

資 料

- 1 . 協議議事録 (M/M)
- 2 . 中間評価調査表
- 3 . 投入実績一覧表
- 4 . 専門家派遣実績リスト
- 5 . カウンターパート配置リスト
- 6 . 供与機材リスト
- 7 . 研究テーマ一覧 (サブプロジェクト A)
- 8 . ワークショップ 2000 報告
- 9 . 日本人専門家による学会発表・論文リスト
- 10 . 無償資金協力による供与機材の活用状況
- 11 . GHNP チカニキリサーチステーション利用者数及びレンジャー数の
推移

1. 協議議事録 (M/M)

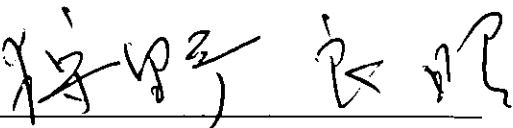
**THE MINUTES OF MEETING
BETWEEN JAPANESE MANAGEMENT CONSULTATION TEAM
AND AUTHORITIES CONCERNED OF
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE BIODIVERSITY CONSERVATION PROJECT PHASE II
IN THE REPUBLIC OF INDONESIA**

The Japanese Management Consultation Team, organized by the Japan International Cooperation Agency and headed by Mr. Yoshiaki Kano, visited the Republic of Indonesia for the purpose of the mid-term evaluation by reviewing past overall progress of the Japanese Technical Cooperation on the Biodiversity Conservation Project Phase II in the Republic of Indonesia. The mid-term evaluation was conducted jointly with the Indonesian Evaluation Team headed by Dr. Ani Mardiasuti.

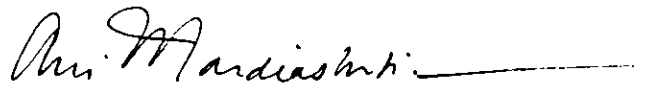
During its stay in the Republic of Indonesia, a series of meetings with the Indonesian authorities concerned and the field survey were carried out.

As a result of meetings and the survey, the mid-term joint evaluation team agreed to report to respective Governments in the joint evaluation meeting the matters referred to in the document attached hereto.

Jakarta, November 15, 2000



Mr. Yoshiaki Kano,
Team Leader,
Japanese Management Consultation Team



Dr. Ani Mardiasuti
Team Leader,
Indonesian Evaluation Team



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REPORT ON THE JOINT EVALUATION
OF THE BIODIVERSITY CONSERVATION PROJECT PHASE II
IN THE REPUBLIC OF INDONESIA

1 INTRODUCTION

The Biodiversity Conservation Project Phase II in the Republic of Indonesia (hereinafter referred to as "the Project") has been implemented since July 1, 1998, based on the Record of Discussions (hereinafter referred to as "the R/D"), signed on June 12, 1998, between the Government of Japan and the Government of the Republic of Indonesia.

According to the R/D, the project purpose is to strengthen the institutional capacity to conserve biodiversity in Indonesia Institute of Science (hereinafter referred to as "LIPI") and Directorate General of Protection and Nature Conservation of Ministry of Forestry (hereinafter referred to as "PKA") through mutual cooperation. Furthermore, the overall goal of the Project is to support the National Strategy of Biodiversity Management and Biodiversity Action Plan for Indonesia.

In order to enhance an effective implementation of the Project Type Cooperation, Japan International Cooperation Agency (hereinafter referred to as "JICA") has introduced a project management system called "JPCM" (JICA Project Cycle Management). This is a summary of the mid-term evaluation undertaken on the third year of the five-year project period as a part of the JPCM system.

The mid-term evaluation was carried out by a Joint Evaluation Team consisting of a Japanese Management Consultation Team and the Indonesian Evaluation Team. In the first step of the evaluation, the joint team assessed the degree and prospects of achievement of the project purpose and outputs based on the Project Design Matrix (PDM) and the Plan of Operation (PO) of the Project. In the next step, the team analyzed and evaluated the Project from the viewpoints of "Efficiency", "Effectiveness", "Relevance" and "Sustainability" in accordance with the JPCM system. Finally, the team made a set of recommendations to the Project in order to improve the project design and to make a smooth achievement of the project purpose.

2 MEMBERS OF JOINT EVALUATION TEAM

2.1 Japanese Side

- (1) Mr. Yoshiaki Kano / Team Leader
Managing Director, Forest and Natural Environment Department, JICA

- (2) Prof. Kunio Kikuchi / Sub-Leader/Coordination Promotion
Professor, Department of Humanity & Environment,
Hosei University
- (3) Dr. Masaaki Yoneda / Research and Survey/Information System
Senior Researcher, Research Division, Japan Wildlife Research Center
- (4) Mr. Tatsuo Sasaoka / National Park Management
Director, Biodiversity Center,
Nature Conservation Bureau, Environment Agency
- (5) Mr. Akinao Onishi / Planning Management
Project Officer, Forestry and Environment Div.,
Forestry and Natural Environment Dep., JICA

2.2 Indonesian Side

- (1) Dr. Ani Mardiasuti / Team Leader
Head of Department of Forest Resources Conservation,
Faculty of Forestry, Bogor Agricultural University
- (2) Ir. Ramon Janis, MM / Information System/National Park Management
Division of Evaluation and Reporting,
Directorate General Secretariat-Protection and Conservation Area,
Ministry of Forestry
- (3) Dr. Bambang Sunarko / Research and Survey/Information System
Division of Microbiology, Research and Development Center for Biology,
Indonesian Institute of Science (LIPI)

3 OBJECTIVES OF THE EVALUATION

Main objectives of the evaluation of the Project are as follows:

- (1) To conduct a comprehensive evaluation of the achievement in accordance with the original plan described in the R/D, Tentative Schedule of Implementation (TSI), PDM and PO, and
- (2) To make recommendations and suggestions to the Project regarding future project activities and necessity of amendment of the project design at the mid-term evaluation stage.

