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Executive Summary

EX - POST EVALUATION REPORT

Trans-boundary Biodiversity Conservation Area

of

ITTO PROJECT PD 106/90 Rev.1 (F)

Development of Lanjak – Entimau Wildlife Sanctuary (LEWS)
As a Totally Protected Area (Phase I)

and

ITTO PROJECT PD 26/93 Rev.1 (F)

Development of Bentuang Karimun Nature Reserve (BKNR)
as National Park (Phase I)

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TABLE OF CONTENTS

1.	Executive Summary of Ex-post Evaluation Report of PD 106/90 Rev.1 (F) “Development of Lanjak – Entimau Wildlife Sanctuary (LEWS) as a Totally Protected Area (Phase I)” (Malaysia)	1
2.	Executive Summary of Ex-post Evaluation Report of PD 26/93 Rev.1 (F) “Development of Bentuang Karimun Nature Reserve as National Park (Phase I)” (Indonesia)	8
3.	Summary of the Evaluation of the Trans-boundary Conservation Area	16

List of Acronyms and Glossary

Bappeda	Regional Planning Agency
BIMP – EAGA	Brunei, Indonesia, Malaysia, Philippines East Asia Growth Area
BKNP	Betung Kerihun National Park
BKNR	Bentuang Karimun Nature Reserve
CO	Community Organizer
FD	Forestry Department (Sarawak)
GIS	Geographic Information System
IBBE	ITTO Borneo Biodiversity Expedition 97
ICDP	Integrated Conservation and Development Project/Programme
IPAS	Integrated Protected Areas System
ITTA	International Tropical Timber Agreement
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature
LEWS	Lanjak-Entimau Wildlife Sanctuary
MoF	Ministry of Forestry (and Estate Crops)
M & E	Monitoring and Evaluation
NP	National Park
NPWO	National Parks and Wildlife Office
PD	Project Document (ITTO)
PHKA, formerly PHPA	Forest Protection and Nature Conservation (Directorate General of Ministry of Forestry)
PKA	Nature Protection and Conservation (...)
PM	Project Manager
PSC	Project Steering Committee
R&D	Research and Development
RTRWP	Rencana Tata Ruang Wilayah Propinsi (Provincial Regional Development Plan)
SOSEK Malindo	Malaysia Indonesia Socio-Economic Group
SPU	Special Planning Unit, Chief Minister's Office, Sarawak
SPZ	Special Protection Zone
SWOT	Strengths, Weaknesses, Opportunities and Threats
TBCA	Trans-boundary Biodiversity Conservation Area
TF	Task Force
Tkt	Administrative level (I: Province; II: District)
TOR	Terms of Reference
TPA	Totally Protected Area
UNESCO	United Nations Educational, Scientific, Cultural Organization
WWF	World Wildlife Fund
WZ	Wilderness Zone
Yayasan WWF	WWF Indonesia

1. Executive Summary of Ex-post Evaluation Report of PD 106/90 Rev.1 (F) “Development of Lanjak – Entimau Wildlife Sanctuary (LEWS) as a Totally Protected Area (Phase I)” (Malaysia)

PART I: EXECUTIVE SUMMARY

1. BACKGROUND INFORMATION ABOUT THE PROJECT

Phase I of the LEWS project, **ITTO Project 106/90 Rev. 1 (F)**, as well as succeeding Phases II and III, emanated from the findings and recommendations of the 1989 – 1990 ITTO Mission at the invitation of the Sarawak Government. One major area of action identified which provided the required justifications for the project is the necessity to protect the full range of habitats and biological diversity in the State of Sarawak. Protection and conservation of forest resources can, as concluded by the Mission, best be achieved with the *in situ* preservation of Sarawak's natural heritage.

Thus, the Lanjak – Entimau Wildlife Sanctuary (LEWS) was selected by the State for management as Totally Protected Area (TPA) and recommended a proposal for its development as such for ITTO support. LEWS with an aggregate area of 168,758 hectares is the largest wildlife sanctuary in the State and contains a representative 8 forest types typical in inland Sarawak. Its biodiversity is considered very high particularly on fauna with the Sanctuary considered as the final refuge and habitat of the Bornean Orangutan and the white – fronted leaf monkey. It is also identified as the only large forest area protected in Sarawak which can provide future seed source to improve forest productivity. The area is also significant from the perspective of socio-economic development of indigenous people who had been residing in the periphery long before it was proclaimed as a TPA. Primal consideration was also placed on the opportunity for trans-boundary biodiversity conservation as the TPA is contiguous and share boundaries with a much larger protected area in West Kalimantan, Indonesia, the Betung Kerihun National Park (BKNP).

The project generally aims to develop LEWS as a TPA for nature conservation and as a site for biodiversity research. The project objectives were to develop a comprehensive management plan for the LEWS and a draft proposal for the implementation of said management plan under a Phase II project. With these objectives much of the scientific and other activities were concentrated on producing baseline inventory of the flora and fauna of the TPA, conduct of socio-economic surveys, and other environmental parameters needed for the formulation of a comprehensive management plan.

2. EVALUATION PURPOSE

The purpose of this post – evaluation of the completed LEWS project Phase I is to conduct assessments to establish their general effectiveness and efficiency in implementation, the projects' impacts on objectives and affected institutions, and to cull out lessons and recommendations useful for future projects of similar nature. Parallel evaluation will also be done for the adjoining BKNP in West Kalimantan, Indonesia with the same purpose further aiming to consolidate relevant findings on the effectiveness of the two similar projects in developing a trans-boundary conservation area between the two countries.

3. SCOPE OF THE EVALUATION

At the meeting of the Twenty-eight Session of the ITTO Committee on Reforestation and Forest Management in May/June 2001 held in Yaounde, Cameroon, it was decided that an ex-post evaluation be conducted for the following projects:

1. **PD 106/90 Rev.1 (F): Development of the Lanjak-Entimau Wildlife Sanctuary (LEWS) as a Totally Protected Area - Phase I**
2. **PD 26/93 Rev.1 (F): Development of Bentuang Karimun Nature Reserve as National Park - Phase I**

The Terms of Reference (TOR) for the two projects clearly stated the scope and focus of the post – evaluation. In the case of the LEWS project, while the scope encompasses only Phase I, the evaluation will have to consider the completed Phase II aimed at implementing the management plan and continuing with refinements and additional baseline surveys and analysis to be able to determine impacts on the

implementation of results in Phase I. Likewise, knowledge on current activities and scope of Phase III will enable incorporation of evaluation results to improve all continuing activities started in Phase I and produce better outputs to meet all the integrative objectives of biodiversity conservation for the 3 Phases.

The terms of reference as attached to the Special Service Agreement include the following items:

For each of the two projects, and taking into account ongoing activities of subsequent phases, the Consultants will carry out the following activities:

- I. Review the management plan for the area developed by the Project, and assess the current status, progress and constraints of its implementation.
- II. Assess the level of information gathered on biodiversity richness based on the results of the terrestrial surveys, and evaluate the management of collected specimens of flora and fauna, including data processing and establishment of an initial database system by the Project.
- III. Evaluate the overall impact on and relevance of the project to the Executing Agency, the forest industry sector and local communities.
- IV. Assess the impact of the project on local institutional capacity, and on government policy on transboundary areas and bilateral forestry cooperation between the two countries.
- V. Determine the effectiveness of information dissemination of project results and their contribution to promote awareness of the need for biodiversity conservation and protected areas in the Province/State and the country in general.
- VI. Define and assess unexpected effects and impacts, either harmful or beneficial and present the reasons for their occurrences.
- VII. Analyze and assess implementation efficiency, including technical, financial and managerial aspects.
- VIII. Evaluate the overall appropriateness of costs, cost structure and use of resources within the project.
- IX. Evaluate the attainment of project objectives and assess the overall effectiveness of the project.
- X. 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 that should be taken into account in designing and implementing similar projects in future.
- XI. Assess the project's contribution to the relevant ITTA objectives (1987, 1994), relevant ITTO Action Plans, and ITTO's Objective 2000.

4. CONCLUSIONS OF THE EVALUATION

4.1 Implementation Efficiency and Effectiveness

Despite the limitations on expected results as elaborated in the Mission findings, the project in Phase I complimented by Phase II contributed immensely to the understanding of the complex biodiversity of LEWS and confirmed its flora / fauna richness and importance, and the need for long – term conservation and sustainable management strategies and program interventions. The baseline knowledge gained in the various studies and surveys conducted provide an initial framework and guidelines for the management of the TPA. The discovery of new species of flora and fauna are milestone accomplishments to science.

