defining the impact or effect level expected.

In view that establishing a participatory governance structure is an absolutely new mechanism in the project area, it appears very ambitious and even unrealistic to have this structure working after only 5 years time.

Regardless this conceptual deficit, the qualification of watershed council members for taking over management responsibility is a very important issue for achieving the output.

**Output 5.2**

Output 5.2 is related to: ‘**Monitoring and evaluation**’.

Having a M&E system in place is basic for each development intervention and thus can be valued as HS.

Recommendations from evaluations incorporated into new Master Plan

0 at start of project. Baseline for midterm and final will be the condition before recommendations are made.

All recommendations from evaluations incorporated in new plan or addressed in implementation within 3 months of each evaluation. (mid-term and final)

Regrettably the description of the indicator only stresses on the Master Plan.

On the other hand, the target level emphasizes mid-term and final evaluations.

Important for the project and the implementation structure after the project has finished is to have a M&E system and not just some components of such a system in place.

The indicator is measurable.

### 4.1.4 National Ownership

The project is embedded in the country’s strategy to prevent and combat desertification processes and responds directly to the following country strategies and regulations:

- Law for Environment and Natural Resources (Ley 64-00);
- National Plan for Poverty Reduction;
- The National Action Plan (NAP) for the combating desertification;
• The Master Plan for managing the Upper Sabana Yegua Watershed System.

During the project design phase, the UNCCD focal point, namely the Under-Secretary of the Under-Secretariat for Soils and Water, has emphasized the importance the project has in the context of combating desertification and that it is an absolute priority for SEMARN.

The Dominican Republic ratified the UN Convention to Combat Desertification on June 16, 1997 and the Under-secretary for Soil and Water, as national operational focal point for the UNCCD, formally endorsed the project on behalf of the Secretary (GEF focal point).

The Dominican Republic is also a signatory to the following relevant international conventions:


• Kyoto Protocol to the UNCCD (signed February 12, 2002).

• Millennium Development Goals

• Declaration of Barbados and Programme of Action for the Sustainable Development of Small Island Developing States (signed April 26, 1994).

At the moment of project design, the project was highly relevant for the Dominican Government.

4.1.5 Stakeholder Participation

In the Upper Sabana Yegua Watershed System (and partly outside) there can be identified the following relevant stakeholders:

• Local population, namely farmer families organised in CBOs and second-level organisations;

• Local government organisations (municipalities);

• Central government organisations;

• NGOs – local, national and international;

• Water-users at the margin or outside the watershed system – hydro-power plant operators, downstream domestic water consumers and downstream irrigation water user organisations.

During the project preparation, namely the PDF-B phase, there were carried out a series of activities to get a concrete idea of stakeholder’s opinions and interests. Mayor findings have been integrated into the project design. The following activities were carried out:

• Focus group meeting

• Meeting with municipal leaders

• Pilot area presentations and discussion meetings.

• Formation of a National Steering Committee (NSC), composed of representatives from the UNDP, the Secretariat of Environment and Natural Resources (SEMARENA), the UNCCD focal point, Fundación Sur Futuro, the Inter-institutional Technical Group in support of the Convention to Combat Desertification in the Dominican Republic (GTI), the National Planning Office (ONAPLAN), the Secretariat of Agriculture (SEA), the Secretariat of Education (SEE).
• Meetings with the NSC and its individual members, UNDP and SEMARNA to review project design.

• A stakeholder assembly in July, 2004, where more than 100 diverse local stakeholders from throughout the project area (the upper watershed system) met to discuss their needs, the project, and provide feedback on the stakeholder analysis.

• **Meetings with 5 community groups**

• A workshop to discuss relevant lessons learned in integrated and sustainable land management, pertaining to governance, incentives and agreement on proper land use, held on July 13, 04, with representatives of Plan Sierra, PROCARYN, and Junta de Desarrollo de San José de Ocoa.

• **One-on-one meetings with agency executives**

• **Face-to-face meeting with representatives from the upper and lower watersheds** to discuss upstream-downstream relationships.

• **Discussion groups** involving PDF-B consultants and the SEMARENA Planning Director and staff to reconcile progress reports, to improve results and discuss the proposed governance model and planning method for the project.

• **Weekly working meetings** between the PDF-B National Coordinator and representatives of the SEMARENA planning office.

• **Interagency Meetings** between: the Secretariat of Agriculture and Agricultural Bank representatives in Padre las Casas; representatives of the Secretary of Public Works (SEOP) to discuss road inventory, an Environmental Management Program and participatory maintenance methods; INDRHI and IDIAF Directors, CEDAF Director and staff, the current USAID manager policy project, the UNDP environmental officer, and UNDP operational personnel.

• **Meetings of representatives of five participatory forestry models** in the country.

The participation of stakeholders during the project preparation phase was sufficient regarding the focus (including all important actors), number and manner of consultation and consequently ensures that all relevant opinions were considered and all relevant experiences were known.

It must be recognized that the stakeholder consultation process was an excellently designed and exemplarily realized process.

Thus is has to be valued as HS.

### 4.1.6 Replicability of the Project Approach

In general terms the lessons and experiences generated by the Sabana Yegua Project could be replicated for the design and implementation of other watershed management projects in other regions of the country. Most project activities are well integrated into national initiatives supported by several governmental and non-governmental institutions (including Fundación Sur Futuro) and will continue after the project’s completion.

**Outcome 1**

Policies, programs and planning frameworks and tools favourable to SLM being applied
Due to the character of this outcome, practically all current results are totally or partially replicable. Social development plans for organizations at different levels (for example Community and Zonal Development Committees), national inter-institutional agreements and resolutions on the principles guide for SLM, guideline documents (for example Sustainable Management Guide), baseline studies (for example biophysics and socioeconomic), and educational materials offer basic guiding principles for knowledge transfer to similar initiatives. The articulation of a local governance structure taking advantage of prior to project start established organizations, the creation of regulatory structures and instruments of watershed management or the reform of the educational curriculum to incorporate SLM principles, are reproducible strategies. The experience of a GIS system developed by Fundación Sur Futuro, with the assistance of DIARENA, is also a replicable output, necessary to expand the use of this technology all over the country.

**Outcome 2**

**Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed**

The capacity building nature of this outcome offers an array of experiences and lessons that could be replicated. The basic theoretical and practical training with producers in SLM (model farms, sustainable production models, ecological coffee processing facilities, plague control and other practices) increase the environmental awareness of local communities (as well as its productivity) and strengthens their capacity to monitor and respond of violations of environmental regulations, creating examples reproducible in any watershed of the country. Besides this, the incorporation of knowledge about natural resources and the cultural premises and principles of SLM in the local curricula offer an example for developing strategy for integrating environmental issues in education since the early stages of basic education. Finally, the lessons and materials in prevention and forest fire control are also important experiences applicable to all forests all over the country.

**Outcome 3**

**Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure.**

With respect to this outcome it is difficult to analyze replicability because it is severely delayed in its achievements. Nevertheless, the first approaches to financing SLM as the Integral Compensation Program for Environmental Services, the Watershed Eco-development Fund and the Debt Exchange Scheme for Conservation or the Payment for Environmental Services Scheme, are important initiatives for assuring long-term financing of watershed management.

As non conventional financial mechanisms to conserve the watershed and for promoting sustainable land-use, they are being considered at the same time by other national projects and programs in the Sabana Yegua basin (see proposal for the development of an Environmental Compensation Model in the National Park Juan Bautista Pérez Rancier of SEMARENA in 2006). The usefulness of creating a Community Water Fund that could be used for urban and rural communities, encouraged by Fundación Sur Futuro, is shown by USAID integrating this concept in the strategy to increase potable water access and sanitation in rural areas. They also underline the role of the banking sector, in the ongoing soil and natural resources conservation program of the Sabana Yegua Project, in addition to the community development program for watershed inhabitants developed by Fundación Sur Futuro.
The creation of environmental service markets that would provide financial incentives to hillside farmers and other land holders for adopting sustainable agricultural and other productive practices and the creation of a framework for the application of Payments for Ecosystem Services (PES) approaches on a decentralized basis, responding to local needs and conditions in particular watersheds, are presented as key components of the project by the review of current initiatives and recommendations for future PES support by GEF and FAO programs (FAO, 2007).

Outcome 4
Livelihood and wellbeing of population in the Watershed System improved

The results of this outcome are directed to improve the life conditions of the watershed’s inhabitants and are expressed mainly as investments in agriculture support (irrigation systems, loans, micro-credits), jobs creation (greenhouse, fire control brigades, social promoters), health (construction of primary health care units, doctors and nurses assistance), education (construction of schools, libraries, informatics centre, technical centre, Ludoteca, illiteracy program) and services (houses, roads, aqueducts, electricity, fuel). These investments reached an amount of USD 12,404,144 in 2008 (50% of the total co financing compromise of the Project). In terms of replicability, this outcome cannot simply be seen as a replicable result in practical terms, but as a model because a very important economical budget is necessary, as well as a coordinated set of co-financial partners to make it reproducible.

4.1.7 Other Aspects related to the Project Design
Comparative advantage of UNDP as implementing agency

According to GEF (2007) UNDP’s comparative advantage as implementing agency for GEF projects lies in its global network of country offices, its experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation. UNDP assists countries in promoting, designing and implementing activities consistent with both, the GEF mandate and national sustainable development plans. UNDP also owns extensive inter-country programming experience.

A summary of the capacity gaps and areas of UNDP’s comparative advantage in relation to supporting capacity development of principal recipients was identified and agreed together by UNDP and GEF representatives in 2004 (UNDP 2004).

Links with other projects/interventions in the sector

The Sabana Yegua Watershed Project is already a reference to other projects in the same sector. There is a recent proposal of a regional GEF Project Reducing Conflicting Water Uses in the Artibonito River Basin Through Development and Adoption of Multi-focus Area Strategic Action Programme (GEF 2009) approaching the development of innovative financial mechanisms in support of integrated NRM approaches, policy and legal reforms and on constructing local capacities in Haiti and Dominican Republic. The Project document states that the lessons learned from GEF supported FSP, Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System Project, implemented by Fundación Sur Futuro in cooperation with SEMARENA are being integrated into the bi-national program, allowing cross-cutting learning for the Artibonito river and for Haiti.
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Protected Areas
The Master Plan for the Sabana Yegua Watershed System of JICA/SEMARENA (2002), which
is the base of the formulation of the project, indicates a study area of 166,000 ha, including
Protected Areas. Moreover, the Plan textually says: “In the study area two National Parks exist:
José del Carmen Ramírez and Valle Nuevo. In these National Parks their Management Plans
should be followed, but for the conservation of the watershed system in the study area, the
forests distributed in these parks were included in the management planning.”

Notwithstanding, in the conception of the GEF Project 95,000 ha, corresponding to Protected
Areas, have been excluded from any action\(^\text{10}\) (in particular the both National Parks). Currently,
SLM practices as well as educational and community organization strengthening activities, are
only promoting sustainable land-use in the area outside protected areas, of approximately
71,000 ha. The Project Objective: promotion of integrated sustainable land management in the
upper Sabana Yegua watershed system are limited to 43 % of its surface.

4.2 Assessment of the project implementation approach
Apart from reviewing the project design in chapter 4.1, this chapter concentrates on assessing
the approach Fundación Sur Futuro developed to implement the project.

Below all relevant elements of the implementation approach will be reviewed in detail without
entering in the results having been achieved up to date (June 2009), as this aspects will be
considered in chapter 5.

In this chapter we proceed from the assumption that the project design is appropriate.

4.2.1 Implementation approach

4.2.1.1 Internal organizational project structure of Fundación Sur Futuro
The internal organizational structure Fundación Sur Futuro set up for project implementation is
illustrated in the figure below:

\(^{10}\) Source: Basic Project Document ‘Demonstrating Sustainable Land Management in the Upper Saban
Yegua Watershed System – PIMS 3185 (2005), paragraph 147:

147. The principal geographical area of intervention of the project will be the productive landscape (not
including protected areas) of the Upper Sabana Yegua Watershed System, where the land degradation
processes that will be addressed are taking place. Within this area, the project will involve all relevant
stakeholders, including not only resource managers but the population in general which is affected by the
livelihood implications of land degradation, and the corresponding local authorities and NGOs.
Figure 1: Internal organizational project structure of Fundación Sur Futuro

The organizational structure set up for project implementation shows a strong emphasis at the local level (offices in Constanza and Padre las Casas) and only a very flat structure (one national project coordinator and one assistant to the national project coordinator) at national level. There is also a direct linkage of the project team to the executive director of Fundación Sur Futuro and the two supervising committees.

Several of the technicians (e. g. encargados zonales) working at grass-root level are delegated from other service provider organisations. There are 2 technicians from SEMARENA and 1 technician from CODOCAFE working as project staff.

The internal organisational structure of the project team is assessed as appropriate in its structure and number of personal. The only shortcoming identified is related to outcome 3. Due to the outstanding importance of outcome 3 for project long-term sustainability and in face of the
complex negotiation processes related to establishing the financial mechanisms planned in the framework of the outcome, it would have been more target-aimed to contract a specialist in this area right from the project start.

Taking into account all above aspects, the internal organizational structure is rated as S.

4.2.1.2 Project staff’s capacities

Project staff contracted by Fundación Sur Futuro dispose at all levels of adequate technical capacities and can demonstrate formal educational background (university or technical school studies) accordingly.

The wage-level offered by Fundación Sur Futuro and non-monetary working conditions (secure transport, computer equipment, regular training) are attractive enough to motivate qualified professionals to integrate into the project team.

There can be observed a notorious deficit to analyse problems at grass-root level staff. Yet, this is not due to inadequate hiring by Fundación Sur Futuro but a well known deficiency of Dominican educational bodies for professionals at this level.

During the mid-term evaluation mission particular technical shortfalls have been identified with respect to (just examples):

- Forest management practices, namely pruning of trees and thinning schemes of reforestation plots;

- Technical advice given to farmers during selection of production alternatives. Technicians neither discuss production alternatives together with farmers, nor analyse the underlying problems in detail, resulting in sometimes questionable technical recommendations – e.g. irrigation schemes for 4-year old avocado plantations;

The foundation is aware of these shortcomings and addresses them through specific training.

Technicians not only advise individual farmers, but increasingly farmer and villager organisations (CBOs). For the facilitation of rural development processes other than technical capacities and skills are required. Nearly all technicians do not dispose of these skills as could be observed by the mid-term evaluators. Facilitation skills is an imperative requirement for technicians (facilitators) being in the position to do an effective and appropriate job. The need for facilitation skills has also been identified by a recent consultancy11 carried out on behalf of Fundación Sur Futuro in the context of the project.

Based on the above stated findings, the project staff’s capacities are valorised as MS.

4.2.1.3 Facilities and logistics

The project coordination staffs at national level are integrated in the Fundación Sur Futuro head office in Santo Domingo. Both professionals (national coordinator and assistant) dispose of all office equipment and facilities that allow them to efficiently and effectively perform (computers, printers, plotters, telephone, internet, etc.) They can also utilize all services on request the foundation offers. There is one all-wheel pick-up truck available all the time. Project materials

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11 Source: ‘Diseño de un sistema de gestión participativa para las estructuras que conforman el poder local de las cuencas altas de la presa de Sabana Yegua, Plan de capacitación al personal técnico’, May 2009
and equipment can also be transported by the foundation’s own transport to the project intervention area.

The local project team in Padre las Casas is accommodated in the foundation’s office in the same city. All office premises are well equipped with computers, printers, telephones, etc. There is no lack of working material. The local project coordinator has one all-wheel pick-up truck available all the time and there are other pick-up trucks available to other staff members. The field-level technicians dispose of enduro motorcycles.

Project staff did not report shortages of lubricants or materials for working with farmers and other community members at any time.

All facilities visited in the context of the mid-term evaluation mission appear to be in good conditions and well-equipped. Logistics seem to be good organised and allow a smooth project implementation. Hence facilities and logistics could be rated as HS.

4.2.2 Monitoring and Evaluation

The project team with support from UNDP staff has developed a concise M & E system for measuring project progress. This M & E system will be assessed below.

4.2.2.1 Effectiveness of the Monitoring and Evaluation (M & E) System

Fundación Sur Futuro describes its M & E system in a detailed document. The M & E process is in accordance with UNDP and GEF procedures was developed by the project team and SEMARENA, under the supervision and guidance of Fundación Sur Futuro and UNDP country.

The Logical Framework is the basic planning, monitoring and evaluation tool. The responsible project staff members for maintaining the M & E system are the National Project Coordinator, the project adviser (UNDP) and the managers of the different areas of Fundación Sur Futuro. To emphasize the multidimensionality of the M & E system, a Project Steering Committee (PSC) was created to review project implementations from a collective point of view and propose solutions and strategies to dynamize the project if necessary. The PSC plays a key role in the M & E system since it is vested with the responsibility of approving the Project’s Annual Operational Plans and Reports and ensuring that project activities are in line with those outlined in the approved project documentation. The committee is constituted by the project management personal from Fundación Sur Futuro, Fundación Sur Futuro area managers (in Santo Domingo and Padre Las Casas), representatives of UNDP, representatives from SEMARENA, representatives of the Inter-institutional Technical Group (GTI) and representatives of other institutions.

UNDP CO has developed a strong M & E system to provide technical, administrative and financial assistance to the project, and has been working in close coordination with the project manager. Several instruments have been designed for this follow up, that have contributed to maintain a daily feedback of information. In the following chapters we will consider the effectiveness of the monitoring and evaluation system, in collecting and analyzing monitoring data on project progress and performance indicators.

In the following chapter we will consider the effectiveness of the monitoring and evaluation system, in collecting and analyzing monitoring data on project progress.
4.2.2.2 Data collection and analysis with respect to project progress

In order to analyze how the M & E mechanisms were applied throughout the project’s lifetime, whether this allowed tracking progress towards project objectives and how the project responded to the challenges identified through these mechanisms, the following M & E documents are reviewed:

- Annual Performance Reports (APR) and Project Implementation Reviews (PIR) 2007 and 2008;
- five Quarterly Reports (from October-December 2007 to January-March 2009);
- three 150-words reports (from January-March 2009 to January-March 2009);
- several project monitoring reports and planning tools;
- and the GIS database at Padre las Casas.

In general, all M & E documents are well organized and contain enough information and analysis of project activities and its advancement, for the periods they covered. Periodical documents are consistent in terms of initiation of activities in a new period supported by others already fulfilled in the previous period. They point out that a periodic supervision of the project progress exists at different levels - Fundación Sur Futuro internally and with co-supervision of UNDP. In fact, it has to be recognized that many of the aspects that deserve change or improvements based on findings of this Mid-Term Evaluation Mission have been expressed in different ways in some of the above-mentioned documents.

Annual Performance Reports (APR) and Project Implementation Reviews (PIR) present the level of progress for achieving project objective and outcomes, focusing on indicator level. Ratings, in accordance with the GEF terminology, are used for Project Objective and Outcomes. Detailed financial information is also given (see chapter on financial management). APR/PIR Reports are descriptive and analytical. They have been an important tool to measure levels of progress and to detect fundamental project difficulties. So highlighted the APR/PIR Report 2007 the weaknesses in planning and general project management and the continued delays in carrying out several project activities. Finally these findings led to the substitution of the National Project Coordinator and other project staff changes. This report also pointed out early, as a key issue to focus on, the various financial mechanisms proposed in the original project design.

Trimestrial reports present all project results in form of a spreadsheet. The target level, the number and percentage of execution for each output in relation to the past quarter and some description of the activities, are indicated. Observations for each analyzed output are clear and critical and mostly refer to indicators and target levels of the logical framework matrix. There is no rating according to the GEF terminology. A summary of problems and risks, related to the result of the analyses, are included. Financial information is also given. Quarterly Reports have been a successful tool to detect early problems influencing project implementation as the delay in different consultancies, obstacles for establishment and development financial mechanisms, delays in carrying out several project activities and delay in the capitalization of the Watershed Fund. In all cases prioritized actions are included to solve these situations, indicating date and responsible personal. These reports also analyze risks related to climate, plagues, money fluctuations and change in political priorities or related with certain local political situations. In all cases preventive measures to manage these risks are indicated.

An approach of adaptive management was used in the first half of the second trimester of 2008 when the programming was adjusted to reduce project activities as meeting or other events, during the electoral process for not confusing project activities with those of political parties.
At the level of field staff in the Padre las Casas project office, for each zone detailed activities are planned and monitored accordingly. Each person (zone responsible or thematic responsible staff) plans and monitors his / her own agenda and coordinates with other team members. Each team member has to report quarterly achievements made and identify obstacles for achieving committed targets.

For example, in the Education Department the reports reviewed during the mid-term mission, prepared by Mrs. Bernarda Filipo, offered detailed description and evaluations of diploma, environmental encounters, illiteracy program, attention to children in risk situation and so on, deriving lessons – in some cases as adaptive management - to strengthen the educational strategies of Fundación Sur Futuro in the region (in alliance with the local educational district of SEE). Another example is the annual report of the Zonal responsible person of Padre Las Casas, Mr. Franklin Morel. The detailed description and evaluation of activities (covering technical assistance in SLM as well as social support) is an excellent baseline for monitoring and evaluation of zone development plans. All reports checked at Fundación Sur Futuro office in Padre Las Casas show a high level of accomplishment and prove to be key elements to take into account the project progress at the local level.

The GIS database at Padre Las Casas has produced many maps at the watershed system scale but it has not supported yet the M & E reports with cartographic products based in project results at local scales. It is necessary to use this technology for the creation of new maps based on geo-referenced data at appropriate scales (municipalities, sectors, zones, communities, farms, forests, crops, etc.). All Project progress expressed in surface area (ha) of inappropriate / appropriate land use, forestry, agroforestry, coffee plantations, model farms, Forest Management Plans and other criteria must be included in zonal thematic maps, showing gradually how the surface area based on SLM principles is growing as the project moves forward.

The Evaluation and Final Report of January-December 2008 is the only reviewed document that categorizes the Project progress using ratings (from highly satisfactory to unsatisfactory), similar to the Mid-Term Evaluation. Rating categories are given only for the output level, but not for the outcome level, and are expressed in a spreadsheet not according to the Logical Framework matrix. The target level as well as the number and percentage of implementation for each output, are indicated. It should be recognized that the comments about project achievements or failures in this document are very critical and objective and deeply analyze the project situation for each output subdivided into several activities. This report offers a descriptive summary (without ranking) of the progress of the five project outcomes.