4 METHODOLOGY OF EVALUATION

4.1 Implementation of the Evaluation

The Joint Evaluation Team carried out the mid-term evaluation of the Project as follows,

- A. Obtained number of presentation from both the Indonesian counterparts and Japanese long-term experts
- B. Discussed the activities of the Project with them
- C. Had the field survey of the Project site and facilities
- D. Had the long time discussion to assess the Project

4.2 Items of the Evaluation

4.2.1 Accomplishment of the Project

Accomplishment of the Project was measured in terms of inputs, activities, outputs and project purpose, all of which are in accordance with the R/D, TSI, PDM and PO.

4.2.2 Analysis of Evaluation Criteria

(1) Efficiency

Efficiency of the project implementation was analyzed focusing on the relationship between outputs and inputs in terms of timing, quality and quantity, and on linkage with other cooperation schemes of JICA and other organizations.

(2) Effectiveness

Effectiveness was assessed by evaluating the extent to which the Project has achieved outputs and project purpose.

(3) Relevance

Relevance of the Project was reviewed as the validity of the project purpose and overall goal in connection with the development policy of the Government of the Republic of Indonesia and needs of the beneficiaries.

(4) Sustainability

Sustainability of the Project was forecasted in organizational, financial and technical aspects by examining the extent to which the achievement of the Project is sustained or expanded after the assistance is completed.

5 RESULTS OF EVALUATION

5.1 Accomplishment of the Project

5.1.1 Inputs

(1) Japanese side

(a) Experts

i. Long-term experts

By the time of this evaluation, a total of thirteen (13) long-term experts have been dispatched in the fields of Chief advisor, Coordinator, Natural environment research and survey, Information system, National park management and Environmental education.

ii. Short-term experts

By the time of this evaluation, a total of twenty-one (21) short-term experts have been dispatched in the fields of Forest ecology, Eco-tourism, Conservation of endangered species, and so on.

(b) Provision of machinery and equipment

The machinery and equipment worth approximately 95 million Japanese yen in total was provided to the Project by JICA by the time of this evaluation.

(c) Training of Indonesian counterpart personnel in Japan

Twenty (20) Indonesian counterpart personnel have been trained in Japan by the time of this evaluation.

(d) Budget allocation

For the effective and smooth implementation of the Project, total amount of 38.1 million Japanese yen has been allocated to supplement a portion of local cost expenditures.

(2) Indonesian side

(a) Appointment of counterparts and other personnel

A total of 66 counterpart personnel in total including management section have been assigned to the Project. Other supporting staff, such as drivers, secretaries, have also been assigned to the Project.

(b) Budget allocation

Approximately Rp. 1,512 million in total has been allocated as operational cost for the Project by the time of this evaluation.

(c) Provision of land, buildings and facilities

5.1.2 Activities

The Project consists of five (5) components and each component (called Sub-project) has its own PDM as shown in Annex 1. The activities carried out in each Sub-project by the time of this evaluation are summarized as follows:

A Natural environment research and survey

(Implemented by Research & Development Centre for Biology (RDCB)-LIPI)

A-1 Training for a part of advanced equipment (HPLC, SEM, laparoscope, softex and DNA sequencer) provided by grant-aid has been completed. Advanced equipment (Hema screen and Vet screen) was provided according to Activities 1-2 of the PDM. Researches for ex-situ conservation have been carried out and published in the Annual Workshop 2000.

A-2 Researches on in-situ conservation have been carried out and published in the Annual Workshop 2000. Mammals checklist was published and checklists of reptiles and amphibia were prepared for publication.

B Information system

(Implemented by Biodiversity Information Centre of RDCB (BIC)-LIPI)

B-1 Applications for specimen and bibliography database have been developed and staffs have been trained.

B-2 Web site of BIC has been prepared and opened in February 2000.

B-3 Data formats for specimen, field survey and bibliography have been developed. Newsletters have been opened at web site.

B-4 Manuals for computer system maintenance were prepared and staff training in-house of LIPI was conducted.

C Information system

(Implemented by Nature Conservation Information Centre (NCIC)-PKA)

C-1 Training on the GIS and the database system has been carried out.

C-2 Database systems both spatial and non-spatial have been developed.

C-3 Guideline for data collection has been established and data collection has started for all national parks.

C-4 Newsletters have been published. The web page of NCIC is in preparation.

D National Park management

(Implemented by Gunung Halimun National Park Office (GHNP)-PKA)

D-1 Preparation of an eco-tourism action plan is in progress for authorization. Preparation

of eco-tourism maps in three (3) areas is in progress.

D-2 Researches on protection of endangered species have been implemented by LIPI.