The main constraints in project implementation was the short time duration, the lack of proper design and absence of logical framework and other project formulation guidelines for guidance, some delay in project fund releases, difficulty in recruiting consultants and staff, and faulty scoping, prioritization, and gaps in framework analysis for both biodiversity inventories and plan formulation.

In general the expected results were too ambitious and larger in scope than what the resources and time available can reasonably achieve. The strategy to employ rapid methodologies did not accomplish full operational outputs due to time constraints and have to be continued and refined in Phase II supplemented by additional studies.

Due to the issues and problems elucidated upon on the efficiency and effectiveness of project implementation, the project is considered not viable and sustainable without implementing Phase II designed to complete the activities leading to a refined and acceptable management plan and its implementation. Some of the research and inventory studies have to extend up to Phase III which started in year 2000.

4.2 Project Impacts

Notwithstanding the constraints on expected results as elaborated in Chapters 4.1 and 4.2 of the Main Text, the project in Phase I complemented by Phase II contributed immensely to the understanding of the complex biodiversity of LEWS and confirmed its flora / fauna richness and importance. Prior to Phase I activities, very little is known of the biodiversity and ecosystems of LEWS.

The management plan of 1996 while very general in scope and presentation provided initial programs that can be implemented under Phase II specifically those covered under the ITTO budget and work plan for 1997 – 2000. The main impacts of the management plan implementation include:

- The vast reservoir of biodiversity data completed under the scientific programs enhanced the perspective and understanding of the project implementers and other stakeholders of the conservation values of the LEWS in general and its various forest types and ecosystems. Conservation strategies and management guidelines depend on the quality and adequacy of the baseline knowledge as starting points. With the baseline data the plan provided guidelines for priorities for biodiversity inventories and ecological studies but no definite schedules and resource allocation. With limited study areas mostly in the wilderness zone and the incomplete results there is still the need to continue with most of the studies.
- The initiation of community development projects, even at pilot scales, successfully promoted the cooperation and support of local people to the project and biodiversity conservation in the long – term. Their direct involvement in plan implementation resulted to a very positive perception and attitude of the local people that sustainable development in designated areas will be of benefit to them and may uplift their current socio-economic conditions.
- The executing agency and the local communities benefited from the on-the-job trainings conducted by the project. The NPWO counterparts and research assistants were trained on field inventory techniques and species identification in such areas of studies for fish, reptiles, amphibians, small mammals, and the establishment of gene banks. Such training will assure future sustainability of the long – term studies identified but more personnel with qualifications and basic skills have to be trained in the future.
- Significant impact is achieved on infrastructure development with the construction of a headquarters complex which may be completed end of this year. The field station laboratory has been completed and the sub-ranger stations and sub-camps. Two climatological stations were set up in Ng Bloh, Ulu Katibas and Ulu Mujok. Two gene banks with a total area of 10.71 hectares containing some 1,245 potential timber trees were established under Phase I.
- The innovative approach on management zoning should be further refined to achieve some impacts in implementation. Implemented activities on community development in the buffer zone are commendable to divert unsustainable community use of resources to an effective mechanism for livelihood and forest protection. More guidelines are needed to prevent this zone as effective access points for forest destruction in the wilderness and core zones.
- The ITTO as funding agency stand to benefit from the results of Phase I and the implementation of the management plan in Phase II. These projects were selected and implemented due to their relevance to ITTO activities, criteria for project effectiveness, and its action plan. The results and experiences in baseline surveys and assessment, approaches, and formulation of a management plan can be valuable inputs to the organization's continuing refinements of biodiversity as one of the main criteria for its system of criteria and indicators for the management of natural tropical forests especially at the management level units like LEWS and on shared common ecosystem like the LEWS – BKNP Trans-boundary Conservation Area.
- The impact of the project on biodiversity conservation cannot be ascertained at this time due to insufficiency of data for conservation values and the absence of permanent monitoring plots to determine any changes. This should be considered under the on-going Phase III and in the programs after the ITTO support is completed.

4.3 Overall Assessment of Successes and Shortcomings / Failures

Operating under a very tight 2 – year project duration, the project was able to accomplish partially its projected outputs of conducting the necessary baseline data for biodiversity conservation, formulation of a comprehensive management plan, and a project design / proposal for Phase II of the project.

Despite limitations in the survey scope and results in Phase I, the data collected on the LEWS contributed immensely to the knowledge on biodiversity and some of the ecosystem processes and dynamics needed for long-term conservation and protection strategies of its inherent rich flora and fauna which was confirmed in the course of project implementation. The findings and results of IBBE 97 further enriched the data base and confirmed the high biodiversity of LEWS and the adjoining BKNP in West Kalimantan. Commonalities in flora and fauna and forest types / habitats provide excellent opportunities for further collaboration on a trans-boundary basis as a single ecosystem / management unit.

The project initially contributed to advancement of science with the discovery of new species of flora and fauna. Phase I inventories recorded at least 8 new species unknown to science and much more were collected in Phase II. Future discoveries are expected in the future with more detailed and complete biodiversity surveys. Participatory ethnobotanical surveys were also effectively initiated in Phase I involving the local Iban communities.

A management plan was formulated and published. The limitations and opportunities for implementation of the resulting plan were extensively elaborated in Section 4.2 of the main report . This project plan has to be revised and finalized considering new scientific inputs, changing circumstances, and needs for operational guidelines for the many aspects of biodiversity conservation covered for short, medium, and long-term strategies and programs. Thus, while the outputs in Phase I provided good starting schemes for conservation and sustainable development of LEWS, the specific objectives were only satisfied partially.

The implementation of project short-term programs under the plan, as implemented in Phase II, galvanized and strengthened the approach on local community involvement in planning and implementation. It refined the management zones in view of new scientific data. It moved effectively towards better analysis of data at ecosystem and genetic levels resulting to better knowledge of dynamic natural processes and the necessity of setting – up gene banks for a better forest in the future. The plan implementation also made significant headways in the establishment of infrastructures and laboratory facilities on site and the training of counterparts from the executing agency and local people on various aspects of inventory and assessment and ecological orientation. Finally, it improved initiatives in trans-boundary cooperation with BKNP with the formation of the LEWS – BKNP Trans – boundary Conservation Area, conduct of the 1997 IBBE (planned and approved as an extension of Phase I), the setting up of a Joint Task Force for management and identification of common programs for collaboration.

The resulting Phase II design did not appropriately incorporate the lessons and experiences in Phase I as biological surveys were continued with minimal improvements on approaches for integration of data and extrapolating to acceptable levels for management purposes. This resulted to non-completion of most studies (species and population counts still way below accepted norms for number of species in Sarawak and Borneo based on previous published reports and estimates) and continuation under Phase III. Phase II, however, significantly improved the data collected and added more studies to provide better scientific basis for the long – term conservation and sustainable development of LEWS.

The relative successes and failures of Phase I, as well as project efficiency and effectiveness, should be objectively viewed from the perspective that biodiversity surveys and formulation of a comprehensive conservation management plans are not short – term propositions that can yield highly acceptable results within a short span of two years or even including the time period allotted for Phase II. Target outputs can be accomplished but with much reservations and recommendations for refinements, continuation of survey and research activities, and re-orientation of work plan and methods. The fact that Phase I laid the foundation for future work on the conservation and sustainable development of LEWS gave enough reason to consider project accomplishments as satisfactory and the TOR significantly met, notwithstanding all the constraints elaborated on.

4.4 Alternative Design of the Project

Phase I suffered considerable setbacks from its original design and phasing of activities. As a more rationale alternative design option, Phases I and II should have been treated as one project from the start. Phase I with a two year duration is too short to accomplish long – term biodiversity surveys and produce definite and

acceptable inputs to a comprehensive management plan. The project should have been allocated a 5 - year time frame with the first 4 years earmarked for design, specifications, surveys, analysis, and data banking of the required biodiversity data.

With sufficient and well-designed inputs the last year can be spent for the formulation, consultation, and acceptance of a comprehensive long – term management plan. With the current designs and expected results for both Phase I and II, the time spent was longer (1993 – 2000) at 7 years and still only partially accomplished the expected results. These gaps were acknowledged in the project completion and final reports for both Phases and scientific surveys as inputs to management plan may well extend to Phase III. The deficiencies and need for revisions and updating of the management plan as produced in Phase I should be considered in the current Phase III and setting of final targets for completion of surveys needed as inputs.

