

9 ローカルコスト負担事業一覧表

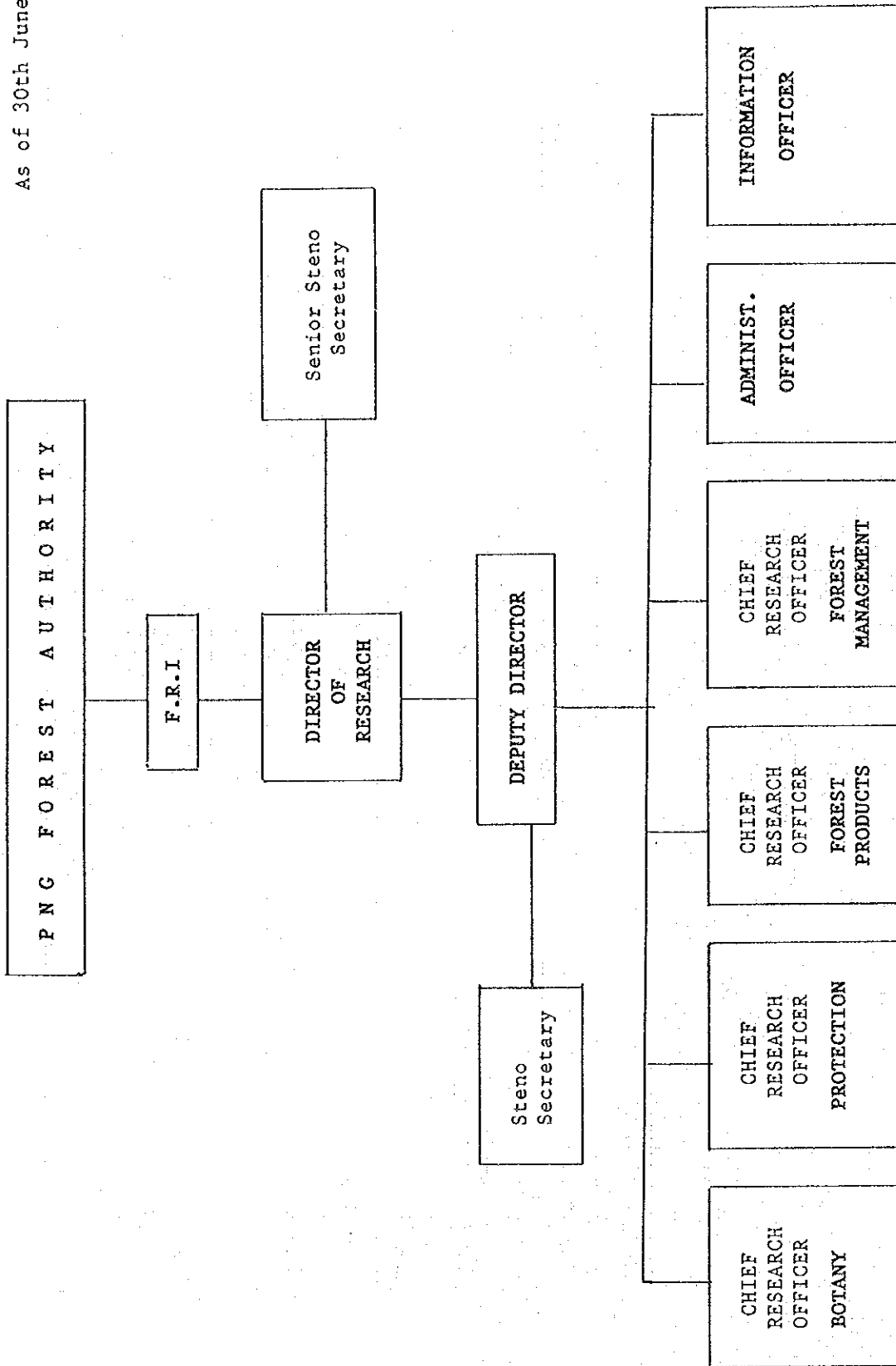
ローカルコスト負担事業一覧表

平成5年6月30日現在

	平成元年	平成2年	平成3年	平成4年	平成5年	計
モデルインフラ整備費		5,000万円				5,000万円
生活環境整備費		28万円				28万円
技術普及広報費			60万円	100万円	150万円	310万円
安全対策費			340万円	260万円		600万円
応急対策費			210万円			210万円
セミナー開催費				50万円	73万円	123万円
技術交換費				150万円		150万円
貧困対策費	120万円	110万円	100万円			330万円
現地業務費	186万円	250万円	225万円	502万円	507万円	1,670万円
現地研究費	108万円	159万円	145万円	202万円	213万円	827万円
計	414万円	5,547万円	1,080万円	1,264万円	943万円	総計 9,248万円

10 組織図

As of 30th June, 1993.