Whereas M & E mechanisms are operational and have contributed in the periodic supervision and correction of fundamental problems in terms of organization and focusing on key issues (especially institutional and financial) they have not detected some technical inaccuracies at the indicator and baseline levels that deserve change or adjustment, as is discussed above.

### 4.2.2.3 Quality of M & E System and Participation of central Stakeholders

Even though the central focus of this chapter is on the efficiency of the applied M & E system, notwithstanding it seems important to emphasize briefly the quality of the data gathered and the manner how these are analyzed. We are aware that the quality of the M & E system designed for supervising project implementation is partly based on the manner how indicators were defined at the stage of the project design. So, the following critique refers not only to the project implementation, but also to the project design.

The emphasis of project monitoring is on proving if activities have been carried out according to planning. Planning intends to respond to the targets stated at project objective, outcome and
output level. Activities of project staff are planned in a manner that they lead to achieving these targets. Fulfilment of planning is nearly exclusively based on comparing planned with carried out activities.

This form of monitoring is fine for the field agent level, so that the staff at this level knows exactly what to do, but is not sufficient to measure project effects. Numbers of farmers who attended training workshops and number of model farms installed do not reveal what trained farmers do after having participated at trainings and what makes exactly the difference of a model farm and a ‘common’ farm. Here we do not question the quality of work carried out by Fundación Sur Futuro personal but the quality of measurement of effects of this work.

The quality of data collected is important because it is finally the decisive factor on achieving the project objective or not. In conclusion, the M & E system should be designed in such a manner that quantity and quality data could be collected and analysed in order to be in the position to measure project success or failure.

Another important aspect regarding monitoring refers to the role that stakeholders play in the M & E system. Presently the only responsibility of data collection and analysis is with the project management, mainly Fundación Sur Futuro staff and partly UNDP staff. Other stakeholders provide data which are collected, sorted and analysed by project staff.

One central aim of the project is to develop capacity of relevant stakeholders and even develop a local governance structure which will take over project implementation and management responsibilities after the GEF project has concluded. Thus, stakeholders are considered to be actores rather than passive beneficiaries. The capacity to monitor and evaluate undertakings is one core competency to be developed at the stakeholder level and which implies to stakeholders actively taking part in data collection, sorting and analysis. Therefore, the project team should take this seriously and develop mechanisms that allow other stakeholder to become active participants in the M & E system.

All project interventions target at improving living conditions for the population living within the Upper Sabana Yegua Watershed System and generating positive effects on down-stream populations (water users). Hence, it seems meaningful to ask these actors how they perceive positive changes of their living conditions and their environment. Although the original project design did not foresee the participatory development of project indicators, positive changes at the very local level (e. g. communities) should be defined and measured by local people (see also recommendations).

### 4.2.3 Stakeholder participation

Active and democratic participation of all relevant stakeholders is a vital element to assure the establishment of appropriate governance structures for watershed management. Thus, stakeholder participation is not an option, but a MUST.

To be able to participate genuinely, stakeholders, in particular the weaker ones have to have appropriate capacities. As some stakeholders, for example smallholder farmers, do not dispose

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12 We use the term ‘effect’ instead of ‘impact’ since impacts could only be measured with a significant time horizon (after a couple of years) and not directly after implementation of activities.
of adequate capacities, capacity building is a central issue to be tackled to allow equitable and balanced participation to occur.

4.2.3.1 Local Governance Structures

The project has designed a three-layer governance structure embracing the following levels with the according governance mechanisms:

1. Community level – Community Development Committees (CDC)
2. Zone level (9 zones in the project area) – Zonal Development Committees (CDZ)
3. Watershed level – Watershed Council (CC)

All these governance mechanisms are aimed at outlasting the project cycle. They are designed as discussion and interest negotiation platforms and decision making boards.

Since the project start the project staff emphasized the creation of CDC and CDZ and currently works on legalizing (incorporación legal) these, because for managing funds, legalization is a basic condition.

In the course of the mid-term evaluation mission it was noticed that there already exist governance structures at community, as well as at a zonal level.

- At the community there are so called Juntas de Asociaciones Campesinas – for instance in the following communities: El Montazo, Las Lagunas, Gajo del Monte, Las Cañitas, La Siembra and Villapardo). Some of these are already legalized.
- At the zonal level there are the Coordinadora de Juntas de Asociaciones Campesinas (legalized) and Alianza Guayabal.

Interviewed members of the CDC and CDZ stated that the same people participate in both governance mechanisms (e.g. CDC and Juntas de Asociaciones Campesinas). Asked why two apparently very similar governance mechanisms exist collaterally, they answered that the CDC and CDZ were created because Fundación Sur Futuro staff wanted it like this. Although it could not been proved if these statements could be generalized, nonetheless they indicate that there might be certain duplicity.

Project staff asked for the reasons of having done this, asserted that existing mechanisms did not fit well with SLM objectives.

In the evaluators’ opinion, a development intervention first of all should take existing local governance structures into account and secondly should look to improve these existing ones before creating new ones. Creating new organisations is a human and financial resources demanding and time-consuming process.

Irrespective of the latter inconsistency, the three-layer governance structure is an excellent approach for integrating different stakeholders at different levels in all relevant watershed management undertakings.

Another uncertainty refers to the timeframe envisaged for establishing and running this governance structure. Processes of developing innovative governance structures imply negotiations and discussions with and between all relevant stakeholders. Experience with similar ventures outside the Dominican Republic (because inside there is no comparable example) show that a 5-year period is not long enough to do it thoroughly. It also makes no sense to develop these structures with time-pressure because the result will be a nonserious, not-sustainable institutional set up.
In conclusion the intended local governance structure is evaluated as S.

4.2.3.2 Local people’s participation and Local Organisational Development

Local people, in particular farmers, are the most important stakeholder with respect to SLM. Finally farmers render decisions and implement land use technologies on their own compounds. Badly equipped and short-staffed government organisations are not able to control land use effectively, even less in such a mountainous landscape like the Upper Sabana Yegua Watershed System with very poor road infrastructure.

This being the case, strong local organisational structures and well-trained farmers convinced of the worthiness and superiority of SLM practices are central for long-term sustainability of the core project efforts.

Hence, local people should be perceived as beneficiaries, but as actors by development professionals. Their active participation and own initiative ensures the project having success.

Local people are organised in CBOs for different purposes – farmer associations, women clubs, youth groups, etc. CBOs are the first level of social organisation of the local population and thus require special attention by any development intervention. Other forms of local people’s organisation are umbrella organisations at community level, as for example the CDC and representatives at the zonal and watershed level.

Focusing on local people’s organisations allows a development project to generate large-scale impact. Individual farmer attendance should be reduced to a minimum, because of being very inefficient and time- and resource-consuming.

In the past the project interventions have emphasized mainly the level of the individual farmer / rancher, the community umbrella organisational level (CDC) and the levels at larger scale, bypassing mainly the CBO-level. In particular technical project staff (encargados de zona, encargados forestales) has mainly concentrated on advising farmers (asistencia técnica) at the individual level. This occurred since a strong focus in the past has been on creating a huge number of model farms (fincas modelo) in accordance with achieving targets set up in the operational project plan. Continued concentrating on the individual level will not lead to large-scale impacts.

On the contrary, concentrating on the CDCs seems to be a viable conceptual alternative option to strengthening CBOs. On the one hand, this organisational level is still close to the individual farmer level and ensures farmers active participation and, on the other hand, allows generating impact at medium scale, reaching dozens of farmers at the same time.

The project team has focused capacity building of farmers mainly on training in technical issues. Although technical issues are important, apart from that, there are a series of capacities that are strongly related with SLM and in general are rather weekly developed. These capacities being developed (see chapter on recommendations) are decisive for organisational and social long-term sustainability and guarantee that the local population can develop on their own appropriate land use technologies.

Local peoples participation in the, in most cases, recently established local governance mechanisms, still remains reactive, responding to the project team taking initiative to convocate for meetings and leading the development of action plans. A laudable exception occurred after tropical storms Noel and Olga. CDCs and CDZs organised themselves successfully in order to manage reparation of the damages caused by the storms.

In due consideration of all positive aspects of local people’s participation and capacity building and taking into account the identified deficits, the state of the art is valued as MU.
4.2.3.3 Coordination with other service provider organisations, aid agencies and contributions of government organisations

There are several other service providers and aid agencies with development operations in the Upper Sabana Yegua Watershed System. The evaluation focus will first be on the implementation approach regarding other service provider organisations.

Fundación Sur Futuro organises and runs many training events related to sustainable land management and environmental education. All relevant service provider organisations with incidence in the project area are invited as participants or trainings are also organised jointly, depending on the issues tackled.

Since recently the foundation have at its disposal a modern and excellent training centre in Padre las Casas. The training centre was financed by other sources than GEF funds and own excellent facilities and equipment for training.

SEMARENA

At the local level there is a strong collaboration between the Under-Secretariat of Forest Resources (SUREF) of SEMARENA in the following fields of action:

- Reforestation – Fundación Sur Futuro manages 3 reforestation brigades financed by the Secretariat. SEMARENA provides reforestation certificates to landowners who have reforested land with project funding.
- Forest Fire Fighting – Fundación Sur Futuro financed equipment for forest fire fighter brigades of SEMARENA and trains community members in forest fire prevention and combat.
- Forest Tree Production – Fundación Sur Futuro manages a tree nursery owned by and on behalf of SEMARENA.
- Forest Management – Fundación Sur Futuro supports the elaboration of forest management plans on private properties.

Two technicians of SEMARENA local office (in Padre las Casas) are delegated to the foundation (GEF project).

Regarding the Sabana Yegua reservoir there are punctual actions jointly with INDRHI which is also part of SEMARENA.

At the national level there is a strong collaboration with DIARENA in setting-up a GIS for the watershed system, punctual cooperation with the office for environmental services of SEMARENA and Fundación Sur Futuro is an active member of the GTI.

CODOCAFE

With CODOCAFE there are strong linkages with respect to all issues related to fomenting coffee growers and promoting coffee commercialization in the project area. The relations are at day-to-day working level. CODOCAFE has also delegated one technician to the foundation.

Municipalities

All municipalities in the project area face severe budget limitations. In view of citizens’ service demands that by far surpass the financial possibilities municipalities have, combined with a
strong lack of specialized capacities in the area of environmental management, in the past municipalities mainly seek funding from Fundación Sur Futuro.

The foundation stresses the Municipalities’ role, function and responsibilities related to environmental issues and recently is focusing on strengthening capacities of the Environmental Units (UAMs) which should assume decentralized environmental responsibilities.

**SEA**

With the local representatives of the Secretariat for Agriculture there exists cooperation in issues related to SLM, in particular sustainable agriculture.

**SEE**

In the area of primary environmental education and adult alphabetization there is a strong collaboration between the project personal and staff of the Secretariat of Education. Both actors develop and implement action plans jointly and combine financial and human resources in a synergistic manner.

**CEPROS (local NGO)**

The Centro de Estudios y Promoción Social (CEPROS) is nearly the only local NGO which shows significant incidence in the Upper Sabana Yegua Watershed System. The NGO has a total of 17 staff members, most of them well-qualified and experienced technicians. CEPROS owns 31 years of experience in the area of agroforestry, environmental education, small livestock breeding and SLM. The impact area is the municipality of Padre las Casas.

The relation between CEPROS and Fundación Sur Futuro can best be described as exchanging of information and punctual cooperation.

Concerning all the above working relations between Fundación Sur Futuro’s project team and other relevant service providers, all could be assessed as appropriate or even excellent, unless the relation and form of coordination with the NGO CEPROS.

Considering that the project area is vast and that it is difficult with limited funding (GEF funds) to achieve all, partly ambitious, outcomes, the project’s implementing agency (Fundación Sur Futuro) should integrate an approach of delegating project implementations to other service provider organisations who could demonstrate proved experience and organisational structures to perform in SLM practices. CEPROS fulfils all these criteria and could be commissioned with implementing part of the project (see chapter “Recommendations”).

All in all the aspect of cooperation / collaboration with other service providers of the implementation approach is evaluated as MS.

Apart from other service providers, Fundación Sur Futuro also cooperates with other aid agencies. Due to the distinguished reputation the foundation has gained in short time, it attracted several aid agencies to join cooperation projects in the Upper Sabana Yegua Watershed System. All these development interventions contribute directly or indirectly to achieving the GEF project outcomes.

The most important aid agencies appear to be the following:

- JICA – Japanese International Cooperation Agency
• Kelloggs Foundation
• International Youth Foundation
• Odebrecht Foundation

Important financial and in kind contributions were facilitated by different government institutions: INAPA, INVI, CDEEE, Secretariat of Health, Secretariat of Industry and Commerce and Banco Agrícola.

The relation between Fundación Sur Futuro and the above mentioned aid and support agencies is synergistic in its approach and very important to achieve project outcomes. Thus it is assessed as HS.

4.2.4 Financial Planning

The Project cost estimates are USD 4,434,695.00 of Global Environment Facility (GEF) funds to be implemented by Fundación Sur Futuro with support from UNDP during the project life cycle (June 2005 to June 2010). GEF funding is covered by the GEF program area of Land Degradation which also applies for desertification and deforestation.

The total GEF funding is sub-divided by co-fundings of outcomes 1, 2, 3 and 5 as indicated in Table 1. Outcome 4 is totally financed by non-GEF sources, mainly coming from Dominican Government entities. Budget for outcome 2 represents 48% of the whole project budget, due to the central importance of this outcome for project success.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Spent</th>
<th>Pending</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1: Policies, programs and planning frameworks and tools favorable to SLM being applied.</td>
<td>195,197.22</td>
<td>440,682.78</td>
<td>635,880.00</td>
<td>14</td>
</tr>
<tr>
<td>Outcome 2: Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>610,964.56</td>
<td>1,514,435.44</td>
<td>2,125,400.00</td>
<td>48</td>
</tr>
<tr>
<td>Outcome 3: Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed.</td>
<td>158,443.62</td>
<td>396,356.38</td>
<td>554,800.00</td>
<td>13</td>
</tr>
<tr>
<td>Outcome 4: Livelihood and wellbeing of population in the Watershed System improved</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0</td>
</tr>
<tr>
<td>Outcome 5: Learning, evaluation and adaptive management</td>
<td>609,801.42</td>
<td>508,813.58</td>
<td>1,118,615.00</td>
<td>25</td>
</tr>
<tr>
<td>Totals</td>
<td>1,574,406.82</td>
<td>2,860,288.18</td>
<td>4,434,695.00</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1: Distribution of GEF funds according to the outcomes of the project ‘Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System’ and situation of global expenditures at the moment of the present mid-term evaluation (Data from Finances Corrected Table 2009, FUNDACIÓN SUR FU TURO).
In order to assess the project’s financial situation, available documents and products were reviewed. These include the Manual of Policies and Procedures of Fundación Sur Futuro, co-financing papers of Dominican Government Organizations and all periodical project reports:

- Funding Authorization and Certificate of Expenditures (FACE) sheets;
- Annual Performance Reports (APR) and Project Implementation Reviews (PIR) 2007 and 2008;
- Quarterly Reports (from October-December 2007 to January-March 2009);
- Financial Audits carried out by independent firms;
- as well as the UNDP Observations Reports to Quarterly Financial Reports were also considered.

The financial assessment is carried out in detail by outcome / outputs, but first there are some general aspects outlined (see Table 2).

In general, all outcomes show a significant difference between planned and executed costs in the first project year 2006, where less than the 30% of the amounts planned for outcomes 1, 2 and 3, were disbursed. This occurred, because project implementation was influenced by two decisive aspects:

- First, the signature of the project document was in October 31, 2005 but the date of the first disbursement took place in August 1, 2006. In consequence, the project team had to wait 10 months for the first disbursement of money.
- Second, due to contest and management of exoneration mechanisms, the acquisition of the project vehicles took 8 months, after the project had started.

From the second project implementation year 2007 onwards, the relation between planned and executed remain over 70% in outcomes 1, 2 and 3. In 2008 a new decrease in the delivery rate could be identified due to the effects of tropical storm Olga that crossed the region in December 2007. The local communities remained isolated for six months delaying the implementation of project activities, forcing Fundación Sur Futuro to implement an alternative emergency project with funding coming from the Office of the First Lady, for road rehabilitation and aid assistance to harmed people.
### Table 2: Behaviour of yearly amount planned and disbursed of the Project Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System.

**DR**: Delivery Rate. (Data from Finances Corrected Table 2009, FUNDACIÓN SUR FUTURO)

#### 4.2.4.1 Project costs assessment by Outcomes

The financial assessment by outcomes / outputs is carried out according to the Logical Framework matrix, analyzing comparatively targets, achievements and pending activities in relation to the amount spent and remaining. The financial situation is analyzed by each outcome and output, but in Fundación Sur Futuro only data on expenditures were available for the outcome level.

Data of pending activities as well as fulfilment (%) is taken from the Evaluation and Final Report of Fundación Sur Futuro from January-December 2008.

#### Outcome 1

The initial amount assigned to Outcome 1 was USD 635,880 and the project has spent USD 195,197.22 until present date. The amount spent represents a 31% of the total assignation for this outcome. With fulfillment values for the outcome level higher than 70% and higher than 60%
for activities of outputs 1.1 to 1.3, the financial implementation can be considered as highly cost-effective. It seems that there are no problems to cover the pending activities with the remaining 69% of the outcome budget: USD 440,682.78. Moreover, the most expensive activities in the frame of this outcome as GIS design and implementation and the several consultancies to obtain basic information for the Master Plan (socioeconomic & biophysical characterization, dam bathymetry, etc) are already carried out (Table 3).

<table>
<thead>
<tr>
<th>Outcome/ Output (US$635,880)</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievement (US$195,197.22)</th>
<th>Pending (US$440,682.78)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1 Policies, programs and planning frameworks and tools favourable to SLM being applied.</td>
<td>Planning instruments incorporating SLM, implemented by agencies, NGOs, municipalities, and local organizations</td>
<td>0</td>
<td>2 Zone Development Plans per year for a total of 9 Plans by year V</td>
<td>■ 7 Zone Development Plans prepared, 5 of them with already with the SLM principles incorporated (78%)</td>
<td>■ 2 Zone Development Plans (22 %)</td>
</tr>
<tr>
<td>Reformulated Master Plan approved with consensus and funded to incorporate SLM principles</td>
<td>One Master Plan</td>
<td>One Master Plan reformulated, approved and financed by 2009</td>
<td>■ Data available for the reformulation of the Master Plan (70%)</td>
<td>■ Reformulation of the Master Plan according to new inputs (30%)</td>
<td></td>
</tr>
<tr>
<td>Output 1.1 SLM principles harmonized into the policies, programs and planning frameworks of key government institutions.</td>
<td>Number of policies, plans, programs and regulation instruments that incorporate SLM principles</td>
<td>One Master Plan</td>
<td>One policy agreement between government at local and national level, local organizations, NGOs, detailing priorities of SLM in the Watershed System, by 2007 Four regulation instruments by 2006</td>
<td>■ Two policy agreements developed</td>
<td>■ Conclusion of the institutional agreement on the SLM priorities in the basin, at national level.</td>
</tr>
<tr>
<td>Output 1.2 System developed for the management of information related to SLM, in support of the participatory watershed planning system and policy formulation.</td>
<td>Number of information system developed and operational</td>
<td>0</td>
<td>One Information System based on GIS established in 2005</td>
<td>■ The information system based on GIS is already established (64%)</td>
<td>■ Installation of a system to create and use databases in quarterly reports to describe and follow the development of SLM plans, at local level</td>
</tr>
<tr>
<td>Output 1.3. Implementation strategy for future phases of the 15 year SY initiative designed and agreed among all stakeholders</td>
<td>Funding secured for implementation of 2nd 5-year phase.</td>
<td>Average implementation cost for 3 year period 2007-2009</td>
<td>80% of funding for Annual Operations secured by the end of 2009</td>
<td>■ There is a draft of a strategic and financial plan for assuring long-term financing of SLM actions</td>
<td>■ Conclusion and socialization of Strategic and Financial Plan with relevant stakeholder to assure target level</td>
</tr>
</tbody>
</table>

**Outcome 2**

The project team has spent USD 610,964.56, equivalent to a 29% of the total assignation for outcome 2. The fulfillment values for activities of Output 2.4 is 100%, for Outputs 2.1, 2.2 and 2.4 higher than 90% and only Output 2.3 show lower values with 67% of activities fulfilled. With this figures the implementation of activities at the outcome and outputs level can be considered
with a highly cost-efficient. It is obvious that there are still enough funds to cover the pending outcome activities with remaining USD 1,514,435.44, equivalent to the 71% (see Table 4).

The study of Design and establishment of a Sedimentation and Erosion Monitoring System (PROYECTA, 2008) proposes the installation of a system to measure erosion with a very high cost - (USD 186,000 equivalent to 12% of the remnant fund) and very little benefits. The implementation of such a system was considered by the project managers to measure erosion in accordance to achieve one of the indicators at the project objective level. Since this indicator is seriously questioned as well as the technical conceptualization of the monitoring system as a whole, there is no reason to put financial resources in this system (see recommendations). Instead, the financial resources should be strategically directed to other activities in the context of this or other outcomes.