5. RECOMMENDATIONS

Based from the findings of the Evaluation Mission, the following recommendations are hereunder provided to guide the implementation of the outputs generated under phase I, complemented and continued in Phases II and III, and the design of future projects similar to the LEWS:

- 5.1 The management plan of 1996 should be revised and expanded to conform to the need for a long – term comprehensive conservation management plan incorporating the findings and suggestions of the Mission on Chapter 4 of the report. The new plan should be action – oriented and operable in the medium term (5 years) with concrete programs, budget, work plan and implementing mechanisms including roles and responsibilities of implementers and stakeholders. It is also ideal that a yearly operations plan be produced for actual implementation annually.
- 5.2 Based on the existing information through the IBBE, other available information and the presented management plan, establish a preliminary action plan for the meantime and start implementing related emergency action wherever necessary. Based on that:
 - (i) formulate, together with Batang Ai NP and considering trans-boundary aspects, a development vision for the next 25 years
 - (ii) establish the required co-management structure for participatory planning,
 - (iii) determine the need for additional information required for detailed management planning towards the defined development vision
 - (iv) collect the required information in the LEWS and in the buffer zone
 - (v) formulate an action-oriented 25 years management plan
 - (vi) determine priority actions, outputs and required investment inputs for the next 5 years
 - (vii) elaborate the first operation plan, involving stakeholders and considering M&E as a basis for subsequent annual operational planning oriented on results of previous implementation and on agreed development objectives and vision
 - (viii) implement operational plans and monitor the achievement of results
- 5.3 The new plan should contain a section on the benefits and costs for implementation. In conservation most benefits are not monetized and come as amenities for the public good like biodiversity conservation, watershed enhancement, preservation of scenic and pristine beauty and the like. Such section will facilitate acceptability of the plan, facilitate implementation, and promote understanding and cooperation for all stakeholders involved.
- 5.4 The executing agency should work for the State approval of the new management plan in accordance with Sarawak's procedures and processes in consultation, formulation, and approval. The current plan is approved only at the project level by the PSC and state – wide imprimatur is required for acceptance, appreciation, and implementation. This will facilitate its use as a model for other conservation areas in Sarawak, Borneo, or other timber producing member countries of ITTO.

- 5.5 Considering the long – term nature of most biodiversity surveys and studies, future project designs should consider the Mission’s findings and lessons learned on capturing effectively the required minimum data for formulation of a plan and the prioritization of impact – oriented long – term scientific studies.
- 5.6 The present data base should be upgraded to a GIS-based relational data base to provide geographic generation of biodiversity statistical data and the compilation and analysis for various biodiversity parameters and indices. All project maps should be digitized and entered into the data base in GIS formats.
- 5.7 The various thematic maps especially on forest condition, types, and land uses should be regularly updated with use of satellite data (or radar if clouds persist) or aerial videography using helicopter. These remote-sensing methods may be quick and cost – effective approaches that should be tested considering the size, ruggedness, and remoteness of LEWS.
- 5.8 Most of the surveys should be refined to include population and habitat data and cover more sampling areas aside from the wilderness zone coverage. Conservation values especially for threatened and endangered species cannot be established without these. A statistically valid sampling approach must be devised to extrapolate the current data to LEWS as a whole and its management components.
- 5.9 Establish permanent monitoring and evaluation control plots or transects in the 8 forest types and the management and special zones so that biodiversity changes can be monitored on a regular basis and to determine impacts of various human intrusions especially on high impact areas near the buffer zone.
- 5.10 Phase III ending in 2003 has been totally re-oriented to support community development activities relating to conservation and sustainable development. The executing agency should try to accommodate other unfinished activities under Phases I and II with the approval of PSC especially the refinements of the various surveys and data analysis and the revision of the management plan.
- 5.11 Sub-categories for the management zones have to be established in the future for better location specific management controls. As cases in point, the buffer zone has to show designated areas for low - impact multiple use of resources and eco-tourism and the wilderness zones have to indicate areas to be used for continuous research and gene banks. It will also be useful to pinpoint in the core zone specific habitats of extreme biodiversity values such as for orangutans and other keystone species. In Phase II Special Protection Zones (SPZ) were identified for the protection of rare species and habitats.
- 5.12 The executing agency should coordinate with Malaysia’s representatives to ITTO Council meetings, at national policy level, on how to incorporate the project results on its annual report on meeting the ITTO’s Objective 2000 and the national and management unit criteria and indicator system for the sustainable management of natural tropical forests focusing on the biodiversity criteria.
- 5.13 Since the project was really packaged for 3 Phases, it is advisable that at the end of Phase III in 2003 an integrated report for all the completed phases should be prepared to properly clarify gaps in data analysis and results and determine impacts and contributions of the whole project to the conservation and sustainable development of LEWS. These completed phases should also be the main inputs to the new management plan.
- 5.14 Use effectively the potential of local (rural) stakeholders to form special wildlife committees with the aim to withstand increasing pressure from outsiders for fishery and hunting in the sanctuary and in its neighboring traditional use zone.
- 5.15 Strengthen the efforts for co-management with the local government of West Kalimantan especially Hulu Kapuas to improve and orient local trade in agricultural and foodstuff goods.
- 5.16 Enhance market - oriented agricultural development in the buffer zone and assist stakeholders in the forming of market cooperatives for more profitable access to local markets.
- 5.17 Assess the potential for changes under existing laws to grant licenses for guided hunting and fishing in the traditional use zones around the Sanctuary particularly for wild boar as to increase local income and awareness of biodiversity assets to generate additional income.

- 5.18 Assess potential and negotiate the inclusion of Batang Ai NP in the concept of ICDP including its trans-boundary aspects with Indonesia, particularly eco-tourism.
- 5.19 Enhance the intensity of bilateral negotiation and conciliation to tap the potential of trans-boundary co-management. obtain commitment at high State level for trans-boundary cooperation in ICDP as a basis for planning and action.
- 5.20 Negotiate possibilities to develop a co-management approach to enhance buffer zone management with the aim to better protect the northern border of the BKNP (not bordering LEWS) being on Sarawak territory, and lobby with the respective State agencies and private industries for collaboration; assess opportunities under trans-boundary initiatives (e.g. sosekmalindo) to enhance effectiveness of trans-boundary cooperation.
- 5.21 Derive an action - oriented approach to LEWS and buffer zone management departing from the scientific basis developed under phases I and II of the Project.
- 5.22 Enhance publicity and lobbying for the LEWS and for the ICDP approach as to effectively integrate the LEWS in a State-wide IPAS.
- 5.23 Use a watershed oriented approach in development efforts in buffer zones also with the aim to enhance awareness for the importance of upper catchments' areas inside the Sanctuary for watershed management and protection, and downstream fisheries
- 5.24 The ITTO and executing agencies should assess and enhance the inclusion of the trans-boundary projects in the concept of the Cluster Trans-boundary World Heritage Sites pursued by UNESCO.
- 5.25 Assign full-time permanent staff, appropriately trained in ICDP, to LEWS and Batang Ai, with the aim to consistently manage and represent them at State level, avoiding inefficient ad-hoc and accidental management.
- 5.26 Enhance activities related to alternative protein (wildlife, fish) production to reduce hunting pressure on the Sanctuary (game farming, controlled and guided wild boar hunting, fish rearing);
- 5.27 Enable and use wildlife committees to effectively monitor and guide wildlife and fisheries related development in the buffer zone, also mitigating negative effects particularly pressure from outsiders hunting and fishing in the traditional use zone as a result of the implementation of the wildlife trading ban.

2. Executive Summary of Ex-post Evaluation Report of PD 26/93 Rev.1 (F) “Development of Bentuang Karimun Nature Reserve as National Park (Phase I)” (Indonesia)

PART I: EXECUTIVE SUMMARY

1. BACKGROUND INFORMATION ABOUT THE PROJECT

Phase I of the BKNP project (the “Project”) is a direct result from ITTO’s engagement in the Project 106/90 Rev.1 (F): Development of the Lanjak-Entimau Wild Life Sanctuary as a Totally Protected Area (LEWS). The Project aims at conserving biodiversity in the transboundary area between Indonesia and Sarawak, covering a broad range of regional biodiversity.

The Betung Kerihun National Park (BKNP) in the Kapuas Hulu District is the largest conservation area in West Kalimantan, covering about 800,000 hectares of tropical rainforest at varying altitudes of 150 to 2,000 m a.s.l. The BKNP has a high floristic diversity including about 50 species endemic to Borneo. The faunal diversity comprises Orangutan mainly in the west part of the park, contiguous with the LEWS, Malaysia. The transboundary aspect of the two Reserves is particularly important for the conservation of the Orangutan and of other migratory species, but also to contribute to security and confidence between the two nations, and to enhance tourism potential in the region.

