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# SUMMARY REPORT OF THE EX - POST EVALUATION OF 5 PROJECTS IN THE FIELD OF REHABILITATION AND MANAGEMENT OF DEGRADED AND SECONDARY FORESTS

**PROJECTS**

**PD 30/97 Rev.6 (F)**
**Rehabilitating Degraded Forests through Collaboration with Local Communities (Ghana)**

**PD 14/98 Rev.1**
**Sustainable Use and Reforestation of Amazon Forests by Indigenous Communities (Peru)**

**PD 49/99 Rev.2 (F)**
**Pilot Plan for the Sustainable Management of 10,000 hectares of Secondary Forest in San Lorenzo, Esmeraldas (Ecuador)**

**PD 51/99 Rev.2 (F)**
**Support to Grassroots Forestry Promotion Initiatives in the Yoto Area (Togo)**

**PD 122/01 Rev.1 (F)**
**Support for the Establishment of a Cuttings Propagation Unit for the Production of Samba and other Local Species (Togo)**

**Prepared for ITTO**

**by**

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**October 2008**

## ACRONYMS

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| **INRENA** | National Institute for Natural Resources (Peru) |
| **NGO** | Non Governmental Organization |
| **COMAFORS** | Sustainable Forest Management Corporation, Ecuador |
| **ITTO** | International Tropical Timber Organization |
| **CRF** | Committee on Reforestation and Forest Management of the ITTO Council |
| **ODEF** | Office for the Development of Forest Logging, Togo |
| **DEF** | National Forest Bureau, Togo |
| **FORIG** | National Forest Research Institute, Ghana |
| **EDMAR** | Eco-Development, Environment and Reforestation, Peru |

## CONTENTS OF THE SUMMARY REPORT

## 1. PURPOSE OF THE EVALUATION

The purpose of this evaluation is to provide a concise diagnosis of 5 projects related to forest rehabilitation with a view to identifying successful results and problems, the reasons for successes and failures and the contribution made by the projects to ITTO Objective 2000, as well as drawing any lessons that may be used to improve similar projects in the future.

Project ex-post evaluation is an essential tool developed by the International Tropical Timber Organization (ITTO) to improve its own efficiency and the development of tools and outputs that may be replicated for the benefit of all its Members and also to ensure that future projects may be implemented under the best conditions.

In response to a decision adopted by the Committee on Reforestation and Forest Management during the 41 Council (ITTA) Session in Yokohama in November 2007, five projects were selected in the area of rehabilitation and sustainable management of degraded and secondary forests, carried out in Africa (3) and Latin America (2). Their evaluation is summarised in this report.

The Evaluation Mission[1] produced five reports, one on each project, drafted in the language of the relevant country: in English for Ghana, in Spanish for Ecuador and Peru and in French for Togo.

The aim of this summary is to present the main outputs and lessons learned from the implementation of the five projects on mangroves. The main purpose of the evaluations was to provide a concise diagnosis with an indication of satisfactory and unsatisfactory results, the reasons for successes and failures and the contribution of the projects to ITTO Objective 2000 and ITTO Work Plan for 2007-2012, and to draw any lessons that could be used to improve similar projects in the future.

The draft overall results of this evaluation were previously submitted and discussed with the executing agencies of each project and with forest authorities in each country, with a view to reaching an agreement on the relevant findings, conclusions and recommendations.

## 2. SUMMARY OF EVALUATION RESULTS

### 2.1 Global role and significant contribution of the five projects to sustainable management of tropical timber forest resources in producer countries, taking into account ITTO Objectives, the ITTO Yokohama Action Plan 2002-2006 and ITTO Objective 2000

The projects evaluated are consistent with ITTO objectives, i.e. objective (c) 'To contribute to the process of sustainable development', and objective (j) 'To encourage members to support and develop industrial tropical timber reforestation and forest management activities as well as rehabilitation of degraded forest land, with due regard for the interests of local communities dependent on forest resources', as provided for in Article 1 of the ITTA, 1994.

However, their relationship with and contribution to forest and/or degraded land rehabilitation under ITTO guidelines should be examined in the light of their role in the restoration of major land use capacity with the re-establishment of dominant forest cover and the regulation of water systems, and not necessarily on the basis of the re-establishment of original forest ecosystems, as will become clear from the individual and overall review of the projects.

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Alfredo Gaviria, Regional Expert for the 2 Latin American projects (Peru, Ecuador)

A recurrent aspect of these projects was their consistency with ITTO objective (f) as they encouraged indigenous communities to use their lands in a well organised manner, establishing agricultural, livestock and forest production zones and protection areas. All the projects under review encouraged the integration of agricultural areas into forest activities according to a land-use plan in which fallow periods allow for the production of fast-growing timber species and non-timber forest product species, such as medicinal plants. All the projects were designed and their work plans implemented in an effort to manage forest production areas with a view to producing timber for commercial purposes, reforesting with species that are logged regularly and that have practically disappeared as a result of uncontrolled selective logging.