D-3 A leaflet including the draft of user guideline for the research station and canopy trail has been published and distributed to concerned agencies and organizations.

D-4 Environmental education programs and materials have been prepared and implemented to local people near around the GHNP.

E Dissemination of the Project Outputs

Each activity has been implemented in the four Sub-projects mentioned above.

5.1.3 Outputs

Accomplishments of each Sub-project output are as follows:

A Natural environment research and survey (RDCB-LIPI)

A-1 A total of thirteen (13) researches on genetics (e.g. sexing using DNA analysis) and five (5) researches on ecologically and economically important species are in progress.

A-2 Nineteen (19) researches on inventory and ecosystem, five (5) researches on economically important species, and five (5) researches on ecosystem monitoring are in progress in GHNP as a model area of in-situ conservation research.

These researches will contribute to both ex-situ and in-situ conservation of biodiversity in Indonesia.

B Information system (BIC-LIPI)

B-1 The data input systems for specimen, bibliography, and field survey have been developed.

B-2 The 170 data of flora, 1292 of fauna, and 960 of bibliography in Indonesia and researches in GHNP have been available at BIC web site (<http://www.bio.lipi.go.id>).

B-3 Data in standard format have been increasing.

B-4 The computer system has been maintained without serious trouble. The staff training has been continued by BIC itself.

C Information system (NCIC-PKA)

C-1 Seven (7) staffs in NCIC have been trained in Japan. The staff training has been continued by NCIC itself.

C-2 The database application system has been almost prepared.

C-3 The data have been collected from thirty-nine (39) national parks and the number of data has been increasing. The data entry was completed for twenty (20) national parks.

C-4 NCIC has published three (3) newsletters. The web page of NCIC will be available in a few months.

D National park management (GHNP-PKA)

GHNP Management Master Plan has not been authorized yet. In this Sub-project, each activity is supposed to be implemented under the Master Plan. It is necessary to authorize the Master Plan as soon as possible.

D-1 The draft of Action Plan for eco-tourism was completed. One of three eco-tourism maps was completed.

D-2 The researches on specific endangered species have been implemented which will contribute to the preparation of the action plan for endangered species conservation.

D-3 Researchers from LIPI and other institutes have utilized GHNP as their research field. Thirty (30) researches related to GHNP have been conducted by LIPI.

D-4 Environmental education programs and materials have been prepared and implemented to ten (10) elementary schools near around GHNP.

E Dissemination of the Project Outputs

E-1 Three (3) project reports and eleven (11) regarding books have been published.

E-2 Five (5) workshops and seminars have been organized by the Project as shown in Annex 2. Two (2) of them were related to the management of GHNP and the others were concerned with the whole Project including research activities by LIPI. Five (5) proceedings one (1) journal have been published.

E-3 Six (6) pamphlets and leaflets have been prepared and distributed.

E-4 BIC newsletters have been opened at web site. Three (3) newsletters have been published by NCIC.

Twenty-nine (29) publications were distributed by the Project, which are listed in Annex 3.

5.1.4 Project purpose

The project purpose is to strengthen the institutional capacity to conserve biodiversity in LIPI and PKA through mutual cooperation. Through technical cooperation by Japanese experts and counterpart training in Japan, the institutional capacity in both organizations have been improving. In Sub-project A, several LIPI researchers have been implementing

their research activities in GHNP and often use the research station. Their research results will be utilized by PKA to improve the GHNP Management Master Plan. Thus, mutual cooperation and coordination between the two organizations in biodiversity conservation will be promoted.

5.2 Analysis of Evaluation Criteria

5.2.1 Efficiency

(1) Timing, quantity and quality

The inputs from both sides were relatively appropriate in terms of timing.

Frequent changes of staffs of NCIC caused the delay of implementation of Sub-project C.

There has been the lasting shortage of budget from Indonesian side, so LIPI cannot provide enough expenses for the researchers and equipment.

(2) Linkages with other cooperation schemes of JICA and other organizations

Prior to the Project, Phase I and grant aid cooperation had been implemented simultaneously. The buildings of RDCB, NCIC, and Headquarter and Research Station of GHNP and relating machinery and equipment had been provided by grant aid. However, parts of advanced equipment in LIPI has not been used efficiently because of the insufficient running cost and trainings.

The Project has been utilizing specimen data prepared by LIPI supported by Global Environmental Facility (GEF) for its database system.

5.2.2 Effectiveness

The outputs that have been achieved so far are contributing to improve the institutional capacities in LIPI and PKA and mutual cooperation of them are being promoted steadily. In Sub-project A, most research activities are ongoing. Research capability of RDCB-LIPI will be enhanced by completing these researches. Concerning information system (Sub-project B and C), database applications have already been developed. It is expected that biodiversity information management system will be improved if data collection and system maintenance are carried out properly. In Sub-project D, environmental education programs have been developed and rangers have been trained. Concerning eco-tourism and conservation of endangered species, the preparation of action plans is ongoing. Concerning Sub-project E, considerable number of publication has increased awareness of the Project and biodiversity conservation.

5.2.3 Relevance

(1) Relevance to the national policy

Indonesia is one of the mega-biodiversity countries in the world. The Government of Indonesia considered that conservation of natural environment is one of the major issue in its national policy and established the Biodiversity Action Plan for Indonesia (BAPI) in 1991 to conserve biodiversity. Thus, the overall goal, to support implementing BAPI, is relevant to the policies of the Government of Indonesia.