11 質問票

QUESTIONAIR (A)

For
THE GOVERNMENT OFFICIALS (MINISTRY OF FOREST)
FRI DIRECTOR, DUPTY DIRECTOR, HEAD OF DIVISION
& JAPANESE EXPERT

Content of the Questionnaire

1. On the forest policy of the PNG
2. On the consolidation of the instututes
3. On impacts of the Forest Research Project
4. On the sustainability of the Forest Research Institute(FRI)
5. On the lessons and advise which was gotton through the Project
6. Your evaluation of this project
7. Other comment

Answer

Your Name (block letter):

Your Position:

Would you please answer the following question.

1. On the forest policy of the PNG

1.1. The out-line of the latest forest policy:
(Only the government officials)

- (1)
- (2)
- (3)
- (4)
- (5)

1.2. Do you think this Forest Research Project has conformity with the
National Forest Policy ?

Yes, No

The reason of your answer:

1.3. Was there any change or revice of the Policy after the intermediate
development plan in 1989-1993 ?

Yes, No,

If your answer is yes, please answer the following question.

- (1) Why and how did it be changed ?
- (2) Are the research results of the project effective for planning of the new national forest policy ?
- (3) Did the research programme is changed by the new policy ?
- (4) How did they use the results for policy planning ?

2. On the consolidation of some forest institutes

- 2.1. Was the consolidation of institutes succesful or not ?

Successful: the reason;

Not successful: the reason;

- 2.2. Did the research activities are promoted or not by the consolidation?

Yes: the reason;

No: the reason;

- 2.3. What kind of merit and demerit are brought by the consolidation ?

Merit:

Demerit:

3. On impacts of the Forest Research Project

- 3.1. Could you write your opinion about impacts of the Project on the attached paper (table 1) ?

4. On the sustainability of the Forest Research Institute(FRI)

- 4.1. What do you think about sustainability of FRI ?

Sustainable:

Difficult to sustain:

Reasons

(1)

(2)

(3)

- 4.2. What are important to keep sustainabitiy of FRI ?

(1)

(2)

(3)

5. On the lesson and advise which was gotton by the Project implementation

One of the object of this evaluation is to get lessons for future project planning. We would like to hear your opinion about Japanese project.

Table 1 Impact of the Project

	Impact in the Project level & beneficiary of the impact	Impact in the sector level & beneficiary of the impact	Impact in the district level & beneficiary of the impact	Impact in the macro (nation wide) level & beneficiary of the impact
1. Technical impact				
2. Institutional impact				
3. Economic impact				
4. Cultural impact				
5. Environmental impact				
6. Political impact				
7. Other impact				

5.1. Please write your opinion on table 2 about the comparison between Japanese and other country's project.

Table 2 Comparison between Japanese and other country's project

	Japan	Other country
Good point		
Bad point		
How to improve the bad point		

5.2. What kind of lesson do you get through the Project implementation for future project planning or international cooperation ?

- (1)
- (2)
- (3)

5.3. Have you any advise to Japanese project ?

- (1)
- (2)
- (3)

6. Your evaluation of this Project

6.1. Could you write your evaluation of the Project on the attached paper (table 3) ?

6.2. General evaluation

How would you rate the Project on the scale from zero to hundred, where zero is complete failure and one hundred is complete success ?

Your evaluation:

The reason of the rate:

7. Other comment

Have you any other comments that you feel would be significant to this evaluation ?

Thank you very much your cooperation !

Table 3 Evaluation of the Project

Item of Evaluation	Criterion of Evaluation				
	very sufficient	sufficient	ordinary	insufficient	very insufficient
Degree of achievement					
1) Conformity with the policy					
2) Achievement of the project purpose					
3) Achievement of output of the project					
4) Achievement of Japanese side input					
5) Achievement of PNG side input					
Impacts of the Project					
1) Contents of the impact					
2) Extension and beneficiaries of the project					
3) Other impact					
Prospect of sustainability					
1) Institutional sustainability					
2) Financial sustainability					
3) Sustainability of facility, personell and technical level					
4) Limiting factors of the project management					
Grand evaluation					

Note: Please show your evaluation with * in a suitable column.