<table>
<thead>
<tr>
<th>Outcome/ Output (US$ 2,125,400)</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements (US$ 1,964,964)</th>
<th>Pending (US$ 1,514,435.44)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 2</strong></td>
<td>Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>Reports of violations of environmental regulations that are effectively processed</td>
<td>0</td>
<td>80% percent of reports of violations of environmental law effectively processed by 2006 and 90% by 2009</td>
<td>■ A participatory system for reducing environmental violations was designed with SEMARENA ■ Two training courses for community environmental supervisors realized. ■ One event with representatives of different CDCs to train them in how to channel environmental denunciations</td>
</tr>
<tr>
<td></td>
<td>Local perception of effectiveness of regulation, planning and technical support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 2.1</strong></td>
<td>Participatory governance structures and procedures for watershed planning for SLM functioning.</td>
<td>Establishment of Watershed and Zone Development Committees</td>
<td>0</td>
<td>1 WC and 9 ZDCs created and functioning in SY watershed by 2006</td>
<td>■ 8 ZDCs have been created, most of them even with legalized status and working. ■ CC has not been created so far. ■ Apart from CC and CD2s a total of 38 CDC have been created (93%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>■ Creation of one ZDC and WC ■ Continues strengthening the participatory governance structure at all levels to self manage and assuming responsibility on their own engaged on SLM actions (7%)</td>
</tr>
<tr>
<td><strong>Output 2.2</strong></td>
<td>Land management and production models to support SLM are developed and adopted.</td>
<td>Quantity of land management and production models developed and tested</td>
<td>0</td>
<td>Five models (coffee, improved agroforestry, forestry, animal husbandry and road) by 2007 250 producers (5% of total per 1998 census) have adopted the production models by 2007, 500 (10%) by 2009 and 2,000 (50% of producers) by 2017</td>
<td>■ Production models developed: cattle breeding on pastures with trees, management of natural forest, reforestation, coffee with shadow trees, perennial agroforestry ■ 316 demonstration plot or model farms have been installed. ■ 405 farmers have adopted SLM practices. (92%)</td>
</tr>
<tr>
<td></td>
<td>Quantity of producers adopting the components of production models in coffee, agroforestry, animal husbandry and forestry</td>
<td></td>
<td></td>
<td></td>
<td>■ Search alternative production model for extensive cattle breeding and analyze opportunity costs of extensive cattle breeding. ■ Follow up, validation and/or incorporation of production models with participation of IDIAF and Universities ■ Complete the goal of 500 farmers adopted SLM practices. (8%)</td>
</tr>
<tr>
<td></td>
<td>One agroforestry model under development</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outcome/ Output (US$ 2,125,400)</td>
<td>Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements (US$ 610,964.56)</td>
<td>Pending (US$ 1,514,435.44)</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td>Output 2.3 Knowledge among local population to reduce technical problems that influence production models, land degradation and ecosystem recovery.</td>
<td>Percentage of producers that adopt at least one SLM practice promoted by the project for two or more years</td>
<td>To be determined during the inception phase</td>
<td>500 producers (10% of total per 1998 census) have adopted the production models by 2009. 50% of producers by 2017</td>
<td>■ 405 farmers have adopted SLM practices. ■ Coffee processing facility installed ■ 543 community members attended workshops on SLM. ■ Study of land ownership finished ■ Monitoring erosion system designed (67%)</td>
<td>■ Socialization of the study of land ownership and searching alternatives ■ Complete the goal of 500 producers adopting production models ■ Critical technical review of the erosion monitoring system (33%)</td>
</tr>
<tr>
<td>Output 2.4 Project and agency technical capacity to promote SLM developed.</td>
<td>Quantity of farmers receiving timely technical assistance on practices for SLM increased Availability of brigades that will arrive in less than 8 hours after being alerted</td>
<td>3 partial forest fire brigades. No response time logged.</td>
<td>500 farmers by 2008, 2000 by 2013 and 3000 by 2017. 6 forest fire brigades by 2008</td>
<td>■ 698 farmers have received technical assistance. ■ 116 community members trained on controlled burning of weeds. ■ 13 voluntary community forest fire fighting brigades created. ■ 8 forest fire fighting brigades formed and equipped (100%)</td>
<td>■ The target has been surpassed (0%)</td>
</tr>
<tr>
<td>Output 2.5 A broad environmental education program established for communities within the Upper Sabana Yegua Watershed System.</td>
<td>Coverage of curriculum integrating local watershed content Number of students that receive locally-specific content in environmental education</td>
<td>0</td>
<td>20% (about 13,000 persons) of the Watershed System population with environmental awareness by 2009 2,500 students trained in environmental issues in SLM by 2007 and 5,000 by 2009</td>
<td>■ Proposal to reform school curriculum and implementation strategy designed and socialized ■ Four training courses on Environmental Education with 142 teachers and community leaders ■ Written/visual communication materials about SLM issues, developed. ■ 54 teachers trained in Environmental Education multiplying knowledge to 1,000 students. ■ Two student competitions on environmental issues launched ■ 1,013 trained students (92%)</td>
<td>■ Continues working for population environmental awareness (8%)</td>
</tr>
</tbody>
</table>

Outcome 3

For activities planned in the context of outcome 3, originally USD 554,800 was assigned. Until the present, the project team has spent USD 158,443.62, equivalent to a 29% of the total assignation for this outcome. USD 396,356.38 representing 71% remains to be expended.

Surprisingly, at the level of outcome 3 the target has been surpassed and the activities’ fulfillment is 100%. But this is not the case at the level of outputs 3.1 to 3.5, which have very low achievement rates. The cost-efficiency for these outputs is relatively low since during the three years of project implementation the percentages of activities fulfillment range between 10 to 30% and only 30% of financial resources have been consumed. The project team has to administer 71% of the budget to finance the fulfillment of all outputs with serious delays.

A positive aspect of adaptive management refers to the fact that project management applied for changing towards creating a micro-credits scheme for financing sustainable production alternatives instead of the foreseen guarantee fund.

<table>
<thead>
<tr>
<th>Outcome/ Output (US$554,800)</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements (US$158,443.62)</th>
<th>Pending (US$396,356.38)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 3</strong></td>
<td>Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed.</td>
<td># of farmers who have had direct benefit/support from at least one of the financing schemes</td>
<td>0</td>
<td>500 farmers by 2008, 2000 by 2013, and 3000 by 2017 US$1,000,000 generated by 2007 and $2,000,000 by 2009</td>
<td>882 farmers benefited from any financial schemes. 669 farmers received financed fruit plants 23 farmers have received payment to maintenance of established plantations. 62 farmers have received credits for establishing SLM practices. 76 farmers have benefited from irrigation systems in exchange of establishing forest plantations. US$147,254 generated to finance SLM. ODEBRECHT allocated US$100,000 for reforestation and environmental education (100%)</td>
</tr>
<tr>
<td><strong>Output 3.1.</strong></td>
<td>Funding strategy for the Watershed System developed</td>
<td>Financing of administrative costs and investments through resources generated by the financial plan.</td>
<td>0</td>
<td>50% of administrative costs and project investments by 2008</td>
<td>Until mid 2009 there is no co-financing either of the administrative project cost or of the investments made through the GEF project. Draft of the Strategic Financial Plan was finished and is currently been socialized with relevant stakeholders. (0%)</td>
</tr>
<tr>
<td>Outcome/ Output (US$554,800)</td>
<td>Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements (US$158,443.62)</td>
<td>Pending (US$396,356.38)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------</td>
<td>----------</td>
<td>--------</td>
<td>-----------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Output 3.2</td>
<td>Amount collected</td>
<td>0</td>
<td>$400,000 by 2007 and $936,000 by 2009</td>
<td>■ Until mid 2009 no money has been collected for paying environmental services. ■ Negotiations with EGEHID for PES were initiated but did not have advanced so far. ■ No disbursement has been realized as no funds are available. (10%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proportion of funds generated disbursed for reinvestment in SLM</td>
<td>90% disbursed for reinvestment in SLM in each year.</td>
<td>Development of Output 3.2 (90%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quantity of money collected</td>
<td>0</td>
<td>$250,000 collected by nature SWAP scheme by 2007 and $500,000 by 2009</td>
<td>■ No funds have been collected so far. ■ The project team presented a concept note to the Secretary of Finance regarding a program for erosion control in the watershed system and the possibility to access a TFCA program ■ No disbursement has been realized as no funds are available. (13%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proportion of funds generated disbursed for reinvestment in SLM</td>
<td>90% disbursed for reinvestment in SLM each year beginning at the end of 2006.</td>
<td>Development of Output 3.3 (87%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output 3.3</td>
<td>Quantity of money collected</td>
<td>0</td>
<td>$1,000,000 collected by 2007 and $2,000,000 by 2009</td>
<td>■ No funds have been collected so far. ■ The Eco-Development Fund has been created throughout an inter-institutional Agreement between SEMARENA and Fundación Sur Futuro, with the participation of UNDP. (10%)</td>
<td></td>
</tr>
<tr>
<td>Debt-for-nature SWAP schemes established which promote SLM.</td>
<td></td>
<td></td>
<td></td>
<td>Development of Output 3.4 (90%)</td>
<td></td>
</tr>
<tr>
<td>Output 3.4</td>
<td>Quantity of money loaned for SLM activities based on guarantee fund mechanism</td>
<td>0</td>
<td>$400,000 disbursed for SLM activities from the Guarantee Fund by 2007 and $800,000 by 2009</td>
<td>■ The original concept to establish an innovative funding guarantee mechanism has showed to not being a viable option in the national and regional context. ■ The project management applied for changing towards creating a micro-credits scheme for financing sustainable production alternatives. Proposal was approved by GEF. (33%)</td>
<td></td>
</tr>
<tr>
<td>Watershed-wide environmental fund (WLEF) established which promotes SLM.</td>
<td></td>
<td>2500 with access to formal credit in 2007 and 2500 additional persons by 2009</td>
<td>Creating a micro-credits scheme for financing sustainable production alternatives (67%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output 3.5</td>
<td>Quantity of money loaned for SLM activities based on guarantee fund mechanism</td>
<td>0</td>
<td>$400,000 disbursed for SLM activities from the Guarantee Fund by 2007 and $800,000 by 2009</td>
<td>■ The original concept to establish an innovative funding guarantee mechanism has showed to not being a viable option in the national and regional context. ■ The project management applied for changing towards creating a micro-credits scheme for financing sustainable production alternatives. Proposal was approved by GEF. (33%)</td>
<td></td>
</tr>
<tr>
<td>Innovative funding guarantee mechanism established to promote access to, and guarantee credit, for local rural development activities compatible with SLM.</td>
<td>Population with access to formal credit program</td>
<td>40 persons</td>
<td>2500 with access to formal credit in 2007 and 2500 additional persons by 2009</td>
<td>Creating a micro-credits scheme for financing sustainable production alternatives (67%)</td>
<td></td>
</tr>
</tbody>
</table>
### Outcome/Output

<table>
<thead>
<tr>
<th>Outcome/Output</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements</th>
<th>Pending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output 3.6</td>
<td>Service exchange schemes designed and mainstreamed with approval criteria for development projects. Area with management improved through environmental service and incentives exchange</td>
<td>0</td>
<td>One scheme developed for water service, health, education, housing improvements, and energy by 2006. 500 new ha. established with at least 590 thousand wood and fruit trees by 2007, and 600 new ha established with at least 700 thousand wood and fruit plants by 2009</td>
<td>The Integral Compensation Program for Environmental Services (CISA) was designed</td>
<td>Continues the development of Output 3.2 (67%)</td>
</tr>
<tr>
<td>Output 4.1</td>
<td>Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>To be determined during inception phase</td>
<td>Rates stay the same or decrease To be determined in inception phase</td>
<td>There have no studies been carried out to determine the migration rate. 22,885 school-age children attended school during school year 2007-2008, representing 94.77%, for an increase of 18% with regards to school year 2005-2006. 6,909 new jobs, i.e. 15.10% of the population (15 years of age and older) of the watershed decreased its dependency on the exploitation of natural and land resources.</td>
<td>Study of migration rate (The usefulness of spend money in this study at this time of the Project should be critically analyzed)</td>
</tr>
</tbody>
</table>

### Outcome 4

Outcome 4 is totally financed by Fundación Sur Futuro and other, mainly Government, funding entities, including SEMARENA, with a high degree of fulfillment. Co-financing – in monetary form and in form of material goods - has been very successful. In the planning framework of this outcome not only all planned activities are already fulfilled, but even surpassed the targets with additional actions of great socio-economic impact.

Although there are no GEF funds considered in this outcome, there are some future expenses that should be analyzed to keep this outcome as high in cost-efficiency terms. The migration rate is one indicator of outcome 4. The baseline migration rate should have been determined during the inception phase, but it was not done. Migration rate was estimated recently during the project implementation, so it is not clear how project interventions could have influenced the obtained figures. Financially, it has to be analyzed the real usefulness to spent money in new consultancies to determine variations within the migration rate in the timeframe of pending two years. With a baseline that is not clear at this moment of project implementation, the migration rate as indicator could be only be of descriptive value and not serve as a measure of achievement, as it was proposed originally.


Outcome 5

For Outcome 5, budget of USD 1,118,615 was assigned. At the present moment, the project has spent USD 609,801.42, equivalent to a 55% of the total assignation for this outcome. USD 508,813.58, representing 45%, still remain to be expended. With a general fulfillment of 69% with respect to the activities, and nearly 60% of assigned funds consumed, the implementation of this outcome can be considered highly cost-efficient. This project team should not have any problems to achieve outcome 5 and according outputs with the funds remaining.

<table>
<thead>
<tr>
<th>Outcome/Output (US$1,118,615)</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements (US$609,801.42)</th>
<th>Pending (US$508,813.58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 5</td>
<td>Learning, evaluation and adaptive management</td>
<td>Zone committees directly manage implementation of project activities project phase 3.</td>
<td>No local management capability for design or implementation of project activities.</td>
<td>9 zones under management and one overall watershed management structure managing the master plan by 2009.</td>
<td>7 CDZs and 38 CDC established and training in progress. (69%)</td>
</tr>
<tr>
<td>Output 5.1</td>
<td>Effective project implementation through adaptive management</td>
<td>Up to date Information stored in NERIS system accessible to project and non project decision makers</td>
<td>0 at start of project. Baseline should then follow the M+E plan as the baseline standard</td>
<td>All geographic information and project management information available digitally by 2007.</td>
<td>The GIS System is in place but not yet accessible to all relevant non-project decision makers. The installation of project management information is still in progress.</td>
</tr>
</tbody>
</table>

4.2.4.2 Financial management

The type of transferring funds is cash transfers directly to Fundación Sur Futuro. The organizational capacity of Fundación Sur Futuro for financial management was evaluated by Price Waterhouse Coopers with satisfactory results, before initiating the above mentioned fund transfers. Disbursements of project funds are made through request to UNDP on a quarterly basis. Funds for the first quarter are advanced, according to the Annual Operational Plan, and funds for the following quarters are transferred after proper reports and FACE sheets are submitted to UNDP. For transfers there are 15 organized accounts, managing the expenses to: international consultants (71200), local consultants (71300), contracting individual services (71400), travel (71600), contractual services companies (72100), equipment & furniture (72200), materials & goods (72300), communication equipment (72400), supplies (72500), grants (72600), information & technical equipment (72800), equipment rental & maintenance (73400), professional services (74100), print products costs (74200) and miscellaneous expenses (74500). The financial planning of Fundación Sur Futuro is submitted to periodic examinations by UNDP and programmatic supervision. At this level several minor problems have been detected (see Table 8).
<table>
<thead>
<tr>
<th>Period</th>
<th>Observations to financial report or to reported expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan-Mar 2008</td>
<td>Expenses reported waiting to be recognized until engage product is delivery</td>
</tr>
<tr>
<td></td>
<td>Expenses reported when year 2007 has been closed and audited</td>
</tr>
<tr>
<td></td>
<td>Expenses reported when year 2007 has been closed and audited</td>
</tr>
<tr>
<td></td>
<td>Procedures irregularities in contracting: initial payment of 50% to local Consultant</td>
</tr>
<tr>
<td>Apr-Jun 2008</td>
<td>Delay in the delivery of physical FACE document</td>
</tr>
<tr>
<td></td>
<td>Assignation of the same item to a different activity/ account</td>
</tr>
<tr>
<td></td>
<td>Expenses above 2,500 without a competitive process to choose the supplier</td>
</tr>
<tr>
<td></td>
<td>No delivery of electronic or physic copy of Project financial documents</td>
</tr>
<tr>
<td></td>
<td>Expenses above 2,500 without a competitive process to choose the supplier</td>
</tr>
<tr>
<td></td>
<td>Payment in contract to national consultant over current salary scale (500 USD/day)</td>
</tr>
<tr>
<td></td>
<td>Expenses above the limit of US$ 2,500 without a competitive process to choose the supplier when such process is highly recommended</td>
</tr>
<tr>
<td></td>
<td>Expenses above the limit of US$ 2,500 without a competitive process to choose the supplier when such process is highly recommended</td>
</tr>
<tr>
<td>Jul-Set 2008</td>
<td>Expense not approve: lack of evidence of publicity and competitive process</td>
</tr>
<tr>
<td></td>
<td>Payment required over expired terms</td>
</tr>
<tr>
<td></td>
<td>Expense not approve: contract without one page, lack of evidence of publicity and competitive process</td>
</tr>
<tr>
<td></td>
<td>No copy of the required competitive process presented</td>
</tr>
<tr>
<td></td>
<td>Payment already done or anticipated</td>
</tr>
<tr>
<td></td>
<td>Payment over the allowed 15%</td>
</tr>
<tr>
<td></td>
<td>Expenses above 2,500 without a competitive process to choose the supplier and payment over the 15% allowed</td>
</tr>
<tr>
<td></td>
<td>Expenses over 2,500 without a competitive process and no documentary evidence if it is the only option in the market</td>
</tr>
<tr>
<td></td>
<td>Expenses above 2,500 without a competitive process evidence</td>
</tr>
<tr>
<td></td>
<td>Payment does not proceed: the contracted person is a Government official. No evidence of competitive process. Expected results for the contract go beyond the project interests. No consistency in terms and payment frequency</td>
</tr>
<tr>
<td></td>
<td>No price quotation</td>
</tr>
<tr>
<td></td>
<td>No price quotation</td>
</tr>
<tr>
<td></td>
<td>Expenses above 2,500 without a competitive process to choose the supplier. The same equipment was bought to the same supplier. No justification is offered</td>
</tr>
<tr>
<td></td>
<td>No justification about why this expense is charged to this account</td>
</tr>
<tr>
<td></td>
<td>Expense that must be charge to another account. Same expenses to this unique supplier in the trimester without price quotation.</td>
</tr>
<tr>
<td></td>
<td>Differences in the amount</td>
</tr>
<tr>
<td></td>
<td>Expense not approved. It should be covered as counterpart. Besides overhead will be paid</td>
</tr>
<tr>
<td></td>
<td>Expense included in the wrong activity. It has to be moved to Activity 2</td>
</tr>
<tr>
<td></td>
<td>Contracted translator of PIR document without the required qualification. Product with bad quality out of the specialized SLM language</td>
</tr>
<tr>
<td></td>
<td>Per diem charged to the wrong activity</td>
</tr>
<tr>
<td></td>
<td>Expense included in the wrong activity. It has to be moved to Activity 2</td>
</tr>
<tr>
<td>Dec 2008</td>
<td>Expenses without support</td>
</tr>
<tr>
<td>Jan-Mar 2009</td>
<td>Errors in the FACE document</td>
</tr>
<tr>
<td></td>
<td>Check that cannot approve: amount and concept not clear</td>
</tr>
<tr>
<td></td>
<td>Check appearing as July payment when it belong to August</td>
</tr>
<tr>
<td></td>
<td>Discrepancies among check quantity and FACE values</td>
</tr>
<tr>
<td></td>
<td>Accumulated expenses to investigate in they belong to the same supplier</td>
</tr>
<tr>
<td></td>
<td>Check that cannot approve: amount and payment concept not clear</td>
</tr>
<tr>
<td></td>
<td>Check with wrong payment concept</td>
</tr>
<tr>
<td></td>
<td>Check charged to Activity 2 when in its description it is charged to Activity 3</td>
</tr>
<tr>
<td></td>
<td>Accumulated expenses to investigate in they belong to the same supplier</td>
</tr>
<tr>
<td></td>
<td>Discrepancies in amounts</td>
</tr>
<tr>
<td></td>
<td>Checks not accepted: amount above 2,500 without a competitive process</td>
</tr>
<tr>
<td></td>
<td>Checks not accepted: amount above 2,500 without a competitive process</td>
</tr>
<tr>
<td></td>
<td>Checks not accepted: amount above 2,500 without a competitive process</td>
</tr>
<tr>
<td></td>
<td>Checks not accepted: amount above 2,500 without a competitive process</td>
</tr>
</tbody>
</table>
Table 8: Summary of observations by Quarterly UNDP Observations Reports to Financial Reports of Project “Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System” of Fundación Sur Futuro.

Problems found by UNDP in Financial Reports of Fundación Sur Futuro were organized in the four categories presented below:

- **Financial reports/ documents.** Errors in the FACE document or discrepancies among check quantity and FACE values, delay in the delivery of physical FACE document, differences in the amount, presentation of expenses that should be covered by counterpart, presentation of payment already done or anticipated and not delivery of electronic or physic copy of Project financial documents.

- **Contracting consultants.** Contracted consultant without the required qualification leading to bad quality products, procedures irregularities in contracting (i.e. initial payment of 50%), contract to Government officials and payment to national consultant over current salary scale (500 USD/day).

- **Financial organization.** Assignation of the same item to a different activity/ account, expense charge to a certain month or activity when it belong to another, discrepancies in amounts, check that cannot be approve because the amount and concept are wrong or not clear, payment required over expired terms and expenses reported out of date.

- **Financial procedures.** Expenses above the limit of USD 2,500 without a competitive process to choose the supplier and no documentary evidence, lack of evidence of publicity and competitive process, accumulated expenses with the same suppliers without price quotation, payment over the allowed 15% and no price quotation.

It is comprehensive that some problems can be normal inside the complexity of the financial process but some of them have turned reiterative and deserves attention. For example, the presentation of checks with amounts above USD 2,500 without a competitive process to choose the supplier or any explanatory document of the selection, occurred four times in April-June 2008, five times in July-September 2008 and again five times in January-March 2009.

The financial planning of Fundación Sur Futuro is also provided together with annual financial audits. Three Annual Financial Audits were executed:

a. to assess if expenditures were done in accordance with the activities and budgets enunciated in the Project agreement;

b. to verify the accuracy of Combined Delivery Report (CDR) proving that expenditures were support with enough information;

c. to validate the precision and fidelity of the reports and

d. to confirm the existence of a proper structure of administration, internal controls and bookkeeping.