The project generally aims to develop BKNP as a NP for biodiversity conservation and as to use its research, educational, recreational and tourism potential and to develop transboundary cooperation with the LEWS. Much of the Project activities concerned the collection of baseline information on the flora and fauna of the BKNP, on the communities in the bufferzone and on other parameters needed for the formulation of a comprehensive management plan. Besides, Phase I included the IBBE in 1997, and the Interim Programme on Socialization of the Management Plan, as well as a proposal for the extension of the Project into a second Phase.

The project comprised two stages: (i) the information gathering stage involving inventories of flora and fauna, socioeconomic surveys, and other studies for about one year, and (ii) the compilation / analysis of data for integration / formulation of a comprehensive management plan to be completed in 6 months.

Based on the results of Phase I, a second phase is now proposed “The Implementation of a Community-based Transboundary Management Plan for the Betung Kerihun National Park, West Kalimantan, Indonesia”; the ITTO has expressed interest to co-finance relevant development activities in BKNP (Project Brief PD 44/00 Rev.3 (F)).

The Project addresses relevant ITTO Objectives, Criteria, and Action Plan and Priorities and represents an interesting and promising approach to secure the functioning of a regionally important ecosystem in favor of the productivity of downstream ecosystems including forest and agricultural land, and the gene pool for forest regeneration in the adjacent protection and production forest areas. The Project contributes to the ITTO Objectives

- a) on sustainable development,
- b) on research and development for improved forest management and enhanced values of forests other than timber,
- c) on mechanisms to capture new and additional financing resources to fulfill the objectives of ITTA,
- d) on sustainable utilization and conservation of timber producing forests and their genetic resources,
- e) on the access to and the transfer of technologies and cooperation required to implement the ITTA’s objectives.

The ITTO Yokohama Action Plan 2002-2006 reflects some of the strategies developed and experience gained in both the BKNP and LEWS projects. The Project contributes to goals in the “Reforestation and Forest Management” chapter of the Action Plan 2002-2006. It is in line and coincident with the following actions:

- Goal 1: Actions 4, 5, 6, 7;
- Goal 2: Actions 6, 8, 10 sub e, g,h.

The Project has experienced substantial political changes. While National Parks are responsibility of the central government, decentralization has drastically changed the Project. The regulatory framework is still missing, and local leadership does sometimes not recognize central level decrees.

The Project was first designed as a baseline study and a 25 years management plan for the NP. The decentralization has now allowed the Project to consider decentralized transboundary cooperation, as well as the management of the NP in cooperation and with support of the local government and rural stakeholders. The local autonomy allows the development of strategic economic and social development including transboundary cooperation. The Project, working in a field (conservation) which is less oriented in economic interests and pressures, could play a primer role in establishing and enhancing such cooperation.

1.1 Development Objective

The development objective of the BKNP Project is *“To develop a model of natural forest management through the National Park system that not only will serve conservation of species and ecosystems but will also accommodate other purposes such as socioeconomic development with the involvement of the local and regional communities. Such a model could be extended to regional cooperation between the neighboring countries of Indonesia and Malaysia”*.

1.2 Specific Objectives

The following specific objectives were planned as to contribute to the development objective:

1. Develop BKNR as a NP by conserving the biodiversity value of the area and by developing its research, educational, recreation and tourism potential of the area,
2. Establish cooperation in conservation activities between Indonesia and Malaysia (Lanjak Entimau Wildlife Reserve in Sarawak) through the development of transboundary joint management reserve

1.3 Planned Outputs

Two major outputs were planned to achieve the specific objectives,

1. Management plan for BK National Park
2. Joint project proposal for further cooperation of the Governments of Indonesia and Malaysia (Sarawak).

2. EVALUATION PURPOSE

The ex-post evaluation of the completed BKNP Project Phase I (PD 23/93 Rev.1 (F)) was conducted in order to provide the ITTO and the executing agencies with insight about project performance, effectiveness and impact with regard to pursued strategies and policies. The evaluation is focusing in the effectiveness and impacts with respect to the transboundary LEWS Project in Sarawak, particularly its Phase I (PD 106/90 Rev.1 (F)).

3. SCOPE OF THE EVALUATION

The Terms of Reference for the Ex-post Evaluation of PD 26/93 Rev.1 (F) are the same as the ones presented on Page 2 of the summary of the Ex-post Evaluation of PD 106/90 Rev.1 (F).

4. EFFICIENCY AND OPERATIONAL ASPECTS

4.1 Project implementation

While activities related to the declaration of the BKNP were efficient, Project implementation (regarding baseline surveys and elaboration of the plan) was not accomplished in the planned time. External factors as

well as internal constraints have caused the delays. The Project was initially planned to be implemented by the Ministry of Forestry (MoF), but no progress could be seen, hence ITTO has then proposed Project implementation through subcontracting to WWF. Several delays during the implementation of Phase I were due to political changes and others, only partly to be attributed to the WWF as implementing agency.

Initial Project planning has assigned insufficient time for data analysis of the IBBE hence not allowed in-time consideration of scientific results in the formulation of the management plan. The NP is too big and the information too scarce to produce a solid basis for NP management planning in such a short period.

The management plan and Park zoning have also suffered from formal requirements. Therefore, the presented management plan should be regarded rather as an emergency plan that a definite document ready for operational planning and implementation.

4.2 Input allocation

The allocation of funds was appropriate. The enormous rise in Rupiah funds due to the decline of that currency against the contracted US dollar funds and the sincere use of funds has allowed the implementing agency to extend the Project implementation beyond the originally planned implementation period of 2 years.

The WWF has assigned sufficient and appropriately qualified local and international staff to the implementation of the Project. Beyond the scope of the first phase, the WWF has provided sufficient staffing for the elaboration of the management plan and for the implementation of the "Interim Phase".

It is appreciated that Government has allowed efficient allocation of funds through the timely endorsement of ITTO and local financial resources to the Project. It is recognized that WWF is able and willing to bridge when resources are disbursed with delay.

5. EFFECTIVENESS

5.1 Project design and planning

The Project in its original design was planned by MoF and ITTO before its implementation was subcontracted to WWF. The Project as received by the implementing WWF does not have a logical framework however states clearly the specific objective, expected outputs and planned activities as well as financial and physical inputs. No clear information is contained on indicators. Possible risks were discussed but assumptions were not explicitly formulated.

No explicit activities were designed that would directly lead to achieve the output 2 related to a joint transboundary proposal for further action; planning of cooperation between the two Projects BKNP and LEWS was less effective. Reasons may be sought at any of the proposed agents of LEWS and BKNP.

The initial Project proposal does not clearly address the participation of local communities and government in planning particularly of bufferzone activities, and lacks the appropriate consideration of stakeholders as development partners. This restricts the validity and effectiveness of initial Project planning and led to the planning and design of the "Interim Phase" on socialization of the management plan. Later efforts by WWF to involve local communities will only be effective in the planned Phase II.

The Project proposal addresses clearly the relevance to ITTO Objectives and Guidelines and the compliance with ITTO Criteria; LEWS as well as the BKNP projects appear to have effectively contributed to revise and actualize ITTO strategies and objectives, particularly the ITTO Yokohama Action Plan 2002-2006. What concerns its policy level, Project planning was effective.

The planned activities were appropriate to generate the expected outputs. Time and input allocation were not sufficient, considering (i) the size of the Park, (ii) the diversity of ecosystems, (iii) the difficulties of access to the Park; (iv) the complexity and difficulty of the socioeconomic conditions of the bufferzone areas were underestimated, also because of the policy changes occurring during Project implementation. Therefore, the management plan as a major planned output of the Project, in its presented form and format, is not easily translated into BKNP implementation, and therefore is not regarded an effective tool for biodiversity conservation and management.

5.2 Effectiveness of project implementation and reporting

Project implementation started in November 1995; the scheduled duration of the project was 24 months. The project suffered from political changes, security concerns and boundary issues, delaying also the joint ITTO Borneo Biodiversity Expedition 1997, IBBE. Allocation of government staff to the NP management unit was delayed (until early 1998). The Project reports do not mention the observed delays nor their reasons and consequences. The delays led to several project extensions up to a total duration of the phase I of 45 months, followed by another extension with an "Interim Program on Socialization of the Management Plan". The design of this interim programme reflects learned lessons from the activities related to the elaboration of the Management Plan and makes effective use of the unplanned delays and remaining funds to address economic development as well as dissemination and training.

Under formal criteria, the overall Project implementation was not effective. It is acknowledged that project type and scope require a long-term commitment for funding and development while ITTO's approach to project funding is rather short and mid-term. WWF has made "the best" although sometimes unplanned and reacting upon deficiencies of initial planning and Project design.

The ITTO has visited the Project regularly and has timely reacted to the applications for justified extensions and the Interim Program; disbursement of funds was fast and in line with the agreed procedures of billing and justifying of expenditures.