(2) Rationale

The Project is expected to contribute to the development of research skills in LIPI and the improvement of conservation policy-making capability in PKA. The Project conforms to the interests of the two implementing organizations and contributes to the overall goal of the Project because LIPI and PKA play important roles in biodiversity conservation strategy of Indonesia.

5.2.4 Sustainability

There are many aspects that can be used to assess sustainability. Some of the aspects mentioned below are needed to be strengthened.

(1) Institutional aspect

a) LIPI

LIPI has not improved the situation of the shortage of its research staffs which will make it difficult to continue the project activities smoothly in the future.

b) PKA

There have been many institutional restructurings in NCIC. Institutional stability is essential to develop the staffs' capability efficiently. Concerning National Park management, it is necessary to cooperate with local people and NGOs for the purpose of conservation, promoting eco-tourism and environmental education projects.

(2) Financial aspect

Budget allocation by the Government of Indonesia has not been sufficient. It is forecasted that budget allocation will be insufficient after the Project is terminated. It is necessary for LIPI and PKA to discuss how to sustain the project outputs after the termination of the Project and to take necessary measures for generating their own income.

(3) Technical aspect

a) LIPI

Technical levels regarding field surveys and experiments at laboratories have been improved. It is necessary to strengthen the development of research programs to sustain

the research capacity.

b) PKA

GHNP staffs have been gaining capability of National Park management steadily. However, technical transfer to NCIC staffs has not been efficient. It is requested that PKA make further effort to improve their capabilities by the termination of the Project.

6 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

- (1) Most of the project activities have been implemented on schedule through the efforts of Indonesian counterparts and Japanese experts though the economic recession and political change have been influenced negatively from the beginning of the Project. Capacity building of the staff of LIPI and PKA for biodiversity conservation has been carried out through technical cooperation. All of the project activities are now in the process of implementation and some of them were already prepared draft paper or manual. The opening of the web site of BIC as shown in Annex 4 is one of the tangible results in the Project.
- (2) The concept of biodiversity conservation is broad and abstract. For that reason, it is needed to monitor the progress of each activity and to try to integrate them towards the project purpose. This time, the progress of each activity was understood respectively. Therefore, the integration and coordination of each activity would be requested to be strengthened.
- (3) There has been constant shortage of budget allocation from Indonesian side which caused the difficulties for the smooth implementation. Adequate contribution from Japanese side was done during the project period. However, if this condition continues, it is worried that some of the project activities may face difficulties to continue after the termination of the Project.
- (4) Some problems concerning counterpart assignment have been seen in both implementing organizations; LIPI could not employ new research staffs in recent years which is connected to the difficulties in smooth implementation of the Project; and NCIC-PKA had frequent changes of its staffs which caused the delay of implementation. Adequate and sufficient counterpart assignments are requested since the enhancement of human resource is essential factor for technical cooperation.

6.2 Recommendations

Based on the above analysis and evaluation, following recommendations are proposed for the purpose of effective project management and the realization of the project purpose.

- (1) A plan of activities in each Sub-project towards the termination of the Project is needed to clarify based on the discussion between Indonesian counterparts and Japanese experts taking into account the progress of each sub-project. Revised plan of activities will be prepared immediately.
- (2) The allocation of appropriate budget and staffs are needed to implement the Project smoothly. LIPI is requested to take necessary measures to promote joint-research programs with domestic and overseas research institutes, industries, and so on. This will be helpful for frequent use of its research equipment and generating its own income. It is also recommended that the frequent changes of counterparts are avoided in viewing point of efficient technical cooperation.
- (3) Special committee for efficient utilization of equipment is requested to be organized which consists of Indonesian counterparts and Japanese experts.
- (4) GHNP Management Master Plan, prepared in 1997, is requested to be authorized as soon as possible for the smooth implementation of the Project.
- (5) During the latter half of the cooperation period, strong emphasis is to be placed on sustainable development of the Project in terms of institutional, financial, and technical aspects.

Summary of PDM for Biodiversity Conservation Project (II)