Audits are carried out according to Reference Terms from UNDP and international standards on auditing from the International Auditing Practices Committee, adopted by the Authorized Public Accountant Institute in Dominican Republic. For these Audits the Combined Delivery Report (CDR) are prepared by UNDP and Fundación Sur Futuro using the ATLAS Accounting System. Contracted Auditing firms were BDO Ortega y Asociados in the 2007 Audit and Campuzano y Asociados in the 2008 and 2009 Audits. All Audits concluded that the Combined Delivery Report (CDR) presented reasonably in all the material aspects the expenses, incurred by the Project financed by GEF/UNDP resources for the time frame audited, in conformity with the requirements of UNDP accounting.
4.2.4.3 Co-financing

One of the strengths of the project ‘Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System’ is the multi-institutional alliance between different Governmental and Private Sector Organisations for funding of SLM and sustainable development actions in the Upper Sabana Yegua Watershed System. In fact, outcome 4 is completely funded by Fundación Sur Futuro and at least 28 economic partners, including SEMARENA (see Table 9), with a high degree of fulfillment. Co-financing – in monetary form and in form of material goods - has been very successful. A summary of co-financing data is presented in Table 10.

Due to Co-financing, the watershed received investments in the areas of housing (22 houses built and 93 underway), access to water (1,998 families benefited), electricity and fuel (108 households benefited from hydroelectricity, 160 stoves distributed and 10 photovoltaic systems), education (IT Centers) and health (a hospital and two primary health care units). There was also financing on behalf of the banking and subsidies across the card solidarity. In 2008, the investments reached the amount of USD 12,404,144. Only this year 50% of the project commitment of joint financing for the entire project was fulfilled.

<table>
<thead>
<tr>
<th>Partner or Contributor</th>
<th>Nature of Contributor</th>
<th>Expected Total Disbursement by end of project</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEF Contribution</td>
<td>GEF</td>
<td>4.43</td>
</tr>
<tr>
<td>Cash Cofinancing – UNDP Managed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDP (TRAC)</td>
<td>UN Agency</td>
<td></td>
</tr>
<tr>
<td>Cash Cofinancing – Partner managed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEMARENA</td>
<td>National Government</td>
<td>1.08</td>
</tr>
<tr>
<td>COPRESIDA</td>
<td>National Government</td>
<td>0.06</td>
</tr>
<tr>
<td>JICA</td>
<td>Bilateral Donor</td>
<td>0.13</td>
</tr>
<tr>
<td>Embassy of Japan</td>
<td>Bilateral Donor</td>
<td>0.09</td>
</tr>
<tr>
<td>Sur Futuro</td>
<td>NGO</td>
<td>2.77</td>
</tr>
<tr>
<td>International Youth Foundation</td>
<td>Other</td>
<td>0.49</td>
</tr>
<tr>
<td>Kellog Foundation</td>
<td>Other</td>
<td>0.91</td>
</tr>
<tr>
<td>Odebrecht (Palomino Dam Environmental Programme)</td>
<td>Private Sector</td>
<td>0.2</td>
</tr>
<tr>
<td>Philips Morris</td>
<td>Private Sector</td>
<td>0.17</td>
</tr>
<tr>
<td>Manuel Arsenio Ureña / M. Corripio</td>
<td>Private Sector</td>
<td>0.14</td>
</tr>
<tr>
<td>Telethon for victims of Storm Noel</td>
<td>Private Sector</td>
<td>0.36</td>
</tr>
<tr>
<td>CERF-UNDP- Social Cabinet</td>
<td>UN - National Government</td>
<td>0.06</td>
</tr>
<tr>
<td>In-Kind Cofinancing</td>
<td>-</td>
<td>29.29</td>
</tr>
<tr>
<td>SEMARENA</td>
<td>National Government</td>
<td>2.23</td>
</tr>
<tr>
<td>SEA</td>
<td>National Government</td>
<td>1.71</td>
</tr>
<tr>
<td>INDRHI</td>
<td>National Government</td>
<td>0.20</td>
</tr>
<tr>
<td>Banco Agricola</td>
<td>National Government</td>
<td>0.86</td>
</tr>
<tr>
<td>SEE</td>
<td>National Government</td>
<td>7.03</td>
</tr>
<tr>
<td>National Potable Water Institute</td>
<td>National Government</td>
<td>0.80</td>
</tr>
<tr>
<td>INVI</td>
<td>National Government</td>
<td>2.46</td>
</tr>
<tr>
<td>Secretariat of Health</td>
<td>National Government</td>
<td>3.80</td>
</tr>
<tr>
<td>Secretariat of Industry and Commerce</td>
<td>National Government</td>
<td>0.93</td>
</tr>
<tr>
<td>Secretary of State for Public Works and Communications</td>
<td>National Government</td>
<td>3.00</td>
</tr>
<tr>
<td>Dominican Institute of Telecommunications (INDOTEL)</td>
<td>National Government</td>
<td>0.90</td>
</tr>
<tr>
<td>JICA / SEMARENA</td>
<td>Bilateral Donor</td>
<td>4.64</td>
</tr>
<tr>
<td>Sur Futuro</td>
<td>NGO’s</td>
<td>0.66</td>
</tr>
</tbody>
</table>
### Table 9: Co-financing partners of Project “Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System”.

<table>
<thead>
<tr>
<th>Partner or Contributor</th>
<th>Nature of Contributor</th>
<th>Expected Total Disbursement by end of project</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Youth Foundation</td>
<td>Others</td>
<td>0.07</td>
</tr>
</tbody>
</table>

Total Co-financing

| Total for Project | 35.75 |

| Total for Project | 40.18 |

### Table 10: Summary of co-financing data (elaborated by Elpidio Tineo, Fundación Sur Futuro).

<table>
<thead>
<tr>
<th>(Type/Source)</th>
<th>Financing (mill US$)</th>
<th>Government (mill US$)</th>
<th>Other (mill US$)</th>
<th>Total (mill US$)</th>
<th>Total Disbursement (mill US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Planned Actual</td>
<td>Planned Actual</td>
<td>Planned Actual</td>
<td>Planned Actual</td>
<td>Planned Actual</td>
</tr>
<tr>
<td>Grants</td>
<td>3.43 3.43</td>
<td>20.3 28.4</td>
<td>0 0</td>
<td>24.64 38.6</td>
<td>18.39 23.59</td>
</tr>
<tr>
<td>Loans/Concessional</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>Credits</td>
<td>0 0</td>
<td>0.86 0.86</td>
<td>0 0</td>
<td>0 0</td>
<td>3.22 3.22</td>
</tr>
<tr>
<td>Equity investments</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>3.22 3.22</td>
</tr>
<tr>
<td>In-kind support</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>Other (*)</td>
<td>0 0</td>
<td>0 0</td>
<td>0.91 6.77</td>
<td>0.91 0.77</td>
<td>0.91 2.87</td>
</tr>
<tr>
<td>Totals</td>
<td>3.43 3.43</td>
<td>21.16 29.26</td>
<td>0.91 6.77</td>
<td>25.55 39.37</td>
<td>22.52 29.68</td>
</tr>
</tbody>
</table>

### 4.2.5 Sustainability of project interventions

The sustainability of the project’s interventions can be assessed against some basic criteria that must be fulfilled. These criteria are defined as:

1. Conducive policy environment
2. Appropriate institutional arrangements
3. Pertinent core competencies / capacities for SLM of all relevant stakeholder
4. Economically viable SLM technologies
5. Economically viable SLM technologies
6. Long-term financing mechanisms for SLM
7. Attractive living conditions for local population

In the following the project is evaluated with respect to implementing adequate measures to achieve sustainability in all the above mentioned aspects (criteria).

#### 4.2.5.1 Conducive Policy Environment

In its range, the project can only aim at creating a conducive policy environment related directly to sustainable watershed management in the Upper Sabana Yegua Watershed System.

The project team has focused attention towards the following issues:
• Conducting studies contributing to the reformulation of the Master Plan for managing the Upper Sabana Yegua Watershed System – socioeconomic study, biophysical study, SLM guide, strategic financial plan, etc.

• Agreements regarding SLM principles, signed by representatives of GOs

• An information system based on GIS established

Apart from these measures are legislative mechanisms in place, like the Law for Environment and Natural Resources, which provide a regulatory framework fostering SLM practices. All the above exposed measures will create a conducive policy environment for future SLM interventions. The range is rated as adequate to achieve long-term sustainability.

4.2.5.2 Appropriate Institutional Arrangements

In the context of watershed management, an institution is understood as ‘being a complex of norms and behaviours that persist over time by serving some socially and collectively valued purpose’. In the concrete case of the project at hand, appropriate institutional arrangements refer to creating a local governance structure.

The project team has not achieved the planned targets in the agreed timeframe. There are serious delays in creating CDCs and CDZs and developing community and zonal development plans. At the watershed level the CC is still not in place.

Based on the project progress up to the moment and regarding the complexity of developing participatory governance structures, it is highly doubtful if the outcome could be achieved in the remaining project time.

Failure concerning the creation of a participatory governance structure for the watershed system would be a serious shortcoming and put in risk many other project achievements.

4.2.5.3 Pertinent Core Competencies of Stakeholders

Capacity development is a focal point of project implementation. Outcome 2 entirely focuses on improving capacities of relevant stakeholders.

As already described in chapter 4.2.3, the project team interprets capacity development considering two aspects:

• Training in technical issues

• Environmental educations

In both respects there have been achieved convincing outcomes, leading to improved technical skills of farmers and technicians of SLM service provider organisations and environmental consciousness of students and adults all over the watershed system.

Nevertheless, core competencies for managing natural resources in a sustainable manner, go far beyond technical skills and environmental awareness. If the aim of the project intervention is to develop and / or strengthen core competencies of all relevant stakeholders, so that these could manage the watershed on their own in the future, the project team has to broaden its capacity development strategy in this respect (see chapter recommendations).

With the current capacity development strategy applied by the project team, most of the core competencies for SLM will not be developed with stakeholders at the project end.
4.2.5.4 Economically viable SLM Technologies

All the production models promoted by the project team were assessed against its economic viability and have been proved positively. In particular coffee growing and the Agroforestry alternatives are highly profitable. But also the silvopastoral and reforestation schemes generate positive economic benefits in the long run.

Farmers, in particular smallholders, are very cautious with probing new production alternatives, because the carry all the risk and may break economically if they fail. The recently huge demand of farmers for certain SLM technologies, namely coffee rehabilitation, avocado and other fruit trees and reforestation is, to a certain degree, an indicator for the economic viability of the production alternatives offered by the project.

The economic viability of certain crops depends also by its commercialization. Regarding coffee, the project team promotes processing and marketing. The sell of wood products is no problem in the country. With respect to fruit trees there is little be done up to the moment.

In conclusion, it could be stated that regarding the economic viability and long-term sustainability of the production alternatives the project promotes, it is on the right track.

4.2.5.5 Ecologically viable SLM Technologies

The above mentioned production alternatives have also been assessed against its ecological viability. All production models promoted have proved to protect and conserve soil and water resources in the long-run and therefore contribute to improve water production capacity of the Sabana Yegua Watershed System and reduce erosion and sedimentation of the reservoir.

4.2.5.6 Long-term Financing Mechanisms

Many of the production alternatives promoted by the project team, for instance wood production, require interim financing during the first years when they do not generate income but provoke costs. There are also several measures which focus only on protecting soil and water resource without generating any income. Both production and protection measures require financing.

Environmental Services as water production or carbon fixing currently do not encounter adequate market mechanisms which pay for such services. Financing is also required to pay those landowners who currently provide environmental services for free.

Project outcome 3 entirely addresses the development of financing mechanisms. In the first half of the project cycle the project team did not emphasize enough on developing the planned financing mechanisms, so that today most of these are not in place or at a very early development stage.

Not having at least some financing mechanisms with adequate amounts of money established at the end of the project would endanger seriously project interventions’ sustainability.

4.2.5.7 Attractive Living Conditions

Local people will only be able to manage the natural resources of the Upper Sabana Yegua Watershed System in an appropriate and sustainable manner if their basic needs are satisfied and they find it attractive to continue living in the area.
Today it does not suffice to have housing and enough to eat but also other basic services influence the decision to stay or to migrate. Drinking water, electricity, health care, primary education and adequate road infrastructure are basic services which motivate people to stay and to invest in the future.

Outcome 4 of the project is related to improving living conditions and reduces poverty by creating new jobs. The progress made to achieve targets in this respect is convincing and there is no doubt that at the end of the project living conditions all over the watershed system will have improved significantly.

Although outcome 4 is not under direct control of the project team (Fundación Sur Futuro) but contributions come mainly from GO and aid agencies, even though the results are convincing.

4.2.6 Implementation mode

The project ‘Demonstrating Sustainable Land Management in the Upper Sabana Yegua Watershed System’ is being implemented under the NGO execution modality, for a period of five years, having commenced in 2005. Fundación Sur Futuro, the executing NGO, was selected based on their track record and experience in similar assignments, and their active engagement with relevant stakeholders in different development interventions throughout the entire area of the Upper Sabana Yegua Watershed System. The fact that formal legal arrangements between the Dominican Government and the Fundación Sur Futuro to co-manage the Sabana Yegua Watershed already existed, was considered as an asset. The project at hand was assumed to benefit from cost-effective options and to ensure full synergies between key institutions, which will contribute to the development of the strategic action program for the integrated management of the Upper Sabana Yegua Watershed System. An external, independent assessment of the institutional capacities of Fundación Sur Futuro led to the results that the foundation would be the best option as implementing agency.

Financial management and accountability of resources as well as other project execution activities are under UNDP Country Office direct supervision, but the project implementation is reviewed regularly by the Project Steering Committee (PSC) with the responsibility of approving the Project’s Annual Operational Plans and reports and ensuring that project activities are in line with those outlined in the approved basic project documentation, as well as with national policy frameworks. The PSC also ensures coordination with other relevant and associated projects. The committee is integrated by the project management personal from Fundación Sur Futuro, Fundación Sur Futuro area managers (in Santo Domingo and Padre Las Casas), representatives of UNDP, representatives of SEMARENA, representatives of the Inter-institutional Technical Group (GTI) and representatives of other institutions.

The National Project Coordinator (NPC) heads the Project Management Unit (PMU), with an administrate and financial assistant in Santo Domingo while a Regional Project Coordinator and an administrative-financial assistant perform in the main Fundación Sur Futuro Sabana Yegua regional office located in Padre Las Casas. NPC provides guidance and support to a Regional Project Coordinator (RPC) to ensure the implementation of activities in each region being coherent with the overall project structure and objectives, and that lessons learnt at each site are shared with others.

Assessment of project outputs resulted in a proposal of the category ‘Satisfactory’ for outcome 2 (capacity of stakeholders at diverse levels to improve application of SLM in the project area developed) and outcome 4 (livelihood and wellbeing of population in the Watershed System improved); ‘Marginally Satisfactory’ for outcome 1 (policies, programs and planning frameworks
and tools favourable to SLM being applied) and outcome 5 (learning, evaluation and adaptive management) and ‘Unsatisfactory’ for outcome 3 (sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed).

Considering that the ‘Unsatisfactory’ rating of outcome 3 is related with the inherent difficulties to get different GOs in line with operational terms and not only due to management failures in Fundación Sur Futuro project implementation, it is quite clear that such achievements using only 36% of total project resources (USD 1,574,406.82) and a huge co-financing contribution, indicate an effective implementation modality, performed with reasonable administrative costs. These results have to be seen against the background of a project being extremely sensitive to institutional, political and climatic changes.

According to project documents reviewed and based on interviews with key actors, the role of UNDP in the project can be considered as very effective. The Project has confronted serious difficulties related with substitution of the NPC at the end of 2008, impacting implementation and project supervision. UNDP has contributed significantly to develop and apply a strong M & E system and also provides technical, administrative and financial assistance to the project.

National UNDP staffs have also been working in close coordination with the project management. Several instruments have been designed for follow-up of project activities and have contributed to maintain information flow in a timely manner. The Quarterly Observations Reports of UNDP with respect to Financial Reports of Fundación Sur Futuro has proven to be an effective way to critically point out reiterative deficiencies in financial organization and procedures.

The only critics of UNDP reported in some interviews referred to the delay between the Project Document Signature (October 31, 2005) and First Disbursement (August 1, 2006) and the long-lasting process of project vehicles tax exemption.

Communication with stakeholders

In Padre Las Casas all interviews with local officials of Governmental Organisations (municipalities, CODOCAFE, SEA, SEMARENA, SEE, etc.), NGOs and private sector organisations revealed effective communication procedures between Fundación Sur Futuro and other actors in order to support and participate in project activities. Fundación Sur Futuro has been able to create and lead locally a very tight institutional alliance. Effective communication to respond to project needs is also proven for almost 28 co-financing partners, whose contribution – in money and in-kind - has been decisive for outcome 4 achievements, improving the living standards of watershed communities. At the Central Government level exist good relations with all institutions, nonetheless communication must be improved with some of them, especially those directly related to SLM as SEA and SEMARENA and related Sub-Secretariats.

4.3 Assessment of the project outputs

The project team of Fundación Sur Futuro has implemented activities according to the project’s planning framework. In this section of the report the performance of the project team against planned targets will be assessed.

In particular the project’s outputs according to the logical framework, strengthening of local and national staff’s capacities and the sustainability of the outputs will be reviewed.
4.3.1 Assessment of the project outputs according to the project’s logical framework

The assessment of the project outputs is largely based on the APR and PIR 2008, on the progress report of the first trimester 2009 and on up-to-date data collected during the mid-term evaluation. The findings of the assessment will be presented in form of a spreadsheet in order to provide information in a clear structured and easy to access way.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements</th>
<th>Comments / Aspects to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective of the project</strong>&lt;br&gt;Promotion of integrated Sustainable Land Management in the Upper Sabana Yegua Watershed System, in the context of sustainable development and poverty reduction</td>
<td>Consensus reached on a new 5-year plan (2010-2015) for the management of the watershed system with SLM principles</td>
<td>1 Master Plan</td>
<td>1 new 5-year plan within the context of the master Plan by year V</td>
<td>Data available for the reformulation of the Master Plan:&lt;br&gt;• Socioeconomic Study (100%)&lt;br&gt;• Biophysical Study (100%)&lt;br&gt;• Bathymetric Study of the Sabana Yegua reservoir (100 %)&lt;br&gt;• Draft Financial Strategic Plan (75%)&lt;br&gt;• SLM Principles Guide (100%).&lt;br&gt;• Design and implementation strategy of sustainable production models (100%)&lt;br&gt;• Proposal for coffee, fruit growing and forestry zoning. (90%)</td>
<td>With respect to the Master Plan there has been surveyed much valuable information which, together with other project experiences, will form a solid basis for reformulating the Plan at the end of the project.</td>
</tr>
<tr>
<td><strong>Amount of land with appropriate use (use in-line with the biophysical characteristics of the area)</strong></td>
<td>72% Inappropriate use (62,953 ha)</td>
<td>Inappropriate land use reduced to 62% (53,953 ha) by the end of year V</td>
<td>1,396 hectares of the Upper Sabana Yegua Watershed System are covered by appropriate land use on the basis of project interventions. The demand for fruit and forest trees has increased significantly in the first semester of 2009. The project team will not be able to respond to, in particular reforestation demand, due to shortcoming in plant production (shortage of Pinus occidentalis seeds).</td>
<td>Although the project team is undertaking serious efforts to achieve the target level, it will be impossible. As stated in the assessment of the project design, this is due to project team’s failure, but due to unrealistic project design.</td>
<td></td>
</tr>
<tr>
<td><strong>Soil erosion</strong></td>
<td>9,505,000 t/yr of soil erosion</td>
<td>Soil erosion rate of Watershed System reduced to 8,500,000 t/yr by the end of project in year V.</td>
<td>All SLM measures co-financed and advised by the project team contribute to reduce erosion. The project team contracted a consulting company to design a monitoring system for erosion and sedimentation. The consultancy was finished in August 2008. Since then 8 erosion traps have been distributed over the watershed system.</td>
<td>Erosion avoided through appropriate land-use systems can be calculated based on average data. This approach to measure erosion avoidance carries a high risk for not providing realistic data. The monitoring system installed by the project demonstrates severe deficits in its design, so that, up to the moment, it does not provide meaningful data. The mayor shortcomings are:&lt;br&gt;• No statistical formula was applied for calculating a minimum number for erosion traps. The number of traps installed is not statistically justified and thus arbitrary.&lt;br&gt;• No land-use categories were identified to weight different land-use regimes.</td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td>Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements</td>
<td>Comments / Aspects to improve</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>----------</td>
<td>--------</td>
<td>--------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>Volume of accumulated sediments in SY dam (original storage capacity is 479.9 millions of cubic meter)</td>
<td>117.6 MCM of sediment (24.5% of total capacity reduced)</td>
<td>Rate of sedimentation maintained to within tolerable limits to produce no more than. 118.2 MCM by year V</td>
<td>A bathymetric study carried out by the project team and INDRHI in August 2008 shows that the sedimentation of the SY reservoir is not a 24.5% of its total capacity but only 13%</td>
<td>Unreliability of data does not allow to measure the achievement of the indicator in a reasonable manner.</td>
</tr>
<tr>
<td></td>
<td>Ecosystem restored as measured by forest cover in the Watershed System</td>
<td>87,531 ha</td>
<td>Increased to 95,034 ha of forest cover by year V</td>
<td>1,070 ha have been established since the beginning of the Project. The demand for forest trees has increased significantly in the first half of 2009. The project team will not be able to respond to, in particular reforestation demand, due to shortcoming in plant production (shortage of <em>Pinus occidentalis</em> seeds).</td>
<td>In view of the current status of implementation and considering several strong challenges (see assessment of the project design) the target of increasing forest cover by 7,503 ha will most probably not be achieved by the end of the project cycle (October 2011)</td>
</tr>
<tr>
<td>Outcome / Output</td>
<td>Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements</td>
<td>Comments / Aspects to improve</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>----------</td>
<td>--------</td>
<td>--------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Outcome 1</strong></td>
<td>Planning instruments incorporating SLM, implemented by agencies, municipalities, NGOs, and local organizations</td>
<td>0</td>
<td>2 Zone Development Plans per year for a total of 9 Plans by year V</td>
<td>7 Zone plans prepared, 5 of them with already with the SLM principles incorporated. Also 37 community development plans have been elaborated, including SLM principles.</td>
<td>Unless it is planned to work out 2 zone development plans per year and the project team will achieve this goal, it would have been better to have all these plans developed after 2 years project time, because significant project progress and the implementation of the participatory governance structure for the watershed system depend on them.</td>
</tr>
<tr>
<td><strong>Output 1.1</strong></td>
<td>Reformulated Master Plan approved with consensus and funded to incorporate SLM principles</td>
<td>0</td>
<td>One (1) Master Plan reformulated, approved and financed by 2009</td>
<td>See description output 1.1</td>
<td>See output 1.1</td>
</tr>
</tbody>
</table>
| **Output 1.1** | Number of policies, plans, programs and regulation instruments that incorporate SLM principles | 1 Master Plan | One policy agreement between government at local and national level, NGOs, local organizations detailing priorities of SLM in the Watershed System, by 2007 | Two policy agreements developed:  
- ‘Protocolo de entendimiento para la promoción del manejo sostenible de tierras en las cuencas de la presa de Sabana Yegua’ from 11 June 2008, signed by representatives of all relevant local and national Gos, NGOs and churches.  
- ‘Encuentro de socialización de los principios de manejo sostenible de la tierra con sindicos y regidores de las comunidades de Padre las Casas, Constanza, Guayabal y Bohechio, Monte Bonito, Arroyo Cano, Las Lagunas, Los Frios y Buena Vista del Yaque’ from 12 February 2009, signed by representatives of local government administrations.  
Data available for the reformulation of the Master Plan:  
- Socioeconomic Study (100%)  
- Biophysical Study (100%)  
- Bathymetric Study of the Sabana Yegua reservoir (100%)  
- Draft Financial Strategic Plan (75%)  
- SLM Principles Guide (100%).  
- Design and implementation strategy of sustainable production models (100%)  
- Proposal for coffee, fruit growing and forestry zoning. (90%) | The two policy agreements form a good official basis for anchoring SLM principles in the signing organisations policies. Notwithstanding, taking into account the Dominican idiosyncrasy a signature does not mean that this organisation will integrate SLM principles on their own initiative in their policies. Information collected during interviews of the mid-term evaluation mission show that the understanding of what has been signed on the side of the stakeholder is very different to what the policy agreements focus on. There is a significant gap of understanding and interpretation.  
With respect to the Master Plan there has been surveyed much valuable information which, together with other project experiences, will form a solid basis for reformulating the Plan at the end of the project. | MS |
<table>
<thead>
<tr>
<th>Outcome Output / Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements</th>
<th>Comments / Aspects to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output 1.2</strong> System developed for the management of information related to SLM, in support of the participatory watershed planning system and policy formulation.</td>
<td>Number of information system developed and operacional</td>
<td>One Information System based on GIS established in 2005</td>
<td>The information system based on GIS is already established</td>
<td>The GIS established is very professional and provides all data required for sustainable watershed management. It still has to be disseminated to and made accessible to other relevant stakeholders, as Municipalities (UAMs) and central government organisations.</td>
</tr>
</tbody>
</table>

Regulation instruments:
- Model for farm management plan developed (100 %)
- Watershed Governance Structure developed (100 %)
- Compensation Scheme for Environmental Services (CISA) developed (June 2009) but not socialized with relevant stakeholders, no financing available yet and no implementation of measures (30 %)

Concept for a watershed fund (Fondo de Ecodesarrollo) constituted, but not counting with any approved operational guidelines and procedures

The progress regarding regulation instruments is sound with respect to having a model for farm management plans and a participatory governance structure developed.

