



ITTO

**INTERNATIONAL TROPICAL
TIMBER COUNCIL**

**COMMITTEE ON ECONOMIC INFORMATION
AND MARKET INTELLIGENCE**

COMMITTEE ON FOREST INDUSTRY

Distr.
GENERAL

CEM, CFI(XXXII)/4
7 April 2003

Original: ENGLISH

THIRTY-SECOND SESSION
12-17 May 2003
Panama City, Panama

EX-POST EVALUATION

**PD15/96 Rev.2 (I,M) UTILIZATION, COLLECTION AND TRADE OF
TROPICAL NON-WOOD FOREST PRODUCTS
IN THE PHILIPPINES**

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April 2003

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I. EXECUTIVE SUMMARY

1. Background

ITTO Project PD 15/96 REV.3 (M,I), "Utilization, collection and trade of tropical non-wood forest products in the Philippines", was awarded to and implemented by the Forest Products Research and Development Institute (FPRDI), Department of Science and Technology, Republic of the Philippines.

The general objectives of the Project were to provide essential information on and technologies relevant to the utilization, collection and trade of important non-wood forest products in the Philippines to promote the income and livelihood of local forest communities, and to promote sustainable collection and utilisation of NWFP, as an integral component of sustainable forest management.

The project had two specific objectives:

1. survey pilot areas & determine approximate volume of NWFPs and number of upland/forest dwellers engaged in collection, processing & sale of NWFPs; assess regeneration pattern & cycle and recommend sustained yield collection and observation measures for sustainable supply;
2. determine needs & problems of upland/ forest dwellers in collection, processing & storage of NWFP; recommend and introduce improved methods for collection, processing & storage; conduct market research on collection, utilisation and trade, and provide market information.

These objectives were to be achieved by implementing the activities identified in the project's specific objectives, which were to lead to two primary outputs:

1. the identification of co-operators and pilot areas, and for each of these: estimation of the number of forest dwellers engaged in collection, utilization and sale of non-wood products and the approximate volume of non-wood products; an assessment of the regeneration patterns and their cycle; recommendations on sustained-yield collection practices to forest dwellers;
2. the identification of the needs and problems of forest dwellers; recommendations and introduction of workable and improved methods of collection, processing and storage of non-wood forest products; and provision of market research and market information to forest dwellers at each project site.

Project activities were implemented through five studies, the last of which was added as an approved amendment to the original project:

1. resource survey and inventory of important NWPF and assessment of natural regeneration;
2. assessment of collection, processing and trade of NWFP in local communities;
3. dissemination and demonstration of chemical treatment of NWFP in upland forest communities;
4. market research and market information on NWFP;
5. case studies of NWFP marketing.

The project was implemented from 1 October 1997, with an intended duration of 36 months; its actual duration was extended by 10 months, and the project concluded on 31 August 2001. ITTO

funding awarded for the project comprised US \$383,493 (\$210, 895 - Government of Japan; \$172, 598 – Government of Switzerland). The Government of the Philippines contributed US \$382,800 (in cash and in kind) for a total project budget of US \$766,293.

A report on the completed project was presented to the ITTO Committee on Forest Industry at its Thirtieth Session, Bali, 13-18 May 2002.

I.2 Evaluation Purpose

The ITTO Forest Industry Committee, at its Thirtieth Session in May 2002, decided that an ex-post evaluation of PD 15/96 Rev.2 (M,I) should be carried out to establish how well the project served its intended purposes and to draw up conclusions for future actions.

I.3 Scope of the Evaluation

The following Terms of Reference were specified for the evaluation:

1. The ex-post evaluation work shall be conducted in such way as to allow answering the questions identified in the ex-post evaluation checklist provided in Part B, Annex A of the ITTO Manual for Project Monitoring, Review and Evaluation (1999), which primarily address a project's contribution to the achievement of its general and specific objectives and determine whether these objectives have been initially met and established.
2. In general, the consultant shall analyze and assess overall implementation efficiency, including the technical, financial and managerial aspects. The work shall assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrence.
3. Taking into account the results of the evaluation, make an overall assessment of the project's relative success or failure; summarize the key lessons learnt; and identify any issues or problems which should be taken into account in designing and implementing similar NWFP projects in future.
4. Additionally, the following specific assessments shall be made:
 - (i) The project's executing agency (FPRDI) has indicated that the direct beneficiaries of the project were the forest dwellers dependent on NWFP and project activities have noted a high degree of participation of the forest dwellers in the implementation of the project. The consultant shall assess the degree of local involvement and determine the project's relevance in meeting the needs of the local forest communities.
 - (ii) The consultant shall also examine and determine the validity of ecological observation on important NWFP as noted in the project reports describing the resource surveys and inventories of selected NWFP and the assessment of their natural regeneration.
 - (iii) The consultant shall assess the validity of project results which indicate that the collection of NWFP, if done on a sustainable and non-destructive way, pose a negligible threat to the maintenance of a continuous forest and results in minimal changes to the natural tropical forest.
 - (iv) The consultant shall also contact the project's international marketing consultant and verify the problems associated with the marketing of the selected NWFP.
 - (v) To evaluate the impact and relevance of the project; particularly its impact on the market aspects of non-timber forest products.
 - (vi) Determine the effectiveness of the technology transfer to the upland dwellers and to assess the overall post-project situation.
 - (vii) Recommend follow-up actions in order to enhance utilization of project developed technologies and other results.