The projects were highly consistent with objective (h), because they were based on the participation of indigenous communities that were increasingly involved in forest activities and in tropical timber markets to place their products on the domestic market, which occurred in varying degrees according to the specific characteristics of each project and the marketability of the products. These technical forest and land use management systems were applied to areas with highly degraded natural vegetation, such as the areas of all these projects, and thus made a gradually increasing contribution, albeit with varying rates and strategies, to the progressive restoration of the ecological balance, and became models to be taken into account in national policies.

The three African projects worked on capacity-building among local communities, to help them appreciate the importance of tropical forests for the supply of timber and non-timber forest products with a view to achieving short and long term benefits. In this respect, local communities were equally motivated to be directly involved in all operations to restore degraded tropical forests with native forest species. Apart from Togo’s project PD 51/99 Rev.1 (F) that stressed the importance of reforestation, including with exotic species (teak), the other two projects in Togo and Ghana used native species for reforestation; however, the second Togo project (PD 122/01) was not successful in doing so because of issues relating to the project design and to externalities resulting from the political situation in Côte d'Ivoire, which prevented the project from using the lessons learned in that country.

Of all the projects, PD 14/98 in Peru most directly and intensively worked on natural tropical forest management, as it prepared 7 sustainable forest management plans with local indigenous communities to cover a total net area of more than 22,590 hectares, of which 20,160 hectares in five communities were later certified under FSC standards for sustainable forest management. ITTO's forest management criteria and indicators and moist natural tropical forest certification standards developed in Peru had been applied. The project implemented a programme of agro-forestry systems using native species to produce non-timber products. It also made significant efforts to train community members in forest plantation systems and plantation tending, as well as in timber harvesting.

Project PD 49/99 in Ecuador worked on the management of degraded natural forests and secondary forests with local rural communities of various ethnic origins. The project carried out zoning work for various land uses, implemented forest inventories and prepared reports on the characterization of forests under study. Forest inventory work was based on the establishment of pilot units to study secondary forest behaviour in response to silvicultural treatments (liberation cutting to remove undesirable species and climbers). These pilot units may serve as the basis for the development of forest management plans and yearly plans of operations for commercial dimension timber production.

These two Latin American projects made significant efforts to work with natural forests, although project PD 14/98 also worked with plantations on degraded natural forest lands or in deforested areas in combination with agricultural and livestock activities to grow essential products for the subsistence of the local Asháninka communities. Project PD 49/99 developed a protection plan for degraded natural forests and secondary forests that would allow for natural regeneration and develop a better structured forest for commercial timber logging; it also implemented training and basic research work to provide support for sustainable forest management, such as information and awareness building campaigns at the San Lorenzo Agro-industrial Technical School targeting farmers and communities.

In this respect, the most significant contributions to forest management in accordance with ITTO objectives were made by projects PD 14/98 of Peru, PD 30/97 of Ghana and PD 49/99 of Ecuador, PD 122/01 of Togo, and PD 51/98 of Togo, in that order.

### 2.2 Global contribution of the five projects to tropical forest rehabilitation and to the restoration, management and rehabilitation of degraded and secondary tropical forests

Secondary and degraded forests are often used by the poorest sectors of the rural population because they are accessible and may supply a diversity of products to satisfy their basic and immediate needs (e.g. energy, food and medicines). A vast proportion of these lands could also support food production if better land-use practices were implemented such as agroforestry systems. Furthermore, secondary and degraded forests are also larger land reserves for agricultural and livestock production in the moist tropics. Where the conversion to such land-uses is adequately planned, and the converted areas are successfully managed, local pressure over residual primary forests may be minimised.

Ecological and socio-economic conditions for the projects under review were quite different, particularly when comparing Africa (Togo and Ghana) with South America (Peru and Ecuador) projects. In Africa the projects were promoted by the State; their forests had undergone considerable degradation and had become secondary forests or open savannas with a predominance of grassland, scrubland and widely dispersed trees in a social context dominated by small communities that own very little or limited land, and with an increasing presence of migrant family groups seeking land for their crops or employment opportunities. Another important feature of these three projects was that the reforestation and forest plantation activities were carried out mainly in State owned forests, iin forest reserves that may be used for forest production

None of the two Togo projects specifically targeted degraded forest rehabilitation; however, they have helped forest restoration through the establishment of teak plantations on degraded lands or lands that had lost their forest cover in individual plots; project PD 122/01 Rev.1 (F) was initially meant to produce samba (a native forest species) seedlings to be planted in individual plots and in forest reserves, but unfortunately it was unable to achieve its specific objective because of the reasons previously indicated in the project summary. In both Togo projects the greatest efforts were geared to forest plantations based on the Taunya system and using teak; the projects operated specially in State-owned forest areas, although project PD 51/98 also carried out intensive work on lands owned by small rural community farmers.

Project PD 30/97 Rev. 6 (F) in Ghana was designed specifically to contribute to degraded forest rehabilitation through collaborative work with local communities; the project highlighted the critical role of the communities in degraded and secondary forest rehabilitation and restoration. It also showed that native forest species can be successfully used in degraded and secondary forest rehabilitation, and it produced a number of documents and technical reports prepared by the project team.