Progress is weak with respect to the implementation of a PES scheme and a watershed fund for financing SLM activities (see also outcome 3).

The project team has stressed very much the implementation of Farm Management Plans, although the output 1.2 only requests the existence of a viable model in place. On the one hand, the implementation of 306 is laudable but on the other hand absorbs too many human and other resources that should be better invested in other central issues. The internal target of having 400 plans in place is considered being too high for just demonstrating how the model is implemented.

Since recently the project team started focussing on Spatial Planning at the municipal level. Despite this issue has not been planned in the original project design, it is considered as very important for integrating SLM practices into spatial planning for municipal development.
### Mid-Term Evaluation GEF Project 00047680 – June 2009

<table>
<thead>
<tr>
<th>Outcome / Output</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements</th>
<th>Comments / Aspects to improve</th>
<th>Val.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output 1.3: Implementation strategy for future phases of the 15 year SY initiative designed and agreed among all stakeholders</td>
<td>Funding secured for implementation of 2nd 5-year phase.</td>
<td>Average implementation cost for 3 year period 2007-2009</td>
<td>80% of funding for Annual Operations secured. by the end of 2009</td>
<td>There is a draft of a strategic and financial plan for assuring long-term financing of SLM actions (from June 2009).</td>
<td>The draft exists, but has not been socialized with any relevant stakeholder. The project team has to rivet on pushing a multi-stakeholder agreement on the implementation and financing strategy for the future</td>
<td>MU</td>
</tr>
</tbody>
</table>
| Outcome 2 Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed | Reports of violations of environmental regulations that are effectively processed | 0% | Eighty (80%) percent of reports of violations of environmental law effectively processed by 2006 and 90% by 2009 | With respect to violations of the Law for Environment and Natural Resources (Ley 64-00) the following progress has been made:  
- Together with SEMARENA a participatory system for reducing environmental violations was designed.  
- 2 training courses for community environmental supervisors realized.  
- One event with representatives of different CDCs to train them in how to channel environmental denunciations.  
- In the SEMARENA office in Padre las Casas in 2009 (first 3 months) 15 denunciations were registered and received appropriate follow up. | The actions undertaken by the project team go in the right direction. They focus on awareness rising, capacity building and developing appropriate and practical procedures. | S |
| Local perception of effectiveness of regulation, planification and technical support | Forty (40)% of local population of the Watershed System considers favorable the regulatory and logistic to SLM principles by 2006 and 80% by 2009 | 0% | Even though yet the project team have not carried out a survey related to changed perceptions of the local population, counting of persons who have participated in training and educational events and farmers applying already SLM technologies, shows that at the end of 2008 a 40% of the population of the Uppers Sabana Yegua Watershed System considers favorable the regulatory and logistic to SLM principles. | Surveying local peoples’ perceptions and understanding of SLM principles by indirect measures does not assure that these people really understand and consider favorable SLM. Annual surveys as demanded by the original project planning should be carried out. | S |

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82
<table>
<thead>
<tr>
<th>Outcome / Output</th>
<th>Indicator</th>
<th>Baseline</th>
<th>Target</th>
<th>Achievements</th>
<th>Comments / Aspects to improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output 2.1</td>
<td>Participatory governance structures and procedures for watershed planning for SLM functioning.</td>
<td>Establishment of Watershed and Zone Development Committees</td>
<td>0</td>
<td>1 WC and 9 ZDCs created and functioning in SY watershed by 2006</td>
<td>Up to the moment 8 CDZs have been created, most of them even with legalized status. CDZs are functioning, but still mostly motivated by project staff. Most of them do not implement adequately their development plans (lack of action plans). The CC has not been created so far. Apart from CC and CDZs a total of 38 CDC have been created and many of them working well and developing their own action plans at community level, but mostly still dependent on the project team taking action. Many CDC do not have a development plan and do not embark on actions specific to SLM. The participatory governance structure is in place. Good progress has been made with respect to the establishment of development committees at the community (CDC) and zonal (CDZ) level. What still lacks is bringing these committees into action regarding SLM and to strengthen them to self manage and assuming responsibility on their own. The created governance structures still depend to a too high degree on the project team’s initiative. The last CDZ and corresponding CDC in the zone of Constanza should be established soon in order to accelerate the creation of the CC.</td>
</tr>
<tr>
<td>Output 2.2</td>
<td>Land management and production models to support SLM are developed and adopted.</td>
<td>Quantity of land management and production models developed and tested</td>
<td>1 Agroforestry model under development</td>
<td>Five models (coffee, improved agroforestry, forestry, animal husbandry and roading) by 2007</td>
<td>The following production models have been developed: - Cattle breeding on pastures with trees (incl. diary) - Management of natural forest - Reforestation - Coffee with shade trees - Perennial agroforestry (fruit trees)</td>
</tr>
<tr>
<td>Outcome Output / Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements</td>
<td>Comments / Aspects to improve</td>
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<td><strong>Output 2.2</strong> (continued)</td>
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<tr>
<td>Quantity of producers adopting the components of production models in coffee, agroforestry, animal husbandry and forestry</td>
<td>0</td>
<td>250 producers (5% of total per 1998 census) have adopted the production models by 2007, 500 (10%) by 2009 and 2,000 (50% of producers) by 2017</td>
<td>316 demonstration plot or model farms have been installed. 405 farmers have adopted SLM practices.</td>
<td>Many farmers have adopted some of the production models or parts of these. There is no doubt that the project team will achieve the goal of 500 farmers by the end of the project.</td>
<td>HS</td>
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<tr>
<td>Percentage of producers that adopt at least one SLM practice promoted by the project for two or more years</td>
<td>To be determined during the inception phase</td>
<td>500 producers (10% of total per 1998 census) have adopted the production models by 2009. 50% of producers by 2017</td>
<td>405 farmers have adopted SLM practices. A coffee processing facility installed, business plan prepared, coffee producers associations legally incorporated and a training course on cooperatives provided. 843 community members have attended workshops on Sustainable Land Management.</td>
<td>There is no difference at the target level to the second indicator of output 2.2.</td>
<td>HS</td>
</tr>
<tr>
<td>Quantity of farmers receiving timely technical assistance on practices for SLM increased</td>
<td>0</td>
<td>500 farmers by 2008, 2000 by 2013 and 3000 by 2017.</td>
<td>698 farmers have received technical assistance.</td>
<td>The project team has surpassed the goal</td>
<td>HS</td>
</tr>
<tr>
<td>Availability of brigades that will arrive in less than 8 hours after being alerted</td>
<td>3 partial forest fire brigades. No response time logged.</td>
<td>6 forest fire brigades by 2008</td>
<td>116 community members trained on controlled burning of weeds. 13 voluntary community forest fire fighting brigades are created. 8 forest fire fighting brigades formed and equipped.</td>
<td>Significant efforts have been made to develop a viable and effective forest fire fighting system. Professional fire fighting brigades as well as voluntary brigades composed by community members are well equipped and trained in fire fighting.</td>
<td>HS</td>
</tr>
<tr>
<td>Outcome / Output</td>
<td>Indicator</td>
<td>Baseline</td>
<td>Target</td>
<td>Achievements</td>
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<tr>
<td>Output 2.5</td>
<td>Coverage of curriculum integrating local watershed content</td>
<td>0</td>
<td>20% (about 13,000 persons) of the Watershed System population with environmental awareness by 2009</td>
<td>Proposal to reform school curriculum and implementation strategy designed, socialized with education technicians and the Ministry of Education. 4 training courses on Environmental Education with the participation of 142 teachers and community leaders initiated 2009. The project team has developed a set of written and other visual communication material to inform local people about the objectives and activities of the project, as well as about SLM issues.</td>
<td>Reforming the school curriculum in order to integrate environmental issues and utilising communication media are right ways to reach large numbers of people. There is no doubt that the target will be attained.</td>
</tr>
<tr>
<td></td>
<td>Number of students that receive locally-specific content in environmental education</td>
<td>0</td>
<td>2,500 students trained in environmental issues in SLM by 2007 and 5,000 by 2009</td>
<td>54 teachers trained in Environmental Education (Diploma). It is expected, that theses teachers multiply knowledge to 1,000 students. 4 training courses on Environmental Education with the participation of 142 teachers and community leaders initiated 2009. Two student competitions related to environmental issues were launched – ‘Concurso de pintura CUIDEMOS LA TIERRA’ and ‘Concurso de poesía CUIDEMOS EL BOSQUE’ Number of trained students until now: 1,013</td>
<td>Different and innovative initiatives have been undertaken to raise students’ awareness with respect to environmental issues and to train them accordingly. Although the current quantities appear to be rather low, nonetheless the initiated measures are consistent and will lead to easy fulfilment of the goal until the end of the project cycle.</td>
</tr>
<tr>
<td>Outcome / Output</td>
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<tr>
<td>Outcome 3</td>
<td># of farmers who have had direct benefit/support from at least one of the financing schemes</td>
<td>0</td>
<td>500 farmers by 2008, 2000 by 2013, and 3000 by 2017</td>
<td>882 farmers benefited from at least one of the financial schemes. • 669 farmers received financed fruit plants • 23 farmers have received payment to provide maintenance to already established plantations. • 62 farmers have received credits for establishing SLM productive practices. • 76 farmers have benefited from irrigation systems in exchange of establishing forest plantations.</td>
<td>The number of farmers who have benefited from financing for investments in SLM have already surpassed the expected target level.</td>
</tr>
<tr>
<td></td>
<td>Quantity of money in the funds generated for operational costs of a SLM in the Watershed System</td>
<td>0</td>
<td>US$1,000,000 generated by 2007 and $2,000,000 by 2009</td>
<td>A total of US$147,254 has been yet generated to finance SLM. The construction company ODEBRECHT allocated US$100,000 for reforestation and environmental education in the project zone, where a new hydropower plant (Project Palomino) is going to be built, within the Upper SY Watershed System. Only a 25% of the expected US$ 1,000,000 by year 2007 has been generated. Even though the discrepancy between the planned and achieved level is significant (75%), based on the current undertakings of the project team it is expected that the target of US$ 2,000,000 at the end of the project will be achieved largely.</td>
<td>U</td>
</tr>
<tr>
<td>Output 3.1</td>
<td>Financing of administrative costs and investments through resources generated by the financial plan.</td>
<td>0</td>
<td>50% of administrative costs and project investments by 2008</td>
<td>Until mid 2009 there is no co-financing either of the administrative project cost or of the investments made through the GEF project. The first draft of the Strategic Financial Plan was finished by June 2009 and is currently been socialized with relevant stakeholders. The delay in achieving the target is very significant and the only responsibility of the project management. The delay will endanger project financing in the second half of the project cycle</td>
<td>U</td>
</tr>
<tr>
<td>Output 3.2</td>
<td>Amount collected</td>
<td>0</td>
<td>$400,000 by 2007 and $936,000 by 2009</td>
<td>Until mid 2009 no money has been collected for paying environmental services. Negotiations with EGEHID for PES were initiated in 2008 but did not have advanced so far. Establishing a PES scheme is a central pillar of the long-term financing strategy for SLM. EGEHID has offered resources to invest in the Upper Sabana Yegua Watershed System and irrigation water associations are also willing to do so. The very little progress in this respect is the only responsibility of the project management.</td>
<td>U</td>
</tr>
<tr>
<td></td>
<td>Proportion of funds generated disbursed for reinvestment in SLM</td>
<td>0</td>
<td>90% disbursed for reinvestment in SLM in each year.</td>
<td>No disbursement has been realized as no funds are available. n. a.</td>
<td>U</td>
</tr>
<tr>
<td>Outcome / Output</td>
<td>Indicator</td>
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<tr>
<td><strong>Output 3.3</strong></td>
<td>Quantity of money collected</td>
<td>0</td>
<td>$250,000 collected by nature SWAP scheme by 2007 and $500,000 by 2009</td>
<td>No funds have been collected so far. The project team has presented a project concept note regarding a program for erosion control in the watershed system to the Secretariat of Finance (amount USD 600,000). The Secretariat of Finance was also contacted to get to know the possibility to access a TFCA program.</td>
<td>The project team to develop a dept-for-nature SWAP scheme depends entirely on the Secretariat of Finance to take initiative. The little progress with respect to this output cannot be related to the project management alone.</td>
</tr>
<tr>
<td></td>
<td>Proportion of funds generated disbursed for reinvestment in SLM</td>
<td>0</td>
<td>90% disbursed for reinvestment in SLM each year beginning at the end of 2006.</td>
<td>No disbursement has been realized as no funds are available.</td>
<td>n. a.</td>
</tr>
<tr>
<td><strong>Output 3.4</strong></td>
<td>Quantity of money collected</td>
<td>0</td>
<td>$1,000,000 collected by 2007 and $2,000,000 by 2009</td>
<td>No funds have been collected so far. The Eco-Development Fund has been created throughout an inter-institutional Agreement between SEMARENA and Fundación Sur Futuro, with the participation of UNDP.</td>
<td>The establishment of a watershed-wide environmental fund is a complex task which is difficult to achieve in short term. Project management has made significant efforts to set up the fund but was severely hampered by SEMARENA. Latest news provide the information that the Secretary of SEMARENA does not agree on any regional fund besides the FONDO-MARENA fund.</td>
</tr>
<tr>
<td></td>
<td>Quantity of money loaned for SLM activities based on guarantee fund mechanism</td>
<td>0</td>
<td>$400,000 disbursed for SLM activities from the Guarantee Fund by 2007 and $800,000 by 2009</td>
<td>The original concept to establish an innovative funding guarantee mechanism has showed to not being a viable option in the national and regional context. In consequence in 2008 the project management applied for changing towards creating a micro-credits scheme for financing sustainable production alternatives. The proposal was approved by GEF in 2009.</td>
<td>The micro-credit option seems to be a viable and interesting alternative for financing SLM.</td>
</tr>
<tr>
<td></td>
<td>Population with access to formal credit program</td>
<td>40 persons</td>
<td>2500 with access to formal credit in 2007 and 2500 additional persons by 2009</td>
<td>n. a.</td>
<td>n. a.</td>
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<tr>
<td>Output 3.6</td>
<td>Service exchange schemes designed and mainstreamed with approval criteria for development projects.</td>
<td>0</td>
<td>One(1) scheme developed for water service, health, education, housing improvements, and energy by 2006.</td>
<td>The Integral Compensation Program for Environmental Services (CISA) was designed with the active participation of 25 organisations of the watershed system. The program finally was created throughout an inter-institutional agreement between SEMARENA and Fundación Sur Futuro, with the participation of UNDP. CISA is not yet active in operational terms. The concertation process with the participating GOs is still going on.</td>
<td>The CISA approach is a innovative mechanism for financing compensations for environmental services. The bottleneck is in such a fund becoming operational. The project management faces currently serious problems to get different GOs in line in operational terms.</td>
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<tr>
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<td>Area with management improved through environmental service and incentives exchange</td>
<td>2,400 hectares (2.7 millions plants) established</td>
<td>500 new ha. established with at least 590 thousand wood and fruit trees by 2007, and 600 new ha established with at least 700 thousand wood and fruit plants by 2009</td>
<td>Until mid 2009 an estimated 1.6 million plants (forest trees, avocado, citrus and coffee plants) were distributed to farmers. Although financing did not come from the CISA scheme but from other financing sources, the mechanisms established (e. g. contracts between farmers and Fundación Sur Futuro) are very similar if not the same as under the CISA regime.</td>
<td>Indirectly the project team has already achieved the target.</td>
</tr>
<tr>
<td>Outcome / Output</td>
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<tr>
<td><strong>Outcome 4</strong> Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>Migration rate</td>
<td>To be determined during inception phase</td>
<td>Rates stay the same or decrease</td>
<td>There have no studies been carried out to determine the migration rate.</td>
<td>Not having surveyed the migration rate during the inception phase is a clear failure of project management. In consequence the indicator could not be measured.</td>
</tr>
<tr>
<td></td>
<td>School age children attending school.</td>
<td>70%</td>
<td>Increased to 87% by 2009</td>
<td>22,885 school-age children attended school during school year 2007-2008, representing 94.77%, for an increase of 18% with regards to school year 2005-2006.</td>
<td>If school attendance stays at the rate from 2007/2008 at the end of the project cycle, the target would have been more than fulfilled.</td>
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<td></td>
<td>Percentage of population whose livelihood is directly dependent on land exploitation has decreased.</td>
<td>To be determined in inception phase</td>
<td>Decrease dependency on agriculture and natural resource exploitation by 10% by 2009 (25% by 2020)</td>
<td>6,909 new jobs, i.e. 15.10% of the population (15 years of age and older) of the watershed decreased its dependency on the exploitation of natural and land resources.</td>
<td>If the creation of jobs outside agriculture and natural resource management stays at the rate as in 2007/2008 at the end of the project cycle, the target would have been more than fulfilled.</td>
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<tr>
<td><strong>Output 4.1</strong> Increased employment generated.</td>
<td>% of population (men and women) with access to employment,</td>
<td>To be determined in inception phase</td>
<td>Increase by at least 10% by end of project (2009)</td>
<td>6,909 new jobs, i.e. 15.10% of the population (15 years of age and older) of the watershed decreased its dependency on the exploitation of natural and land resources.</td>
<td>If the creation of jobs outside agriculture and natural resource management stays at the rate as in 2007/2008 at the end of the project cycle, the target would have been more than fulfilled.</td>
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</table>
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<table>
<thead>
<tr>
<th>Outcome / Output</th>
<th>Indicator</th>
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<tbody>
<tr>
<td>Output 4.2</td>
<td>Improvement in basic human service delivery that follow environmental practices</td>
<td>Time savings in procurement of water and fuel. Increased access to electricity Drier, safer dwellings.</td>
<td>5,053 families with domestic water delivered, 881 families with solar energy, 1500 families with fuel-efficient stoves, 56 families with houses delivered, by 2009</td>
<td>No surveys have been undertaken to measure total achievement so far. The following achievements have been made regarding new infrastructure measures: <strong>Housing</strong> - 22 houses built and 93 underway with contributions from INVÍ, (National Office for Housing) Fundación Juan Luis Guerra, Orange Dominicana, Orlando Diocese, and Sur Futuro. <strong>Access to water</strong> - 1,998 families benefiting from access to potable water as a result of the construction of Las Lagunas aqueducts (645 families), and post Tropical Storms Noel and Olga reconstruction of aqueducts located at Sector Santa Ana de Padre Las Casas (340 families), Villa Los Indios (138) and Bohechio-Arroyo Cano (845). Contributions from INAPA, Phillips Morris and Fundación Sur Futuro. <strong>Health</strong> - Hospital construction in Bohechio, equipment and staff appointment pending. Two primary health care units located at El Cigual and Santa Ana-Padre Las Casas. <strong>Electricity and fuel:</strong> • 108 households benefited from hydroelectricity (29 KW) in Recodo (Guayabal Municipality), financed by the Japanese Embassy, UNDP/GEF/SGP and Fundación Sur Futuro. • 160 stoves distributed to the same number of families, 100 donated by the Orlando Catholic Diocese and 60 financed by INAPA. • 10 photovoltaic systems installed at Los Fríos School, financed by the Corporación de Empresas Eléctricas Estatales, CDEEE. (National Departmet of Electricity Administration System) Although not having been considered in the original project design, there has also been progress in IT infrastructure: • 2 Community Technology Centres, in Padre las Casas and Guayabal, including each an IT Centre with 30 PC and an AM radio • 3 IT Centres in Padre Las Casas, Guayabal and Las Lagunas, equipped with 10 PC, energy store systems and printers</td>
<td>Although no absolute data are available to measure achievement of the planned targets but only information about newly installed infrastructure, the target levels are expected to be achieved at the end of the project cycle. Progress made since the beginning of the project is impressing.</td>
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<td>Outcome / Output</td>
<td>Indicator</td>
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<td>Outcome 4.2 (continued)</td>
<td>Percentage of literate adults increased.</td>
<td>66%</td>
<td>Increased to 80% by 2009</td>
<td>Adults Literacy increased to 74.28%.</td>
<td>If adult literacy stays at the rate at the end of the project cycle, the target would have been more than fulfilled.</td>
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<tr>
<td>Outcome 5 Learning, evaluation and adaptive management</td>
<td>Zone committees directly manage implementation of project activities project phase 3.</td>
<td>No local management capability for design or implementation of project activities.</td>
<td>9 zones under management and one overall watershed management structure managing the master plan by 2009.</td>
<td>7 CDZs and 38 CDC established and training in progress.</td>
<td>CDZ and CDC formation, legalization and capacity building is still in process. The CC at the watershed level have not been created yet. Capacities of local governance structures (CDC, CDZ and CC) are still far away from having achieved a level that allows them to take over management responsibilities with respect to the implementation of the Master Plan. Project management is aware of this situation and allocates (human and financial) resources in capacity building.</td>
<td>MS</td>
</tr>
<tr>
<td>Output 5.1 Effective project implementation through adaptive management</td>
<td>Up to date Information stored in NERIS system accessible to project and non project decision makers</td>
<td>0 at start of project. Baseline should then follow the M+E plan as the baseline standard</td>
<td>All geographic information and project management information available digitally by 2007.</td>
<td>The Geographic Information Systems is in place but not yet accessible to all relevant non-project decision makers. The installation of a project management information is still in progress.</td>
<td>The project team is working on these issues and will consolidate achievement soon.</td>
<td>MS</td>
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<td>Governance structure officials prepared to assume project leadership by 2009</td>
<td>Qualification of watershed council members at elections.</td>
<td>All officials receive management training</td>
<td>Fundación Sur Futuro has established the head project office in Padre las Casas and in most remote zones separate local offices (also in Constanza). Fundación Sur Futuro has contracted qualified personal for all central project assignments.</td>
<td>Project progress reports of Fundación Sur Futuro demonstrate that the project management misinterpreted output 5.1 in part as establishing local project offices and contracting project personal instead of strengthening local governance officials for taking over project leadership by the end of the project. Mid-term evaluators do not manage eventual information on strategic changes of the output that led to this misinterpretation.</td>
<td>HU</td>
</tr>
<tr>
<td>Output 5.2 Monitoring and evaluation</td>
<td>Recommendations from evaluations incorporated into new Master Plan.</td>
<td>0 at start of project. Baseline for midterm and final will be the condition before recommendations are made.</td>
<td>All recommendations from evaluations incorporated in new plan or addressed in implementation within 3 months of each evaluation. (mid-term and final)</td>
<td>Project management has established a P, M &amp; E system for internal (Fundación Sur Futuro) and for external (UNDP, SEMARENA and GEF) use. Permanent monitoring permits to adapt implementation immediately to redirect interventions in order to achieve project outcomes. Periodic project progress reports are channeled to UNDP in the format required and on time.</td>
<td>The P, M &amp; E system established by Fundación Sur Futuro is professional and provides all necessary information on time. The project has not yet analyzed experiences and derived lessons learnt and made these accessible to relevant stakeholders. Most important lessons learnt and success stories should also be published made accessible to the interested public.</td>
<td>MS</td>
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</table>
So as to ensure clarity with respect to the rating of the project deliverables, in the following ratings just for the outcome level will be provided in a separate spreadsheet.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Description</th>
<th>Rating</th>
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</thead>
<tbody>
<tr>
<td>Outcome 1</td>
<td>Policies, programs and planning frameworks and tools favourable to SLM being applied.</td>
<td>MS</td>
</tr>
<tr>
<td>Outcome 2</td>
<td>Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>S</td>
</tr>
<tr>
<td>Outcome 3</td>
<td>Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed.</td>
<td>U</td>
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<tr>
<td>Outcome 4</td>
<td>Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>S</td>
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<tr>
<td>Outcome 5</td>
<td>Learning, evaluation and adaptive management</td>
<td>MS</td>
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</table>