The consultant conducted the evaluation to meet the specified Terms of Reference through:

- review of project reports and relevant literature;
- a site visit to the implementing agency (14-20 March 2003), to facilitate consultation with agency and project staff;
- consultation with project cooperators.

I.4 Conclusions of the Evaluation

I.4.1 Achievement of general and specific project objectives

In terms of its general objectives, the project has:

- provided essential information on and technologies relevant to the utilization, collection and trade of a number important NWFP in the Philippines. Project outputs have the capacity to enhance the income and livelihood of local forest communities, and to promote sustainable collection and utilisation of NWFP, as an integral component of sustainable forest management, as envisaged in the project proposal;
- offered directions for subsequent policy and project interventions to enhance the sustainability of NWFP utilization, collection and trade in the Philippines, and the economic returns to local communities from NWFP enterprises.

These are significant achievements for which the project team deserve commendation.

In terms of its specific objectives, the project has:

- provided sample plot data describing NWFP occurrence (bamboo – *Bambusa*, *Dendrocalamus*, *Gigantochloa* & *Schizostachyum* spp; erect palms – *Arenga*, *Corypha* & *Livistona* spp; pandans – *Freycinetia* & *Pandanus* spp; rattans – *Calamus* & *Daemonorops* spp; other forest vines – various spp) and information about regeneration of these plant groups based on field observation and literature review (objective 1.1). These data are largely of descriptive value;
- provided largely qualitative data about the numbers of individuals engaged in various stages of some NWFP collection, utilization and trade at the study sites (objective 1.2), and for various products elsewhere. These data (for enterprises based on the species listed above, honey, and *Agathis* and *Canarium* resins), are largely of indicative value;
- provided an overview of the challenges faced by those engaged in the collection, utilisation and trade of important NWFP in the study areas (those listed above, and some other fibres, grasses and leaves; objective 2.1), and at some other locations), and the associated challenges to sustainability;
- recommended and introduced improved methods and technologies for collection, processing and storage of a number of NWFP (objective 2.2) – variously, *Agathis* and *Canarium* resins; bamboo, rattan, palm, twig and vine stems; *Wikstroemia* bark. The adoption of these methods and technologies will have immediate positive impacts, and wider impact through the adoption of project technologies as the basis for two relevant Philippines National Standards;
- investigated trade and market networks and structures, associated pricing structures (value chains), and possible strategies for enhancing returns to rural communities from NWFP enterprises (objective 2.3). The information from these studies is principally of value in designing subsequent policy and project interventions.

I.4.2 Assessment of overall implementation efficiency

The project has been implemented and managed efficiently, allowing for unforeseen factors outside the project's control. Collaborations with research partners at the four study sites were generally effective, with one exception outside the project's control, as were collaborations with those involved in NWFP trade. The extension to and expansion

of project activities, by 10 months and through the addition of an additional case study site and of marketing case studies, were advantageous.

I.1.3 Specific assessments against Terms of Reference

- (i) The degree of local involvement and the project's relevance in meeting the needs of the local forest communities.

Project activities were conducted in partnership with local communities and relevant government agencies at four principal study sites in different regions of the Philippines. Local community involvement was good at three of these sites; that at the other was constrained by the security situation and larger social tensions. Even at the latter site, project collaborators were positive about the relevance of the project to local peoples' needs. Some of the issues which constrained local community engagement with the project at this site have now been addressed by the Philippines Government's recognition of ancestral domain rights.

All feedback which the consultant received from project partners suggested that the project was relevant to local communities' needs, specifically those needs associated with enhancing the sustainability of NWFP collection, maximising the recovery from products collected, and enhancing the returns to those in local communities engaged in NWFP enterprises. Key representative groups for the Philippines handicrafts industry confirmed the relevance of the project's activities and outputs to their constituents' needs more generally. However, project partners noted that subsequent policy and project interventions will be necessary if the needs of local forest communities are to be met to fullest effect.

- (ii) The validity of ecological observation on important NWFP and the assessment of their natural regeneration.