5.3 Effectiveness of information dissemination of Project results

- (i) The declaration of BKNR as a national park was effectively disseminated;
- (ii) The results of the IBBE along with posters and other dissemination materials were published jointly with the LEWS project and are widely distributed;
- (iii) The databank as a tool for accessing the relevant information on the BKNP is still dormant;
- (iv) The 25 years management plan is less familiar to local stakeholders and representatives of interest groups that would be part of any implementation approach;
- (v) The agreement on transboundary cooperation and the respective committee are rather unknown.

The role of the NP in the context of regional development is not well understood among stakeholders; the socialization of the management plan has addressed this shortcoming but development dynamics and sustainability are not yet achieved, and the Project is still received with hesitance and reluctance. The lack of appreciation of the importance of conservation is general in Indonesia, and this has worsened during the economic crisis, however the Project has made insufficient efforts to reverse these circumstances and trends.

5.4 Achievement of outputs and objectives

The declaration of BKNR as NR by the Indonesian government were very efficient. Local population and government were not sufficiently involved in the planning, demarcation and declaration of the NP.

Biodiversity and other data compiled from available sources and several field surveys have created a sound basis on biodiversity assets, the classification of ecosystems, and a preliminary zoning of the Park; they are still insufficient for operational planning and need systematic integration into a data bank. Socioeconomic information needs to be refined with an analysis of felt needs and opportunities of bufferzone communities.

The presented 25 years Management Plan is comprehensive but provides little specific information which would allow effective operational planning beyond purely conservation oriented approaches. It follows government standard which restricts innovation e.g. in ICDP. It will be a main task of Phase II to further develop the Plan into an instrument which is imbedded in regional (spatial) planning and development.

5.5 Effectiveness of cooperation and capacity building among local institutional stakeholders

As a consequence of the conservation orientation of the Project, there is so far little understanding by the district government for an ICDP approach and hence little ownership of the management plan. The Project can not be handed over to local authorities for implementation. Only in the Phase II, and with the help of the

decentralization policy and in line with local development policies, it will be possible to integrate local power, and to enhance Project and Park ownership locally.

5.6 Achievement of transboundary cooperation

Transboundary cooperation was materialized in the “Launching Ceremony of Lanjak Entimau – Bentuang Karimun Biodiversity Conservation Area” in 10/1994. In the context of Project implementation, the cooperation was basically on (i) joint preparation, organization and implementation of the IBBE and (ii) mutual visits and workshops. The cooperation in the IBBE was very effective and resulted in new insights into the biodiversity of the area. The cooperation did not result in the planned joint project proposal but resulted finally in the establishment of a “Task Force Trans-Boundary Conservation Area BKNP/LEWS”.

6. IMPACTS

6.1 Declaration of the BKNR as a National Park

The declaration of the BKNR as a NP is the biggest effect achieved by and in the context of the Project. The re-classification into a National Park allows functional zoning and limited use of areas within the park border. The declaration as a NP has mobilized government funds for a NP management unit in Putussibau.

6.2 Data collection and baseline studies

The Project has initiated and conducted data collection and baseline studies on biodiversity and partly on socioeconomic assets of the park and bufferzone. The biodiversity studies have greatly enhanced the knowledge of the biodiversity assets of the region and of the threats and dynamics of species and ecosystems occurring there.

6.3 Current Status of the management plan elaborated by the project, effectiveness of its implementation and its contribution to current management of the National Park

The management plan is a first basis for action in BKNP and allows the deployment of staff to the Park authority in Putussibau. The local WWF office is now focusing in cooperation with the local mainly indigenous people and has recruited, for the planned 2nd phase of the Project, 5 local staff, most of them originating from bufferzone villages. It is noted, though, that reluctance, caused by deficient participation of the people in Park planning, is now constraining the implementation of the NP. People were not consulted about development perspectives and the role of the Park in regional development. Reluctance is also visible with the Bupati as the most important local government partner. His collaboration is indispensable and should be sought by all means.

The management plan is still scarcely distributed among stakeholders, restricting its use and impact. WWF has recognized the shortcomings caused by accidental distribution and consideration of the document and of its objective, the Park planning.

6.4 Overall post-Project situation

One year after termination, and despite of lack of external financing, the Project office in Putussibau is in function and is actually recruiting personnel for the planned Phase II of the Project. The Project has a valuable information basis on the recently declared BKNP; its management unit is established, its boundaries are marked and its existence and its management and development strategies promoted and socialized. The management plan is a point of departure. The Park itself as well as its management by the government are regarded sustainable. The Project and its context with the BKNP are well known; it has however somehow failed to explain to bufferzone farmers and to government agencies that it is not a regional or rural development project.

6.5 Unexpected effects and impacts

As one of the first projects of ITTO dealing with conservation and with transboundary approaches, the Project has contributed to conceptual development in ITTO and the stronger consideration of both conservation and transboundary cooperation in its Action Plan (2002-2006). The Project has gained experience, and can contribute to the institutional learning process of ITTO about the opportunities and constraints in this innovative field of sustainable forest development.

7. CONCLUSIONS OF THE EVALUATION

7.1 Implementation efficiency and project effectiveness

Project duration was extended, without additional funding, from an original 24 months to 62 months. Clear lessons should be drawn to allow for a more realistic planning of future projects of this type, both in project scheduling and project contents. Analysis and dissemination of project results should be integral part of project implementation rather than an unplanned activity requiring additional time. It is of course acknowledged that Project implementation has faced important constraints during political instability and change in Indonesia, and it would therefore be inappropriate to draw further conclusions from the analysis.

7.2 Overall assessment of successes and failures

The Project has achieved, or contributed to, important milestones in the establishment of the BKNP. It has established transboundary cooperation and initiated conservation and adventure tourism in the area, using the Park as an asset. The Project has not achieved to consolidate the biodiversity database with an effective data management and monitoring system. More efforts are required to involve the local population and the local government. The Project was slow in recognizing and using the opportunities to enhance Project sustainability through local Project ownership and has created expectation among local stakeholders which were not fulfilled because of the gap between Phases I and II of the Project. The cooperation with LEWS is not yet consolidated and requires further inputs.

7.3 Alternative design of the Project

A project design with strong participatory involvement of people and other actors particularly the district government would have allowed to integrate local stakeholders and their interest and perceptions in the management plan. A different approach to management planning would allow a more reactive and interactive development of management and operational plans. The necessary steps would involve the following:

- establishment of an “emergency management plan” to secure endangered ecosystems and biodiversity assets without prejudicing long-term planning;
- socialization of the emergency plan with stakeholder participation;
- collection of views and visions of Park management and economic opportunities;
- formulation and socialization of a “development vision” of the Park
- identification of relevant information gaps, and collection of this information;
- along with data collection, establishment of a monitoring system and a database;
- formulate a 25 years management plan, and obtain approval from the central (for the NP) and local governments;
- establish mechanisms of M&E, and plan revision, e.g. in 5 years periods;
- based on the 25 years plan, formulate 5 years and 1 year operational plans, obtain local and external financing, and initiate implementation.

8. RECOMMENDATIONS

1. use the WWF vertical structure to enhance lobbying in favor of integrated Park management between government levels (central, Tkt I, Tkt II) and to make best use of current decentralization policy
2. involve Tkt II in all aspects regarding Park management and operational planning and implementation in order to receive local support in “adding a development objective” or “reorient regional development” in favor of sustainable Park management. The Head of the District (BUPATI), the head of the District Planning Office (BAPPEDA) as well as the Head of the Customary Council (Dewan Adat) of Kapuas Hulu need to be invited to serve as members of the PSC.
3. lobby for collateral financing e.g. attracting reforestation funds to enhance forest management outside the Park as a tool to enhance labor and provide local timber resources
4. use the CO approach to train rural promoters recruited among local farmers in integrated Park management and in economic activities; refinancing of promoters could be e.g. by licensed collection of saleable goods hence motivating them to visit their clients regularly and pass information and training to them
5. deploy all project staff to Putussibau not to Pontianak. While the placement of most Project staff in Pontianak was justified
 - for designing and implementing the biodiversity survey and other baseline oriented activities involving intensive coordination and data management efforts,
 - for elaborating the management plan which is an exercise following, for convenience, central level standards and
 - considering the conditions under the old regime,