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
Overall Goal The achievement of the objectives of the National Strategy of Biodiversity Management and Biodiversity Action Plan for Indonesia is supported.	Improvement of biodiversity conservation action and planning in Indonesia		
Project Purpose Institutional capacity to conserve biodiversity in LIPI & PHPA is strengthened through mutual cooperation: A. Contribution of research activities at RDCB/LIPI to biodiversity conservation is increased. B. Data management (i.e. collection, provision and utilization of data) is improved at BIC/LIPI. C. Data management (i.e. collection, provision and utilization of data) is improved at NCIC/PHPA. D. GHNP is managed properly based on management plan. E. Project results are disseminated.	A. Number of research on BD conservation B. C. Computer system for data management is prepared and increase data D. Improvement of the park management E. Information publicized	A. Number of publications and collections B. C. Interview LIPI/PHPA staffs D. Number of action implemented E. Number of publications/workshop relating project	- Adequate budget will continue to be allocated to LIPI and PHPA.
Outputs A1. Effectiveness of laboratory research (for ex-situ conservation) is increased. A2. Effectiveness of field research (for in-situ conservation) is increased. B1. Improved system to provide biodiversity data is available at BIC. B2. BIC data is available on internet. B3. Complete data provided to BIC increases. B4. Computers are maintained regularly and properly. C1. Technical level of NCIC staff is improved. C2. Application system for databases for all PAs is available. C3. Number of conservation data at NCIC is increased. C4. Awareness on NCIC outputs is raised. D1. Eco-tourism activities of PHPA are improved. D2. Rehabilitation plans of damaged ecosystem and specific endangered species are developed. D3. Utilization of the parks as a comprehensive research field is enhanced. D4. Awareness of local communities in and around GHNP on biodiversity conservation is increased. E1. Project reports are published. E2. Project workshops are held. E3. Project leaflets are prepared. E4. Project newsletters are published regularly.	A1, A2. Number of research supported by the project B1. Improved system is provided. B2. D/B for Web page is prepared B3. Standard data format for collection and field study is prepared B4. Number of maintenance times C1. Number of trained staffs is increased C2. Application system is prepared C3. Number of data C4. Information is distributed regularly D1. GHNP staffs training program is prepared D2. Rehabilitation plans are developed D3. Number of researchers and reports D4. A program for environment education is developed	A1, A2. Number of collections, publications and staffs qualified for instruments B1. Interview staffs B2. Number of access B3. Number of data prepared by standard format B4. Portion of available time C1. Number of staff qualified C2. Interview users C3. Increase data supported by project C4. Number of users outside of NCIC D1. GHNP staffs training program. D2. Rehabilitation plans. D3. Records of researchers and publications. D4. A program for environment education	- Adequate budget will continue to be allocated to NCIC. - Sufficient number of staff will be available at GHNP. - Trained C/Ps will continue to work at LIPI and PHPA. - Research activities will be coordinated well.
Activities (Please refer to preliminary draft PDM for an each sub-project.)	Inputs (Please refer to preliminary draft PDM for an each sub-project.)		(Please refer to preliminary draft PDM for an each sub-project.) Preconditions - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.

Annex 1-2

PDM for Sub-Project (A) - RDCB/LIPI

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
<p>Overall Goal The achievement of the objectives of the National Strategy of Biodiversity Management & Biodiversity Action Plan for Indonesia is supported.</p>	<p>Improvement of biodiversity conservation action and planning in Indonesia</p>		
<p>Sub-Project Purpose Contribution of research activities at RDCB/LIPI to biodiversity conservation is increased.</p>	<p>Number of research on biodiversity conservation</p>	<p>Number of publications and collections</p>	<p>- Adequate budget will continue to be allocated to RDCB.</p>
<p>Outputs 1. Effectiveness of laboratory research (for ex-situ conservation) is increased. 2. Effectiveness of field research (for in-situ conservation) is increased.</p>	<p>Number of research supported by the project</p>	<p>Number of collections, publications and staffs qualified for instruments</p>	<p>- Research activities will be well coordinated.</p>
<p>Activities 1-1. Undertake training for advanced equipment 1-2. Prepare a procurement plan for additional advanced equipment. 1-3. Conduct a research on genetic and breeding of potential species. 1-4. Conduct a research on ecologically and economically important species in laboratory. 2-1. Conduct inventory, status of important species and ecosystem. 2-2. Conduct monitoring of ecosystem. 2-3. Conduct a research on rehabilitation of disturbed ecosystem 2-4. Prepare and publish a checklist of flora and fauna. 2-5. Distribute copies of published checklist to National Parks. 2-6. Conduct a research on ecologically and economically important species in field.</p>	<p style="text-align: center;"><u>Inputs</u></p> <p><Japanese side> (1) Chief advisor (2) Coordinator (3) Long-term expert: 1 (Natural environment research and survey) (4) Short-term experts: 5 fields a) Genetics of potential species (fauna, flora and microorganisms) b) Physiology of potential species (fauna, flora and microorganisms) c) Biochemistry of potential species (fauna, flora and microorganisms) d) Animal ecology/taxonomy e) Plant ecology/taxonomy (5) C/P training (6) Equipment</p> <p><Indonesian side> (1) Research and BIC coordinator (2) C/P: 41 a) Genetics: 8 (Zoology-4, Botany-2, Microbiology-2) b) Physiology: 7 (Zoology 4, Botany 2, Microbiology-1) c) Biochemistry: 9 (Zoology-2, Botany-4, Microbiology-3) d) Animal ecology/taxonomy: 8 e) Plant ecology/taxonomy: 8 f) Ethnobotany: 1 (3) Administrative staff (4) Office spaces for experts (5) C/P budget</p>	<p><u>Preconditions</u> - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.</p>	

