

Executive Summary

Fifteen target villages in four provinces with populations of various ethnic groups were selected in which to implement the project. The activities, as well as overall direction, of the project were largely inspired by discussions and comments that were provided during a workshop conducted on the “Improvement of the management and utilization of Non-Timber Forest Products (NTFPs) in Cambodia.” The problems that were discussed at that workshop were those affecting the collecting, processing, and marketing of NTFPs.

The Development Objective of the project was to improve local livelihoods by achieving a sustainable management of non-timber forest resources in its social, economic and legal aspects. Its Specific Objectives were (1) to help reorganize local management of NTFPs in its social and legal aspects; and (2) to improve NTFP management and trading by improving the management of the resource, including plantations and processing, when it would be required. The strategy that was developed to achieve those objectives at the local level was based on strengthening capacity and empowering local communities, and by improving the technical aspects of natural resources management by increasing the levels of incomes that local communities receive from collecting, processing and marketing NTFPs in a sustainable manner.

The most critical differences between planned and actual project implementation were that: (1) “groups of interest” were organized to counteract the apparent lack of motivation among local communities in the target villages to organize into cooperatives to improve market positions; (2) the organization of collecting and planting interest groups and processing interest groups did not extend to some of the target villages and the prospect that associations of collectors would be organized and strengthened to improve bargaining positions with traders and middlemen in local markets was not realized to the extent that it was initially planned; (3) one representative NTFP resource management plan was produced in collaboration with local community forestry families rather than an initially planned set consisting of NTFP resource management plans in each of the target provinces; and (4) while there were some preliminary considerations of issues associated with royalty and permit systems in each of the target provinces, those were only more completely developed in one village in which resin trading was the most important concern.

The primary differences between the post-project and the pre-project situations were that (1) the technical capacity of local and provincial Forestry Administration staff had been strengthened to a considerable extent through the extensive training that was provided to them; (2) their ability to plan, conduct and evaluate statistically sound surveys and methodological procedures had also been enhanced; (3) ten NTFP collecting and planting interest groups and eight NTFP processing interest groups had been established in the target provinces; (4) the productivity of the collecting and planting interest groups had been strengthened through the training that was provided on establishing and maintaining nurseries of NTFP and other plant species; (5) the productivity of the processing interest groups had also been strengthened through the study tours and the training that were provided on establishing and enriching NTFP plantations and producing various bamboo and rattan processed products; (6) a representative NTFP resource management plan had been developed in collaboration with community forestry families; (7) seeds, seedlings and cuttings of selected NTFPs, as well as other, species had been provided to local community collecting and planting groups and ten permanent nurseries of those species had been established; and (8) processing interest groups in target provinces had been provided with study tours and training on establishing and enriching NTFP plantations and producing various bamboo and rattan processed products.

Project plans for sustainability were premised on several assumptions, as well as the mitigation of several risks associated with those assumptions, and those efforts at mitigation were by-and-

large successful. By the close of the project, there were several conditions related to the implementation of project activities that were conducive to sustainability, which included those associated with the extensive training provided to Forestry Administration staff; the establishment of collecting and planting interest groups, as well as processing interest groups; the development of a representative NTFP resource management plan approved by the Forestry Administration; and the provision of a series of study tours and training program that enhanced the technical skills of several collecting and planning interest groups, as well as processing interest groups. There were nevertheless still some other conditions that by project close were not yet conducive to sustainability, including those associated with the absence of a consistent source of investment funds to support individual NTFP market participation or to improve group market positions; an apparent lack of motivation among local communities in the target villages to organize into cooperatives to improve NTFP market positions; insufficient project coordination which was sometimes restricted in scope and directed more to short-run concerns that were associated with integrating efforts to assess current sources of NTFP supplies and evaluate current markets for NTFPs; and the recognition that improvements in local community incomes supported through the project had not yet been sufficiently embedded into the livelihoods of local communities. It was expected that many of those constraints impacting sustainability would be relieved to at least some extent in a second phase of the project through more concentrated interactions of the project team with a smaller number of local communities in fewer target villages.

There were several lessons learned during the life of the project, including that (1) local community participation at each step of the project identification and development process was critical to the successful achievements of the project; (2) project efforts to improve the livelihoods of villagers should be concentrated and not spread too unevenly across too many villages and local communities; (3) organizational structures that might be appropriate from an economic perspective for improving the marketing positions of different segments of local communities might not always be the most appropriate structures from the socio-economic perspectives of the local communities; (4) it is difficult to assess the impacts of project activities on local community livelihoods without consistently measuring changes in incomes of target individuals and groups over an extended period of time; (5) change and adaptation are continuous and the characterization of villages and local communities that is developed during project design may not necessarily be the same as that developed during project implementation; (6) there are important tradeoffs to understand in assessing contributions, as well as limitations, associated with the participation in the project of every level of Forestry Administration staff in the project; (7) the government process established to approve submissions from local communities for the establishment of community forests is effective in supporting local community user rights, but is sometimes very protracted; (8) the importance of effective coordination between short-term and long-term national and international experts cannot be overstated; and (9) the availability of a consistent source of investment funds to support individual or group market participation or to improve market positions would contribute to sustainability.

The recommendations that were developed on the basis of those lessons learned were that (1) local community participation throughout the identification and development process should be the cornerstone of the efforts of projects designed to improve local community livelihoods; (2) the limitation associated with spreading project efforts across too many local communities in too many target villages should be more effectively addressed in the second phase of the project by concentrating project efforts on the most promising villages for strengthening the sustainable management and effective processing and marketing of NTFPs and, within those villages, directing the emphasis of project interactions more toward well-motivated individuals and previously organized collecting and planting interest groups and processing interest

groups; (3) the limited expectations of immediate benefits among local communities should be remedied in the second phase of the project through more concentrated interactions of the project team with a smaller number of local communities in fewer targeted villages; (4) procedures to periodically estimate movements in local community incomes attributable to project interventions should be integrated into the project's activity plans during its second phase; (5) there should be an emphasis on a reduced number of NTFP species, particularly those with much more pronounced opportunities for maintaining sustainability, in those target project sites in which the nature of forests and forest resources are continuing to change rapidly in the second phase of the project; (6) consideration should be directed to limiting the number of participating Forestry Administration staff to those most committed to project achievement and able to participate full-time in the project to the extent that might be possible within the rules, regulations and administrative guidelines of the Forestry Administration and the Ministry of Agriculture, Forestry and Fisheries in the second phase of the project; (7) concerted efforts should be extended in the next phase of the project to adapt project outputs to expected impacts on the development of NTFP resource management plans, as well as royalty and permit systems for NTFPs, which are associated with the government process to approve community forests and to incorporate, to the extent possible, target villages where community forests have been previously approved by the Forestry Administration; (8) improvements in alternative income-generating opportunities should be more completely integrated in a second phase of the project through the provision of comprehensive marketing plans for NTFPs that extend from the assessment of current sources of NTFP supplies and the establishment of plantation nurseries through the marketing of NTFP products and incorporate appropriate long-term financial cash-flow analyses to ensure sustainability; and (9) the project should collaborate in its second phase with rural credit programs concerned with providing seed capital to current, as well as potential, NTFP collectors and processors.

1. Project Identification

1.1 Context

Location of the target villages

Sixteen target villages in four provinces with populations of various ethnic groups were selected in the pre-project phase of program activities. The villages were representative of a variety of situations with each village having specific problems related to its specific situation and a diversity of possible responses to each of those problems. The problems related to differential levels of access to various types of NTFP resources and markets, as well as social organizations predicated on the presence or absence of village community forests. The number of target villages was subsequently reduced to fifteen during project implementation. Those villages, organized by province, district, and commune, included the following:

- In Kampong Thom province, Sandan district, Mienreth and Tomring communes – the villages of Cheam Svay, Sam Orng, and Tum Or;
- In Kampong Chhnang province, Kampong Tralach district, Taches and Chres communes – the villages of Kanchorng, Svay Bakav, Saray Andet, and Oroung;
- In Rattanakiri province, Oyaday district, Saom Thum commune – the villages of Somkul, Somtrak (geographically sub-divided into two villages), and Somkaninh; and
- In Mondulkiri province, Sen Monororn and Peachrada districts, Romanea and Sre Ampoum communes – Pou Kroch, Pou Radet, Pou Loung, and Pou Kreng.

Social aspects

The beneficiaries of project activities were four distinct ethnic groups that live in, or in close proximity to, forests in the target villages, each group relying to some extent on forest resources for their livelihoods. Some of the demographic characteristics, including the numbers of community forestry households, of those groups are summarized in Table 1, “Selected demographic aspects of local communities living in the target villages.”

Table 1. Selected demographic aspects of local communities living in the target villages.

Province	Number of villages	Number of households	Number of community forestry households	Population	Ethnic Groups
Kampong Thom	3	440	377	1,803	Khmer
Kampong Chhnang	5	1,065	734	5,279	Cham, Khmer
Mondulkiri	4	367	---	1,493	Phnorng, Khmer, Cham
Rattanakiri	4	466	---	2,275	Charay

Source: Project provincial participatory rural appraisal reports.