### 4.3.2 Sustainability of project outputs

Sustainability, as a measure of the degree of continuity of the project benefits, inside or outside the project ambit, will be analyzed with respect to each project outcome and output, considering the four dimensions of sustainability: economical, socio-political, institutional and environmental.

The following categories were used to rate the risks of achieving sustainability:

Probable (P) - there are severe risks that affect this dimension of sustainability;

Moderately probable (MP) - there are significant risks that can affect this dimension of sustainability;

Moderately Improbable (ME) - there are moderate risks that affect this dimension of sustainability;

Improbable (I) - there are no risks that affect this dimension of sustainability.

The findings of the assessment will be presented below in form of a spreadsheet in order to provide information in a clear structured and easy to access way.
<table>
<thead>
<tr>
<th>Outcome / Output</th>
<th>Target</th>
<th>Achievements</th>
<th>Assessment</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome 1</strong></td>
<td>2 Zone Development Plans per year for a total of 9 Plans by year V</td>
<td>7 Zone plans prepared 5 of them with already with the SLM principles incorporated. Also 37 community development plans have been elaborated, including SLM principles.</td>
<td>Zone plans are guidelines for zonal development based in SLM principles that will last after the project completion. Some update will be need at long term.</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>One Master Plan reformulated, approved and financed by 2009</td>
<td>See description output 1.1</td>
<td>The Master Plan, reformulated, updated and enriched by the Project experiences, lessons, technical documents and baseline data assure coordinated SLM actions for the basin until 2017</td>
<td>I</td>
</tr>
<tr>
<td><strong>Output 1.1</strong></td>
<td>One policy agreement between government at local and national level, NGOs, local organizations detailing priorities of SLM in the Watershed System, by 2007 One reformulated Master Plan by 2009 Four regulation instruments (farm management plan, Payment for Environmental Services, a watershed governance structure, a watershed fund) by 2006</td>
<td>Two policy agreements developed: Data available for the reformulation of the Master Plan (Socioeconomic Study and Biophysical Study, Bathymetric Study of the Sabana Yegua reservoir, Draft Financial Strategic Plan, SLM Principles Guide, Design and implementation strategy of sustainable production models, Proposal for coffee, fruit growing and forestry zoning) Regulation instruments (Model for farm management plan developed, Watershed Governance Structure developed, Compensation Scheme for Environmental Services (CISA), Concept for a watershed fund)</td>
<td>The policy agreements and regulation instruments represent the interests of government at local and national level, NGOs, local organizations with respect to SLM in the Watershed System. This joint vision is a relevant factor of institutional sustainability at the level of general policies.</td>
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<td><strong>Output 1.2</strong></td>
<td>One Information System based on GIS established in 2005</td>
<td>The information system based on GIS is already established</td>
<td>This system will keep on supporting the work on SLM in the watershed and will turn into a tool of spatial planning. The creation of new capacities in these techniques and its development as a future service can be considered strategies of sustainability.</td>
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<td><strong>Output 1.3</strong></td>
<td>80% of funding for Annual Operations secured. by the end of 2009</td>
<td>There is a draft of a strategic and financial plan for assuring long-term financing of SLM actions (from June 2009).</td>
<td>This output needs to be developed to analyze its sustainability trend. The strategic and financial plan only exits as draft, it has not been socialized yet and no agreement already exists among relevant stakeholders.</td>
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<td>Outcome / Output</td>
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<td>of SLM in the</td>
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<td>Eighty (80%) percent of reports of violations of environmental law effectively processed by 2006 and 90% by 2009</td>
<td>With respect to violations of the Law for Environment and Natural Resources (Ley 64-00) the following progress has been made:</td>
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<td>the regulatory and logistic to SLM principles by 2006 and 80% by 2009</td>
<td>• Together with SEMARENA a participatory system for reducing environmental violations was designed.</td>
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<td>• 2 training courses for community environmental supervisors realized.</td>
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<td>• One event with representatives of different CDCs to train them in how to channel environmental denunciations.</td>
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<td>• In the SEMARENA office in Padre las Casas in 2009 (first 3 months) 15 denunciations were registered and received appropriate follow up.</td>
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<td>Forty (40)% of local population of the Watershed System considers favorable the regulatory and logistic to SLM principles by 2006 and 80% by 2009</td>
<td>Even though yet the project team have not carried out a survey related to changed perceptions of the local population, counting of persons who have participated in training and educational events and farmers applying already SLM technologies, shows that at the end of 2008 a 40 % of the population of the Uppers Sabana Yegua Watershed System considers favorable the regulatory and logistics to SLM principles.</td>
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<td>Output 2.1</td>
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<td>The sustainability of this outcome will only be reached if the local population really understands and considers favorable the regulatory and logistics to SLM principles. They have to incorporate such principles into their culture values and obtain from SLM economical benefits.</td>
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<td>watershed planning for SLM functioning.</td>
<td>1 WC and 9 ZDCs created and functioning in SY watershed by 2006</td>
<td>Up to the moment 8 CDZs have been created, most of them even with legalized status. CDZs are functioning, but still mostly motivated by project staff. Most of them do not implement adequately their development plans (lack of action plans). The CC has not been created so far. Apart from CC and CDZs a total of 38 CDC have been created and many of them working well and developing their own action plans at community level, but most still dependant on the project team taking action. Many CDC do not have a development plan and do not embark on actions specific to SLM. The participatory governance structure is in place.</td>
<td>The CBOs, even some of the first and second level, existed and were operating successfully in the watershed before Fundación Sur Futuro started its operations and before the project. These institutions grew and developed to attend economic and social needs from their own organizational vocation, the intervention of small projects and the help of some local NGO’s like CEPROS. The fruit of these actions – at least in organizational terms - has been sustainable in time. The Project has been able to articulate these structures in a logical scheme of governance incorporating the vision of SLM, merging the organizational component with the environmental component.</td>
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<td>Outcome / Output</td>
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| **Output 2.2**  | Five models (coffee, improved agroforestry, forestry, animal husbandry and road building) by 2007 | The following production models have been developed:  
- Cattle breeding on pastures with trees (incl. diary)  
- Management of natural forest  
- Reforestation  
- Coffee with shadow trees  
- Perennial agroforestry (fruit trees)  
316 demonstration plot or model farms have been installed. 405 farmers have adopted SLM practices. | To assure sustainability, the introduction of production models should be adequately adapted to land vocation and cultural uses in each case. Certain environmental risks could exist (hurricanes, flooding, plagues) affecting agriculture and eventually creating economic problems. | MI |
| **Output 2.3**  | 500 producers (10% of total per 1998 census) have adopted the production models by 2009. 50% of producers by 2017 | 405 farmers have adopted SLM practices.  
A coffee processing facility installed, business plan prepared, coffee producers associations legally incorporated and a training course on cooperatives provided.  
843 community members have attended workshops on Sustainable Land Management. | Training and technical assistance to producers and institutional strengthening of communities are relevant factors for improving sustainability. Certain environmental risks could exist (hurricanes, flooding, plagues) affecting agriculture and eventually creating financial problems. | MI |
6 forest fire brigades by 2008 | 698 farmers have received technical assistance.  
116 community members trained on controlled burning of weeds.  
13 voluntary community forest fire fighting brigades are created.  
8 forest fire fighting brigades formed and equipped. | Training and technical assistance to farmers and community members in fire control reduce damages through forest fires and improve the forest cover maintenance. | I |
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<th>Outcome / Output</th>
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<td><strong>Output 2.5</strong></td>
<td>20% (about 13,000 persons) of the Watershed System population with environmental awareness by 2009. 2,500 students trained in environmental issues in SLM by 2007 and 5,000 by 2009.</td>
<td>Proposal to reform school curriculum and implementation strategy designed, socialized with education technicians and the Ministry of Education. 4 training courses on Environmental Education with the participation of 142 teachers and community leaders initiated 2009. The project team has developed a set of written and other visual communication material to inform local people about the objectives and activities of the project, as well as about SLM issues. 54 teachers trained in Environmental Education (Diploma). It is expected that these teachers multiply knowledge to 1,000 students. 4 training courses on Environmental Education with the participation of 142 teachers and community leaders initiated 2009. Two student competitions related to environmental issues were launched – ‘Concurso de pintura CUIDEMOS LA TIERRA’ and ‘Concurso de poesía CUIDEMOS EL BOSQUE’ Number of trained students until now: 1,013.</td>
<td>The reform of the school curriculum is a very successful and sustainable strategy of the project because it is acting at the basic educational level. Capacity building actions at the level of young students, teachers and community leaders is a very relevant factor for guaranteeing sustainability. Adequate institutional arrangements between Fundación Sur Futuro and the Secretariat of Education reinforce these benefits.</td>
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<td><strong>Outcome 3</strong></td>
<td>500 farmers by 2008, 2000 by 2013, and 3000 by 2017.</td>
<td>882 farmers benefited from at least one of the financial schemes. 669 farmers received financed fruit plants. 23 farmers have received payment to provide maintenance to already established plantations. 62 farmers have received credits for establishing SLM productive practices. 76 farmers have benefited from irrigation systems in exchange of establishing forest plantations.</td>
<td>Although this isolated benefits are positive experiences, the financial sustainability as a whole, depends on the full execution and development to an array of financing conventional and innovative mechanisms considered in the framework of outcome 3, which are still developing. It is quite probable that if they are not fulfilled as they were conceived, the financial sustainability of project benefits will be in high risk.</td>
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<td>US$1,000,000 generated by 2007 and US$2,000,000 by 2009.</td>
<td>A total of US$147,254 has been yet generated to finance SLM. The construction company ODEBRECHT allocated US$100,000 for reforestation and environmental education in the project zone, where a new hydropower plant (Project Palomino) is going to be built, within the Upper SY Watershed System.</td>
<td>This issue needs to be developed in order to analyze its sustainability trend. The lack of agreement between institutions could be a risk to be considered.</td>
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<td><strong>Output 3.1</strong> Funding strategy for the Watershed System developed</td>
<td>50% of administrative costs and project investments by 2008</td>
<td>Until mid 2009 there is no co-financing either of the administrative project cost or of the investments made through the GEF project. The first draft of the Strategic Financial Plan was finished by June 2009 and is currently been socialized with relevant stakeholders.</td>
<td>This output need to be developed to analyze its sustainability trend.</td>
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<tr>
<td><strong>Output 3.2</strong> Payment-for-environmental-services schemes established which promote SLM.</td>
<td>$400,000 by 2007 and $936,000 by 2009 90% disbursed for reinvestment in SLM in each year.</td>
<td>Until mid 2009 no money has been collected for paying environmental services. Negotiations with EGEHID for PES were initiated in 2008 but did not have advanced so far. No disbursement has been realized as no funds are available.</td>
<td>The financial sustainability of the project depends to a great extent on the development of this and other outputs of outcome 3, which is still developing. It is quite probable that if they are not fulfilled as they were conceived, the financial sustainability of project benefits will be in risk.</td>
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<td><strong>Output 3.3</strong> Debt-for-nature SWAP schemes established which promote SLM.</td>
<td>$250,000 collected by nature SWAP scheme by 2007 and $500,000 by 2009 90% disbursed for reinvestment in SLM each year beginning at the end of 2006.</td>
<td>No funds have been collected so far. The project team has presented a project concept note regarding a program for erosion control in the watershed system to the Secretariat of Finance (amount USD 600,000). The Secretariat of Finance was also contacted to get to know the possibility to access a TFCA program. No disbursement has been realized as no funds are available.</td>
<td>The financial sustainability of the project depends to a great extent on the development of this and other outputs of Outcome 3, which is still developing. It is quite probable that if they are not fulfilled as they were conceived, the financial sustainability of project benefits will be in risk.</td>
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<td><strong>Output 3.4</strong> Watershed-wide environmental fund (WLEF) established which promotes SLM.</td>
<td>$1,000,000 collected by 2007 and $2,000,000 by 2009</td>
<td>No funds have been collected so far. The Eco-Development Fund has been created throughout an inter-institutional Agreement between SEMARENA and Fundación Sur Futuro, with the participation of UNDP.</td>
<td>The financial sustainability of the project depends to a great extent on the development of this and other outputs of this and other outputs of Outcome 3, which is still developing. It is quite probable that if they are not fulfilled as they were conceived, the financial sustainability of project benefits will be in risk.</td>
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<td><strong>Output 3.5</strong> Innovative funding guarantee mechanism established to promote access to, and guarantee credit, for local rural development activities compatible with SLM.</td>
<td>$400,000 disbursed for SLM activities from the Guarantee Fund by 2007 and $800,000 by 2009 2500 with access to formal credit in 2007 and 2500 additional persons by 2009</td>
<td>The original concept to establish an innovative funding guarantee mechanism has showed to not being a viable option in the national and regional context. In consequence in 2008 the project management applied for changing towards creating a micro-credits scheme for financing sustainable production alternatives. The proposal was approved by GEF in 2009.</td>
<td>The financial sustainability of the project depends to a great extent on the development of this and other outputs of Outcome 3, which is still developing. It is quite probable that if they are not fulfilled as they were conceived, the financial sustainability of project benefits will be in risk.</td>
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### Outcome / Output

**Output 3.6**
Establishment of environmental service exchange and incentive programmes for the Watershed System, which promote SLM

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<th>Target</th>
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<tr>
<td>One scheme developed for water service, health, education, housing improvements, and energy by 2006.</td>
<td>The Integral Compensation Program for Environmental Services (CISA) was designed with the active participation of 25 organizations of the watershed system. The program finally was created throughout an inter-institutional agreement between SEMARENA and Fundación Sur Futuro, with the participation of UNDP. CISA is not yet active in operational terms. The concertation process with the participating GOs is still going on.</td>
<td>The CISA approach, as an mechanism for financing compensations for environmental services, is new in the country. Without clear operational mechanisms, the financial and institutional sustainability of this initiative is not clear. A positive point is that SEMARENA is developing a similar proposal for one National Park of the watershed (Propuesta para desarrollo del enfoque y modelo de Compensación Ambiental del Parque Nacional Juan Bautista Pérez Rancier)</td>
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| Output 4 | Livelihood and wellbeing of population in the Watershed System improved. | Rates stay the same or decrease                                    | There have no studies been carried out to determine the migration rate. | This issue needs to be developed to analyze its sustainability trend. | -        |

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<td>500 new ha. established with at least 590 thousand wood and fruit trees by 2007, and 600 new ha established with at least 700 thousand wood and fruit plants by 2009</td>
<td>Until mid 2009 an estimated 1.6 million plants (forest trees, avocado, citrus and coffee plants) were distributed to farmers. Although financing did not come from the CISA scheme but from other financing sources, the mechanisms established (e.g. contracts between farmers and Fundación Sur Futuro) are very similar if not the same as under the CISA regime.</td>
<td>Irrespective of fund origin, the establishment of new wood and fruit trees increases the environmental benefits for the watershed.</td>
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<td>Increased to 87% by 2009 Decrease dependency on agriculture and natural resource exploitation by 10% by 2009 (25% by 2020)</td>
<td>22,885 school-age children attended school during school year 2007-2008, representing 94.77%, for an increase of 18% with regards to school year 2005-2006. 6,909 new jobs, i.e. 15.10% of the population (15 years of age and older) of the watershed decreased its dependency on the exploitation of natural and land resources.</td>
<td>All these achievements (educational, jobs, housing, water, health, energy) reached by Fundación Sur Futuro in alliance with more than 20 co-financing Government and Private partners (without GEF funds) are fully sustainable since they are based on inter-institutional agreements and the very strong incidence of Fundación Sur Futuro in the region, economically and institutionally. See Outputs 4.1. and 4.2.</td>
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<td>Outcome / Output</td>
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<td><strong>Output 4.1</strong> Increased employment generated.</td>
<td>Increase by at least 10% by end of project (2009)</td>
<td>6,909 new jobs, i.e. 15.10% of the population (15 years of age and older) of the watershed decreased its dependency on the exploitation of natural and land resources.</td>
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<td>Increased by at least 10% by end of project (2009)</td>
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<td><strong>Output 4.2</strong> Improvement in basic human service delivery that follow environmental practices</td>
<td>10,000 families with domestic water delivered, 881 families with solar energy, 1500 families with fuel-efficient stoves, 56 families with houses delivered, by 2009</td>
<td>No surveys have been undertaken to measure total achievement so far. There are important achievements regarding new infrastructure measures: Housing (22 houses built and 93 underway), access to water (1,998 families benefiting from access to potable water), health (a hospital construction and two primary health care units) electricity and fuel (108 households benefited from hydroelectricity 160 stoves distributed and 10 photovoltaic systems) and education (IT Centres)</td>
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<td>Increased to 80% by 2009 Adults Literacy increased to 74.28%.</td>
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<td><strong>Outcome 5</strong> Learning, evaluation and adaptive management</td>
<td>9 zones under management and one overall watershed management structure managing the master plan by 2009</td>
<td>7 CDZs and 38 CDC established and training in progress.</td>
<td>The Project has been able to articulate and reinforce a governance structure incorporating the vision of SLM. See Output 2.1</td>
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<td><strong>Output 5.1</strong> Effective project implementation through adaptive management</td>
<td>All geographic information and project management information available digitally by 2007.</td>
<td>The Geographic Information Systems is in place but not yet accessible to all relevant non-project decision makers. The installation of project management information is still in progress.</td>
<td>This system will keep on supporting the work of SLM in the watershed and will turn into a tool of spatial planning. The creation of new capacities in these techniques and its development as a future service can be considered strategies of sustainability. See output 1.2</td>
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<td>Fundación Sur Futuro has established the head project office in Padre las Casas and in most remote zones separate local offices (also in Constanza). Fundación Sur Futuro has contracted qualified personal for all central project assignments.</td>
<td>After having concluded the project cycle, there will be stronger institutional competences in place (in terms of trained personnel, new infrastructures and facilities, new published results, social reputation, etc.)</td>
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<td>All officials receive management training</td>
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In some outcomes a certain environmental risks has been identified. Definitively, environmental risks exist at different scales that can affect the benefits of the project in the future. The meteorological extreme events (tropical storms and hurricanes) are the most important ones. In accordance with the historical information of the NOAA (2009) at least 30 storms or hurricanes have passed to 25 miles or less of the center of the Sabana Yegua Basin (Figure 2) from 1855 to the present (154 years), four of them Hurricanes of Category 1 to 4. There is a great probability that the events entering from the East or Southeast coast of the country cross over or near the watershed system. The effects of these events are always catastrophic. In December, 2007 the Tropical Storm ‘Olga’ crossed the region. The communities remained isolated for six months delaying the implementation of the project activities and forcing Fundación Sur Futuro to implement an alternative emergency project, with funds of the Office of the First Lady, for road rehabilitation and assistance to harmed people. Due to Climate Change this situation could even worsen resulting in an increase of frequency of meteorological extreme events.