the new decentralization policy requires intense presence at the Tkt II level where autonomous development decisions and strategies are elaborated and implemented. This approach allows the Project to play a catalytic role in integrating the various stakeholders and identifying collateral benefits for conservation and integrated development.
6. revise management plan and develop a more action-oriented approach including effective cooperation with local stakeholders (institutional and rural) for co-management and economic as well as social development
7. establish a refined 5 y management plan oriented in ICDP and participatory rural development, enhancing local capabilities of co-management; use a bottom-up approach to generate the plan and have plan development immediately accompanied by relevant development activities, supported by the COs now employed for Phase II of the Project
8. revise Park zoning based on an evaluation of biodiversity assets and on traditional use and use rights, and negotiate and accommodate plan with local society, authorities, and with PHKA
9. enhance the cooperation with local NGOs to establish sustainable mechanisms of post-project development based on local empowerment. Revise the composition of the PSC and make the Bupati Kapuas Hulu head of the PSC;
10. establish a revised action and bufferzone oriented management plan with the participation of local institutional (BAPPEDA), non-governmental and rural stakeholders. Integrate planning results in the RTRWP
11. use the ecotourism approach to enhance international awareness for the NP and particularly transboundary co-management of the Park
12. enter into negotiation with Sarawak to enhance the northern border (east of LEWS) of the Park, and to initiate effective bufferzone management in the area
13. assume a pro-active role in conservation management through the cooperation with the Park administration, and plan and implement strategic investments in bufferzones, tapping on the economic potential of sustainable resource uses by local stakeholders in and outside the Park
14. assess the possibilities to mobilize reforestation funds as a source of permanent transfer of resources for the financing of biodiversity conservation, paying conservation of genetic resources as a service to the forestry sector
15. to ITTO: Modify the scope of conservation projects, allowing more time for the required steps for ICDP planning and preparation

16. to the joint committee: obtain support and commitment for transboundary conservation at high government level, and act according to agreed and supported policies
17. based on the existing information through the IBBE, biodiversity surveys, other available information and the presented management plan, establish a preliminary action plan and start implementing related emergency action wherever necessary. Based on that,
 - (i) formulate, together with LEWS and considering transboundary aspects, a integrated development vision for the next 25 years
 - (ii) establish the required co-management structure for participatory planning at district level,
 - (iii) determine the need for additional information required for detailed management planning towards the defined development vision
 - (iv) collect the required information in the LEWS and in the bufferzone
 - (v) formulate an action-oriented 25 years management plan
 - (vi) determine priority actions, outputs and required investive inputs for the next 5 years
 - (vii) elaborate the first operation plan, involving stakeholders and considering M&E as a basis for subsequent annual operational planning oriented on results of previous implementation and on agreed development objectives and vision
 - (viii) implement operational plans and monitor the achievement of results
18. involve the recently established district office of the tourism agency in the planning and implementation of ecotourism oriented activities including transboundary approaches with the LEWS
19. assess the opportunity to include the Batang Ai NP in Sarawak in the overall transboundary concept, particularly for its tourism assets and the potential to develop a joint ecotourism concept

3. Summary of the Evaluation of the Trans-boundary Conservation Area

1. BACKGROUND

The Malaysian and Indonesian governments, with the assistance of ITTO, initiated the novel approach to trans-boundary conservation strategy in 1994 and launched the Trans-boundary Biodiversity Conservation Area (TBCA) consisting of the Lanjak Entimau Wildlife Sanctuary (LEWS) and Betung Kerihun National Park (BKNP). With a combined area of about one million hectares, the TBCA is considered one of the largest conservation area in the humid tropics. Within its remote and rugged domain emanate three of Borneo's greatest rivers namely the Batang Rajang and Batang Lupar in Sarawak and Kapuas River in Kalimantan. Within its combined area lies common ecosystems and similar high biodiversity of flora and fauna that should be managed for long-term conservation and sustainable development.

LEWS with an aggregate area of 168,758 hectares is the largest wildlife sanctuary in the State of Sarawak and contains a representative 8 forest types typical in inland Sarawak. Its biodiversity is considered very high particularly on fauna with the Sanctuary considered as the final refuge and habitat of the Bornean Orangutan and the white – fronted leaf monkey. It is also identified as the only large forest area protected in Sarawak which can provide future seed source to improve forest productivity. The area is also significant from the perspective of socio-economic development of indigenous people who had been residing in the periphery long before it was proclaimed as a TPA. Primal consideration was also placed on the opportunity for trans-boundary biodiversity conservation as the TPA is contiguous and shares boundaries with a much larger protected area in West Kalimantan, Indonesia, the BKNP.

The BKNP in the Kapuas Hulu District is the largest conservation area in West Kalimantan, covering about 800,000 hectares of tropical rainforest at varying altitudes of 150 to 2,000 m a.s.l. The BKNP has a high floristic diversity including about 50 species endemic to Borneo. The faunal diversity comprises Orangutan mainly in the west part of the park, contiguous with the LEWS, Malaysia. The trans-boundary aspect of the two Reserves is particularly important for the conservation of the Orangutan and of other migratory species, but also to contribute to security and confidence between the two nations, and to enhance tourism potential in the region.

The first attempt to create a trans-boundary reserve between Indonesia and Malaysia dates back to 12/1992 when the Cooperation Committee on Forestry met for the 5th time. On this basis, the Government of Indonesia, proposed the Project to ITTO; in the 6th meeting of the Cooperation Committee on Forestry in 12/1993, the parties agreed to pursue "Joint Cooperation on Developing Trans-frontier Reserve" particularly BKNP and LEWS. Trans-boundary cooperation on joint approaches towards conservation between the governments of Indonesia and Sarawak (Malaysia) gained momentum during the 6th meeting of the "Joint Committee on Forestry between Indonesia and Malaysia in 1993. Cooperation materialized with the "Launching Ceremony of Lanjak Entimau – Bentuang Karimun Biodiversity Conservation Area" in 10/1994. In the context of Project implementation, the cooperation was basically on two levels:

- joint preparation, organization and implementation of the IBBE and
- mutual visits and workshops.

With these scopes in mind, the ITTO has agreed to finance the two projects

1. **PD 106/90 Rev.1 (F): Development of the Lanjak-Entimau Wildlife Sanctuary (LEWS) as a Totally Protected Area - Phase I, and**
2. **PD 26/93 Rev.1 (F): Development of Bentuang Karimun Nature Reserve as National Park – Phase I**

The design for both projects reflects the trans-boundary aspects of biodiversity conservation as well as joint protected areas management with the Government of Sarawak and Indonesia. In the approved proposal of LEWS, Phase I, the general development objective is " **to develop the LEWS as a Totally Protected Area for nature conservation and as a site for biological research. This will be contiguous with a larger wildlife sanctuary in Indonesia and will be carried out in cooperation with the government of Indonesia**". Implicit to this development objective are long – term conservation and sustainable development programs and strategies aimed at maintenance and enhancement of biodiversity in the sanctuary. These will be accomplished through the conduct of scientific surveys and studies and formulation of guidelines, policies, and strategies to achieve sustainable development.

Only when LEWS was already in execution that planning started for BKNP; learnt lessons were used to design relevant parts of the activities, particularly the Biodiversity Survey. Phase I of the BKNP project therefore is a direct result from ITTO's engagement in the LEWS.

The development objective of the BKNP Project is **“To develop a model of natural forest management through the National Park system that not only will serve conservation of species and ecosystems but will also accommodate other purposes such as socioeconomic development with the involvement of the local and regional communities. Such a model could be extended to regional cooperation between the neighboring countries of Indonesia and Malaysia”**. Specific objectives on trans-boundary cooperation include:

- a) establishment of cooperation in conservation activities between Indonesia and Malaysia through the development of a trans-boundary joint management reserve and
- b) development of joint project proposal for further cooperation of the Governments of Indonesia and Malaysia (Sarawak).

Both projects, funded by ITTO, completed their respective Phase I which generated baseline data on biodiversity, socio-economic and other attributes which were used in producing management plans for each conservation area.

2. PURPOSE / SCOPE OF EVALUATION

The evaluation of the TBCA is a major component of a post – evaluation of the completed LEWS project Phase I together with another similar project adjoining in West Kalimantan, Indonesia, the BKNP, directed at establishing their general effectiveness and efficiency in implementation and assessment of the projects' impacts on sectoral objectives and drawing out lessons and recommendations useful for future projects. At the meeting of the Twenty-eight Session of the ITTO Committee on Reforestation and Forest Management in May/June 2001 held in Yaounde, Cameroon, it was decided that an ex-post evaluation be conducted for the following projects:

- 1. PD 106/90 Rev.1 (F): Development of the Lanjak-Entimau Wildlife Sanctuary (LEWS) as a Totally Protected Area - Phase I**
- 2. PD 26/93 Rev.1 (F): Development of Bentuang Karimun Nature Reserve as National Park - Phase I**

In the TOR of the Ex-post evaluation mission it is mandated in item 2) that in addition, the Consultants will make an overall assessment of the effectiveness of the projects in developing a trans-boundary conservation area between the two countries:

- I. Assess the overall role in and contribution of the two projects to trans-boundary biodiversity conservation in Indonesia and Malaysia.
- II. Assess the level of cooperation between the Lanjak-Entimau Wildlife Sanctuary (LEWS) and the Bentuang Karimun National Park (BKNP) in the establishment of a trans-boundary conservation area between the two countries.
- III. Assess the effectiveness of the ITTO Borneo Expedition conducted in 1997 in contributing to the development of the management plan and to the collaboration between the LEWS and the BKNP as a trans-boundary conservation area.
- IV. Evaluate the appropriateness of the design and implementation approach of the two projects, in light of their efficiencies and effectiveness to assist promoting a trans-boundary biodiversity conservation area between Indonesia and Malaysia.
- V. Evaluate the institutional and policy constraints, if any, to the development of the trans-boundary conservation area and propose approaches to overcome them.
- VI. Recommend follow-up actions on joint programmes between the two countries to promote sustainable forest management through trans-boundary conservation areas.