Several indicators of the social conditions of the ethnic groups, including literacy rates, the percentages of landless households, and the proportions of households without access to safe sources of drinking water, are provided in Table 2, “Some indicative measures of social conditions in the target villages.”

Table 2. Some indicative measures of social conditions in the target villages.

Province	Literacy rate of those 15 years or older	Landless households	Households without access to safe sources of drinking water within 150 meters of their houses
Kampong Thom	58%	7%	27%
Kampong Chhnang	64%	10%	26%
Mondulkiri	53%	NA	44%
Rattanakiri	53%	NA	60%

Source: Project socio-economic technical report.

Economic aspects

The economic aspects of households in the provinces in which the target villages are located are described according to sources of income, including NTFPs, and the percentage of households below the poverty line, in Table 3, “Sources of household income and households below the poverty line.” The extent of poverty in those provinces is reflected in the percentage of households below the poverty line, which ranges from 28% in Kampong Chhnang province to 48% in Kompong Thom province, as well as in the income currently derived from NTFPs, which ranges from a low of 2% in Rattanakiri province to more than 30% in Kampong Thom province.

Table 3. Sources of household income and households below the poverty line.

Province	Households below the poverty line (%)	Household income from rice crops (\$/yr)	Household income from paid work (\$/yr)	Household income from NTFPs (\$/yr)	Household income from other sources (\$/yr)	Total household income (\$/yr)
Kampong Thom	48	323	143	271 (30.6%)	150	887

Kampong Chhnang	28	139	233	56 (7.3%)	335	763
Mondulki i	37	---	274	126 (21.7%)	181	581
Rattanakiri	44	---	166	5 (2.4%)	41	212

Source: Project socio-economic technical report.

Environmental aspects

Poverty and its potential effects on the environment are inextricably bound together in an intricate web associated not only with the activities of local communities, but also with the conversion of forests by agro-industry, mining, encroachment of outsiders, and organized instances of illegal logging. The poverty of local communities in the target villages and the limited availability of alternative income-generating opportunities provide significant impetus to forest encroachment that support shifting cultivation and other subsistence agricultural practices. Poverty imparts significant momentum, as well, to other livelihood activities, including the opportunistic use of NTFP resources such as rattan and bamboo, which, in some instances, might carry over to over-exploitation, as well as to illegal logging and wildlife poaching.

Government policies and programs

The government's objective is the development of an environmentally sustainable, socially responsible and economically viable forestry sector. Community forestry, including the use of NTFPs, is an important element in its approach to rural development and sustainable forest resources management. One of the primary objectives of the government's development strategy, which is underscored in Cambodia's National Strategic Development Plan (2006) and Rectangular Strategy for Growth, Employment, Equity and Efficiency (2004), is poverty alleviation. Poverty remains predominantly rural and in the agricultural sector, which contributes half of the country's GDP and employs 80% of its labor force. The government's primary objectives in the agricultural sector are to (1) improve food security through expanding rice production and diversifying crops; (2) increase income-earning opportunities for farm households by facilitating production of cash crops and non-farm rural enterprises; and (3) enhance the contribution of agriculture and agro-processing to economic growth and exports.

Government policies, programs, and legislation which are more associated with community forestry and the sustainable use of NTFPs would include the following:

- The passage of the Law on Environmental Protection and Natural Resources Management (1996).
- The Prime Minister's Declaration on Forestry Sector Reform (1998).
- The issuance of the Forest Concession Management Sub-decree (2000).
- The adoption of Guidelines for Sustainable Forest Management (2000).

- A Circular on the Formal Fee Rate Determination for Non-Timber Forest Products (2000).
- The cancellation of twelve forest concessions (1999) and the subsequent suspension of forest concession operations (2001).
- The adoption of the Land Law (2001).
- The Statement of the RGC on National Forest Sector Policy (2002).
- The adoption of the new Forestry Law (2002).
- The issuance of a Community Forestry Management Sub-decree (2003).
- The adoption of the National Forest Program.

International conventions

Cambodia has committed to several international conventions, some of the more relevant of those including the Convention on Biological Diversity (1996), the United Framework Convention on Climate Change (1996), and the Convention on International Trade in Endangered Species (1997). Cambodia is also party, as well, to the “Asean Agreement on the Conservation of Nature and Natural Resources.”

1.2 Origin and problems

Origin

Many rural communities living in or near forests in Cambodia depend on NTFPs for their livelihoods. The extent of that reliance is underscored in the customary user rights of local communities to use NTFPs for household consumption and construction purposes that are delineated in the Forestry Law. NTFPs have traditionally assumed an important role in many local economies and provide additional sources of food when staple crops are insufficient, while serving as an important source of tools, medicines and construction materials. The marketing of NTFPs also provides occasional income to local communities and in some cases, such as that of resin in Kampong Thom province, NTFPs have even become the primary source of income.

In efforts to support Forestry Administration (FA) initiatives to strengthen the marketing roles of NTFPs in the lives of rural communities, a pre-project was organized to provide some fundamental information on collecting, processing and marketing NTFPs with an emphasis on improving the livelihoods of rural communities, who are among the country’s most economically disadvantaged groups. In that pre-project, in which a primary consideration was to obtain local support, a preliminary list of NTFPs that were collected in target villages was compiled and information was assembled from local people on some of the constraints encountered in collecting, processing and storing those products prior to their sale to traders and middlemen in advancement through marketing chains. The approach used in collecting that information was rooted in local community participation at each step of the process.

On the basis of the information that was collected, a list of potential project activities was developed. Those were presented at a workshop on “Improvement of the management and utilization of Non-Timber Forest Products (NTFPs) in Cambodia” that was organized on June 25, 2003 in Phnom Penh. The workshop was attended by several groups of stakeholders, including representatives of the local communities of each of the target villages, forestry officers at local, provincial and national levels and NGOs involved in community forestry or NTFP- or other related natural resource management-related programs and activities. The proposed activities, as well as the overall direction, of the project were largely inspired by discussions and comments that were provided during that workshop.

One of the most critical issues that affect the commercial use of NTFPs in Cambodia, which has changed substantially since 1989 when the government reintroduced private property, is land tenure. Currently, only a small number of farmers hold title over the land they live and work on. A potential means of institutionalizing traditional use rights on land at the village level is through the establishment and subsequent approval by the Ministry of Agriculture, Forestry and Fisheries of community forests. In the provinces of Kampong Chhnang and Rattanakiri, the use of such forests has traditionally been open to the entire community with respect to certain rules governing activities in the forests and the amounts of products to be collected. NGOs and community forestry programs are active in those areas and land use is based on stakeholder concurrence. In other provinces, including Kampong Thom and Mondulkiri, however, the traditional ownership of forestland is stricter and ownership is applied to particular resources, such as resin trees, or places. Community forests in those cases overlap with areas where individual ownership of resin applies. Traditional ownership is particularly strong in locations where shifting cultivation occurs, such as in active gardens and fallow areas.

Problems

During the pre-project workshop and on the basis of the information that was collected at that time, several constraints affecting the collecting, processing, and marketing of NTFPs became apparent. According to local collectors of NTFPs, as well as others, in the target villages, the most common constraints were associated with the following concerns:

- Low prices that collectors received in local markets or from traders and middlemen for NTFPs.
- The limited infrastructure that was available to transport NTFPs to markets at competitive costs.
- The inadequate access to market information that describes current market conditions.
- The lack of skills required to impart additional economic value to NTFP resources through the application of advanced processing techniques.
- The informal fess that were irregularly collected at various checkpoints.
- The depletion of NTFP resources associated with deforestation and forest degradation resulting from over-exploitation of NTFPs by villagers, as well as outsiders.

- The difficulties for local collectors to obtain legal permits to trade NTFPs and the related system of royalties currently applied in the marketing of some NTFPs.

Those conditions have resulted in situations in which local collectors of NTFPs often sell their products illegally at discounted prices, which tends to further increase incidences of forest degradation. The underlying circumstances that were addressed in this project are reflected in the dysfunctional nature of the local management of NTFPs associated with limited local capacity to manage and trade NTFPs in a sustainable manner.

2. Project Objectives and Implementation Strategy

Project Rationale

The project rationale was that the provision of support for improving the management of NTFP resources and strengthening the output and marketing positions of local collectors and processors would improve the livelihoods of local communities and encourage the sustainable management of NTFP resources in the target villages.

Development Objective

The project's Development Objective was to improve local livelihoods by achieving a sustainable management of non-timber forest resources in its social, economic and legal aspects.

Specific Objectives

The project had the following specific objectives:

1. To help reorganize local management of NTFPs in its social and legal aspects. Associations of villagers were to be strengthened to improve their local role in market channels and assistance was to be provided to propose management plans to local and national authorities to obtain adequate authorization for the collection and sale of NTFPs.
2. To improve NTFP management and trading by improving the management of the resource, including plantations and processing, when it would be required.

Implementation Strategy

NTFPs often assume an important role in the economies of local communities in Cambodia. It is not uncommon for local communities to go the forest to collect NTFPs for local consumption or to sell NTFPs in local markets. There is generally a lack of organizational skills, as well as capacity, of local collectors to harvest NTFPs in a sustainable manner and sell them at reasonable prices in local, provincial, national or international markets, however. Moreover, the complexity and inadequacy of national regulations and systems of royalties and indirect charges don't promote the sustainable use of NTFPs by local communities. The result has been an increase in the incidence of illegal harvesting and selling of those products.