![Figure 2: Trajectory of the meteorological extreme events that have crossed 25 miles or less of the Coordinates: 18.802901 and -70.896338 in the center of the Sabana Yegua Basin (indicated with a star) from 1855 to the present (154 years), according to NOAA (2009).](image)
Other environmental risks are plagues, specially for coffee, the most extended cash crop in the region and one of the target plants in the project in terms of soil protection and short term production with economical benefits to farmers. According to the responsible project staff for the zone of Padre Las Casas and Monte Bonito, Mr. Franklin Morel, there is certain incidence of the coffee berry borer (*Hypothenemus hampei*) in the watershed. This borer is a small beetle native to Africa, recognized as the most harmful pest to coffee crops worldwide. The insect affects over seventy countries, mainly in Latin America. It entered the Dominican Republic in the 1990s where it is known with the common name of *broca del café* (Contreras and Camilo, 2007). The Annual report (January-December, 2008) of the Agriculture and Natural Resources Area of Fundación Sur Futuro in Padre Las Casas (Morel, 2008) includes activities of broca diagnosis, technical assistance for broca control and installation of 2,500 traps for 90 coffee producers. A reduction of 25% of the infection, equivalent to the increase in RD$ 5,365,200 for this producers, is reported.

Finally, there is a very important socio-political and institutional risk, but it is linked more to the Project objective than to its outcomes or outputs, although its affects indirectly some of them. This risk refers to the non sustainable land use activities in the approximately 71,000 ha of the Protected Areas of the Watershed (57% of the project area) that getaway from Fundación Sur Futuro and GEF Project actions.

So as to ensure clarity with respect to the rating of the project deliverables, in the following ratings just for the outcome level will be pointed out in a separate spreadsheet.

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<thead>
<tr>
<th>Outcome / Output</th>
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<tbody>
<tr>
<td>Outcome 1. Policies, programs and planning frameworks and tools favourable to SLM being applied.</td>
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<td>Outcome 2. Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>MI</td>
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<tr>
<td>Outcome 3. Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed.</td>
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<tr>
<td>Outcome 4. Livelihood and wellbeing of population in the Watershed System improved.</td>
<td>I</td>
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<tr>
<td>Outcome 5. Learning, evaluation and adaptive management</td>
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### 4.3.3 Contribution to strengthening skills of local and national staff

The project staff and personal of other service provider organisations are the most important project resource since they are expected to implement the project planning successfully and continuously adapt it to changing conditions.

Thus, the project team members require strong technical, as well as strong social skills. It cannot be expected that the personal contracted, brings along all the skills necessary for successful project implementation. Fundación Sur Futuro is aware of this situation and has been strengthening project staff's skills by the following measures:

- Training courses covering different technical issues
- On-the-job coaching of staff with little experience by experienced project personal
- Peer learning groups of project staff (e.g. regarding project planning and monitoring)
- Exchange meetings with professionals from other service provider organisations
- Exchange visits of successful experiences (e.g. other watershed management projects) in other parts of the country.
- Participation at meetings and conferences, national and international
- Visits of successful experiences abroad

In most, if not all of the above presented skills strengthening measures, personal from other service provider organisations (e.g. SEMARENA, CODOCAFE, SEA, CEPROS) have been included.

In the past, mainly technical skills have been strengthened, so that today project personal counts with a sound technical background.

With respect to social skills (communication, process facilitation, self-help advice) paternalistic patterns still dominate project staff’s behavior.
6 Recommendations

Based on the above project assessment in the following will be presented the mayor recommendations for project improvement. These recommendations reflect the ‘external’ point of view and opinion of the evaluators, contracted for carrying out the mid-term evaluation. Evaluators took into account their own personal experiences in similar development interventions inside and outside the country and lessons learnt, greatly published, of other projects in the same thematic area.

Recommendations will be presented with respect to the project design with the intention to possibly improve the design of the project at hand, but on all accounts for future GEF interventions in integrated watershed management.

The second subchapter of recommendations is directed towards the project team. The intention is to propose substantial improvements of the project implementation in order to better and more efficiently achieve planned targets.

6.1 Recommendations for project design

The project design has been assessed in detail. Outcomes of this assessment are provided in chapter 4.1 of this report.

Based on these findings, below mayor recommendations for improving the project design are presented. Recommendations are structured according to the following central issues:

- Recommendations on improving the Logical Framework of the project, in particular central indicators at project objective and outcome level;
- Recommendations on which issues should be newly integrated in the project design;
- Recommendations on changing focus of underlying project approaches.

6.1.1 Recommendations on improving project indicators

As stated in the assessment of the project design, there are mayor shortcomings with respect to formulation and scope of some core indicators, namely at the project objective level. In the following a proposal on improving indicators will be advanced.
<table>
<thead>
<tr>
<th>Objective / Outcome</th>
<th>Description of Indicator and Target Level</th>
<th>Deficiencies identified</th>
<th>Improvements / adjustments proposed</th>
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</thead>
<tbody>
<tr>
<td><strong>Project Objective</strong></td>
<td>To promote the sustainable land management in the Upper Sabana Yegua Watershed System, in order to achieve global environmental benefits within the context of sustainable development and poverty reduction</td>
<td>Amount of land with appropriate use (use in-line with the bio-physical characteristics of the area) Inappropriate land use reduced to 62% (53,953 ha) by the end of year V</td>
<td>There is no comprehensible explanation regarding the impacts expected to be achieved by reducing inappropriate land use by 10%. Data the indicator is based on suppose that the project area is 87,434 ha. Data obtained during project implementation show that outside protected area there are only 71,300 ha. Data obtained during project implementation demonstrate that outside protected areas only 30.8% are inappropriately utilized. The indicator refers to future land use areas also covered by indicator ‘ecosystem restored as measured by forest cover in the Watershed System’. There is a certain overlap of both indicators. The indicator is very ambitious regarding the area to be managed in a sustainable manner and falls short in relating this area with a minimum number of farmers.</td>
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<td><strong>Imperative</strong></td>
<td>Reformulate indicator. New indicator: 25 % of farmers who live in the Upper Sabana Yegua Watershed System apply SLM technologies on a minimum of 3,000 ha.. Rationale of proposal: The project intervention wants to change conventional land use patterns towards more sustainable land use. Therefore it is important to reach a minimum number of farmers to do so. If a quarter of all farmers apply one (or more) SLM technology, it is very likely that other farmers will do this as well (positive social pressure). Finally this will lead to mayor parts of the watershed system be managed under sustainable land use regimes in the future. 3,000 ha under sustainable land-use means that each farmer (25 % corresponds to 1,500 farmers) manages an average of 2 ha in a sustainable manner.</td>
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<td>Soil erosion</td>
<td>Soil erosion rate of Watershed System reduced to 8,500,000 t/yr by the end of project in year V</td>
<td>The area with inappropriate land use inside protected areas is nearly the same as outside protected areas (inside 20,000 ha and outside 21,900 ha). Nonetheless the project does not intervene inside protected areas where half the erosion takes place. Actually there is no viable monitoring system installed that could provide viable and reliable data on erosion. It was expected that the study with respect to design and establishment of a sedimentation and erosion monitoring system (PROYECTA, 2008) contributes to address this aspect but did not provide the intended outcome. The indicator as it is formulated currently is not viable for attributing soil erosion reduction to the project’s interventions.</td>
<td>Reformulate indicator and prolong period. It would be absolutely necessary to include protected areas as project area and permit actions (e.g. reforestation activities for conservation purpose) within national parks. But as no activities are allowed inside national parks, the indicator must be reformulated in a manner such that erosion control can be attributed to the project’s interventions. New indicator: Having in place, working and functioning of a viable erosion monitoring system, whilst implementing indirect measures to reduce soil erosion. Rationale of proposal: Technically it is not feasible to attribute the reduction of the erosion rate in the watershed system to project interventions in a time frame of only 5 years. There are numerous variables (e.g. precipitation regime, macro economic development) outside influence of the project management that have much more influence on the erosion rate than project interventions. It seems much more viable to focus on establishing a sound erosion monitoring system and to put indirect soil erosion reduction measures in place, like reforestation, conservation agriculture, etc.</td>
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<td>Volume of accumulated sediments in SY dam (original storage capacity is 479.9 millions of cubic meter) Rate of sedimentation maintained within tolerable limits to produce no more than 118.2 MCM by year V</td>
<td>A bathymetric study of the Sabana Yegua reservoir, carried out in 2008 by INDRHI in coordination with Fundación Sur Futuro showed that only a 13% of the reservoir’s capacity is sedimented (and not a 24.5% as supposed by the project baseline). Due to the above explained uncertainties, the indicator is not viable.</td>
<td>Conduct a new study for determining sedimentation rate precisely. This indicator should be included in the adapted Master Plan. New indicator: Sedimentation rate of the SY reservoir stays stable or has reduced in year 2020. Rationale of proposal: Technically it is not feasible to attribute the reduction of the sedimentation rate of the Sabana Yegua reservoir to project interventions in a time frame of only 5 years. There are numerous variables (e.g. precipitation regime, macroeconomic development) outside influence of the project management that have much more influence on the sedimentation rate than project interventions.</td>
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<td>Ecosystem restored as measured by forest cover in the Watershed System</td>
<td>Increased to 95,034 ha of forest cover by year V</td>
<td>There is no reasonable explanation of the impacts expected by increasing the forest cover by 7,503 hectares. In view of the total project area, the impact is expected rather insignificant. On the other hand, as the project is mainly focussing on preparing (demonstrating) large scale implementation, the area to be forested appears big. In the frame of the financial project planning (including non GEF contributions of other actors) the costs to reforest 7,503 ha have not been considered. The costs oscillate around 3.7 million USD (500 USD / ha). In view of the organisational capacities of Fundación Sur Futuro and other core stakeholders (e. g. SEMARENA), considering local climate conditions (only 2-3 months planting season for forest trees) and taking into account experiences with reforestation initiatives of other development projects in the country (Plan Sierra, PROCARYN or Zambrana-Chacuey) it does not seem realistic to reforest 7,503 ha in 5 years in an area where nearly does not exist experience with reforestation and even less at large scale. There is a overlap with the indicator 'amount of land with appropriate use'.</td>
<td>Reformulate indicator and emphasize in developing a scheme that creates conditions for reforestation at large scale. The result of the indicator should be integrated in the adapted Master Plan. <strong>New indicator:</strong> There is a viable scheme in place that promotes reforestation at large scale and motivates a great number of landowner to reforest. <strong>Rationale of proposal:</strong> In the Upper Sabana Yegua Watershed System there is no forestry culture and very limited experience with forest management. To change this, there must be a scheme in place that motivates farmers and particularly big ranchers to reforest. Such scheme refers to viable approaches to reforestation which are attractive to a variety of farmers and ranchers, taking into account their particular situation. The scheme must also consider logistical aspects (e. g. sufficient nursery capacity, sufficient seed production) as well as all organisational requirements required by a large scale reforestation program. Developing this approach is by far more important than just reforesting a certain area may this be 1,000, 5,000 or 7,503 ha, in face of 60,000 ha of land with forest vocation.</td>
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<td>New indicator:</td>
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<td>Income of the local population living below the poverty line has improved by XX %</td>
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<td><strong>Rationale:</strong></td>
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<td>There is no indicator targeting the part of 'poverty reduction' stated in the project objective.</td>
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<td><strong>Challenge:</strong></td>
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<td>The level of income increase should be linked with substantial indicators of development, i.e. it must clearly be defined what is expected by an income increase of XX %.</td>
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<td>The indicator should be integrated in the adapted Master Plan.</td>
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<tr>
<td>Outcome 1</td>
<td>Policies, programs and planning frameworks and tools favourable to SLM being applied'</td>
<td></td>
<td>No need for adjustments identified.</td>
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<tr>
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<td><strong>Outcome 2</strong>&lt;br&gt;Capacity of stakeholders at diverse levels to improve application of SLM in the project area developed</td>
<td>Reports of violations of environmental regulations that are effectively processed. Eighty (80%) percent of reports of violations of environmental law effectively processed by year II and 90% by year V</td>
<td>The indicator only focuses on one improved competency of SEMARENA and, since recently, the Municipal authorities responsible for supervising the fulfillment of the Law for Environment and Natural Resources (Ley 64-00) and tracking environmental violations. The indicator is very narrow in its outreach for measuring strengthened capacity of stakeholders – only one element and only 2 stakeholders. It is not satisfactorily meaningful with respect to measure capacity.</td>
<td>Add another indicator reflecting improved capacity of other stakeholders. New indicator: Relevant stakeholders have jointly created a participatory governance structure that is able to coordinate development interventions and SLM initiatives in the Upper Sabana Yegua Watershed System. (Although it seems that this 'indicator' is the same as output 1.1, nonetheless it is of such vital importance for reflecting strengthened capacities, that it should be presented at the outcome level).</td>
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<td><strong>Local perception of effectiveness of regulation, planification and technical support.</strong>&lt;br&gt;Forty (40)% of local population of the Watershed System considers favourably the regulatory and logistic to SLM principles by year II and 80% by year V</td>
<td>Bearing in mind that under the baseline scenario it is supposes that 0 % of the population of the watershed system considers favourably the regulatory and logistics to SLM principles (what is not realistic either), it is utopistic to believe that by year 2 a 40 % and by year 5 a 80 % of the local population would have changed perception in such a degree. Compared to the baseline scenario, this change of perception induces deep-going shifts of current land use paradigms. Thus, changing these paradigms, embedded in local habits and culture, this requires embarking on profound change processes with respect to people’s attitudes and behaviour. Such change processes are renowned slow and long-term. Thus, the level of change in perception stated by the indicator seems to be unrealistic and surely will not be achieved at that level.</td>
<td>Reformulate target level of indicator. New target level: Twentyfive (25)% of farmers and ranchers of the Watershed System considers favourably the regulatory and logistic to SLM principles by the end of the project cycle. Rationale: Changing pre-dominant land-use paradigms, embedded in local habits and culture, requires embarking on profound change processes with respect to people’s attitudes and behaviour. Such change processes are renowned slowly and will show results in long-term. Thus, the level of change in perception stated by the indicator seems to be unrealistic and surely will not be achieved at that level and consequently have to be lowered to a realistic level.</td>
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<td><strong>Outcome 3</strong></td>
<td>Sustainable long-term financing schemes generate funding for SLM activities and SLM institutional infrastructure in the upper SY watershed</td>
<td>The amounts of money at target level seem to be achievable, at least by year 5 of project implementation. Nonetheless there is no consistent rationale why these amounts of money are targeted.</td>
<td>Reformulate indicator target level whilst maintaining the focus. New target level: 30 % of all investments and running costs related to SLM is generated through innovative financing mechanisms by the end of the project cycle. Rationale: It is supposed that the other 50 % will be covered by organisations already working in the Upper Sabana Yegua Watershed System and newly approved development interventions with funds from aid agencies.</td>
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<tr>
<td><strong>Outcome 4</strong></td>
<td>Livelihood and wellbeing of population in the Watershed System improved</td>
<td>It is not understandable why an increased number of jobs outside agriculture and natural resource management per se will reduce pressure on natural resources, as intended indirectly by this indicator. This depends by a large extent on the general socio-economic conditions found in the watershed system. It is more seemingly that jobs left in agriculture will be occupied by migrants, mainly coming from Haiti. The indicator is also contradictory to the project goal targeting at covering large extensions of the watershed system with agroforestry and forestry land use systems. Both require by far more labour force than current extensive cattle breeding and short rotation agricultural crops systems.</td>
<td>Reformulate indicator. New indicator and target level: Rate of unemployment, in particular of young people (&lt; 30 years age). decreased from XX % to XX % at the end of the project cycle. Rationale: Finally it does not matter where jobs are created, inside or outside agriculture / natural resource management but that more people, in particular the youth, find jobs and can make a living. Employed people can participate in the regional and national economy and afford means to improve their living conditions.</td>
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### 6.1.2 Recommendations on newly to be integrated or considered issues

Apart from all issues currently considered in the project design, the following seems to be of such an importance that they should be integrated in the project design in order to achieve integrated watershed management.
Land Tenure
Analyses carried out during the project preparation phase led to the conclusion that formal land tenure is not a significant root cause of land degradation and therefore does not require significant attention by the project. It was assumed that local recognition of de facto ownership is normally sufficient to protect farmers’ investments in land management, and farmers often have access to informal or alternative sources of credit which does not require formal proof of tenure.

According to studies carried out in other areas of the Central Mountain (Cordillera Central) region, a study carried out on behalf of Fundación Sur Futuro, the project implementation entity and interviews of local farmers through the mid-term evaluation team, revealed that the lack of formal land tenure is a significant reason why farmers do not invest in long-term investments and do not have access to credit with reasonable interest rates.

It is recommended to carry out a smaller pilot in probably three (3) communities in different parts of the project area and 5 to 7 cases in each community to get to know the magnitude of the challenge ahead. In these communities land tenure and land tenure regulation should be assessed in detail to get information about the significance of land tenure for decisions on investments in SLM and the costs (time and money) that are needed to legitimize usufruct land use rights.

Harmonize conflicting government policies
Another root cause for land degradation that has not been adequately addressed in the project design are conflicting government policies. It is common practice that the Secretariat of Agriculture facilitates bean and other seed of short-term crops to farmers without any restriction regarding the areas where these could be sawed. In practice, farmers cultivate short-term crops in many cases on steep slopes, getting in conflict with restrictions in the frame of the Environmental Law 64-00 that does not allow the cultivation of short-term crops on slopes steeper than 60 %.

We recommend taking this particular case of conflicting government policies and to develop an in practice accepted and applied agreement on how to handle the issue. The landscape level should be the Upper Sabana Yegua Watershed System or at least a part of it (depending on jurisdiction of different local or regional offices of GOs). The agreement parties should be SEMARENA, SEA, Banco Agrícola and CODOCAFE as the main government institutions related to the issue at hand.

Climate Change
Due to its importance for project success a component on climate change should be incorporated in the project design. First, the climate change presents a great risk for project objectives because of raising temperatures and related desertification processes, modification of rainfall patterns and increase of the frequency of meteorological extreme events (tropical storms and hurricanes). Second, there exists the possibility of getting extra GEF funds for adapting to climate change in the watershed system.

Measures to adapt to climate change in the watershed system overlap with SLM measures in many aspects, for example, increase / protection of the forest coverage and thus could be combined perfectly.
Strategy referring to Protected Areas

Protected Areas occupy 912 km² of the 1,664 km² of the entire Upper Sabana Yegua Watershed System. 200 km² be located inside protected areas are not appropriately used and approximately half the erosion, sedimenting the Sabana Yegua reservoir, is generated in Protected Areas, in particular the two National Paks. Outside protected areas there are 219 km² with inappropriate use. That means that half the area with inappropriate land-use is situated inside protected areas.

The design of the project does not consider activities inside the National Parks.

The project cannot achieve the planned levels of reducing erosion and reservoir’s sedimentation level on the basis of the current project design.

Due to Dominican legislation, any land-management practices in National Parks are forbidden. Nonetheless, according to the law for protected areas (Ley Sectorial de Áreas Protegidas NO. 202-24) the following uses are allowed: scientific research, education, recreation, ecotourism, infrastructures for protection and for research, infrastructure for public use and ecotourism in zones defined by the management plan of the protected area and authorized by SEMARENA.

In Forest Reserves the following uses are allowed: controlled utilization of its resources, traditional uses and activities, education, recreation, ecotourism, infrastructure for sustainable utilization in conjunction with a management plan.

We propose to discuss this very important issue between the most important parties involved – SEMARENA, GEF, UNDP and Fundación Sur Futuro – and to develop a strategy on how to handle the issue.
Figure 3: Land use conflicts in the Project Area
Figure 4: Protected Areas in the Project Area
6.1.3 Recommendations on changing focus of underlying project approaches.

As stated above, mainly the planned project intervention addresses well the core problematic related to unsustainable land-use regimes in the Upper Sabana Yegua Watershed System. It is expected that applied project approaches lead to project success.

There are just to approaches applied which are based on assumptions and planning in the framework of the Master Plan which are not contemporary and will not lead to expected project outcomes. We refer namely to:

- The approach to generate SLM through disseminating and applying *Production Models*.
- The approach to work with farmers applying the *Transfer-of-Technology* extension approach.

Both approaches are linked ‘philosophically’ and are based on assumptions which are not viable and have proved to be wrong. As we have stated above why these approaches will not lead to expected results, we will now concentrate on suggesting alternative approaches.

6.1.3.1 Facilitation of Change Processes

Conventional extension approaches, as for instance the Transfer-of-Technology approach, assume that the only source of knowledge is formal research. The role of the extension agent in this system is the only one of being the messager for research, disseminating knowledge to farmers.

These approaches have successfully been applied during the green revolution in mainly homogeneous situations. Farmers adopted recommendations of researchers and enhanced significantly their yields.