In comparing the three projects, it is clear that the Ghana project has made the best contribution to degraded and secondary forest rehabilitation, restoration and management efforts as it implemented successful experiences in plantations enriched with native species (*Albizia zygia, Alstonia boonei, Aningeria robusta, Cedrela odorata* (exotic species), *Entandrophragma angolense, E. utilis, Khaya anthotheca, K. ivorensis, Nauclea dedenica, Pericopsis elata, Ceiba pentandra, Terminalia ivorensis and T. superba*) and an exotic species such as *Cedrela odorata*

In South America, projects PD 49/99 of Ecuador and PD 14/98 of Peru were implemented in severely degraded primary forest areas[2] or lands used for agriculture, which were covered with young or adult secondary vegetation; furthermore, in all cases the land belonged to the communities, under a private or common property system. In the particular case of project PD 14/98, the land was within indigenous community territories, although the Peruvian legislation provides that forest lands belong to the State i.e. there is no private ownership of forest lands; however, indigenous communities have the right and absolute priority for their use if they are within the demarcated territory of their community. On the other hand, lands that have a greater agricultural vocation may be privately owned.

Project PD 49/99 of Ecuador worked with mestizo community groups, black and Chachi (indigenous) communities settled in the North of the country, in the province of Esmeraldas and San Lorenzo district, improving the awareness of such communities and also at the interest group and family level. Inventories and forest census and utilisation plans were drawn up for plots that were ready for production: selected lands had been covered in the past by dense moist tropical forests which had been logged to make way for agricultural production, and later abandoned, left fallow for several years or simply left to develop as secondary forest. The most significant contribution of the project was the study of the secondary forest structure and composition, the development of practical guidelines for the utilisation of these forests, with a focus on fast-growing native species with high commercial value on the local market, such as Laurel (*Cordia alliodora)*, Laguno (*Vochisia macrophyla*), Sande (*Brosimun utile*), Tangare (*Carapa guianensis*), and Cuangare (*Otoba spp*.).

Project PD 14/98 also worked on this type of land, but its strategy was to reforest using fast-growing, commercially valuable species such as non-timber forest products e.g. Sangre de grado (*Croton lechleri*) whose resin is in high demand on the international medicinal plant market. Timber species were also planted, such as tornillo (*Cedrelinga catenaeformis*) and capirona (*Calicophyllum sp*.), cedar (*Cedrela odorata*) and mahogany (*Swetenia macrophyla*), which are in high demand in the domestic and international markets.

[2] The term **forest degradation** refers to the reduction in the forest's ability to produce goods and services. **Degraded forests** supply fewer products and services from a given site, and they have only limited biological diversity. Degraded forests have lost the structure, role, species composition and/or productivity that are normally associated with the type of natural forest expected in that site.

In short, it may be concluded that projects PD 30/97 of Ghana, PD 49/99 of Ecuador and PD 14/98 of Peru made the best contribution to rehabilitation and management of degraded and secondary forests, while the two projects from Togo, especially PD 51/98, contributed to the development of agroforestry systems and forest plantations with exotic species such as teak because of existing community interest and at the express request of the communities.

### 2.3. Global impact on the relevance of the five projects to the executing agencies, forest industry sector and local beneficiary communities and countries concerned

All the projects under review were submitted by the state forest agencies or with their endorsement and monitoring: for projects PD 122/01 of Togo and 30/97 of Ghana, the ODEF and FORIG respectively prepared and submitted the proposals for ITTO consideration and dealt directly with their implementation throughout the project. Project PD 51/98 was prepared by ODEF in partnership with the NGO ALTERNATIVES, submitted by ODEF and executed by the afore-mentioned NGO, with technical and monitoring support from ODEF; project PD 14/98 of Peru was prepared and executed by the NGO EDMAR, although the first phase of the project [PD 16/94 Rev.1 (F)] was managed by INRENA and executed by EDMAR. Project PD 49/99 was prepared and executed by COMAFORS, a private entity, in close cooperation with forest sector agencies of the Ministry of the Environment and Ministry of Agriculture of Ecuador.

Projects prepared and executed by government bodies had the support of the entire state infrastructure and logistics, and they only required a small outlay to cover professional staff expenses, since most costs were covered by such state bodies. Project PD 30/97 of Ghana had the benefit of the involvement and work of a very compact and stable interdisciplinary team that displayed great scientific interest in the project, taking on its objectives as their own; this helped increase sustainability of the activities implemented in the field, even though such interest was always focused on the biological aspects of the project - which in a way drew attention away from social aspects, the least favoured component in this project.

**Executing agencies**

Project PD 122/01 was fully implemented by the state agency, the Forest Department of the Ministry for the Environment; although this meant that it had the support of a major institution, the people in charge of project execution had limited time for project activities because of their own obligations, and at the same time the project was impacted by administrative changes and political swings.

Project PD 51/98 was executed by a partnership between ODEF and the NGO ALTERNATIVES; in the first place, this was a very good experience of a strategic partnership between the public and the private sectors, which brought to the project the benefit of major official support and infrastructure. Furthermore, it brought the presence and authority of the government sector, which is respected at all levels, while on the other hand, the NGO provided administrative flexibility, mobility and experience in working with rural communities. The work done by ODEF in technical training and advice for local communities was very important, while the NGO ALTERNATIVES was in charge of mobilising and building awareness among the local population. The nursery established by the project offers good opportunities to train the local communities and to produce planting material for the reforestation programme.