In recognizing those conditions, a project strategy was developed to achieve results at the local level by strengthening capacity and empowering local communities, as well as through improving the technical aspects of natural resources management by increasing the levels of incomes that local communities receive from collecting, processing and marketing NTFPs in a sustainable manner. The emphasis on technical aspects alone, including legislative regulations and royalties, at the expense of the capacity building

component of the project would have precluded the unmatched opportunity in this project to integrate several of the important factors that affect the sustainable management and use of NTFPs in the target villages.

Assumptions and risks

The primary assumptions and risks that were associated with the project as initially conceived included the following:

- The success of the project depended on the committed support of all of its stakeholders, including the government, local communities, NGOs and the private sector. The primary threats to achieving the project's strategic objective that were associated with those stakeholders were that:
 - (1) Local communities in the targeted villages would not consistently interact with local and national levels of government in planning and implementing project activities.
 - (2) The government would not sufficiently consider the perspectives of local communities in developing and refining natural resources policies associated with the collection and sustainable management of NTFPs.
 - (3) The involvement of NGOs in the provision of technical support to project activities would be inhibited because of their suspicions of government initiatives to improve the livelihoods of local communities.
 - (4) Traders and middlemen would be cautious in providing substantive information on markets and prices for NTFPs because of uncertainties associated with jeopardizing their market positions with respect to those of collectors.

While it would not be possible to eliminate those risks, plans were made to mitigate their impacts to the greatest extent by developing collaborative means that would incorporate the perspectives of each of the stakeholder groups into the project's activities.

- A related risk was that the interest in maintaining activities at the completion of the project would decline if sufficient plans for the "post project" period were not appropriately considered. In an effort to mitigate that risk, plans were developed to ensure that some tangible results would be provided to each of the stakeholder groups and that the success of project activities directed to improving the livelihoods of local communities would provide sufficient motivation for those activities to continue for at least a period of time after the completion of the project.
- Other risks were that sufficient seeds of targeted species of NTFPs would not be available to support the replanting and sustainable management of promoted NTFP species and that increased incomes for local communities achieved through project activities would result in over-exploitation of some of the NTFP species in the target villages. The impacts of those risks were planned to be mitigated by carefully considered choices of NTFP species available in sufficient quantities, as well as through the development of effective guidelines for sustainable use in the management plans that were to be prepared through the project.

- There was also another risk associated with the educational levels and capacities of collectors to integrate new concepts and skills into their NTFP collecting, marketing and trading activities. It was recognized that education would be critical to organizing collector cooperatives, developing NTFP management plans and improving collectors' trading positions. Those concerns were to be mitigated through appropriate training supported by an effective socialization of project activities.

3. Project Performance

Specific Objectives

The plan of the project's first Specific Objective was to help reorganize local management of NTFPs in its social and legal aspects. Associations of villagers were to be strengthened to improve their local role in market channels and assistance was to be provided to propose management plans to local and national authorities to obtain adequate authorization for the collection and sale of NTFPs. The primary differences between the planned and realized performance associated with this Specific Objective were that one representative NTFP resource management plan was produced rather than an initially planned set consisting of NTFP resource management plans in each of the target provinces, and the legal aspects that would have been associated with reorganizing the local management of NTFPs primarily on the basis of the development of those plans were not well-developed.

The plan of the project's second Specific Objective was to improve NTFP management and trading by improving the management of the resource, including plantations and processing, when it would be required. This Specific Objective was accomplished in a very broad general sense as planned and there were no substantive differences between the planned and realized performance associated with it.

Outputs and related Activities

Output 1.1 – Training of Forestry Administration staff for project implementation.

Activity 1.1.1 – “Organization of the training.” There were no substantive differences between the planned and realized performance associated with this activity.

- A manual for training and a report on the organization of the training program were prepared for twelve Forestry Administration staff, four in each of the target provinces, responsible for project implementation in the target villages.

Activity 1.1.2 – “Implementation of the theoretical phase of the training.” There were no substantive differences between the planned and realized performance associated with this activity.

- Preparatory training for conducting field exercises was provided on July 18-19, 2006 to the Forestry Administration staff responsible for project implementation in the target villages and a training report describing this training was prepared.

Activity 1.1.3 – “Conduct field training.” There were no substantive differences between the planned and realized performance associated with this activity.

- Field training over a period of six weeks in each of the target provinces, which was initiated in Kampong Chhnang province on January 2, 2007, Kampong Thom province on January 16, 2007, Mondulkiri province on February 10, 2007, and Rattanakiri province on April 4, 2007, was provided to local Forestry Administration staff and a report on Participatory Rural Appraisal in each of the target provinces was prepared in Khmer and in English.

Output 1.2 – Existing associations or groups of collectives improved through cooperatives.

Activity 1.2.1 – “Improve the associations (structure, collaborations) and organize cooperatives.” The primary difference between the planned and realized performance associated with this activity was that “groups of interest” consisting of collecting and planting interest groups and processing interest groups rather than cooperatives were organized.

- A series of regular meetings was organized in interested local communities and ten NTFP collecting and planting interest groups and eight NTFP processing interest groups were established to improve marketing positions and processing capabilities of those associations. Those interest groups included one collecting and planting group with six members and two processing groups with ten members, as well as one business group with six members, in Kampong Thom province; four collecting and planting groups with one hundred one members and three processing groups with thirty two members in Kampong Chhnang province; four collecting and planting groups with thirty five members in Rattanakiri province; and one collecting and planting group with four members and three processing groups with thirteen members in Mondulkiri province.

Activity 1.2.2 – “Build the cooperatives.” The primary differences between the planned and realized performance associated with this activity were that the organization of the collecting and planting interest groups and the processing interest groups did not extend to some of the target villages and the prospect that associations of collectors would be organized and strengthened to improve bargaining positions with traders and middlemen in local markets was not realized to the extent that it was initially planned.

- The ten collecting and planting interest groups and eight processing interest groups were collectively provided with targeted training, nursery seedlings of selected NTFPs, equipment and buildings, and in some cases small grants to purchase raw materials from collectors, to improve their marketing positions and processing capabilities.

Output 1.3 – Management plan proposed by local communities to authorities consistent with the system of land tenure after discussions of trading permits and royalties.

Activity 1.3.1 – “Collection and identification of the resource (herbarium samples), information on potential markets for the products, and information on land tenure and land use.” There were no substantive differences between the planned and realized performance associated with this activity.

- 836 botanical specimens consisting of 344 species - including 185 from Kampong Thom, 167 from Kampong Chhnang, 63 from Mondulkiri and 62 from Rattanakiri – as well as 221 genera and 87 families of NTFPs were collected and pressed in plant presses in the target villages.
- The pressed specimens were stored and afterward identified and catalogued by a plant taxonomist specialist and included in a herbarium collection of NTFPs that was established at the Forestry Administration Training Center outside of Phnom Penh.
- Information on potential markets for the more prominent of the NTFP species that were collected was obtained from discussions with local communities in the target villages.
- A technical report describing the more prominent characteristics and uses of a selection of the collected varieties of plants by the target villages was prepared in English and in Khmer.
- Interviews on land tenure and land use were conducted in each of the target villages and the information that was compiled was documented in a technical report.

Activity 1.3.2 – “Preparation of management plans.” The primary difference between the planned and realized performance associated with this activity was that one representative NTFP resource management plan was produced rather than an initially planned set consisting of NTFP resource management plans in each of the target provinces.

- One representative NTFP resource management plan was produced in collaboration with community forestry families in the village of Tum Or in Kampong Thom province. This is the only target village in which a community forest has currently been approved by the government. The management plan incorporated recognition of local community requirements for NTFPs and traditional user rights and responsibilities, as well as technical guidelines delineating primary use zones for selected NTFPs and the sequence of rotation of the use of those zones for sustainable resource management.

Activity 1.3.3 – “Analysis of royalty and permit systems with negotiations between all stakeholders.” The primary difference between the planned and realized performance associated with this activity was that while there was some preliminary consideration of issues associated with royalty and permit systems in each of the target provinces, those were only more completely developed in one village in which issues of resin trading through the local association of collectors were raised as the most important concern affecting the improvement of marketing positions of collectors of NTFPs.

- Several discussions regarding improvements in the marketing positions of collectors of NTFPs were organized in the village of Sam Orng in Kampong Thom province, where the collection of resin assumes a significant role in local incomes and market middlemen, who, while also subject to the payment of informal charges, control the movement of resin by the provision of trading permits through the Ministry of Agriculture, Forestry and Fisheries. Those

discussions were accompanied by the provision of training on financial management, which was also provided in the village of Tum Or in Kampong Thom, as well as on micro-business development.

Activity 1.3.4 – “Submission of a proposed management plan to the Forestry Administration.” There were no substantive differences between the planned and realized performance associated with this activity.

- The NTFP resource management plan that was prepared with community forestry families in the village of Tum Or in Kampong Thom province was approved, after its submission, by the Forestry Administration.

Output 2.1 – Re-introduction of valuable NTFPs.