Ecological observations and assessment of regeneration of NWFP at six study sites are valid, but are currently of only descriptive value. The observations were made in sample plots established for this project on a permanent basis, so can be re-assessed in the future to provide quantitative information on ecological dynamics. The principal strength of the approach used is its comprehensiveness, in terms of assessing a much wider range of NWFP than had previous surveys. However, because repeated assessment data were not available for these study sites (or other sites, for the range of NWFP assessed), the results of the project provide only limited general information to assist the development of sustainable management regimes.

- (iii) The validity of project results which indicate that the collection of NWFP, if done on a sustainable and non-destructive way, poses a negligible threat to the maintenance of a continuous forest and results in minimal changes to the natural tropical forest.

Project results do not in themselves provide sufficient evidence to support or deny this hypothesis, which was suggested by Panayotou (1990). Project results do shed light on a number of the elements of this statement:

- results suggest that traditional NWFP collection practices can be either sustainable or unsustainable, depending on factors such as harvest method, intensity and frequency. There is evidence from project studies of both sustainable and unsustainable impacts of collection on NWFP resources;
- it is apparent from project studies that current levels of harvesting of some NWFP at some study sites exceed sustained yield for that site. However, this does not necessarily imply that harvest levels are unsustainable (or vice versa) on a larger scale, and there is currently no inventory data available in the Philippines to inform the broader regional or national situation. NWFP assessment is planned as part of

the current FAO-sponsored Philippines Forest Resource Assessment, but this national-scale coverage will be of only limited value at the forest management unit scale;

- results demonstrate that it is possible to improve the sustainability of some traditional collection practices, such as those for *Agathis* resin.

The NWFP inventory plots established by the project could be used to inform responses to this assertion, from data generated by subsequent assessments following NWFP harvesting.

- (iii) Problems associated with the marketing of selected NWFP identified by the project's international marketing consultant.

The international consultant's research identified a suite of challenges to marketing NWFP in the Philippines, and gave highest priority to those associated with product design, quality control, production capacity, marketing skills and support, market information, and access to capital. These challenges are consistent with those identified for NWFP, both in other project studies and elsewhere, and for small-medium enterprises more generally. Consultation with key handicrafts organizations during the ex-post evaluation confirmed both the international marketing consultant's assessment of the problems faced by the sector and his identification of strategic priorities to address these challenges.

- (iv) The impact and relevance of the project, particularly its impact on the market aspects of non-timber forest products.

The project was directly relevant to a number of the key issues associated with the collection, utilisation and marketing of NWFP in the Philippines. Project activities and outputs associated with collection methods and processing technologies (eg improved resin tapping methods, chemical treatment of stems), have immediate impact to those engaged in particular NWFP enterprises. The intended adoption of some project outputs as the relevant Philippines National Standard by the Department of Trade and Industry represents a significant project impact.

The resource data and those describing the numbers of people engaged in various NWFP enterprises have both short and longer term impact and relevance. In the short term, their main value may be in helping NWFP interests press the political case for the importance of NWFP and the regulation of their harvest, as the Philippine Craft Fair Traders association has begun to do for some NWFP of particular concern to its members. Similarly, information describing trade and market structures are valuable in the short term for those currently engaged in NWFP enterprises and current policy debate.

To date, trade and market information outputs from the project have been provided only to project partners; while a number of these partners are well-placed to disseminate the information widely to interested parties, other strategies to enhance awareness of project outputs would also enhance project impacts.

It is in the longer term that the trade and market information generated by the project may have the most significant impact, as the basis for development and design of subsequent policy initiatives and project interventions.

- (v) Determine the effectiveness of the technology transfer to the upland dwellers and assess the overall post-project situation.

The principal elements of technology transfer which have the potential for immediate impact are those associated with collection methods and processing technologies. There

is evidence that some of these technologies, principally those associated with chemical treatment, have been widely adopted because of the significant immediate economic benefits they confer. In contrast, adoption of the improved resin tapping technologies communicated by the project appears more varied, which seems likely to reflect the longer term and more common-good benefits of that technology. In the latter case, effective implementation of supportive collaborative management arrangements, which give effect to existing regulatory regimes, are clearly also necessary to foster technology transfer. Such arrangements are the one of the central themes of Philippines forest policy.

The current overall post-project situation differs between different parties and interests in NWFP in the Philippines, reflecting both differences in the extent of direct project involvement and the different forms of project outputs:

- at the case study sites and for project partners directly involved with project work (local communities, NWFP enterprises and representative organizations, and government agencies), there have been immediate project impacts in terms of better collection methods and utilisation technologies for some products, and in terms of trade and market information about particular products. As a result of the project, these partners are better placed to manage particular NWFP resources sustainably, and to benefit from their production;
 - the adoption of project outputs associated with chemical treatment technologies as National Standards for two NWFP product groups is a significant consequence of the project;
 - there are not yet many other broader impacts as a result of the project, for two reasons. Firstly, project outcomes are still being disseminated to interested parties. Secondly, many project outputs are most relevant to informing subsequent policy development and project interventions to enhance the sustainability of NWFP utilization, collection and trade in the Philippines, and the economic returns to local communities from NWFP enterprises;
 - given the continuing emphasis on community-based forest management and NWFP enterprises for sustainable livelihoods on the Philippines, in both forest and rural development policy and forest management, project outputs can be expected to contribute to the development of subsequent policies and project interventions.
- (vii) Recommend follow-up actions in order to enhance utilization of project-developed technologies and other results.
Discussed in III-2.