Project PD 30/97 of Ghana was advantageously managed by the Forest Research Institute of Ghana (FORIG), with the involvement of a team of high level technical and scientific experts in partnership or close cooperation with rural communities, mostly agricultural land owners. However, the project executed most of its activities in degraded State Forest Reserves (35% of the area). Socio-economic studies were carried out to assess the contribution of local communities in the project and also of its beneficiaries. Many lessons were learned from the fruitful partnership with the Forest Services Division, the Institute of Renewable Resources of the University of Science and Technology and with local communities

Project PD 14/98 of Peru was directly executed by the NGO EDMAR, a relatively new institution with scant financial resources; however, it does have very good professional capabilities and links and influence with native communities, a very important component in these cases because government agencies are generally viewed as mostly regulatory and monitoring bodies. The continuous and lengthy visits made by the NGO to the communities in the operational area were of vital importance for the success of the project. Furthermore, its relationship with government bodies such as INRENA, local authorities and other projects operating in the same area was always excellent.

Project PD 49/99 was wholly executed by COMAFORS, a private sector body grouping 7 timber panel manufacturers; it has a sound business base that helped provide the project with a business development vision, although good forest management prevailed especially when dealing with secondary forest management for commercial purposes which is what local communities hoped to do, i.e. recover the natural forest production capacity that had been destroyed or degraded by technically poor agricultural practices. Its work towards the achievement of the project's objectives and intended outputs also became priorities for the local communities with which it collaborated. COMAFORS developed excellent relations with all the forest administration bodies of the Ministry for the Environment and the Ministry of Agriculture Livestock, Aquaculture and Fisheries, and it managed to convey the message of the need to rehabilitate degraded forests and to manage secondary forests within Ecuador's forest business framework.

**Local communities**

The three African projects were very relevant to and have had an impact on local communities, since these projects were designed to achieve their involvement to help them benefit from project activities. Intercropping, combining food crops with forest trees (taunya), brought major benefits to the farmers involved in the projects. In addition to the various incentives offered to project participants, the food that they could harvest to take home and also sell helped benefit Ghana's project communities with 40% of the income derived from the sale of their tree plantations under a profit sharing arrangement as provided for in the new law. Like Ghana, the training and experience in the establishment of forest plantations acquired during the three projects is being used by farmers to establish forest plantations.

The Latin American projects, as indicated above, were fully implemented within indigenous community territories: Asháninkas in the case of Peru (the most extensive ethnic group in the highland forests of Peru and one which still uses very traditional social organisation systems to organise social work or community work), where the community decides the allocation of plots of land to the families to grow their basic commodities - although the entire land belongs to the community as a whole. In these communities there is no private land ownership

concept or scheme in a strict sense. Although the project proposed a management, rehabilitation or plantation strategy, the communities ultimately decided how to be involved and what crops to grow or trees to plant.

In the case of Ecuador, the land belongs to communities or communes organised in family units as is the case with the black and mestizo communities. These communities are managed by a council and, in the case of the Chachi communes, a traditional organisation under a communal council, but there are also land owner families working the fields. Forest production and conservation lands undergo a zoning process, and each family is allocated a plot to work, as was seen in project PD 49/99 in the black communities; the families that decided to participate in the project were assigned their own well-defined plot of secondary forest, which the project considered to be *pilot farms*.

In the case of Africa, although the projects attempted to involve the communities, they were invariably implemented through the community authority; families or individuals decided whether they wished to be involved in the project or not, and they always joined the system established by the project, with a certain degree of flexibility to decide which crops to grow, the areas that would be worked and the species to be planted. It was quite clear though, when dealing with forest plantations, that the community almost exclusively opted for teak such as in the Togo projects. In the case of Ghana, all the activities took place in State Reserves (National Forest Bureau), under a scheme proposed by FORIG comprising plantations to be enriched with high commercial value native species.

In every case communities invariably required immediate incentives to join the project and project work plan; such incentives ranged from financial compensation to support for agricultural subsistence or commercial production, to participation in the benefits produced as a result of the plantations.

In the case of the Togo projects, the major incentive was being able to work in state forest reserve lands to establish temporary subsistence crops, because many community families do not possess land or do not have enough land for this purpose; thus, this system commits communities to planting forest trees and tending these planted trees until they can survive by themselves. However, although this system helps reforest reserves, it has not managed to do the same for community lands; this was due firstly to the fact that the communities that are most interested in this system are *landless* communities i.e. groups of migrant settlers in search of employment, and secondly, to the fact that communities that do have land are not ready to use part of their property for forest plantations because their priority lies with agricultural crops, which are almost always their only livelihood.