In remote areas, as mountains for example, and with smallholder farmers the same approaches have failed mostly according to the following reasons:

- the physical environment is not homogeneous, but highly heterogeneous with a multitude of small micro-sites where technology packages could not been applied;
- local and indigenous knowledge is very important for optimizing the utilization of micro-sites;
- distances to markets for agricultural produce are far;
- access to credit is difficult, if not impossible for smallholders;
- the socio-economic situation of small-scale farmers is highly complex and heterogeneous.

Due to the above described situation, working with marginalized farmers in remote areas requires a different approach for improving farmers’ livelihood systems.

Formal research is not longer the only source of knowledge (see also next sub-chapter) but farmers become an important source of information and are actively involved in problem solving. This means that extension agents are not any longer experts or messagers, but need to possess skills that allow them to facilitate processes of farmer groups which search for answers to mayor challenges.

Extensionists become *facilitators of change processes* and support the building up of farmers’ competences to (increasingly) analyze their own problems and identify options for solving these problems. So, extensionists become analytical partners of farmers.
An emphasis is on fomenting social learning processes among farmers in order to respond to their major challenges.

6.1.3.2 Innovation development by farmers

The above described paradigm shift from expert advice to facilitation of change processes implies also changes in the manner alternatives for unsustainable agriculture are explored.

For complex situations, as given in the case of the Uppers Sabana Yegua Watershed System, there are no homogeneous recipes in form of model that can be taken by farmers and applied. Instead of these ‘packages’, the development of a broad variety of innovations seems to be more appropriate for responding complexity.

An innovation can be a new material or tool (e.g. seed, hand pump, etc.) or a new way of doing something (e.g. crop rotation). The novelty need not be new to the world, nor to science but new to the contexts where they are being used. Thus, a farmer who is for the first time using a new land preparation method, crop rotation, crop variety etc., is an innovator. Experimentation is the process by which the innovator generates, tests and evaluates an innovation.

The approach to Participatory Innovation Development (PID) is based on the notion that for rural development the local informal knowledge of villagers is equally important as any scientifically generated, formal knowledge. However, the two types of knowledge are different. In PID the systemic – often unreflected – knowledge of villagers about their own complex situation is combined with external knowledge, which includes scientific knowledge, as well as the knowledge of farmers from other areas, extensionists, etc. The challenge in PID is to arrange for creative interaction between the knowledge, experiences and skills of villagers with those of scientifically trained researchers and of extensionists. The emphasis then is on conducting practical experiments together in villages. The objective is to find new things and ways that work. Of course, in most cases these are just the clever recombination of elements of familiar technologies, or the combination of known elements with new elements which are brought into an area. The new things and ways have to be compatible with, and embedded in the culturally based local knowledge system. New things and ways work when they are practical and applicable for the concerned farmers without major outside support. Means of production must be available and affordable, and markets accessible. Processes and organisation must be manageable with the locally available capacity.

For the project it seems to be by far more important to have a huge number of innovations for SLM instead of only five models. Farmers can utilize the innovation option that best fit for their situation and even adapt and modify it or ‘invent’ a new one. The most important issue is on developing farmers capacity to respond on their own to changing environmental conditions.

6.2 Recommendations for project implementation

In this section actions will be proposed intended to improve project implementation. These recommendations address particularly those aspects that could be improved by the operational project team.

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13 The Participatory Innovation Development approach is used here as an example for a group of similar approaches as: Participatory Technology Development or Farmer Experimentation.
6.2.1 Recommendations according to project outcomes

First, we render recommendations specified for each project outcome.

Outcome 1

2. For improving interventions in the thematic context of project outcome 1, we recommend the following actions:

   The two policy agreements ‘Protocolo de entendimiento para la promoción del manejo sostenible de tierras en las cuencas de la presa de Sabana Yegua’ from 11 June 2008, signed by representatives of all relevant local and national Gos, NGOs and churches and ‘Encuentro de socialización de los principios de manejo sostenible de la tierra con síndicos y regidores de las comunidades de Padre las Casas, Constanza, Guayabal y Bohechio, Monte Bonito, Arroyo Cano, Las Lagunas, Los Frios y Buena Vista del Yaque’ from 12 February 2009, signed by representatives of local government administrations, are not clear to signing parties. Expectations of, for instance, the municipalities are that Fundación Sur Futuro will launch a program where they participate.

   Apart from these policy documents, we recommend to focus on the development of practical policies which are related directly to the real world of participating stakeholders.

   Examples for such policies are participatory land-use plans, developed together with all relevant stakeholders at the level of rural communities. These plans are policies which define clearly simple soil management principles for all community members for the environmental surroundings of a community. Since such principles are defined by community members themselves, they also have to determine sanction mechanisms for those community members who break these rules.

   The convincing advantages of applying this approach are related to the following facts:

   • Rules (policies) are understandable to those who should fulfil them;
   • Rules (policies) are realistic, as they are based on a concrete and real life situation (the surroundings of a village);
   • Rules are likely to be fulfilled since villagers define the sanction mechanisms and will apply social control to make other community members to fulfil the rules.

2. The target of having 400 Farm Management Plans in place is considered as to high, concentrating too much energy and resources on ‘achieving’ a target, instead of emphasizing quality.

   We consider a target of having 2 farm management plans with respect to each of the 5 models in each zone in place as enough for serving as demonstration models for other farmers. This would mean to have 90 farm management plans developed. In each case the project team should centre attention towards quality (of each plan) instead of having many in place.

3. Since recently the project team started focusing on Spatial Planning at the municipal level. Despite this issue has not been planned in the original project design, it is considered as very important for integrating SLM practices into spatial planning for municipal development. We recommend to support at least two municipalities in Spatial Planning and utilizing the experiences made in the municipality of Constanza.

4. The GIS system developed by Fundación Sur Futuro and DIARENA should be made accessible to other relevant stakeholders. One of these stakeholders might be the municipalities which could improve significantly their planning and monitoring systems, utilizing GIS technology.
Outcome 2

Project interventions related to outcome 2 are the most relevant with respect to achieving direct project objectives. The below suggested improvements intend to strengthen the implementation of project activities:

2. **Core competencies for managing natural resources** in a sustainable manner, go far beyond technical skills and environmental awareness. If the aim of the project intervention is to develop and / or strengthen core competencies of all relevant stakeholders, so that these could manage the watershed on their own in the future, the project team has to broaden its capacity development strategy in this respect. Thus, apart from already running capacity development actions, we recommend the project team to adapt its capacity building approach and emphasize other core competencies.

The term capacity entails the ability of people, teams, organizations and societies to recognize development challenges, to prepare and commit themselves for the development of effective strategic solutions and to implement them successfully.

Even though core capacities vary between the different stakeholders, depending on its role and nature (for instance GO, NGO, local people), yet there are certain capacities that are common for all stakeholders:

- Clear position with respect to sustainable land management
- Existence of a clear and performance oriented organisational structure
- Existence of planning, monitoring and evaluation mechanisms
- Technical and administrative capacity to tackle principle organisational challenges (in this case related to SLM) – human and other resources
- Ability to communicate effective and efficiently – internally as well as with other stakeholders
- Democratic decision making mechanisms in place
- Capacity to negotiate with other stakeholders
- Capacity to (collectively) learn from experiences

2. The new municipal law assigns environmental planning and control competences to the municipalities, in particular to the Municipal Environmental Units (UAMs). All municipalities within the Upper Sabana Yegua Watershed System do no dispose of the required capacities to assume these new competences. Nonetheless the issue is an important mechanism for decentralizing power from the central to the local government.

According to the importance of this issue and related to building up local capacities, it is strongly recommended to support municipalities during the establishment of UAMs and the training of qualified personal. A special focus, of course, should be on developing capacities related to SLM.

3. Considering that the project area is vast and that it is difficult with limited funding (GEF funds) to achieve all, partly ambitious, outcomes, the project’s implementing agency (Fundación Sur Futuro) should integrate an approach of delegating project implementations to other service provider organisations who could demonstrate proven experience and organisational structures to perform in SLM practices. Applying this ‘outsourcing’ strategy, the Fundación Sur Futuro project team could be even more efficient and achieve more in the given time-frame. On the basis of observed capacities of other
service providers, we recommend to outsource project implementation partly to the following organisations:

- CEPROS – the local NGO disposes of sufficient experience and capacity to take over the implementing responsibility of all SLM and capacity development activities in its area of action (municipality Padre Las Casas – corresponding to the same project zone).
- CODOCAFE – could take over total responsibility of all actions related to strengthening coffee growers.

Outsourcing should not only refer to assuming responsibility for carrying out activities, but should be based on a written commitment to achieve agreed targets in a given time-frame. Fundación Sur Futuro should also hand over sufficient financial resources, so that these service providers have enough flexibility to achieve targets.

6. Having two very similar governance mechanisms (CDC and Juntas de Asociaciones Campesinas and CDZ and Coordinadora de Juntas de Asociaciones Campesinas accordingly) in place, confuses local people, duplicates efforts and does not make use of existing structures.

In the evaluators’ opinion, a development intervention first of all should take existing local governance structures into account and secondly should look to improve these existing ones before creating new ones. Creating new organisations is a human and financial resources demanding and time-consuming process.

We recommend verifying again if in all cases the establishment of CDC and CDZ is the most adequate measure for creating local governance structures or if the already existing structures could be adapted to meeting SLM objectives.

7. Referring to surface area, the greater part of the Upper Sabana Yegua Watershed System is used by extensive cattle breeding, in particular by big ranchers. Heretofore the project team has not developed an appealing alternative production model for extensive cattle breeding on big ranches. For big ranchers, who do not even live in the watershed system but in outside, mere economic aspects may not be the only ones based on which big ranchers make decisions about land use. The project team have not yet analyzed the opportunity costs of extensive cattle breeding, although this is a basic data for developing economic alternatives.

We recommend to urgently emphasizing the development of an attractive alternative model for extensive cattle breeding on big ranches, jointly with ranchers. If this implies to allocate additional, not so far considered funding resources, this need should be discussed with mayor project partners – UNDP, GEF and SEMARENA – to identify a way on how to address this need.

8. The preponderant part of the watershed’s soils would be most adequately managed by forestry land-use regimes. Fomenting forest management plans demonstrates the economic viability of forest management land-use regimes to local people and therefore is the by far best promotion tool for motivating local people to reforest degraded areas. In this respect, an interesting possibility is fomenting forest management, for example in the Forest Reserves in Arroyo Cano, Villarpando y Guanito. In Los Teteros community the project has already supported the development of a Forest Management Plan on private property (Mr. Iluminado de los Santos Ferreras) on 125 ha. The existing natural forest is managed in a sustainable manner and provides economic benefits to its owner who also manages a small sawmill.

According to the biophysical characterization (PROYECTA, 2007) in Arroyo Cano, the communities request management plans for the management of mahogany plantations. Also
the social work can be coordinated for the communities of this Forestry Reserves. Communities situated within the Forestry Reserves are not aware of the legal status of these reserves and currently practice agriculture, cattle breeding, charcoal and firewood extraction.

9. Relevant stakeholders' capacity building in the project context centres mainly at the local level. In some cases the project team should also focus on **strategically strengthening actors at the national level** if these actors are very relevant for project success. During the mid-term evaluation mission, the strengthening of the following actors at the national level seems important in the project context:

- SEMARENA – PES Office: jointly developing the PES scheme for the Upper Sabana Yegua Watershed System.
- GTI: establishing and strengthening of the Local Working Group (CTL) in the context of combating desertification processes.

**Outcome 3**

Outcome 3 is the most delayed project outcome. To ensure financial project sustainability, we recommend the project management to focus strongly on tackling the challenges related to identifying and becoming operational of the following financing mechanisms:

- Concluding and socializing the ‘Strategic and Financial Plan’ for assuring long-term financing of SLM actions with all relevant stakeholders.
- Establishing a PES scheme, based on the preliminary agreements with EGEHID and also integrating the irrigation water associations of the San Juan valley.
- Agreeing with the Secretariat of Finance on a debt-for-nature SWAP.
- Establishment in operational terms of a micro-credit program for investments in SLM.

It also seems very important to agree soon with SEMARENA what are the implications of the recently launched fund FONDO-MARENA for the above mentioned, rather locally focused funds. If necessary, also UNDP and GEF should be involved to this aspect become clear.

The evaluators have the impression that in the past the staff contracted by Fundación Sur Futuro was not able to respond adequately to the difficult challenges related to setting up the funds in the context of outcome 3. We recommend to contract specialists in this area, even if on a higher cost as originally planned.

**Outcome 5**

With respect to outcome 5 there are four recommendations for improving project implementation:

4. The emphasis of project monitoring is on proving if activities have been carried out according to planning. Planning intends to respond to the targets stated at project objective, outcome and output level. Activities of project staff are planned in a manner that they lead to achieving these targets. Fulfilment of planning is nearly exclusively based on comparing planned with carried out activities. This form of monitoring is fine for the field agent level, so that the staff at this level knows exactly what to do, but is not sufficient to measure project
effects. Numbers of farmers who attended training workshops and number of model farms installed do not reveal what trained farmers do after having participated at trainings and what makes exactly the difference of a model farm and a ‘common’ farm. Here we do not question the quality of work carried out by Fundación Sur Futuro personal but the quality of measurement of effects of this work.

The quality of data collected is important because it is finally the decisive factor on achieving the project objective or not. In conclusion, we recommend to adapting the M & E system in such a manner that quantity and quality data could be collected and analysed in order to be in the position to measure project success or failure.

5. Another important aspect regarding monitoring refers to the role that stakeholders play in the M & E system. Presently the only responsibility of data collection and analysis is with the project management, mainly Fundación Sur Futuro staff and partly UNDP staff. Other stakeholders provide data which are collected, sorted and analysed by project staff. One central aim of the project is to develop capacity of relevant stakeholders and even develop a local governance structure which will take over project implementation and management responsibilities after the GEF project has concluded. Thus, stakeholders are considered to be actors rather than passive beneficiaries. The capacity to monitor and evaluate undertakings is one core competency to be developed at the stakeholder level and which implies to stakeholders actively taking part in data collection, sorting and analysis. Therefore, the project team should take this seriously and develop mechanisms that allow other stakeholder to become active participants in the M & E system.

All project interventions target at improving living conditions for the population living within the Upper Sabana Yegua Watershed System and generating positive effects on downstream populations (water users). Hence, it seems meaningful to ask these actors how they perceive positive changes of their living conditions and their environment. Although the original project design did not foresee the participatory development of project indicators, positive changes at the very local level (e.g. communities) should be defined and measured by local people (see also recommendations).

For developing a participatory monitoring system we recommend the lecture of ‘Participatory monitoring and impact assessment of sustainable agricultures initiatives’ (Guijt, 1998)

6. The project has not yet analyzed experiences and derived lessons learnt and made these accessible to relevant stakeholders. Most important lessons learnt and success stories should also be published and made accessible to the interested public.

We recommend the following actions to be undertaken:

- initiating documented synthesis of project experiences;
- to put all important information on the website of Fundación Sur Futuro;
- to establish a library in the Padre Las Casas with all relevant project documentation as hard and soft copy and accessible to the interested public.

5. It also seems appropriate to send important information directly to relevant persons in the different project partner agencies, like e.g. JICO, SEMARENA, CEPROS, Municipalities, SUREF or CODOCAFE.

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14 We use the term ‘effect’ instead of ‘impact’ since impacts could only be measured with a significant time horizon (after a couple of years) and not directly after implementation of activities.
6.2.2 Cross-cutting recommendations

There are some issues which apply for some of the project outcomes and thus have a cross-cutting nature. These issues will be explored below:

Strategic planning of second project phase

Based on the results of this mid-term evaluation and project staff’s own conclusions and the opinions of mayor project partners – UNDP and SEMARENA -, the project management should decide on the focal areas which should be central in the forthcoming project phase.

There is a huge number of minor and mayor issues to be improved which call for prioritizing those ones which are most likely to have central importance for project success. Project management is asked to weight different variables as:

- Funds available
- Human resources
- Organizational issues
- Ease to succeed
- Importance for long-term sustainability
- and others.

Planning for the next project phase should strategically address the most important issues, take into account lessons learnt and construct on project successes of the first phase.

Strategic personnel recruitment

There are several delays in project implementation, in particular with respect to outcome 3, but also regarding single issues of other outcomes. On the other hand, there are enough funds available (see below) for addressing central issues to improve project implementation.

Apart from the above proposed outsourcing of project implementation to other service providers, there is a strong demand for recruiting qualified personnel for particular issues which are central for project success. In particular we have identified the following areas:

- Strategic project implementation planning
- Facilitation of local change processes
- Farmers’ Innovation Development
- Establishment of a PES scheme
- Debt-for-Nature SWAP
- Systematization and documentation of project experiences and lessons learnt

The mode of contracting specialized professionals – consultants, full time or part time staff - and different options to combine the above mentioned areas, depend on the decision of the project management. We also recommend strongly prioritizing quality instead of prize of the services sought for.
Conversion of funds between project outcomes

In chapter 4.2.4.2 we got to know that there are sufficient funds available in each project outcome budget lines. After having prioritized project interventions in certain areas, the project management together with UNDP and GEF should check if it is necessary to redesignate funds which have been assigned for achieving a certain outcome to another outcome where occur new need for funds assignment.

We recommend being very flexible with fund conversion in order to respond pragmatically to these need which aim at achieving the project’s objectives.

Focus on quality

Above have been examined several examples where the principal focus of the project team is to meet numeric targets (number of model farms, hectares reforested, etc.). We explored that only looking for achieving numbers will probably result in poor quality in many cases.

Hence, cross-cutting for all project interventions we recommend focusing not alone on quantity, but mainly on quality. The project addresses the first implementation period of the Master Plan for the Upper Sabana Yegua Watershed System in five years time. In this phase basic issues are being developed which later on will be up-scaled. Thus it is very important to centre now on quality because this will later be the standard being multiplied.

Extension of project implementation

In particular three issues with respect to time-frames were underestimated at the moment of project design:

- the time that it takes to change land-use culture and habits of farmers;
- the time that it takes to develop, establish and making work local governance structures;
- and the time that it takes to develop, establish and run mechanisms for financing SLM in the long-run.

Many development interventions have demonstrated that theses outcomes cannot be achieved in only five years. We recommend extending the project by an other year until October 2012 so that these important outcomes could be achieved. This proposal is based on the assumption, that the existing financial resource suffice to cover the extension.
7 Lessons learnt

Since the start of the project the project team have made a lot of good and bad experiences which all serve for further improving of the project’s implementations or for other development projects which pursue a similar approach.

To utilize these experiences for not repeating errors and building on and up-scaling successes is one of the mayor challenges for any development project. Thus learning is an essential element for further project planning and improving project implementation.

The evaluator team has only had a quick look at the project and therefore is not the best source for deriving lessons learnt. To analyse project experiences and identify mayor lessons learnt is an inherent task for the project team. In consequence, the following aspects highlighted should only be understood as an external input for an internal process of analysis which should be initiated soon. We identified the following lessons learnt:

The Upper Sabana Watershed System embraces the upper watersheds of three rivers. The project area is vast with difficult access to many communities. Not only the evaluator team, but also some members of the project team question the approach to work right from the beginning of a development intervention at this scale. For setting up the basics for later large-scale implementation it would have been better to concentrate efforts and resources on one or two upper watersheds and include all protected areas in order to apply a landscape management approach which is more consistent with respect to generating impact than only concentrating in parts of the watersheds, outside protected areas.

Due to the long time that social processes take, as, for instance, developing a local governance structure, these processes should have been initiated right from the beginning of the project intervention. Social organization, in particular of small-scale farmers, is an important pre-condition for developing and implementing technical options for SLM and delegating management responsibility to relevant stakeholders, namely the local population.

Another lesson learnt refers to the moment when long-term financing mechanisms for SLM should be developed and set up. In the past, the project management did not pay adequate attention to this important measure and did not have clear that these processes also take a long time from the initial idea until having a working scheme in place. In future interventions these challenges should also be tackled right from the project start onwards.

Fundación Sur Futuro is a rather atypical NGO with a sound basic funding and the capacity to influence political processes in the country. The foundation’s prestige and recognized capacity have led to the foundation being an attractive partner for different actors, also other donors, who want to invest in development measures in the Upper Sabana Yegua Watershed System. Fundación Sur Futuro is a credible and reliable partner for development agencies. Fundación Sur Futuro combines funds from different donors for the benefit of the local population.

One of the ‘secrets’ for the good relation that the project team has to local people and the achievements that have been made so far, are related to a highly motivated and committed
personal at all levels. Another asset is that local staff mostly is born and lives in the project region.

The project success until present is also an outcome of very good inter-institutional coordination and relations between Fundación Sur Futuro as project implementation agency and other actors as local NGO, governmental organizations from central and local government and farmer organisations. The foundation has established sound working relations to all relevant stakeholders.

Sound collaboration at the project management level - UNDP and Fundación Sur Futuro - contributes to efficient project implementation. UNDP and Fundación Sur Futuro are today strong partners who both want the project to be a success story.

Setting numeric targets at a level that concentrates too many resources (human and financial) on achieving these, hampers project progress in other areas equally important for project success. Too huge numeric targets in general also have negative effects on quality. Thus, another lesson learnt refers to setting numeric targets at a scale that is sufficiently high to allow a viable assertion about effects (impacts) and also permits to ensure high quality of the work done.

In the case of some indicators, mainly at the project objective level, it will be difficult if not impossible to measure them. The project team has failed in some cases to set sound and reliable baselines during the project’s inception phase which would allow comparing project progress with the initial situation.

Checking the viability and measurability of performances indicators at the beginning of a project is a lesson for future interventions. Due to serious problems related to most indicators at the project objective level and some indicators at project outcomes level, the entire M & E system is questionable and it will be difficult to measure project success in an appropriate manner.

In 2008 due to the effect of Tropical Storm Olga that crossed the Sabana Yegua watershed in December 2007, the destruction of roads by heavy rainfalls and floods isolated communities for six months, delaying the implementation of the project’s activities. Fundación Sur Futuro implemented an alternative emergency project, with funds of the Office of the First Lady, for road rehabilitation and assistance to harmed people. Even though this climatic situation retarded the project’s implementation, the assistance of Fundación Sur Futuro to the local communities in a situation of crisis strongly reaffirms commitment and importance of the foundation in the watershed. After having completed actions with respect to combating damages caused by the storm, all project outcomes depending directly on activities with communities had a better performance with levels of participation and commitment better than before.
8 Annexes