QUESTIONNAIRE (B)

For

FRI RESEARCHER (COUNTERPARTS)

Content of the Questionnaire

1. On your research activity
2. On impacts of the Forest Research Project
3. On the sustainability of the Forest Research Institute(FRI)
4. Your evaluation of the Forst Research Project
5. On the lessons and advise which was gotton through the Project
6. Other comment

Answer

Your Name (block letter):

Your Possition:

Period of Counterpart:

1. On your research acticity

- 1.1. Are the following activities useful for you ? What is the reason ?
Please write your opinion on the table 1.

Table 1. The Effect of Training

	Answer	Reason
Job training with Japanese expert at FRI	Useful Unuseful	
Training in Japan	Useful Unuseful	

- 1.2. How many report did you write ? And please write list of main report.
Yes, No,

Main report:

1.3. Did you develop any technique or method during the Project ?

Yes, No,

Developed technique or method :

1.4. Did you train or guide for trainees ?

Yes, No,

What kind of training ?

Number of trainees:

1.5. Did you planned your research subject ?

Yes, No,

Planned research subject:

1.6. Do you think that your technical level is upgraded ?

Yes, No,

Why do you think so ?

1.7. Do you want to continue your resarch at FRI ?

Yes, No,

Why do you think so ?

2. On impacts of the Project

(Same as questionnaire A)

3. On the sustainability of the Forest Research Institute(FRI)

(Same as questionnaire A)

4. Your evaluation of this project

(Same as questionnaire A)

5. On the lessons and advise which was gotton through the Project

(Same as questionnaire A)

6. On other comment

Thank you very much your cooperation !

質問表(A)はFRIスタッフ5名、日本人専門家6名から、また、質問表(B)はFRI研究者カウンターパート6名から回答を受けた。これらの回答は適宜本文で参考にさせていただいた。厚くお礼申し上げます。

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PART H. TRAINING AND LOCALISATION

- Formal technical training for foresters in Papua New Guinea will be provided by the University of Technology, the Papua New Guinea Forestry College in Bulolo and the Timber Industry Training College in Lae (the latter institutions are to be transferred to control of other agencies with specific responsibility and capability for training and education). The Authority will have input on curriculum content and be represented on any relevant Board of Studies.
- The Authority will provide advisory support to local business enterprises involved in small-scale forest base industries such as portable sawmilling, wood carving, furniture making, harvesting of rattan and sandalwood and community forestry.
- The Authority will institute human resource development programmes for its own staff designed to maintain a committed and appropriately skilled National Forest Service.
- All timber permit holders shall be required to support, encourage and assist landowner groups in the project area in the establishment of enterprises, which are capable of
 - providing goods and services directly and indirectly in support of the project;
or
 - making commercial use of timber and other forest products supplied from the project area.
- All forest industry participants employing non-citizen staff will be required to strictly adhere to localisation plans. The Authority will examine these plans and make recommendations to the Department of Labour and Employment on their content (including the need for experienced personnel to operate and provide training in specialist processing equipment).
- When the need arises for a forest industry participant to employ unskilled or semi-skilled labourers in a project area, preference shall be given firstly to members of landowner groups in the area and secondly to persons who are long term residents of the province in which the project is located. Only where labour is not available locally will recruitment be made elsewhere in Papua New Guinea. In no circumstances will employment of non-citizens be permitted for unskilled or semi-skilled labour.
- Specific avenues for landowner participation in a forest development project, whether as stake-holders, contractors or employees (including trainees and counterparts) will be as agreed in the forest management agreement and required under the timber permit.

U R A F T

PART I. FOREST RESEARCH

- The National Government recognises the importance to the forestry sector of competent forest research, particularly in underpinning sustained yield management of natural forests and in maintaining a competitive forest industry. This contribution can be particularly effective where the research is responsive to identified priority needs and output is effectively disseminated.
- To this end the Government will continue to support and maintain the Forest Research Institute in Lae which will have prime responsibility for the planning and conduct of forest research.
- A Research Advisory Committee to the National Forest Board will be established to identify research priorities and ensure that the Forest Research Institute's scarce resources are focussed on those priorities. Specific functions of the Committee will include -
 - continuous review of research priorities;
 - review and approval of all research programmes prior to their implementation;
 - monitoring and evaluation of research outcomes;
 - approval of Forest Research Institute's annual budget for submission to the Board; and
 - submission of an annual report to the Board on research, paying particular attention to performance relative to established priorities and targets, and recommended measures to improve performance.
- Membership of the Research Advisory Committee will be -
 - Head of Department of Forestry, Unitech (chairperson);
 - Director, Forest Research Institute;
 - General Manager, National Forest Service;
 - Representative of the Department of Environment and Conservation;
 - Nominee of the National Association of Non-Government Organisations;
 - Nominee of the Forest Industry Association; and
 - a tropical forest research specialist nominated by the Board.
- During 1993, the Research Advisory Committee will arrange for a major review of Forest Research Institute activities with the objectives of -