Activity 2.1.1 – “Collection of information on the collectors interested in replanting.” There were no substantive differences between the planned and realized performance associated with this activity.

- A series of meetings was organized to collect information on groups interested in replanting activities.

Activity 2.1.2 – “Identification with collectors of the NTFPs that will be planted and the best strategy for establishing plantations.” There were no substantive differences between the planned and realized performance associated with this activity.

- Initial community screenings of potentially valuable NTFP species to be planted in each of the target villages were developed through group discussions focused on gender, local uses and local choices.
- Secondary screenings using larger community meetings in each of the targeted villages were organized to reduce to ten the number of potentially valuable NTFP species and to rank the top five of those species.
- Final selections in each of the target villages were based on project team evaluations to score the NTFPs with the highest potential using markets, availability, the potential need of establishing plantations and the need for training and conservation as criteria.

Activity 2.1.3 – “Implementation and monitoring of the plantations.” There were no substantive differences between the planned and realized performance associated with this activity.

- On the basis of several levels of community and project team screening, seeds, seedlings and cuttings of selected NTFPs, as well as other, species were provided to local community collecting and planting interest groups and four NTFP nurseries primarily composed of rattan and bamboo species and species of *Acacia mangium* and *Eucalyptus spp.* were established in Kampong Chhnang province in the villages of Kanchorng, Svay Bakav, Saray Andet, and Oroung; four NTFP nurseries of rattan and several fruit trees were established in Rattanakiri province in and around the villages of Somkul, Somtrak, and Somkaninh; one NTFP nursery of rattan species was established

in Kompong Thom province in the village of Tum Or; and one NTFP nursery of primarily rattan species and several fruit trees was established in Mondulkiri province in the village of Pou Kreng.

- Local community collecting and planting groups that were organized in the target villages collectively represented one hundred one members in Kampong Chhnang province; thirty five members in Rattanakiri province; four members in Mondulkiri province; and six members in Kampong Thom province since there was no interest in establishing nurseries in the villages of Cheam Svay and Sam Orng.

Output 2.2 – Training for local communities on the processing of NTFP raw materials.

Activity 2.2.1 – “Information on the markets for the NTFPs that will be transformed and the villages for training.” There were no substantive differences between the planned and realized performance associated with this activity.

- A set of structured survey questionnaires to collect market information from collectors, wholesalers, traders, and processors of NTFPs in the target villages was developed and field-tested.
- Standardized statistical procedures for administering the questionnaires to a random sample of collectors and representative groups of traders, wholesalers, and processors was applied in each of the target villages.
- The information collected and data compiled from the administration of the structured survey questionnaires was consolidated and analyzed.
- The administration of a specialized market survey questionnaire for determining the presence of NTFPs in Phnom Penh and other large provincial markets was developed and supervised.
- Conclusions and recommendations were established on the basis of the analyses and interpretation of the survey information and results of the specialized market surveys and a technical report was prepared to guide project interventions.

Activity 2.2.2 – “Organization of the training: trainers, salaries, time periods.” There were no substantive differences between the planned and realized performance associated with this activity.

A structured training program was designed in each of the target provinces to transfer skills and techniques associated with the management and utilization of NTFP resources. The sequence of activities included:

- The administration of training needs assessments in which questionnaires were developed to collect information from local communities on demographics, problems, potential NTFPs of economic value and needs.
- The formulation of training plans in which popular NTFP products sold at various shops in cities and towns, especially Phnom Penh, were observed and the origins of the products that were produced for those markets were visited

to identify and negotiate with processing specialists to organize training programs for local communities in the target provinces.

- The development of training guidelines in which the principles, strategies, policies and methodology of the training programs were established.
- The development of training action plans on the basis of (a) the availability of selected NTFPs; (b) the preferences of local villagers; (c) the available budget, as well as availability of training specialists; (d) the time of local villagers available for training; and (e) market demands for the NTFP products.

Activity 2.2.3 – “Implementation and follow-up on the training.” There were generally no substantive differences between the planned and realized performance associated with this activity, although training on NTFP processing did not extend to Rattanakiri province.

The implementation of the training program included:

The development of training sessions to:

- (a) Introduce target communities to concepts associated with NTFP plantations and the harvesting, processing and trading of NTFPs through study tours which were conducted in:
 - i. Kampong Thom province with 14 villagers, including 2 women, on August 16-18, 2009.
 - ii. Kampong Chhnang province with 16 villagers, including 6 women, on August 30-31, 2009.
 - iii. Mondulkiri province with 16 villagers, none of whom were women, on November 12-15, 2009.
 - iv. Rattanakiri province with 17 villagers, including 6 women, on November 30-December 4, 2009.

The primary topics of the study tours, which encompassed 16 different destinations, included:

- Plantations for bamboo shoots and bamboo products.
 - Bamboo enrichment.
 - Bamboo processing for women’s baskets and souvenir products.
 - Rattan plantations.
 - Rattan processing for furniture and baskets.
 - Wild leaves weaving for women’s baskets.
- (b) Introduce and strengthen skills and techniques associated with NTFP processing and marketing by target communities through NTFP processing training which was conducted on:

- i. Bamboo processing in Svay Bakav village in Kampong Chhnang province with 8 villagers, including 2 women, on October 14-23, 2009.
 - ii. Bamboo processing in Kanchorng village in Kampong Chhnang province with 4 villagers, including 2 women, on January 6-March 8, 2010.
 - iii. Small rattan (“lapaek”) processing in Saray Andet village in Kampong Chhnang province with 8 villagers, including 8 women, on October 24-28, 2009.
 - iv. Rattan processing in Tum Or village in Kompong Thom province with 8 villagers, including 5 women on September 11-30, 2009 and December 8-14, 2009.
 - v. Rattan processing in Cheam Svay village in Kompong Thom province with 6 villagers, including 1 woman, on January 17-31, 2010.
 - vi. Rattan processing in Pou Loung village in Mondulkiri province with 8 villagers on May 24-29, 2010 and June 1-7, 2010.
- (c) Improve skills associated with the establishment and sustainable harvesting of target NTFPs by target communities through enrichment training.
- (d) Follow up on transferred skills, technologies and methods and their applications to target NTFPs by local communities.
- (e) Document training activities and results.

Schedule, starting date and duration

Schedule:	The project was extended for twelve months from June 2009 to June 2010.
Duration:	The duration of the project was fifty one months, including the twelve-month extension.
Starting Date:	The starting date of the project was March 2006.

Total amount of expenditures; analysis of applied inputs

Overall Project Costs

Source	Contribution in \$U.S.
ITTO	440,312
Royal Government of Cambodia	130,100
CIRAD	<u>18,000</u>
TOTAL	588,412

Project inputs were appropriate and adequate.

4. Project Outcome, Target Beneficiaries Involvement

Project Specific Objectives

The project's Specific Objectives, which were (1) "to help reorganize local management of NTFPs in its social and legal aspects," in which associations of villagers were to be strengthened to improve their local role in market channels and assistance was to be provided to propose management plans to local and national authorities to obtain authorization for the collection and sale of NTFPs," and (2) "to improve NTFP management and trading by improving the management of the resource, including plantations and processing, when it would be required," were at least partially achieved.

Ten collecting and planting interest groups and eight processing interest groups were organized to improve marketing positions and processing capabilities through the project. The collecting and planting interest groups were provided with training to establish and maintain nurseries of pre-screened NTFPs and other plant species that were prioritized by those groups and in tandem with processing interest groups in each of the targeted provinces were provided with study tours and training on establishing and enriching NTFP plantations and producing various bamboo and rattan processed products. One of the processing interest groups was provided, as well, with specialized processing machinery for producing high-grade bamboo furniture.

Those initiatives were accompanied by the development in collaboration with community forestry families in the village of Tum Or in Kampong Thom province of a representative NTFP resource management plan, which incorporated recognition of local community requirements for NTFPs and traditional user rights and responsibilities, as well as technical guidelines delineating primary use zones for selected NTFPs and the sequence of rotation of the use of those zones for sustainable resource management. The plan was subsequently approved by the Forestry Administration and in a second phase of the project is expected to become a prototype that will be replicated and used to manage NTFPs in other community forests in other villages in the country.

Notwithstanding those accomplishments, however, there were some limitations in attempting to achieve the project's Strategic Objectives. Principal among those restrictions were the following:

- The prospect that associations of collectors would be organized and strengthened to improve bargaining positions with traders and middlemen in local markets was not realized to the extent that it was initially planned. There was an apparent lack of motivation among local communities in the target villages to organize into such collectives, at least in the short run, as a result of limited expectations regarding the perceived immediate benefits of such organizations and perhaps some lingering distrust of collectives associated with recent societal arrangements imposed by the Khmer Rouge. Recognizing that local "groups of interest" consisting of collecting and planting interest groups and processing interest groups were able to be organized, though, and that in one village successful efforts were directed to constructive interactions with local traders, it is expected that those conditions will be further resolved in a second phase of the project through increased interactions

of the project team with a smaller number of local communities in fewer targeted villages.