In the case of Ghana (PD 30/97), forest enrichment plantations were established in state reserves and the incentive for this was that individuals or families taking part in the plantations became the owners of part of the plot or of a number of trees planted, under the relevant provisions issued by the Ministry for the Environment. This scheme was well accepted by the communities; it was based on longer term incentives since communities or families had to wait for the trees to reach commercial sizes to be logged in accordance with a management plan jointly defined by FORIG and the National Forest Bureau of the Ministry for the Environment, Forestry and Fisheries.

In the case of Peru (PD 14/98), the main incentive for forest plantation or agroforestry practices was the direct payment to participants, per seedling produced, planted and tended

for 18 months: US$ 0.17 per seedling produced in a nursery, and the same again when it was transplanted in the field; a further US$ 0.17 after 6 months of tending and finally a further US$ 0.17 after 18 months; thus, the plantation fully benefited the family that set it up on its land. This system was very well received by the communities (35,000 trees of high commercial value native species were planted as well as 278 hectares with species for non-timber forest products such as Sangre de grado resin. The purpose of this system was to serve as a catalyst to encourage the local population to become involved in reforestation activities, to feel the benefits of reforestation, and to later have it adopted by the community or any of its members.

In the Ecuador project, all this work was carried out on community lands, in this case and very particularly on land owned by Afro black communities; the main incentive for the population was support for its subsistence agricultural activities with improved crops; the other incentive was to see how their forests which had been logged and converted to agriculture (cocoa, maize, cassava) were returned to secondary adult forest condition with capacity to produce timber and non-timber products such as vegetable ivory (Tagua: *Phytelephas macrocarpa*), wildlife, fish and commercial grade timber from growing trees and in some cases, trees ready to be harvested (in many cases the project set up pilot plots in secondary forests that were over 20 years old). However, the project chose to acknowledge the work done by each member of the community in the pilot plots and paid a wage for days worked.

**The countries**

Degraded forest rehabilitation and secondary forest management in the countries where these projects were implemented – Ecuador, Ghana, Peru and Togo – is a relatively new thematic area for an old and highly widespread and significant problem: natural forest deforestation caused by the expansion of the agricultural frontier. Invariably this happens on natural forest lands and lately it has been aggravated by the enormous pressure of palm oil and other oilseed crop growers to buy native community lands, as seen in Togo, Ghana, Ecuador and Peru.

In the case of Togo, the Government and organised civil society are becoming aware of the problem and of its true magnitude; a national reforestation programme for degraded forest areas has been developed, initially to be implemented on state lands such as forest reserves. This scheme includes rural community involvement in order to encourage the local population to commit to the responsibility of caring for forest resources and helping their rehabilitation. In this respect, projects PD 51/99 Rev. 2 (F) and PD 122/01 Rev. 1 (F) were relevant to and consistent with the National Forestry Action Plan (NFAP).

In Ghana, project PD 30/97 Rev.6 (F), was highly relevant and was assigned high priority because it helped achieve the objectives and strategies set out in the 1994 Forest and Wildlife Law, in the Forest Development Plan and the 2003 DELP. Like most successful projects, this one has had a positive impact on all the country's stakeholders and it makes a particular contribution to the development of quite a sound technical, scientific and socio-economic knowledge base that will provide other rehabilitation and management projects for these ecosystems with consistent, reliable and up-to-date information. To this end, it has even drafted special standards to establish direct and immediate benefits for communities involved in reforestation programmes.

In Peru, project PD 14/98 has had a similar role to that of the Ghana project: it developed concrete and successful strategies and practices to manage natural forests with the active involvement of native communities, as well as the rehabilitation of degraded forest lands in the vast Peruvian Amazon region. It also managed complex forest ecosystems and socio-economic contexts. These are very serious logistical and socio-economic issues that must be faced and overcome. However, it is clear that the Government is aware and concerned about the deforestation of over 200,000 hectares per year, with an aggregated figure of 10 million hectares of logged-over forests, of which 60 to 70% is currently secondary forest.

Ecuador's project PD 49/99 had a very significant role at the national level: thanks to the project, secondary forests became a compulsory component in the current forestry agenda. Furthermore, project work with rural and indigenous communities strengthened the other end of the chain to achieve harmony between rural and native community interests and needs and those of the State in general.

In the San Lorenzo district, and thanks to the presence and efforts of the project, large tracts of land owned by the black and Chachi communities were not logged nor taken over by palm oil plantations as was the case for the black community forests of Villa del Agua which have close to 1,400 hectares of natural forests, mostly in degraded or secondary forest condition, but which are literally an island within the vast area of palm plantations surrounding this community.

### 2.4 Achievement of objectives and overall effectiveness of the projects

In general the projects worked efficiently with the resources available; in some cases they even went beyond the goals or outputs planned in the project documents, such as Ghana's PD 30/97 which was able to establish double the size of reforested area i.e. 250 hectares instead of the 120 hectares originally planned for planting. Project PD 14/98 of Peru also surpassed its 200 hectare goal, planting 250 hectares in total; this project also surpassed the area originally planned for forest management i.e. 4,200 hectares of pilot areas (600 hectares in each community) and eventually worked with over 22,500 hectares in total i.e. the total production forest area of the 7 communities. An unforeseen output for this project was the FSC certification for 5 management plans, thanks to the fact that the plans were very well designed and that the communities showed excellent willingness to participate in all project activities.