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- determining research priorities for the next decade;
- identifying research programmes and projects to address these priorities;
- establishing quantifiable measures of research output and procedures for performance monitoring and evaluation;
- identifying any changes needed in organisational structure and staffing levels;
- establishing baseline budget needs; and
- examining the potential and benefits of linkages with overseas research institutes and international agencies.

MINUTES OF THE JOINT EVALUATION MEETING
ON
THE FOREST RESEARCH PROJECT
IN
PAPUA NEW GUINEA

The Japanese Evaluation Team (hereinafter referred to as "the Team") organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Katsuyuki Ohmi, Director General, Forestry Training Institute, Forestry Agency, visited Papua New Guinea from 30th August to 10th September in 1993 for the purpose of evaluating the Forest Research Project in Papua New Guinea (hereinafter referred to as "the Project").

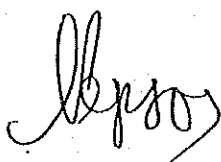
The Team and the authorities concerned of Papua New Guinea headed by Ms. J. L. Kekedo OBE, Secretary, Forest Authority, carried out the joint evaluation of the Project and held the Joint Evaluation Meeting in Port Moresby, on 8th September 1993.

Through the Joint Evaluation Meeting, both sides agreed to convey to their authorities concerned the results of the joint evaluation referred to in the Summary Report of Evaluation attached herewith.

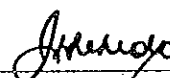
Port Moresby, Papua New Guinea
9th September 1993

近江克章

Mr. Katsuyuki Ohmi
Leader,
Japanese Evaluation
Team, JICA
Japan



Mr. Gabriel Pepson
Director,
Office of International
Development Assistance,
Department of Finance
and Planning,
Papua New Guinea



Ms. J. L. Kekedo OBE
Secretary,
Forest Authority,
Papua New Guinea

THE SUMMARY REPORT OF EVALUATION
ON
THE FOREST RESEARCH PROJECT IN PAPUA NEW GUINEA

1. INTRODUCTION

The Project has been implemented for five years from 1989 to 1994, based on the Record of Discussions (hereinafter referred to as the "R/D") signed on 16th November 1988.

The objectives of the Project are to promote the research activities on reforestation, forest protection and effective utilization of forest products at the Forest Research Institute in Lae, and thus to contribute to the sustainable development of forest resources in Papua New Guinea.

Before the termination of the Project, a joint evaluation team consisting of Japanese and Papua New Guinean members carried out an evaluation of the Project.

This is the summary report of the joint evaluation.

2. EVALUATION

2-1 Input

2-1-1 Japanese Side

(1) Dispatch of Japanese Experts

Two (2) Team Leaders, seven (7) long-term experts in the fields of Silviculture, Seed technology, Management of forest pests, Wood technology and three (3) Liaison Officers have been dispatched.

Twenty nine (29) short-term experts in the fields concerning the Project activities have been dispatched.

They have conducted transfer of the techniques in their respective fields to the Papua New Guinean counterpart members.

(2) Training of Papua New Guinean personnel in Japan

Seventeen (17) Papua New Guinean personnel have been accepted in Japan for technical training. The training has been very useful for the trainees in obtaining productive experiences and it has contributed to successful implementation of the Project activities.

(3) Provision of machinery and equipment

Necessary machinery and equipment have been provided to the Project as planned. Most of them have been well maintained and used effectively by the Project.

(4) Other Financial Supports

For effective and smooth implementation of the Project, necessary expenditure such as cost on nursery construction, cost on establishment of experimental forests, cost on security measurement and so on, have been paid by JICA under its project managing expenditure.

2-1-2 Papua New Guinea Side

(1) Assignment of counterpart and support staff

Papua New Guinean counterparts, administrative personnel and other necessary support staff have been assigned almost as planned.

(2) Lands, buildings and necessary facilities

The necessary facilities such as offices for Japanese experts, laboratories, nursery, experimental forests and other relevant facilities have been provided for the Project activities.