Annex 1-3

PDM for Sub-Project (B) – BIC/LIPI

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
<p><u>Overall Goal</u> The achievement of the objectives of the National Strategy of Biodiversity Management & Biodiversity Action Plan for Indonesia is supported.</p>	Improvement of biodiversity conservation action and planning in Indonesia		
<p><u>Sub-Project Purpose</u> Data management (i.e. collection, provision and utilization of data) is improved at BIC/LIPI.</p>	Computer system for data management is prepared and increase data	Interview LIPI staffs	- Adequate budget will continue to be allocated to BIC.
<p><u>Outputs</u> 1. Improved system to provide biodiversity data is available at BIC. 2. BIC data is available on internet. 3. Complete data provided to BIC increases. 4. Computers are maintained regularly and properly.</p>	<p>1. Improved system is provided 2. D/B for Web page is prepared 3. Standard data format for collection and field study is prepared 4. Number of maintenance times</p>	<p>1. Interview staffs 2. Number of access 3. Number of data prepared by standard format 4. Portion of available time</p>	- Trained staff will continue to work at BIC.
<p><u>Activities</u> 1-1. Modify design of the prototype systems (i.e. bibliography, species and specimen) 1-2. Prepare and test programs based on modified design. 1-3. Prepare and undertake technical training courses in system engineers. 2-1. Study a site of web. 2-2. Develop a BIC web site. 2-3. Make BIC data accessible to NCIC. 3-1. Prepare a standard format for data collection. 3-2. Conduct a workshop or a seminar on data format standardization. 3-3. Publish newsletters. 4-1. Undertake regular in-house training on software. 4-2. Prepare a manual for system maintenance.</p>	<p style="text-align: center;"><u>Inputs</u></p> <p><Japanese side> (1) Chief advisor (2) Coordinator (3) Long term expert: 1 (Information system A) (4) Short term experts (5) C/P's training (GIS and Environmental information) (6) Equipment: server(s), software(s), etc.</p> <p><Indonesian side> (1) Research and BIC coordinator (2) C/P: 3 a) System engineer: 1 b) Programmer: 2 (Database-1 /GIS-1) (3) Operators for data entry (4) Administrative staff (5) Office spaces for experts (6) C/P budget</p>		<p>- Sufficient budget for a contract for system maintenance and update will be allocated. - Sufficient budget for a contract for internet service will be allocated.</p> <p><u>Preconditions</u> - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.</p>

PDM for Sub-Project (C) - NCIC/PHPA

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
Overall Goal The achievement of the objectives of the National Strategy of Biodiversity Management & Biodiversity Action Plan for Indonesia is supported.	Improvement of biodiversity conservation action and planning in Indonesia		
Sub-Project Purpose Data management (i.e. collection, provision and utilization of data) is improved at NCIC/PHPA.	Computer system for data management is prepared and increase data	Interview PHPA staffs	- Adequate budget will continue to be allocated to NCIC.
Outputs 1. Technical level of NCIC staff is improved. 2. Application system for databases for all PAs is available. 3. Number of conservation data at NCIC is increased 4. Awareness on NCIC outputs are raised.	1. Number of trained staffs is increased 2. Application system is prepared 3. Number of data 4. Information is distributed regularly	C1. Number of staff qualified C2. Interview users C3. Increase data supported by project C4. Number of users outside of NCIC	- Trained staff will continue to work at NCIC. - Adequate budget will continue to be allocated to NCIC.
Activities 1-1. Undertake training of advanced GIS. 1-2. Undertake training of database management. 1-3. Undertake training of remote sensing. 2-1. Develop basic and detailed design. 2-2. Prepare programs. 2-3. Test the programs for model area. 2-4. Install the system to computers at NCIC. 3-1. Establish a guideline for data collection using a checklist. 3-2. Collect existing materials on PAs. 3-3. Collected data are entered. 3-4. Undertake training for selected rangers in data collection. 3-5. Establish rules for data exchange. 3-6. Establish an internet home page for data exchange. 4-1. Publish newsletters regularly. 4-2. Publish leaflets/booklets about NCIC.	Inputs <Japanese side> (1) Chief advisor (2) Coordinator (3) Long term expert: 1 (Information system B) (4) Short term experts (5) C/P's training (GIS and Environmental information) (6) Equipment: serve(s), software(s), etc. <Indonesian side> (1) Head of NCIC (2) C/P: 7 a) System engineer: 1 b) Programmer: 6 (Database-2/ Remote sensing-2/ GIS-2) (3) Operators for data entry (4) Administrative staff (5) Office spaces for the experts (6) C/P budget		- Sufficient budget for a contract for system maintenance and update will be allocated. - Sufficient budget for a contract for internet service will be allocated. - Coordination with BAKOSURTANAL, INTAG and LAPAN will be good. Preconditions - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.