- The organization of the collecting and planting interest groups and the processing interest groups did not extend to some of the targeted villages because of constraints on available time and interest among some local communities, while training on NTFP processing did not extend to Rattanakiri province. Those constraints are also expected to be remedied in a similar manner in a second phase of the project.
- The legal aspects associated with the sustainable management of NTFPs were not well-developed. This was understandable, however, considering the rather extensive commitment of time that it took to produce in collaboration with the local community in the village of Tum Or in Kampong Thom province the representative NTFP management plan. This, as well as the protracted pace of the process of government approval of community forests, precluded the development of the initially planned set consisting of NTFP resource management plans in each of the target provinces, as well as to a considerable extent the initiation of more constructive engagement with the government of legal considerations that would have been associated with reorganizing the local management of NTFPs primarily on the basis of the development of those plans. The implementation of those activities must await the implementation of the next phase of the project.

Post-Project Situation

The post-project situation existing at project completion compared to the pre-project situation with respect to project outputs, sectoral programs and policies and the physical environment is provided in the following descriptions:

Project Outputs

Output 1.1 – Training of Forestry Administration staff for project implementation.

- The technical capacity of Forestry Administration staff, especially at the local and provincial levels, was strengthened to a considerable extent by project completion through the extensive training that was provided to them through the project.
- The ability to plan, conduct and evaluate statistically sound surveys and methodological procedures was also enhanced by the close of the project through the training that was provided to local and provincial Forestry Administration staff to implement project activities associated with the administration of Preliminary Rural Appraisals and socio-economic and market survey questionnaires.

Output 1.2 – Existing associations or groups of collectives improved through cooperatives.

- Ten NTFP collecting and planting interest groups and eight NTFP processing interest groups had been established in the target provinces by the completion of the project.

- The productivity of the collecting and planting interest groups had been strengthened by project completion through the training that was provided through the project on establishing and maintaining nurseries of NTFP and other plant species.
- The productivity of the processing interest groups had also been strengthened through the study tours and the training that were provided through the project on establishing and enriching NTFP plantations and producing various bamboo and rattan processed products.

Output 1.3 – Management plan proposed by local communities to authorities consistent with the system of land tenure after discussions of trading permits and royalties.

- A representative NTFP resource management plan, which incorporated recognition of local community requirements for NTFPs and traditional user rights and responsibilities, as well as technical guidelines delineating primary use zones for selected NTFPs and the sequence of rotation of the use of those zones for sustainable resource management, was developed in collaboration with community forestry families in the village of Tum Or in Kampong Thom province by the close of the project. The absence of resin trees, which are normally subject to individual ownership, has increased local use of other NTFPs, including rattan, bamboo and pandanus, and the recently-approved status of the community forest allows villagers to collect and trade NTFPs without paying royalties. The plan has been approved by the Forestry Administration and is expected to become a prototype that will be replicated and used to manage NTFPs in other community forests in other villages in the country in the next phase of the project.

Output 2.1 – Re-introduction of valuable NTFPs.

- By the close of the project, NTFP species in each of the targeted villages had been screened and evaluated and the ten most potentially valuable species of NTFPs in each village had been ranked by local communities. On the basis of those screenings and evaluations, seeds, seedlings and cuttings of one-three of the ten species of NTFPs ranked in each village by local communities, as well as other species, had been provided to local community collecting and planting groups and by project close ten permanent nurseries of those species had been established in four villages in Kampong Chhnang province, three villages in Rattanakiri province, one village in Kompong Thom province and one village in Mondulkiri province.

Output 2.2 – Training for local communities on the processing of NTFP raw materials.

- By the close of the project, processing interest groups in target provinces had been provided with study tours and training on establishing and enriching NTFP plantations and producing various bamboo and rattan processed products and one of the processing groups had been provided with specialized processing machinery for producing high-grade bamboo furniture. There were several active processing interest groups by project completion producing NTFP products for sale in local markets. Those included three groups producing bamboo and rattan products in Kampong Chhnang province, two groups producing rattan products in Kampong Thom province and two groups producing rattan products in Mondulkiri province.

Sectoral programs and policies

By project completion, a representative NTFP resource management plan had been produced in collaboration with community forestry families in the village of Tum Or in Kampong Thom province. The plan had incorporated recognition of local community requirements for NTFPs and traditional user rights and responsibilities and integrated technical guidelines delineating primary use zones for selected NTFPs and the sequence of rotation of the use of those zones for sustainable resource management. The plan, which was approved by the Forestry Administration, is expected to be replicated and used to manage NTFPs in other community forests in other villages in the country.

The physical environment

By the completion of the project, seeds, seedlings and cuttings of selected NTFPs, as well as other, species had been provided to local community collecting and planting interest groups and several permanent nurseries of those species had been established. Those included four NTFP nurseries primarily composed of rattan and bamboo species and species of *Acacia mangium* and *Eucalyptus spp.* in Kampong Chhnang province in the villages of Kanchorng, Svay Bakav, Saray Andet, and Oroung; four NTFP nurseries of rattan and several fruit trees in Rattanakiri province in and around the villages of Somkul, Somtrak, and Somkaninh; one NTFP nursery of rattan species in Kompong Thom province in the village of Tum Or; and one NTFP nursery of primarily rattan species and several fruit trees in Mondulkiri province in the village of Pou Kreng.

Table 4 presents an overview of the post-project situation.

Table 4. Project achievements in the target villages.

Village	PRA	Study Tour	Training on Processing	Equipment	Store House	Nursery	Seedlings	Mgt. Plan	Financial Training
Cheam Svay	X	X	X (rattan)	X					
Sam Orng	X	X	X (resin business)		X				X
Tum Or	X	X	X (rattan)	X	X	X	X	X	X
Kanchorng	X	X	X (bamboo)	X	X	X	X		
Svay Bakav	X	X	X (bamboo)	X		X	X		
Saray Andet	X	X	X (small rattan)	X	X	X	X		
Oroung	X	X				X	X		

Pou Kroch	X	X	X (rattan)	X					
Pou Radet	X	X	X (rattan)	X					
Pou Loung	X	X	X (rattan)	X	X				
Pou Kreng	X	X				X	X		
Somkul	X	X				X	X		
Somtrak	X	X				X	X		
Somkaninh	X	X				X (not planted)	X		

Social aspects

Target Beneficiaries

The primary beneficiaries of project activities were the local communities in the target villages. The involvement of those communities in project activities directed to achieving planned outputs is described in the following overview of community participation in the implementation of the project:

Output 1.2 – Existing associations or groups of collectives improved through cooperatives.

- While there was an apparent lack of motivation among local communities in the target villages to organize into cooperatives, local communities in several of the villages participated in the organization of ten NTFP collecting and planting interest groups and eight NTFP processing interest groups. It is expected that those groups would provide the basis of a more comprehensive organization to improve their market positions in a second phase of the project that would emphasize increased interactions of the project team with a smaller number of local communities in fewer target villages.

Output 1.3 – Management plan proposed by local communities to authorities consistent with the system of land tenure after discussions of trading permits and royalties.

- The local community in the village of Tum Or in Kompong Thom province collaborated to a considerable extent in the development of the NTFP resource management plan, from the collection of local botanical specimens and the provision of information on potential markets for NTFPs, as well as land tenure and land use, to describing community requirements for NTFPs and traditional user rights and responsibilities in community forests. The plan, which has been approved by the Forestry Administration, is expected to become a prototype that will be extended to the management of NTFPs by other local communities in other community forests in the country in the next phase of the project.

Output 2.1 – Re-introduction of valuable NTFPs.

- The local communities in each of the target villages participated in a multi-phased screening process to rank the ten most potentially valuable NTFP species in their villages. The local communities in several of those villages were subsequently organized into collecting and planting interest groups and

were very much involved in all of the stages of planning and establishing ten nurseries of NTFPs and other species prioritized by those groups in the target provinces. Those communities continue to use the on-the-job training that they received through the project to maintain those nurseries. This is reflected in representative actions in the village of Oroung in Kampong Chhnang province, where villagers have organized themselves to pay the poorest households through the community forestry council to maintain the village nursery that was established through the project.

Output 2.2 – Training for local communities on the processing of NTFP raw materials.

- The local communities in each of the target villages participated in at least some aspect of the structured training program that was provided through the project. Local communities initially contributed extensively to its development through the market survey questionnaires that were administered in each of the target villages by providing important information on the collection, processing and marketing of NTFPs. Those same communities also provided guidance in the preparation of the training needs assessments.
- In the conduct of the training program, groups in each of the target provinces participated in project efforts to introduce concepts associated with plantations and the harvesting, processing and marketing of NTFPs through a series of organized study tours. Some of the more specialized processing interest groups also received training to strengthen their skills and technical understanding of NTFP processing. Since the completion of the project, several of those groups have continued to be involved with the processing and marketing of some rattan handicraft and bamboo furniture products to increase incomes. Those include three groups producing bamboo and rattan products in Kampong Chhnang province, two groups producing rattan products in Kampong Thom province and two groups producing rattan products in Monduliri province

Sustainability

There are several project elements that are conducive to sustaining project contributions to improving the livelihoods of local communities and strengthening the sustainable management of NTFPs in the target villages. Some of the more prominent of those are included in the following descriptions:

- The extensive training provided to local and provincial, as well as national, Forestry Administration staff has broadened their understanding of the contributions of project initiatives to the improvement of local livelihoods and the strengthening of the sustainable management of NTFP resources in the target villages, which has prepared them to assist local communities more effectively in efforts to continue to implement post-project activities.
- The establishment of ten NTFP collecting and planting interest groups and eight NTFP processing interest groups, which has provided a representative structure for concentrating the economic interests and strengthening the market positions of local community NTFP market participants.