(3) Local costs

The necessary expenses such as running costs of the Project were paid by Papua New Guinea side.

2-1-3 Joint Committee Meetings

The Joint Committee Meetings have been organized on the major matters concerning the Project.

So far, four (4) meetings have been held and the Annual Work Plan of the Project have been formulated and approved. The overall progress of the technical cooperation program has been reviewed.

ami *JH* *JH*

2-2 Output

2-2-1 Research Cooperation

The activities of the Project were carried out in two research fields, i.e. Forest research and Forest products research. Forest research area was subdivided into five areas i.e. (1) Nursery practice, planting and tending, (2) Seed technology of major species, (3) Soil classification and soil fertility, (4) Forest entomology and insect control method, and (5) Forest pathology.

Forest products research was subdivided into four areas, i.e. (1) Wood preservation, (2) Chemical properties of major and lesser-known species, (3) Physical and mechanical properties of tree species, and (4) Wood seasoning and sawmilling technique.

The research results are summarized as follows:

A. Forest Research

(1) Nursery practice, planting and tending

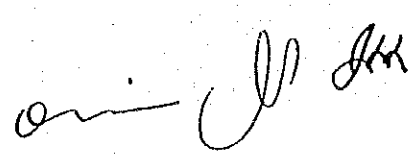
Three subjects were put under the area, i.e. a) improvement and enrichment of forest stands, b) tree breeding and progeny testing, and c) mycorrhiza inoculation and acacia rhizobium.

a) The subject of improvement and enrichment of forest stands including natural regeneration, supplemental planting, harvesting impact, nursery techniques and others were basically started from the third year. Even if the period was limited, valuable informations were obtained.

Particularly, a series of research topics from harvest to regeneration introduced excellent ideas for sustainable use of Papua New Guinean natural forests even if the topics could not be completed in the Project. However, it is necessary for the country to monitor the seedling growth and other environment condition of established regeneration plots and to introduce the methods to other eco-physio-logically different forests.

In addition to the results mentioned above, technology on evaluation of suitable conditions for seedling survival and growth, and compiling the density-growth sheet for getting suitable spacing of *Acacia mangium* was also transferred through field observation.

In nursery, techniques on experimental plan and data examination were transferred and technology on practical nursery tests such as shading, nutrient requirement and watering were also transferred. The series of studies may contribute to compiling of nursery manual, in the near future.



b) Although the subject on tree breeding and progeny testing was started from the third year as well as the subject mentioned above, valuable informations were obtained. Conservation and development of gene resources are one of the most important issues in PNG. Basic technology on data processing, isozyme analysis and other techniques for relating to gene conservation were transferred in here or Japan. By using these techniques, it is strongly expected that the gene preservation map is to be compiled throughout PNG.

Through the progeny test of several fast growing species, many valuable information on breeding values for second generation seed orchards were obtained. Techniques on data processing and evaluation were transferred. Further studies on these fast growing species is required and studies on other timber species should be started. Furthermore, basic techniques for vegetative propagation such as tissue culture and so on were transferred in Japan.

Selection of plus tree, establishment of gene conservation forests and seed orchards for the useful tree species should be accomplished in the near future.

c) Methodology of mycorrhiza inoculation for local tree species were understood by counterparts. Techniques on the collection, identification and preservation of microbial symbiont were transferred.

Selection of useful micro-organisms for tree growth was conducted by inoculation tests. Affinities between partners were also studied through the research. These techniques were transferred.

(2) Seed technology of major species

One subject, seed technology of main plantation and natural forest species, was set.

a) Germination test of 22 species was conducted. Suitable pre-treatment methods of 14 species were developed. Testing techniques were transferred. It is necessary to find out suitable treatment methods for other species.

b) Seed morphology and phenology study was performed, and seed quality evaluation and phenological observation techniques were transferred. However, as phenological observation needs long period, continuous observation should be required.

c) Sowing techniques were also transferred. However, as final target of the research subjects is to complete "Seed Manual of PNG Useful Species", continuous study should be needed.

(3) Soil Classification and Soil Fertility

One research subject, genesis and characteristics of forest soil was set.

a) Arrangement of the soil laboratory was carried out, particularly on soil physical aspects. Draft of soil survey manual was compiled.

b) Methodology of FAO Soil Classification system and the basic idea of soil distribution and mapping by using the system were transferred. Subdivision of soil units of the system for practical application of soil distribution and mapping is to be required for the future study.

c) Methodology on estimation of soil productivity were transferred. However, the method should be adapted to some useful species such as *Acacia mangium*, *Eucalyptus degluptas* and *Araucaria* sp..