Annex 1-5

PDM for Sub-Project (D) – GHNP/PHPA

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
<p><u>Overall Goal</u> The achievement of the objectives of the National Strategy of Biodiversity Management & Biodiversity Action Plan for Indonesia is supported.</p>	<p>Improvement of biodiversity conservation action and planning in Indonesia</p>		<p>- Current government policies will continue.</p>
<p><u>Sub-Project Purpose</u> GHNP is managed properly based on the management plan.</p>	<p>Improvement of the park management.</p>	<p>Number of action implemented</p>	<p>- Adequate budget will continue to be allocated to GHNP.</p>
<p><u>Outputs</u> 1. Eco-tourism activities of PHPA are improved. 2. Rehabilitation plans of specific endangered species are developed. 3. Utilization of the parks as a comprehensive research field enhanced. 4. Awareness of local communities in and around GHNP on biodiversity conservation is increased.</p>	<p>1. GHNP staff's training program is developed. 2. Rehabilitation plans are developed. 3. Number of researchers and reports. 4. A program for environment education is developed.</p>	<p>1. GHNP staff's training program. 2. Rehabilitation plans. 3. Records of researchers and publications. 4. A program for environment education.</p>	<p>- Sufficient number of staff will be available. - Trained staff will continue to work at GHNP.</p>
<p><u>Activities</u> 1-1. Develop an action plan for eco-tourism. 1-2. Prepare materials for eco-tourism (leaflets, slide programs, etc.). 1-3. Prepare a GHNP staffs training program for local guide training. 2-1. Conduct a joint study and research with researchers from LIPI and other groups on rehabilitation of specific endangered species. 2-2. Prepare rehabilitation plans. 3-1. Develop a user guideline for the research station and a canopy trail. 3-2. Manage the research station and the canopy trail. 3-3. Conduct PR activities for the research station and the canopy trail. 4-1. Conduct a survey on local communities. 4-2. Prepare a program for environmental education (including materials on alternative ways of living for local people). 4-3. Implement environmental education.</p>	<p style="text-align: center;"><u>Inputs</u></p> <p><Japanese side> (1) Chief advisor (2) Coordinator (3) Long-term experts: 2 a) National park management b) Environment Education (4) Short-term experts (5) C/P training (National park management, Wildlife (rehabilitation), Environmental education) (6) Equipment</p> <p><Indonesian side> (1) Head of GHNP HQ. (2) C/P: 5 a) National park management-2 b) Wildlife-1 c) Environmental education-1 d) Information-1 (3) Administrative staff (PHPA and GHNP) (4) Office spaces for the experts (5) C/P budget</p>	<p><u>Preconditions</u> - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.</p>	

Annex 1-6

PDM for Sub-Project (E)

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumptions
<u>Overall Goal</u> The achievement of the objectives of the National Strategy of Biodiversity Management & Biodiversity Action Plan for Indonesia is supported.	Improvement of biodiversity conservation action and planning in Indonesia		-
<u>Sub-Project Purpose</u> Project results are disseminated.	Information publicized	Number of publications/works hop relating project	-
<u>Outputs</u> 1. Project reports are published. 2. Project workshops are held. 3. Project leaflets are prepared. 4. Project newsletters are published regularly.	1. Number of project reports published. 2. Number of work-shops held. 3. Printing of leaflet. 4. Number of newsletter published.	1. Contents of reports. 2. Number of attendances and contents. 3. 4. Contents and number of distribution.	-
<u>Activities</u> 1-1. Prepare sub-project reports. 1-2. Prepare and publish the project reports. 2-1. Identify purposes and contents of the workshops. 2-2. Prepare materials for the workshops. 2-3. Hold workshops. 3-1. Prepare leaflets. 3-2. Publish and distribute leaflets. 4-1. Identify contents and writers of the newsletters. 4-2. Prepare and publish newsletters.	<p style="text-align: center;"><u>Inputs</u></p> <Japanese side> - All long-term experts (including Chief advisor and Coordinator) <Indonesian side> - All C/Ps		- <u>Preconditions</u> - C/P & adm. staff are appointed. - C/P budget for the project is in place. - Current government policies will continue.

Annex 2. SEMINARS / WORKSHOPS ORGANIZED BY THE PROJECT

Title	Place	Period
Workshop on Ecotourism Development of GHNP	Bogor	9-11 Mar 1999
Ekspose dan Lokakarya Potensi Taman Nasional Gunung Halimun dan Pemanfaatannya Secara Berkelanjutan	Bandung	24-26 Mar 1999
Rapat Koordinasi Pementapan Rencana Pengelolaan Taman Nasional Gunung Halimun	Bogor	28-29 Feb 2000
BCP Annual Meeting 2000 (Evaluation for the First Two Years' Activities of Phase 2)	Cibinong	5 Jul 2000
BCP Annual Workshop 2000 (Exposition & Workshop) - Ekspose dan Lokakarya Pengelolaan Keanekaragaman Hayati Taman Nasional Gunung Halimun	Bogor	3-5 Oct 2000

Annex 3. LIST OF THE PROJECT PUBLICATIONS

REPORTS

Research and Conservation of Biodiversity in Indonesia Volume III	Jun-98
Research and Conservation of Biodiversity in Indonesia Volume IV	Oct-98
Research and Conservation of Biodiversity in Indonesia Volume V	Mar-99

BOOKS

Pendidikan Lingkungan Untuk Siswa Sekolah Dasar Kelas 4 - 6 Taman Nasional Gunung Halimun	Mar-99
Hutanku Duniaku	Mar-99
Penjelajahan Menuju Puncak Berkabut	Mar-99
Development of Environmental Education Programme in Gunung Halimun National Park	Mar-99
Pengembangan Program Pendidikan Lingkungan di Taman Nasional Gunung Halimun	Mar-99
Checklist of The Mammals of Indonesia	Apr-99
Elang Jawa Satwa Langka	May-99
Keanekaragaman satwa Taman Nasional Gunung Halimun	Jul-99
Gunung Halimun National Park Mesh Map	Jul-99
Panduan Identifikasi Elang Jawa <i>Spizaetus bartelsi</i>	Jul-99
Gunung Halimun National Park (Revised Edition)	Sep-00