- The continued occupation of several groups with the processing and marketing of some rattan handicraft and bamboo furniture products to increase incomes after the close of the project, which has provided potential centers of expansion from which to broaden project initiatives in the succeeding phase of the project.
- The development of a representative NTFP resource management plan approved by the Forestry Administration, which has provided the means for the government to extend sustainable management practices associated with the collection and enrichment planting of NTFPs to other villages in the country.
- The provision of a series of study tours that has increased the level of understanding of NTFP resources and markets of several local community collecting and planting interest groups, as well as processing interest groups, and a training program that has enhanced the technical skills of several NTFP processing interest groups, which collectively have strengthened the preparedness of some potential market participants and upgraded the products and improved the market performance and incomes of several processing groups.

Notwithstanding those positive project contributions to sustainability, it must be recognized that in such a relatively short period of time as the life of this project there were still some other elements conducive to sustainability that by project close were yet to be satisfied. The more significant of those would include the following:

- Other than the revolving profits that several NTFP processors who were trained through the project continue to generate, and notwithstanding that a few small grants to support small business development were sometimes made available through the project, there has been no consistent source of investment funds available to individuals or groups to support market participation or to improve market position. It has been considered that this constraint might be effectively relieved in a second phase of the project by collaborating with rural credit programs concerned with providing seed capital to current, as well as potential, NTFP collectors and processors.
- There was an apparent lack of motivation among local communities in the target villages to organize into cooperatives to improve market positions as a result of limited expectations regarding the perceived immediate benefits of such organizations and perhaps some lingering distrust of collectives associated with recent societal arrangements imposed by the Khmer Rouge. This is a factor that will continue to impact to some extent the sustainability of the project's contributions, but it is expected that the organization of ten collecting and planting interest groups and eight processing interest groups would provide the basis of an expanded resolution of this issue in a second phase of the project that would emphasize increased interactions of the project team with a smaller number of local communities in fewer targeted villages.
- While there were concerted project efforts to (1) assess current sources of supply of NTFPs and to establish several nurseries of NTFP species ranked the highest by local communities in target villages; and (2) to evaluate current markets for NTFPs and to provide appropriate training and support for the income-generating processing of some rattan handicrafts and bamboo furniture products through

processing groups, those efforts were sometimes characterized by insufficient project coordination that was, in effect, restricted in scope and directed more to short-run concerns. Those limitations on the sustainability of project contributions are expected to be relieved in the next phase of the project. Alternative income-generating activities associated with the processing of NTFPs that are supported through the project are expected to be developed, as well as expanded, on the basis of assessments that are incorporated into comprehensive marketing plans that include appropriate financial cash-flow analyses to ensure sustainability. Those marketing plans would be expected to evaluate the long-term availability of a resource, including consideration of the potential establishment of plantation nurseries of that resource, as well as the long-term assessment of potential markets for that resource.

5. Assessment and Analysis

Rationale and Project Identification

Rationale

The project rationale, which mirrors the maxim that the provision of support for improving the management of NTFP resources and strengthening the output and marketing positions of local collectors and processors would improve the livelihoods of local communities and encourage the sustainable management of NTFP resources in the target villages, was more than adequate.

Project Identification

Stakeholder Identification and Participation

The project identification process, which encompassed the recognition of project stakeholders and their participation in the project formulation process, was more than adequate. The project's primary stakeholders were the local communities whose livelihoods were to be improved through the sustainable management and marketing of selected NTFPs in the target villages, but extended, as well, to market middlemen and traders, NGOs involved in community forestry or NTFP- and natural resource management-related programs and activities and the government, represented by local, provincial and national staff of the Forestry Administration responsible for implementing the project. Each of those groups of stakeholders was consulted in the pre-project phase and information was collected from local communities on some of the constraints encountered in collecting, processing and storing NTFP products. The approach used in collecting that information through community meetings and the use of structured questionnaires was rooted in local community participation at each step of the process. The results were subsequently presented at a workshop on "Improvement of the management and utilization of Non-Timber Forest Products (NTFPs) in Cambodia" which included representatives of each of the groups of stakeholders that was organized in Phnom Penh. The representatives of the local communities were provided with considerable latitude in expressing priorities and offering suggestions and comment at the workshop and were requested to report to their own communities about the results of the workshop. The proposed activities, as well as the overall direction, of the project were largely inspired by discussions

and comments that were provided during that workshop. The subsequent participation of each of the groups of stakeholders, with the possible exception of NGOs, in project activities directed to achieving planned outputs was considered to be more than adequate.

Problem Definition

The results of the identification process in inviting local community participation at each step of the process were more than adequate in emphasizing the correct definition of problems. Information on several problems affecting the collecting, processing and marketing of NTFPs was collected from local communities in the pre-project phase. Those problems were discussed at a workshop on “Improvement of the management and utilization of Non-Timber Forest Products (NTFPs) in Cambodia” that was organized in Phnom Penh. There was a consensus that the most common constraints affecting the use of NTFPs to improve local livelihoods in the targeted villages were associated with these concerns:

- Low prices that collectors received in local markets or from traders and middlemen for NTFPs.
- The limited infrastructure that was available to transport NTFPs to markets at competitive costs.
- The inadequate access to market information that describes current market conditions.
- The lack of skills required to impart additional economic value to NTFP resources through the application of advanced processing techniques.
- The informal fees that were irregularly collected at various checkpoints.
- The depletion of NTFP resources associated with deforestation and forest degradation resulting from over-exploitation of NTFPs by villagers and outsiders.
- The difficulties for local collectors to obtain legal permits to trade NTFPs and the related system of royalties currently applied in the marketing of some NTFPs.

The results of the process indicated that the underlying circumstances that should be addressed in this project were the dysfunctional nature of the local management of NTFPs associated with limited local capacity to manage and trade NTFPs in a sustainable manner.

Project Objectives

The results of the identification process to address efforts to resolve the problems that were described by local communities through the more effective and efficient collecting, processing and marketing of NTFPs to increase community incomes, which were reflected in the project’s Specific Objectives, were adequate. The

definitions of Specific Objectives, which were “to help reorganize local management of NTFPs in its social and legal aspects ...” and “to improve NTFP management and trading by improving the management of the resource, including plantations and processing, when it would be required,” were predicated on improving conditions to resolve some of the most common problems that were described in a process that was rooted at each stage in local community participation.

Implementation Strategy

The results of the identification process to choose a strategy to achieve the project’s Specific Objectives were adequate. In the design of the project, the critical importance of developing an effective strategy that would achieve results at the local level by strengthening capacity and empowering local communities, as well as through improving the technical aspects of natural resources management by increasing the incomes that local communities would derive from collecting, processing and marketing NTFPs in a sustainable manner, was recognized and, indeed, emphasized. The development of that strategy provided the opportunity to integrate several of the factors that affect the sustainable management and use of NTFPs in the target villages. The principal limitation of the strategy that was developed was that it supposed that its implementation during the life of the project would be able to be effectively spread over too many local communities in too many target villages.

Critical Differences

The most critical differences between planned and actual project implementation were associated with the following project activities:

- Activity 1.2.1 – “Improve the associations (structure, collaborations) and organize cooperatives.” “Groups of interest” consisting of ten NTFP collecting and planting interest groups and eight NTFP processing interest groups were organized to counteract the apparent lack of motivation among local communities in the target villages to organize into cooperatives to improve market positions. It was recognized in so doing that the structure of the associations would be relatively unimportant and that the organization of the collecting and planting interest groups and the processing interest groups would provide the basis of an expanded resolution of this issue in a second phase of the project that would emphasize increased interactions of the project team with a smaller number of local communities in fewer targeted villages.
- Activity 1.2.2 – “Build the cooperatives.” The organization of the collecting and planting interest groups and the processing interest groups did not extend to some of the target villages and the prospect that associations of collectors would be organized and strengthened to improve bargaining positions with traders and middlemen in local markets was not realized to the extent that it was initially planned. The collecting and planting interest groups and the processing interest groups were collectively provided with targeted training, nursery seedlings of selected NTFPs, equipment and buildings, and in some cases small grants to purchase raw materials from collectors, to improve their marketing positions and

processing capabilities, but the broadening of the impacts of those initiatives was limited by application over too many local communities in too many target villages. This is a condition that is expected to be remedied in the succeeding phase of the project

- Activity 1.3.2 – “Preparation of management plans.” One representative NTFP resource management plan was produced in collaboration with local community forestry families rather than an initially planned set consisting of NTFP resource management plans in each of the target provinces. The preparation of those plans was limited by the measured pace of completing the process of government approval of community forests, as well as the rather extensive commitment of time that is required to produce a comprehensive plan which incorporates recognition of local community requirements for NTFPs and traditional user rights and responsibilities, as well as technical guidelines delineating primary use zones for selected NTFPs and the sequence of rotation of the use of those zones for sustainable resource management. Recognizing those limitations, the plan that was developed was produced in the only target village in which a community forest has currently been approved by the government and, with the understanding that it would not be appropriate for the project to actively support the approval of community forestry proposals in target villages, it is expected to become a prototype that will be extended to the management of NTFPs in other community forests in the country in the next phase of the project.
- Activity 1.3.3 – “Analysis of royalty and permit systems with negotiations between all stakeholders.” While there were some preliminary considerations of issues associated with royalty and permit systems in each of the target provinces, those were only more completely developed in one village in which issues of resin trading through the local association of collectors were raised as the most important concern affecting the improvement of marketing positions of collectors of NTFPs. Notwithstanding that development, however, the preparation of one rather than a set of NTFP resource management plans in each of the target provinces precluded to a considerable extent the initiation of more constructive engagement with the government of issues of royalty and permit systems that would have been associated with reorganizing the local management of NTFPs primarily on the basis of those activities. That engagement must await the implementation of the next phase of the project.