I.1.4 Overall assessment

The project achieved good success in ascertaining existing NWFP collection, utilisation and marketing practices, and associated income streams, in the case study areas and for the selected NWFP. It has contributed significantly to the knowledge base for these NWFP in the Philippines, although project outputs should be more widely disseminated to enhance their value. Similarly, the project was able to enhance some collection and processing practices, although adoption appears less for the former than the latter. The project has also identified strategic priorities to further enhance the sustainability of NWFP enterprises and their contributions to rural livelihoods. These are important and significant achievements with the potential for significant impacts. The project's goals of ascertaining NWFP resource and user information were not as fully realised as the project proposal had envisaged, but the data collected by the project does provide important baseline information from which subsequent work can build.

I.2 RECOMMENDATIONS

a) For sustainable management of NWFP:

1. More comprehensive and systematic resource inventory of key NWFP resources in at least some regions of the Philippines, and associated assessment of harvesting and regeneration rates;

A more comprehensive resource inventory than was possible in this project should link to each of inventory plots established under this project, the national Forest Resource Assessment sampling framework, and any other relevant NWFP inventory activity. The goal of further inventory work should be to establish the dynamics of representative populations of selected NWFP under various harvesting regimes (including zero harvest), so that sustainable yields can be estimated and the impacts of different harvesting regimes established;

2. Continued collaboration between relevant agencies and enterprises and partner communities and organizations to foster adoption of sustainable collection methods. Project results suggest that current collection practices vary in their impacts, and that levels of adoption of more sustainable collection methods are varied. While implementation of sustainable management regimes is formally the responsibility of DENR, NWFP-based enterprises have a stake in fostering a sustainable supply. Partnerships between government agencies, NWFP enterprises and local communities to promote sustainable collection practices are more likely to be successful than initiatives by only one of these parties.

b) For utilisation of NWFP:

3. Continued collaboration with partner communities and organizations to foster adoption of technologies to minimize deterioration of NWFP. These technologies have immediate advantageous impact in terms of recovery and returns to collectors. There are also other technologies, appropriate to larger scale producers (eg kiln drying) or over the longer term (eg pest biological control), that are logical successor activities.

c) For trade and market development of NWFP:

4. Adoption of the international marketing consultant's recommendations of strategic priorities to improve the production and marketing of NWFP in the Philippines. In addition to the resource inventory identified above, the priorities recommended were:
 - initiatives to enhance the economic benefits to NWFP harvesters and handicraft workers;
 - technology transfer programs targeting both production and marketing skills;
 - improving access to capital and market information.
5. Policy development and project interventions to support the initiatives identified above, for selected NWFP.

Project outputs have reiterated the importance of NWFP and identified ways in which both the sustainability of management and NWFP enterprises, and the benefits to rural communities, can be enhanced. Further policy development and project interventions will be necessary to support these outcomes. In the first instance, policy development might focus on the incentive and regulatory framework to foster implementation of sustainable harvesting regimes; project support might give priority to more comprehensive and

representative resource inventory, adoption of collection and processing technologies and the identified production and marketing priorities.

d) Project formulation and outputs:

6. This project has identified priorities for and established the foundations of subsequent research to enhance the sustainability of NWFP collection practices and enterprises, and the benefits to local communities. Some of those studies would best be conducted as interdisciplinary collaborations, eg with rural livelihood experts in the case of socio-economic work, and all will be able to build on the platform of partnership established by this project with principal NWFP interests, such as handicraft associations and their memberships. The formulation of subsequent projects would also benefit from wider consultation with relevant literature, from both the Philippines and abroad.
7. Development and implementation of strategies by FPRDI and ITTO to promote wider dissemination of key project outputs.

Key project outputs are not yet as widely known in the Philippines as they should be, and are not known outside the Philippines. This can be addressed in part by a targeted dissemination campaign by FPRDI, DENR, and other project partners. Additionally, a simple and cost effective strategy could be to ensure that key project outputs (in the case of this project, Technical Reports 1 and 2 and the International Consultant's report) are available – with appropriate acknowledgement, caveats and disclaimers – on both the FPRDI and ITTO www sites. Such a strategy would be advantageous for ITTO project outputs more generally, and should significantly enhance their impacts.