Ghana's PD 30/01 was the most effective of the three projects implemented in Africa. Almost all of its 7 specific objectives were achieved successfully and all its beneficiaries, FORIG, the FC, and particularly farmers involved in their capacity as local community members, were very much and favourably impacted by the success of the project. The only output that was not fully achieved was the publication of the guidelines that would serve as a training tool and reference for relevant stakeholders in degraded or secondary forest rehabilitation. The evaluation team discussed this with the project and the authorities agreed to continue and finalise the guidelines for publication.

In Togo, project 51/99 Rev. 2 (F) was equally well executed through co-implementation by the NGO and ODRF, the government agency. All the specific objectives of this project were effectively achieved. But the evaluation mission was informed that the water reservoir had been washed away by floods during intense rains last June. By the end of the project it was still unclear how the teak plantations established by the project in the state forest reserves

would be administered and managed; this is a recurrent issue with all the projects, since although the direct beneficiaries (communities) were adequately trained in tree planting, the same could not be achieved for plantation maintenance, management and utilisation, let alone marketing, since these communities do not have sufficient resources to assume responsibility for these activities and, more importantly, they lack the necessary know-how.

Project PD 122/01 of Togo faced serious difficulties during the first part of its implementation, because of problems that the evaluation mission believes arose from the design of the project but, at the same time, the project was unable to expediently resolve the problems related to the purchase of plant material for Samba reproduction, as well as project staff and local community training in these practices. The project also had to amend its goal of producing material of this native species and select an introduced species such as teak. All these issues led to poor efficiency and effectiveness rates.

Project PD 14/98 received the most positive impact from the two-phase implementation and a budget that was remarkably higher than those of the other projects; from ITTO it received close to one million dollars, which gave it the ability to effectively carry out all the activities foreseen in the operational plan, in particular those related to sustainable forest management plans with indigenous communities, working over an area 5 times larger than originally foreseen (4,200 hectares). Regarding plantings for the rehabilitation of degraded forests, the area covered was similar to that achieved by projects PD 51/99 and PD 122/01 of Togo and PD 30/97 of Ghana i.e. approximately 250 hectares.

Project PD 49/99 of Ecuador effectively disseminated the need to work on secondary forests and their management both at the decision-making level and at the community level. Furthermore, it carried out a good training programme and disseminated the results of the project using well developed and presented technical documents. However, the mission considers that the design of the project has caused some difficulty in the interpretation of the scope of its goals, e.g. specific objective 2 on the management of 10,000 hectares of secondary forests, and it is unclear whether this refers to the net area or whether it includes the area of influence of the project.

With the exception of PD 14/98, the other projects did not develop well structured forest management proposals and even included some differences in the design of degraded or secondary forest management. Regarding forest plantations, all the projects worked efficiently or with reasonable efficiency; none developed a holistic or comprehensive proposal to manage the plantations they had established, in any of their forms (enrichment lines, blocks, edges), let alone a proposal for a secondary forest management system according to the specific ecological and socio-economic conditions under which each project was developed.

A recurrent problem with all the projects was the total lack of economic data on the costs of each phase of project operation, as well as on the costs of each activity involved in the production of seedlings, plantations, maintenance and management of plantations and forests. This made it impossible to evaluate the cost-benefit ratio of the projects and of each output in particular.

In general, the main project activity in Africa was plantation or reforestation; in all the projects the area planted was approximately 250 hectares, for which they had a total budget of some US$ 300,000, of which approximately US$ 200,000 were used directly in plantations,

including nursery production. With these figures it was possible to work out an average of approximately US$ 800.00 per hectare effectively planted, until year 2 or 3.

Project PD 30/97 lasted longer than the other projects (5 years), which allowed it to work with greater ease especially with respect to field observations for research work, and a more thorough relationship with rural communities which had the chance to see the results of the plantations enriched with native species. These are growing quite well, and have helped the local communities visualise the benefits they may gain in the medium term. This is an incentive for the communities and encourages them to advance with their own initiatives.

### 2.5 Overall relevance of costs and cost structure and the use of resources in the five projects

The total cost of the five projects was US$ 2,969,709.00 and ITTO's share amounted to US$ 2,124,129. The national counterpart contribution was US$ 845,580 i.e. 28.5% of the total cost of the projects. The project with the highest total budget was Peru's PD 14/98 with nearly 50% of the overall cost of the 5 projects; however, it also had the highest national counterpart contribution of almost 37% of the total project budget.

Regarding project expenses, it should be pointed out that the investment in training for all the projects was less than 10% of the total budget; the project that invested the highest amount in training was PD 14/98 with 8% and the one that invested the least in this item was PD 122/01 (Togo) with 1.04% of the total project budget. Regarding direct investments and applications of the budget[3] for the beneficiaries, again it was PD 14/98 that made the largest contribution as it invested 69% of its total budget in the field. Naturally, the State's investment made a great difference here with respect to the value of standing timber, which was US$ 548,646 and which communities did not pay in this case. If this value was not included in the calculations as a contribution of the project to the communities, PD 14/98 would have invested 32% of its budget in direct benefits for the communities.