Time and Project Inputs

Time

The time that was available to complete most of the project’s activities was, in general, adequate with the exception of those activities that were specified in the preceding section of the report for which critical differences were reported between planned and actual project implementation. Those instances in which time was insufficient were to a considerable extent associated with the impacts of attempting to spread project efforts over too many local communities in too many target villages, which, in effect, precluded the completion of those activities within the time-frames that were allotted to them in a manner that would have ensured their sustainability at project close. Those limitations have since been

recognized and are planned to be effectively resolved in a second phase of the project.

Project Inputs

Project inputs in terms of the quality and quantity of the personnel that were selected to implement the project were generally considered to be adequate to more than adequate for project formulation and implementation. The basis of such an assessment was the professional qualifications of the project's national and international experts, as well as the general understanding of local conditions of local Forestry Administration staff and the recognition of the extended training on implementing project activities which was provided to them through the project. There were, nevertheless, some limitations that would have to be recognized in a succeeding phase of the project, which would include difficulties associated with multiple project obligations of some staff, the relatively modest financial support provided to local staff, and the general unfamiliarity, at least in the initial stages of the project, of staff with processes involving the sustainable management, as well as processing and marketing, of NTFPs.

The equipment and materials that were purchased through the project, including one vehicle, office equipment, GPS units and one digital camera, as well as specialized processing machinery for producing high-grade bamboo furniture that was purchased for one of the processing groups in Kampong Chhnang province, were considered, as well, to be adequate for project formulation and implementation, as were the project's financial resources, notwithstanding the understanding that supplemental financial resources would also have been able to have been used effectively to provide additional support to local Forestry Administration staff and to conduct project activities.

External Influences, Assumptions and Risks

External Influences

There was some anticipation of the impacts of external influences in the formulation of the project, but to a considerable extent there was limited necessity for such anticipation. The only exception to this was related to the expected pace of development of the process of government approval of community forests in a manner consistent with the Forestry Law and the Community Forestry Management Sub-decree that was implicit in the formulation of the project. The potential impacts on some project activities of a process that was much more protracted than was expected, especially on the preparation of a set of representative NTFP resource management plans in each of the target provinces and the associated development in collaboration with the government of appropriate royalty and permit systems for NTFPs, were probably under-appreciated. Concerted efforts will be extended to recognize and mitigate those impacts, however, in a second phase of the project, with the understanding that it would not be appropriate for the project to actively support the approval of community forestry proposals in target villages.

Assumptions and Risks

- The project's assumptions in the formulation of the project emphasized that "the success of the project depended on the committed support of all of its stakeholders, including the government, local communities, NGOs and the private sector." There were several anticipated threats to that support which were expected to be mitigated by incorporating the perspectives of each of those stakeholder groups into the project's activities. Those mitigating measures were by-and-large successful, although the anticipation that local communities or some NGOs might not consistently interact with local and national government in planning and implementing project activities was to emerge at various times during the project. The apparent lack of motivation that was recognized among local communities to organize into cooperatives to improve market positions was probably more a result of limited expectations regarding the perceived immediate benefits of such organizations, as well as a lingering distrust of collectives, though, which were conditions which were probably not thoroughly appreciated in formulating the project. It is expected that the organization of ten collecting and planting interest groups and eight processing interest groups would provide the basis of a more complete resolution of the situation, however, in a second phase of the project through more concentrated interactions of the project team with a smaller number of local communities in fewer target villages.
- There were several associated risks that were recognized in the formulation of the project, including those associated with the availability of selected NTFP seeds, the over-exploitation of NTFP species in target villages, and the ability of collectors of NTFPs to absorb new concepts and skills. Elements of those risks were generally successfully mitigated, though, by the carefully considered choices of NTFP species that were available in sufficient quantities, the provision of effective guidelines for sustainable use provided in the representative NTFP resource management plan that was prepared through the project, and the training that was provided to local collecting and processing interest groups.
- A related concern that the interest in maintaining activities at the completion of the project would decline if sufficient plans for the "post project" period were not appropriately considered was also mitigated to some extent by plans that were developed to ensure that some tangible results would be provided to each of the stakeholder groups and that the success of project activities directed to improving the livelihoods of local communities would provide sufficient motivation for those activities to continue for at least a period of time after the completion of the project. While some tangible results were, indeed, provided, especially to local communities, however, there was general recognition by the close of the project that improvements in local community incomes had not yet been sufficiently embedded into the livelihoods of local communities, but rather would have to be more completely integrated in a second phase of the project if sustainability were to be ensured.

Project Beneficiaries

The primary beneficiaries of project activities were not only expected to be, but were the local communities in the target villages. The participation of those local communities in the implementation of the project and the manner in which they have, and are expected to continue to benefit from the project, including a second phase, are summarized in the following descriptions:

- While there was an apparent lack of motivation among local communities in the target villages to organize into cooperatives as the result of limited expectations regarding the perceived immediate benefits of such organizations, as well as an historical distrust of collectives, local communities in several of the villages participated in the organization of ten NTFP collecting and planting interest groups and eight NTFP processing interest groups. It is expected that those groups would provide the basis of a more comprehensive organization to improve their market positions in a second phase of the project that would emphasize increased interactions of the project team with a smaller number of local communities in fewer target villages.
- The local community in the village of Tum Or in Kompong Thom province collaborated to a considerable extent in the development of the NTFP resource management plan, from the collection of local botanical specimens and the provision of information on potential markets for NTFPs, as well as land tenure and land use, to describing community requirements for NTFPs and traditional user rights and responsibilities in community forests. The plan, which has been approved by the Forestry Administration, is expected to become a prototype that will be extended to the management of NTFPs by other local communities in other community forests in the next phase of the project.
- The local communities in each of the target villages participated in a multi-phased screening process to rank the ten most potentially valuable NTFP species in their villages. The local communities in several of those villages were subsequently organized into collecting and planting interest groups and were very much involved in all of the stages of planning and establishing ten nurseries of NTFPs and other species prioritized by those groups in the target provinces. Those communities continue to use the on-the-job training that they received through the project to maintain those nurseries.
- The local communities in each of the target villages participated in at least some aspect of the structured training program that was provided through the project. Local communities initially contributed extensively to its development through the market survey questionnaires that were administered in each of the target villages by providing important information on the collection, processing and marketing of NTFPs. Those same communities also provided guidance in the preparation of the training needs assessments.
- In the conduct of the training program, groups in each of the target provinces participated in project efforts to introduce concepts associated with plantations and the harvesting, processing and marketing of NTFPs through a series of organized study tours. Some of the more specialized processing groups also received training to strengthen their skills and technical understanding of NTFP processing. Since the completion of the project, several of those groups have

continued to be involved with the processing and marketing of some rattan handicraft and bamboo furniture products to increase incomes.

Sustainability

Project conceptualization emphasized the improvement of local livelihoods in the target villages through the strengthening of local associations of collectors and processors of NTFPs, the development of representative sustainable resource management plans for NTFPs in each of the target provinces, and the improvement of the positions of local communities in local and regional markets for NTFPs. Project plans for sustainability were premised on several assumptions, as well as the mitigation of several risks associated with those assumptions, and those efforts at mitigation were by-and-large successful. By the close of the project, there were several conditions related to the implementation of project activities that were conducive to sustainability, which included those associated with the extensive training provided to local and provincial, as well as national, Forestry Administration staff; the establishment of ten NTFP collecting and planting interest groups, as well as eight NTFP processing interest groups; the development of a representative NTFP resource management plan approved by the Forestry Administration; and the provision of a series of study tours and training program that enhanced the technical skills of several collecting and planning interest groups, as well as processing interest groups.

There were nevertheless still some other conditions that by project close were not yet conducive to sustainability, including those associated with the absence of a consistent source of investment funds to support individual NTFP market participation or to improve group market positions; an apparent lack of motivation among local communities in the target villages to organize into cooperatives to improve NTFP market positions; insufficient project coordination which was sometimes restricted in scope and directed more to short-run concerns that were associated with integrating efforts to assess current sources of NTFP supplies and evaluate current markets for NTFPs; and the recognition that improvements in local community incomes supported through the project had not yet been sufficiently embedded into the livelihoods of local communities.