VII. Make recommendations on:

1. the need for similar projects in the future.
2. the objectives of such future projects.
3. innovative approaches/designs for projects aiming at promoting trans-boundary conservation areas in the tropics
4. the scope and contents of ITTO's activities to address trans-boundary conservation in the tropics
5. target groups: countries, government, organizations, forestry sector and local communities.
6. the organizational arrangements of such projects.
7. follow-up and evaluation practices.
8. ways to overcome the institutional and policy constraints to the development of the trans-boundary conservation area (if any).
9. supplemental, alternative activities, processes, procedures, and/or follow-up programmes in the field of trans-boundary biodiversity conservation, if appropriate.
10. further actions needed to sustain or increase the intended effects on sustainable forest management and Objective 2000 and to draw conclusions which may be of relevance to other ITTO projects in the field of conservation and sustainable forest management.

The aspects of integrated trans-boundary conservation and development were addressed in discussions with the institutions that were involved in the Project, particularly the Governor of West Kalimantan, the Bupati of the Upper Kapuas District as well as the PHKA at the Ministry of Forestry of Indonesia and the executing agency , Forest Department, and ITTO consultants and staff in Sarawak.

3. FINDINGS

Trans-boundary cooperation materialized in the "Launching Ceremony of Lanjak Entimau – Bentuang Karimun Biodiversity Conservation Area" in 10/1994. In the context of Project implementation, the cooperation was basically on (i) joint preparation, organization and implementation of the IBBE and (ii) mutual visits and workshops. The cooperation in the IBBE was very effective and resulted in new insights into the biodiversity of the area. The cooperation did not result in the planned joint project proposal but resulted finally in the establishment of a "Task Force Trans-Boundary Conservation Area BKNP/LEWS".

Despite limitations in the survey scope and results in Phase I of both LEWS and KBNP, the data collected on contributed immensely to the knowledge on biodiversity and some of the ecosystem processes and dynamics needed for long-term conservation and protection strategies of their inherent rich flora and fauna which was confirmed in the course of project implementation. The findings and results of IBBE 97 further enriched the data base and confirmed the high biodiversity of LEWS and the adjoining BKNP in West Kalimantan. Commonalities in flora and fauna and forest types / habitats provide excellent opportunities for further collaboration on a trans-boundary basis as a single ecosystem / management unit.

The ITTO Borneo Biodiversity Expedition 1997 or IBBE 97 effectively conducted the needed surveys and studies to gain understanding of the rich flora, fauna, and forest ecosystems, and socio-economic structures of forest dependent communities of the two conservation areas and laid the cornerstone for future trans-boundary scientific and management cooperation. The expedition collected a lot of valuable data on forest types, botany, medicinal plants, primates, fish, birds, reptiles, amphibians and socioeconomic aspects on forest communities. The integration of these studies provided comparative evaluation on the ecology, species richness, and populations of flora and fauna of Central Borneo. The expedition's scientific reports published in 1999 provide the details of the findings and results of the joint venture. Other popularized reports and articles as well as multi-media public information materials were produced out of the successful expedition.

It was difficult for BKNP to keep up with the pace of the LEWS which was already in its second phase when BKNP started. The BKNP has not effectively made use of the experience in LEWS to accelerate their project and enhance the efficiency and effectiveness of its implementation. The BKNP suffered from the same problems and constraints on design of the biodiversity surveys to provide minimum inputs required to formulate a management plan. Surveys are continuing to date and the management plans need revisions to

be operational. Thus, the necessary inputs for an operational joint trans-boundary cooperation are still lacking and need further refinements and continuing activities.

One of the main causes of both projects' delays especially for the BKNP was the difficulties in harmonizing the management of the IBBE and other trans-boundary oriented approaches with the LEWS project. Trans-boundary cooperation also suffered for some time from political changes in Indonesia and particularly in the Ministry of Forestry – during its implementation it has experienced the changing leadership of 8 Ministries. Security concerns and boundary issues in West Kalimantan have delayed field implementation, particularly the implementation of the joint Biodiversity Survey ("ITTO Borneo Biodiversity Expedition 1997, IBBE"). The drought and haze in 1997 have further delayed the implementation of the IBBE.

Unfortunately, the important aspect of trans-boundary conservation for the LEWS and BKNP had been left out in their respective output management plans. The scientific insights and gains made in both projects on establishing a trans-boundary conservation area way back in 1994 and the results of the 1997 IBBE and other common initiatives should be amplified and sustained in the plan. While future direction tends towards the formulation of a common biodiversity management plan for the 2 adjoining conservation areas, it will be easier to harmonize plans if this aspect is already integral in their design. Much of the trans-boundary aspects of biodiversity conservation are really expansions of the individual plans and harmony of common objectives and programs.

No explicit activities were designed for the BKNP that would directly lead to achieve the output 2 related to a joint trans-boundary proposal for further action, geared towards specific objective 2 (regional development and trans-boundary cooperation with Malaysia). Implicit activities are only to be seen in the establishment of the trans-boundary committee; no resources or specifically designed activities were allocated to achieve the formulated output. Planning was less effective on what concerns the development of sustainable cooperation between the two Projects, protected areas and states/provinces. In the case of LEWS, no definite programs and activities are embodied for trans-boundary cooperation for plan implementation and oriented much of the activities to community development in Phases II and III.

The trans-boundary cooperation did not result in the planned joint project proposal but resulted finally in the establishment of a "Task Force Trans-Boundary Conservation Area BKNP/LEWS". An initial inter-governmental Task Force (TF) was created for the collaborative management of the Trans-boundary Biodiversity Conservation Area (TBCA) of LEWS and BKNP. It just met last August 2001 to formally organize the Task Force and agree on the Terms of Reference and the priority areas for cooperation. It defined its objective "to facilitate the management and enhance cooperation of the TBCA in the protection and conservation of flora and fauna and their habitats". It clarified the functions of the TF as a) to formulate appropriate guidelines for collaborative action, b) to advise the respective governments on issues pertaining to the management of the TBCA, c) to cooperate with its other in the protection and conservation of the TBCA's resources, d) to promote awareness of and support by the local communities on measures to protect and manage the TBCA, and e) to meet at least once a year. The TF will be composed of at least 8 regular members from both sides.

The long-term areas of cooperation were identified as protection, research, exchange of information, community development, ITTO assistance, and eco-tourism. Immediate actions will be done on joint patrol, staff exchange, and exchange of visits among local communities. It was decided that the TF will be permanent rather than ad hoc and should settle common issues. However, it has no legal mandate and individual problems will be solved at each park management level. The formation of the TF and clarifications of common areas for cooperation is a giant step towards achieving trans-boundary conservation and development efforts. This came quite late but the organizational mechanism established will assure that common interests and actions can be effectively implemented in the future. The TF did not tackle the important issue of controlling illegal logging and unsustainable shifting cultivation more pronounced in the BKNP. It directly addressed the involvement of local communities in the co-management of the TBCA and will initially conduct socio-economic baseline studies and land use patterns.

Trans-boundary activities directed immediately to project relevant activities are largely depending on external funding. Initiatives for trans-boundary cooperation has been driven mainly by the ITTO support to the 2 projects especially IBBE. There is no concrete plan on how to sustain these efforts when external funding is gone.

Based on individual data collection and baseline studies on biodiversity and partly on socioeconomic assets of each protected area and buffer zone, and supported by the trans-boundary IBBE, the 2 projects have greatly enhanced the knowledge of the biodiversity assets of the region and of the threats and dynamics of species and ecosystems occurring there. The IBBE as one of the major exercises in this context has also

created a basis for mutual understanding and joint strategic planning among those working in LEWS Sarawak and BKNP West Kalimantan; while this exercise had a significant impact on the executing agency in Sarawak, the governmental Park unit in Putussibau is still too young to allow for autonomous continuation of the trans-boundary efforts, hence additional inputs in the form of training and exercising the initiated cooperation is necessary.