It is possible that this concept was applied somehow in other projects; however, it does not seem to have been included in the budget or, in any case, there are no calculations on this component. A case in point is PD 30/97 of Ghana, in which the communities had the right to a percentage (approximately 40%) of the sale value of the plantations once they were old enough to be logged. The mission insisted very much on the fact that the projects needed to record data on partial and total costs of each activity and assign a value to assets such as lands, trees, buildings, etc. in order to find out the true impact of the projects on the rural economy of the area in which they are operating.

PD 51/99 of Togo invested 26% of its budget in expenses that were of direct benefit to the communities, and PD 122/01 of Togo and PD 30/97 of Ghana invested the least in direct benefits for the communities (13.9% and 14.21% respectively).

The project with the highest budget for project personnel was PD 49/99 of Ecuador with a total of US$ 230,000 i.e. nearly 60% of the total cost of the project; PD 30/97 was the second highest with US$ 195,000 or 43% of its total budget, then PD 14/98 with US$ 217,500 although in relative terms it only spent 15% of its total budget.

[3] The calculation is done by adding the payments of field personnel, equipment that will remain installed in the field, training, raw materials and industrial equipment.

## 3. MAJOR CONCLUSIONS AND RECOMMENDATIONS

### 3.1 Need for and objectives of similar projects in the future

- The evaluation of these projects has shown that although the thematic aspect of rehabilitation and management is present in project documents, in some cases it is not clear whether the project is simply dealing with reforestation or with rehabilitation of natural ecosystems.

- In this context it is essential to have an adequate project identification process to assess the needs and determine the development options together with the stakeholders. An appropriate development objective should be the establishment of conditions that allow sustainable secondary forest management, not only as a restoration mechanism for natural ecosystems but also as a system that can have immediate economic impacts on rural communities, which would achieve the dual goal of reducing the rate of deforestation, generating economic returns that are important for the improvement of the communities' standard of living and for forest ecosystem rehabilitation.

- Future projects on degraded forest rehabilitation and secondary forest management must be a high priority in the context of achieving ITTO Objective 2000 and current and future Action Plans, but the core objective of each project needs to be clearly stated, with a special focus on the use of native forest species and not on simple plantations of introduced species as is currently the case.

### 3.2 Innovative designs for degraded and secondary forest rehabilitation

- Planning and developing projects for degraded and secondary forest rehabilitation need to be based on a dual purpose: i) rehabilitation of degraded ecosystems and ii) generation of additional financial resources for the communities.

- It has been shown that local communities are not ready to be involved unless they can perceive immediate benefits or special incentives; their economies are based on daily work and the production of foodstuffs and other essential goods i.e. immediate benefit schemes such as those developed in Ghana, Togo and Peru are much more important for the project to work. Naturally, such incentives are limited and should be used as catalyst mechanisms to achieve the involvement of local communities in sustainable management practices until their economic and ecological viability has been demonstrated. From then on, a critical mass or inertia can be generated which can become self-sustainable, so projects of this nature need to have reasonably high financial resources and have no less than 5 years duration as evidenced by the positive results of Peru's PD 14/98 and Ghana's PS 30/97.

- Project design needs to include prior analyses of the specific socio-economic circumstances of the project's area of influence i.e. a baseline needs to be developed as completely as possible so that it can be used later to determine baseline parameters for outputs and their effects in the social and ecological context. A large gap was found in this respect in the projects under review as they only provided limited data on the geographic and socio-economic context in very general terms, which did not allow the evaluation of the final impacts of the project**.**

### 3.3 Appropriate project goals

- The projects need to develop processes to effectively strengthen institutional capacity and to encourage joint or coordinated work between government agencies and civil society bodies, such as NGOs, businesses, community groups, etc. This synergy is very important because it allows for better utilisation and complementarities of what each party can contribute, such as the good example of project PD 51/99 of Togo, jointly and harmoniously executed by a government agency (ODEF) and the NGO ALTERNATIVES. Projects also need to provide enough space for community involvement in project planning and implementation; local communities must be involved in the project steering committee and should not simply act as beneficiaries or as intermediate elements between the executing agency and expected outputs.

- The involvement of the private business sector in many cases may be highly beneficial thanks to their input of a business and marketing vision that projects need to develop in order to be viable as expected. It is often the case that projects lack this vision or perspective and in most cases the ecological approach is magnified when it is very clear that these projects will succeed only where there is a clear economic goal. In this respect, Ecuador's PD 49/99 provides a good example of how private sector businesses can help develop a national agenda around a theme that has both ecological and socio-economic interest.

### 3.4 Project organizational arrangements

- Project implementation must begin always with project start-up meetings or workshops with the participation of all stakeholders involved. In many cases projects are approved after several years of formalities, and in several cases changes have occurred in the conditions or contexts on which the project proposal was based, thus leading to a number of practical problems in project operation. Projects PD 122/01 of Togo and PD 49/99 of Ecuador are examples of this – because of reasons out of their control, the context in which the projects were planned changed: in the former there was a change in the communities' interest in working with a native species and they opted for working with teak. Furthermore, social and political issues in a neighbouring country prevented the completion of a number of key activities within the deadlines and with the goals that had been set. In the second case of Ecuador, previously identified indigenous communities that had undertaken the commitment of participating in the project decided not to do so because big palm oil companies offered to purchase their lands.