It was expected that many of those constraints impacting sustainability would be relieved to at least some extent in a second phase of the project through more concentrated interactions of the project team with a smaller number of local communities in fewer target villages. It was also anticipated that in that second phase, the project would collaborate with rural credit programs concerned with providing seed capital to current, as well as potential, NTFP collectors and processors; and alternative income-generating activities associated with the processing of NTFPs would be developed, as well as expanded, on the basis of more coordinated efforts to improve assessments of current sources of NTFP supplies and to evaluate current markets for NTFPs through the provision of comprehensive marketing plans that extended from the establishment of plantation nurseries through the marketing of NTFP products and incorporated appropriate long-term financial cash-flow analyses to ensure sustainability.

Institutions

The primary institution that was involved with implementing the project was the Forestry Administration and the roles and responsibilities that were assumed by

Forestry Administration staff at local, provincial and national levels in the implementation of the project were completely appropriate. Under the Forestry Law, as well as the Community Forestry Management Sub-decree, the Forestry Administration under the Ministry of Agriculture, Forestry and Fisheries is the primary agency of the government that is responsible for ensuring the sustainable management of community forests and regulating through the provision of permits and the collection of royalties, as well as other fees, the collection, processing and commercial sale of NTFPs by local communities. The understanding of those roles and responsibilities by local and provincial staff responsible for project implementation, moreover, was considerably enhanced through the extensive training that was provided to them through the project.

6. Lessons Learned

Project Identification, Design and Implementation

- Local community participation at each step of the project identification and development process was critical to the successful achievements of the project.
- Project efforts to improve the livelihoods of villagers should be concentrated and not spread too unevenly across too many villages and local communities. In one sense, this was reflected in the recognition that activities proposed through the project were not necessarily always the most relevant in connection with the economic conditions of some of the poorest target villages, especially those in which local people struggle to maintain even the most rudimentary livelihoods.
- Organizational structures that might be appropriate from an economic perspective for improving the marketing positions of different segments of local communities might not always be the most appropriate structures from the socio-economic perspectives of the local communities.
- It is difficult to assess the impacts of project activities on local community livelihoods without consistently measuring changes in incomes of target individuals and groups over an extended period of time. Those efforts were proposed, but were only indirectly incorporated into the project planning process in response to ITTO's initial review of the proposal.
- Change and adaptation are continuous and the characterization of villages and local communities that is developed during project design may not necessarily be the same as that developed during project implementation. In some target villages, forests have been declining, as have forest resources, and some NTFPs for which there might have been a potential for development at the start of the project were much less available in the later stages of the project at the times that training was provided and plantation nurseries were developed. Some of those changes are summarized in Table 5.

Table 5. Evolution of the situation in the target provinces by the close of the project.

Province	Representative changes during the life of the project
Kampong Thom	Development of Tom Ring town and a rubber plantation. Moratorium on all logging activities (2 of the 3 villages are in a logging concession). Disappearance of all resin trees in one of the project sites, Tum Or, located near Tom Ring.
Kampong Chhnang	Some encroachment in the Community Forest area. No important changes during the life of the project, but pressure on NTFPs is high (small area shared between five villages).
Rattanakiri	Rapid development of agro-industry (rubber and cashew plantations). Road construction between Vietnam and Cambodia (stone mined in the project site). Considerable degradation of remaining forest and depletion of forest cover.
Mondulkiri	Development of Sem Monorom. Road construction to Busra waterfall. Illegal logging and rubber plantation in one of the project sites. Depletion of resin trees (dry resin).

Operational Matters

- There are important tradeoffs to understand in assessing contributions, as well as limitations, associated with the participation in the project of every level of Forestry Administration staff in the project. The limitations were primarily related to the differential extent of involvement of some Forestry Administration staff in the project - with some having multiple project obligations, the relatively modest level of financial support that was provided to local Forestry Administration staff participating in the project, and the general unfamiliarity of Forestry Administration staff, at least in the initial stages of the project, with processes involving the sustainable management, as well as processing and marketing, of NTFPs. The latter was especially apparent in the applied research component of the project that involved the selection of NTFPs. This activity, while admittedly critical to the understanding of resource availability and potential marketing conditions in each of the target villages, was an unfamiliar one for staff at the local level and as a result of that unfamiliarity, as well as the excessive number of target villages, took a considerable amount of time to complete.
- The government process established to approve submissions from local communities for the establishment of community forests is effective in supporting local community user rights, but is sometimes very protracted.
- The importance of effective coordination between short-term and long-term national and international experts cannot be overstated. Project efforts were sometimes characterized by insufficient project coordination that was, in effect, restricted in scope and directed more to short-run concerns.
- The availability of a consistent source of investment funds to support individual or group market participation or to improve market positions would contribute to sustainability. Other than the revolving profits that several NTFP processors who were trained through the project continue to generate, and notwithstanding that a few small grants to support small business development were sometimes made available through the project, there has been no

consistent source of investment funds available to individuals or groups to support market participation or to improve market positions.

7. Conclusions and Recommendations

Identification

- The approach rooted in local community participation that was used at each step of the project identification and development process contributed substantially to the extent to which the project's Specific Objectives were achieved.

Recommendation: Local community participation throughout the identification and development process should be the cornerstone of the efforts of this, as well as every other, project designed to improve local community livelihoods.

Design

- The effectiveness of the local community participation approach in the strategy to achieve the project's Specific Objectives to an even greater extent was somewhat limited by the distribution of project efforts across too many local communities in too many target villages.

Recommendation: The limitation associated with spreading project efforts across too many local communities in too many target villages should be more effectively addressed in the second phase of the project by concentrating project efforts on the most promising villages for strengthening the sustainable management and effective processing and marketing of NTFPs and, within those villages, directing the emphasis of project interactions more toward well-motivated individuals and previously organized collecting and planting interest groups and processing interest groups.

Implementation

- The apparent lack of motivation that was recognized among local communities to organize into cooperatives to improve market positions was probably more a result of limited expectations regarding the perceived immediate benefits of such organizations, as well as a lingering distrust of collectives.

Recommendation: The limited expectations of immediate benefits among local communities should be remedied in the second phase of the project through more concentrated interactions of the project team with a smaller number of local communities in fewer targeted villages.

- The most effective means of demonstrating the impacts on local community livelihoods of efforts to increase incomes through the sustainable management and more effective processing and marketing of NTFPs would be to measure, or estimate, and evaluate on a periodic basis the changes in incomes of individuals and groups that were considered to be attributable to project interventions.

Recommendation: Procedures to periodically estimate movements in local community incomes attributable to project interventions should be integrated into the project's activity plans during its second phase.

- The socio-economic and bio-physical context that characterized some of the target village sites is evolving rapidly.

Recommendation: There should be an emphasis on a reduced number of NTFP species, particularly those with much more pronounced opportunities for maintaining sustainability, in those target project sites in which the nature of forests and forest resources are continuing to change rapidly in the second phase of the project.

Organization

- The participation of Forestry Administration staff, particularly at the local level who would have had the most direct contact with villagers, provided a potentially effective means to reinforce sustainability through follow-up activities at the close of the project, but their participation also introduced other project constraints

Recommendation: Consideration should be directed to limiting the number of participating Forestry Administration staff to those most committed to project achievement and able to participate full-time in the project to the extent that might be possible within the rules, regulations and administrative guidelines of the Forestry Administration and the Ministry of Agriculture, Forestry and Fisheries in the second phase of the project.

Management

- The potential impacts of the rather protracted process associated with government approval of community forests in a manner consistent with the Forestry Law and the Community Forestry Management Sub-decree on the preparation of representative NTFP resource management plans and the associated development in collaboration with the government of appropriate royalty and permit systems for NTFPs were probably under-appreciated.

Recommendation: Concerted efforts should be extended in the next phase of the project to adapt project outputs to expected impacts on the development of NTFP resource management plans, as well as royalty and permit systems for NTFPs, which are associated with the government process to approve community forests and to incorporate, to the extent possible, target villages where community forests have been previously approved by the Forestry Administration.

- The facilitation of a process to increase local community incomes by improving the sustainable management, as well as the effectiveness of processing and marketing, of NTFPs, must be developed on the basis of more effective coordination of efforts to integrate assessments of current sources of NTFP supplies and evaluate current NTFP markets on a regular basis.

Recommendation: Improvements in alternative income-generating opportunities should be more completely integrated in a second phase of the project through the provision of comprehensive marketing plans for NTFPs that extend from the assessment of current sources of NTFP supplies and the establishment of plantation nurseries through the marketing of NTFP products and incorporate appropriate long-term financial cash-flow analyses to ensure sustainability.

- A consistent source of investment funds is required to support individual and group NTFP market participation and to improve market positions to ensure sustainability.

Recommendation: The project should collaborate in its second phase with rural credit programs concerned with providing seed capital to current, as well as potential, NTFP collectors and processors

There is considerable potential for replication in Phase III of the project as reflected in the conditions conducive to sustainability that have been previously achieved in the first two phases of the project.

Responsible for the Report



Name: Ly Chou Beang
Date: 30 August 2010

Position: Project Coordinator