PROCEEDINGS

Proceedings of Workshop on Ecotourism Development for GHNP	Mar-99
Prosiding Pelaksanaan Penegakan Hukum Perdagangan Hidupan Liar Indonesia	Mar-99
Prosiding Pembahasan Prioritas Program Tindak Lanjut Rencana Pemulihan Elang Jawa	Mar-99
Laporan Ekspose dan Lokakarya Potensi Taman Nasional Gunung Halimun dan Pemanfaatannya Secara Berkelanjutan	Apr-99
Prosiding Lokakarya Rencana Pemulihan Gelatik Jawa dan Jalak Putih	Dec-99

NEWS LETTERS

NCIC News Volume 1	Mar-99
NCIC News Volume 2	Sep-99
NCIC News Volume 3	Sep-00

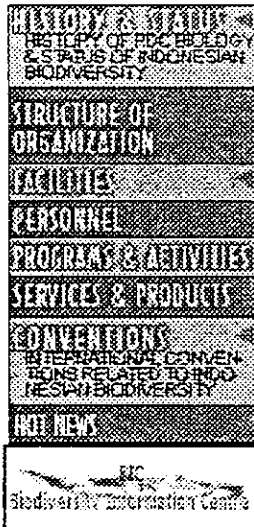
JOURNALS

Berita Biologi Volume 5 / Nomor 1	Apr-00
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PAMPHLETS / LEAFLETS

Biodiversity Conservation Project	Mar-99
Coelacanth Fish	Jan-00
Taman Nasional Gunung Halimun	Mar-00
Upaya Pengelolaan Taman Nasional Gunung Halimun	Mar-00
Ikan Coelacanth	Apr-00
Visitor Information of Cikaniki Research Station in Gunung Halimun National Park	Jul-00

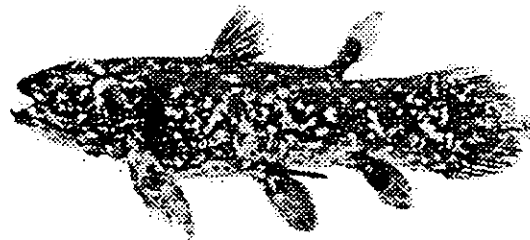
Research and Development Centre for Biology



general PROGRAMS

FEATURE: COELACANTH THE "FOSSIL FISH OF OLD MANAD"

This ancient fossil fish, considered to belong to Latimeridae family similar to *Latimeria chalumnae*, was discovered on July 30, 1998 by Dr. Mark Erdmann in Manado, North Sulawesi. It is very unusual as this living fossil fish was known only live Comoro Islands, Madagaskar. Before its discovery in 1938 in Comoro, it was believed to have been extinct since 70 million years ago. Why it was found alive in Manado remains a mystery. Anybody interested can see the specimen in Zoology Museum, Cibinong.



Reference:

Erdmann MV, Caldwell RL, & Mousa S. 1998. Indonesian: living of the gen. discovered in the North Sulawesi. *Ilmu Biologi* 1: 1-10.
Rachmatika I, Triakrawidjaja AH, & Wirjoatmoro S. 1998. Ikan *Latimeria chalumnae* (ikan fosil) Manado Tua. *Warta Zoologi* 1: 1.

Vision, Mission and Strategy

Organizational Structure

- RDC-Biology Headquarters
- Botany Division
- Zoology Division
- Microbiology Division
- Scientific Services and Information Division

Services & Products

- Services
 - General Services
 - Demanded Services Offered
- Products
 - Periodicals
 - Books

Programs and Activities

- International Projects
- Collaborative Research

Facilities

- Buildings
 - RDC-Biology Headquarters
 - Laboratorium & Equipment
 - Library
 - Specimens
- Exhibition Halls
 - Bogor Zoological Museum
 - Bogor Ethnobotanical Muse



INDONESIA BIODIVERSITY INFORMATION CENTRE

*What is Indonesia Biodiversity Information
Centre*

*What is Indonesia Biodiversity Information
System*

Related sites

Databases:

Bibliography Database

*Indonesia Flora and Fauna Biodiversity
Database*

*Gedung Widyasarwaloka
Balai Penelitian dan Pengembangan Zoologi
Pusat Penelitian dan Pengembangan Biologi, LIPI
Jl Raya Jakarta-Bogor Km 46, Cibinong 16911, Jawa Barat, Indonesia
Tel./Fax. +62-21-8765066, Tel. +62-21-8765065, Mail Address: P.O. Box 235 Bogor 16002
E-Mail: mzb@indo.net.id*

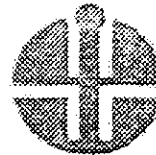


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




Biodiversity Conservation Project



Biodiversity Collection Project

Database

Lipi Home

<p>Flora(Herbarium Specimen)</p> <p> <u>Direct entry</u></p> <p> <u>Search by List</u></p>	<p>Total of Herbarium Specimen 2.000.000 Published in Web 1.000 Info detail herbogor@indo.net.id</p>
<p>Fauna(Zoology Specimen)</p> <p> <u>Direct entry</u></p> <p> <u>Search by List</u></p>	<p>Total of Zoology Specimen 1.000.000 Published in Web 2.000 Info detail mzb@indo.net.id</p>
<p> <u>Bibliography</u></p>	<p>Total of Bibliography 10.000 Published in Web 2.000 Info detail ariebud@indo.net.id</p>
<p> <u>Researcher</u></p>	<p>Researcher of RDCB Lipi Botany Zoology Microbiology</p>

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