- Projects should be more flexible in their initial phase and be able to re-programme their goals, strategies and in some cases even their specific objectives, provided that the central thematic approach does not change and that the development objective is still the same target vision of the project. In this respect, government involvement is very important, because post-project objectives need to be backed by clear political decisions.

### 3.5 Follow-up and evaluation practices

- The best project follow-up is active involvement of direct beneficiaries, not only in practical activities in the field but also in planning and implementation; in all the cases evaluated here, the beneficiaries - local communities - are almost completely unaware of the objectives of the project, its goals or expected outputs, its budget, administrative details, etc.. Therefore, communities consider projects to be something foreign to their community, something that is only temporary and provides support only for a certain period of time, and therefore, they do not take on continuity commitments. At the end of the project they request its continuation but in many cases this is done after the suggestion of the executing agency rather than because the community has so decided or out of community interest.

- There needs to be ongoing evaluation of the immediate impact of project activities, of the achievement of its goals and of economic benefits, so that it is possible to show the difference between the beginning and the various phases of the project; in this context, beneficiary involvement is of the utmost importance. For degraded forest rehabilitation it may not be easy to evaluate immediate outputs or impacts, but procedures may be developed to check and provide evidence of progress or change in terms of area, number of participants, technique handling, facilities, etc.

- Project progress reports need to state more clearly the concrete differences between one report and the next; often these reports only repeat what has been reported previously with the addition of a few details. Beneficiaries should also be involved in progress reports so that they become more aware of how the project is progressing.

- Technical follow-up of projects is also important: degraded forest rehabilitation is a relatively new theme for a problem as old as deforestation, but its technical aspects require very close follow-up. Even when executing agency teams include expert professionals, the involvement of external evaluators or consultants may be very helpful in trying to overcome some specific issues; in this respect, projects need to have sufficient budgetary resources for what is known as *technical backstopping*.

### 3.6 Complementary activities and follow-up programmes

- The projects evaluated here have provided valuable and important lessons not only in the context of each individual country but also at the international level, for example, incentive models developed in Ghana, the per-tree-planted compensation system devised in Peru, the implementation of agroforestry systems in Togo and the pilot farm system designed in Ecuador, are all models that require further development but, at the same time, all these lessons need to be documented and systematized. Although all the projects have complied with the requirement to submit technical reports and/or six-monthly reports, none has systematized all the lessons learned, from identifying the project, to approaching the communities and ensuring their commitment, the start-up of project activities and their evolution, impacts, final outputs, etc.. This would be extremely useful for the replication of the models and the dissemination of the lessons learned.

- One very important aspect is the position or attitude of the government regarding projects and their outputs; in general governments do not follow project progress or outputs closely and they are only formally involved. However, they should more clearly state their position on political decisions that need to be taken according to project results. In this respect, Ghana's and Ecuador's cases stand out as their governments took note of the importance of degraded and secondary forest rehabilitation and management, and adopted measures to introduce benefits and technical standards based on the experiences of the projects financed by ITTO.

- The approval of standards for the management of secondary forests should be pursued so that both management plans and technological packages can be implemented.

## 4. LESSONS LEARNED

- Projects are not an end in themselves, but rather a catalyst, an element that generates synergies in an attempt to get global decisions to be taken to address substantive issues. Impeccably implemented projects are not necessarily as effective in achieving their goals; rather they are a source of inspiration for policy and decision makers at the government level.

- It is clear that current project duration is quite short given the complexity of the problem, too short in fact to achieve more consistent and replicable results. In this respect, donors should take into consideration that when a project of this nature is launched, a new perspective is opened, expectations are generated and the first steps are taken towards a solution to substantive problems; therefore, successive project phases should be envisaged when the first phase has been successfully completed.

- The success of a project generates even more expectations that need to be consolidated, e.g. in all the projects evaluated here, native or exotic species plantations, forest rehabilitation trials, etc. have remained in their initial developmental phase; support and technical assistance should be forthcoming to ensure their harvesting on a commercial scale which is what the communities invariably expect.

- Communities see the product of their effort and involvement in the end products that are usually obtained a long time after the completion of the project, but they do not have the technical tools or the logistic and economic facilities for their utilisation and harvesting, let alone their marketing under fair conditions. Such are the cases of the Togo and Ecuador projects where the lack of time has prevented the projects from developing the harvesting and marketing components.

- In drafting expected outputs and methodological procedures, there is a need to clearly define terms and goals and, where possible, to use specific terms of reference to avoid confusion in the final evaluation of results.

- The agricultural component and, therefore, agroforestry systems are of most interest to rural communities because they represent short term benefits and as a result, are a decisive element in motivating the local population to become involved in the project.

- In designing projects, there should be a more realistic vision of expected outputs, according to the actual possibilities afforded by the budget and specific working conditions as well as the duration of approved projects.