Management zoning proposed by the BKNP is mainly based on watersheds. Zoning allows activities inside the NP especially eco-tourism. In LEWS, the zoning approach is for total protection and conservation and allows very limited activities only in buffer and wilderness zones. There must be synergy and complementation of zoning for these 2 conservation areas to achieve their common objectives. Both projects agreed on an eco-tourism approach and the proposal to include the adjoining Batang Ai in the TBCA should be seriously considered as the BKNP and this park in Sarawak can jointly spearhead developments on this direction.

While both sides Indonesia and Malaysia appear to have a clear picture on the scope of cooperation in biodiversity conservation and also in eco-tourism development and NTFP trade, the issues of trans-boundary cooperation in the suppression of illegal logging particularly along the northern boundary of the BKNP with Sarawak (outside LEWS) were not addressed in projects activities. The opening of Indonesia's border zone has facilitated cooperation but also aggravated pressures on natural resources

The Project was one of the first projects of ITTO dealing with conservation and with trans-boundary approaches. More than anticipated, the Project has contributed to conceptual development in ITTO and the stronger consideration of both conservation and trans-boundary cooperation in its Action Plan (2002-2006). It is felt that trans-boundary cooperation is a very worthwhile approach to sustainable forestry, particularly considering the persistent conflicts existing between countries about illegal imports and exports of forest products world-wide. Conservation is a sector which is less conflictive in this regard, because most countries have a good legislative basis of conservation. Large conservation areas and remote border zones of countries often coincide because those ecosystems and biodiversity assets relatively well conserved over time are often in these remote and less accessed areas. It is therefore useful to use trans-boundary conservation as a primer for trans-boundary forestry sector cooperation. The Project has gained experience, and can contribute to the institutional learning process of ITTO about the opportunities, constraints and ways to overcome them, in this innovative field of sustainable forest development

4. CONCLUSIONS

In conclusion, the implementation of the 2 ITTO funded projects provided some significant initiatives and inputs to the operationalization of the TBCA. The richness in biodiversity had been established even with incomplete survey results. The IBEE 97 further enhanced the findings on the commonalities of the 2 conservation areas that must be managed as one TBCA. The TF had been established and initially met to clarify and define its operations and the priority programs for joint undertakings. The TF may be able to come up with a joint proposal or action plan for the TBCA soon.

However, activities have not been moving as speedily as desired. From the official formation of the TBCA in 1994 only these formative results can be accounted for. These initial activities and results of trans-boundary management efforts, notwithstanding its limited scale, have already provided a model for other similar situations and have been used in other member countries for replication in Ecuador and Peru in South America; Thailand, Cambodia, and Laos in Southeast Asia; and Cameroon, Gabon, and Congo in Africa.

5. RECOMMENDATIONS

1. The design of future projects on trans-boundary conservation management similar to LEWS and the BKNP should consider at the outset the framework and guidelines needed for minimum impact implementation. At least the visions, objectives, and general strategies for trans-boundary conservation management should have been formulated prior to formal launching. These should have provided definite directions on how project activities and results for both projects can be effective inputs to the operational aspects of the TBCA. It is only in 2001 with the formation and meeting of the Joint Task Force that all these are being formulated initially.
2. The initiatives for trans-boundary conservation should be pursued by concerned government agencies of both countries rather than reliance on project initiatives driven by ITTO support. In the case of Indonesia where an international NGO is executing the project on KBNP, there is less

effective rapport with government agencies to deal directly with the Forest Department of Sarawak to institutionalize trans-boundary aspects of project implementation.

3. Analysis of baseline biodiversity data, including results of the IBBE 97, for both areas should now be analyzed and integrated from the trans-boundary perspective as basic inputs to a common management plan in the future. The studies on Orangutans and their habitats and migratory patterns is a clear example of useful trans-boundary surveys. Continuation of on-going surveys and studies for the 2 projects should now consider this integrated approach in data collection. Enhance also studies oriented towards effective protection of the conservation areas on both sides.
4. The suggested updating and refinements of the 2 management plans prepared for LEWS and BKNP should now consider trans-boundary conservation as the ultimate objective and should assess constraints in synergy and harmony like differences in legal status, management zoning, allowable activities, forest and land use policies, and approaches on eco-tourism and community development.
5. The created Joint Task Force for TBCA should be more active and aggressive in implementation. Meeting once a year may not provide concrete and timely directions and guidelines for the TBCA. If necessary sub - Task Forces can be created to address urgent tasks on control of illegal logging and the preparation of a common management plan. Community participation can be more effective at these lower but operational levels.
6. Conduct activities on cost-benefit analysis of the TBCA highlighting global and country benefits especially from the many amenities and services to be derived for the public good that are not monetized like carbon sequestration and biodiversity conservation. This will facilitate acceptance and popularization of the trans-boundary approach.
7. Strengthen the efforts for co-management with the local government of West Kalimantan especially Hulu Kapuas to improve and orient local trade in agricultural and foodstuff goods.
8. Assess potential and negotiate the inclusion of Batang Ai NP in the concept of ICDP including its trans-boundary aspects with Indonesia, particularly eco-tourism.
9. Enhance the intensity of bilateral negotiation and conciliation to tap the potential of trans-boundary co-management. Obtain commitment at high State level for trans-boundary cooperation in ICDP as a basis for planning and action.
10. Negotiate possibilities to develop a co-management approach to enhance buffer zone management with the aim to better protect the northern border of the BKNP (not bordering LEWS) being on Sarawak territory, and lobby with the respective State agencies and private industries for collaboration; assess opportunities under trans-boundary initiatives (e.g. SOSEKMALINDO) to enhance effectiveness of trans-boundary cooperation.
11. The ITTO and executing agencies should assess and enhance the inclusion of the trans-boundary projects in the concept of the Cluster Trans-boundary World Heritage Sites pursued by UNESCO.
12. Use the eco-tourism approach to enhance international awareness for the NP and particularly trans-boundary co-management of the Park.
13. Enter into negotiation with Sarawak to enhance the northern border (east of LEWS) of the Park, and to initiate effective bufferzone management in the area.
14. Involve the recently established district office of the tourism agency In Kalimantan in the planning and implementation of eco-tourism oriented activities including trans-boundary approaches with the LEWS.
15. Assess the opportunity to include the Batang Ai NP in Sarawak in the overall trans-boundary concept, particularly for its tourism assets and the potential to develop a joint eco-tourism concept.
16. Assess possibilities for independently financing trans-boundary activities like monitoring of migratory species, staff and information exchange, bufferzone management, eco-tourism development and promotion, border control for illegal wildlife, agricultural and forest products trade, and joint databank management.

17. Particularly, the local Indonesian autonomy allows, under the umbrella of the central and of the Tkt I governments, the development of strategic economic and social development considering also issues that go beyond national development and include trans-boundary cooperation. The Project, working in a field (conservation) which is less oriented in economic interests and pressures, could play a primer role in establishing and enhancing such cooperation. It can contribute to:
- lobby for subjects of cooperation dealing with conservation relevant issues (including logging) and beyond;
 - explore joint interests and the potential for co-development in selected fields (trans-boundary agriculture, tree crop development for local export to Sarawak, trans-boundary logging, tourism), besides conservation of biodiversity at species and ecosystem level.

With these approaches, the Project is prone to enhance the bi-national policy cooperation as reflected in several bi-national cooperation efforts including SOSEK Malindo, BIMP-EAGA and others.

18. Obtain support and commitment for trans-boundary conservation at high government level, and act according to agreed and supported policies.
19. Based on the existing information through the IBBE, biodiversity surveys, other available information and the presented management plan, establish a preliminary action plan and start implementing related emergency action wherever necessary while waiting for the formulation of a common management plan and TF actions. Based on that,
- (i) formulate, together with LEWS and considering trans-boundary aspects, a integrated development vision for the next 25 years
 - (ii) establish the required co-management structure for participatory planning at district level,
 - (iii) determine the need for additional information required for detailed management planning towards the defined development vision
 - (iv) collect the required information in the LEWS and in the bufferzone
 - (v) formulate an action-oriented 25 years management plan
 - (vi) determine priority actions, outputs and required investment inputs for the next 5 years
 - (vii) elaborate the first operation plan, involving stakeholders and considering M&E as a basis for subsequent annual operational planning oriented on results of previous implementation and on agreed development objectives and vision
 - (viii) implement operational plans and monitor the achievement of results

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