(4) Forest entomology and insect control method

One subject, impact of insects on main tree species was studied.

a) The subject was started from third years due to delay of expert dispatch. However, valuable informations were obtained.

b) Identification of insect pest and establishment of pest status of plantation were initiated from literature examination and extended to field survey specialized to 12 species of living trees and wood. Through the research, these insect pests were recorded and damage status were evaluated. As the techniques were transferred, the topic should be expanded to other tree species.

c) Ecological and biological study of major insect pests were conducted in monitoring spots of *Anisoptera* sp., *Pinus* sp., *Acacia mangium* and *Araucaria* sp. with assistance of provincial government. Data processing method will be introduced within the project term.

d) Biological control of pine pest, *Lymantria ninayi* is going to be established by using *Apanteles* sp.. Detail parasite insect survey of 2 plots will be conducted for the purpose. Similar study was started in provenance test plots for *Araucaria* sp.. In the study, selection of pest resistant specimen is targeted. In the future, the study should be expanded to other species.

e) Methodology and various techniques on this subject were transferred. However, methods for mass production of pest and parasite should be developed. Apart from the target of the Project, FRI has very excellent collection of insects. Compiling the data base of the collection might be useful for the research subjects.

(5) Forest Pathology

This area has one research subject, root and heart rot of commercial tree species.

a) Research was carried out on root and heart rot of *Araucaria cunninghamii*, *Eucalyptus deglupta*, *Acacia mangium*, *Nothofagus* sp. and others. Some of the species of fungi, living on these hosts were identified and cultured.

b) A survey was made of disease in plantation especially in the lowland area. A brief assessment of heart rot was also conducted in the natural forest of West New Britain.

c) On the basis of the above studies candidates for biological control of pathogen will be identified. However, this work is still in the early stage and will require more emphasis in future.

d) The integrated biological control study followed with biological methods using both insect and fungi can be developed in future.

B. Forest Products Research

Concerning the forest products research, following 4 research areas which are composed of 2 to 3 subjects has been carried out. Almost of all sub-subjects have been accomplished according to the plan. The results and future works are summarized as follows:

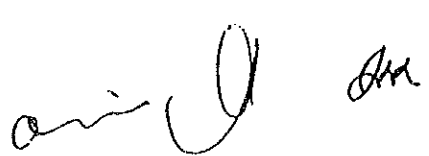
(1) Wood Preservation

a) Treatabilities study of lesser-used species

Fifteen lesser-used species grown in PNG were treated with the preservatives such as creosote and CCA, and the treatabilities of these species were examined. Through these experiments, the fundamental techniques required for the study of wood preservation were transferred to PNG counterparts by a JICA short-term expert. In future, it will be necessary to carry on the study on many species.

b) Performance of CCA pressure treated timber in marine environment and inspection of waterfront structure.

This research subject could not be carried out because of the absence of a counterpart. As the experimental method for this subject is almost same for the subject a), there will be no problem in carrying out this subject in future.



(2) Chemical properties of major and lesser-known species

a) Fundamental procedure for wood chemistry

The chemical properties of 30 species grown in PNG have been already clarified. Future chemical analysis of about 70 species should be attempted. There will be no difficulty in doing research hereafter because the test samples have been already prepared and techniques for the study were transferred to counterpart by a JICA long-term and short-term experts.

b) Wood extractives

The role of wood extractives in the natural durability of four timbers against basidiomycetes were studied. This work will continue with other lesser-known species and it will be more important to study the isolation and identification of wood extractives in relation to food, medicine, and other essential commodities. In this case, it will be necessary for counterpart to train the technique for chemical analysis in Japan.

(3) Physical and mechanical properties of tree species

a) Physical properties of lesser-used species

The experimental techniques including the use of scanning electron microscope (SEM), and light microscope, and the measurement method of physical properties of wood were transferred to counterparts by JICA short-term experts. Several species were tested and the results were published.

b) Mechanical properties of lesser-used species

Techniques required for the study were transferred to counterpart. The test of teak has been finished. This work will continue with other lesser-used species.

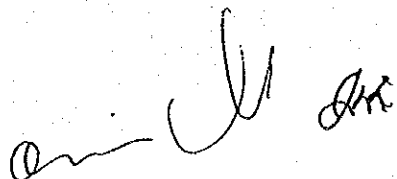
(4) Wood seasoning and sawmilling techniques

a) Assessment of sawmilling practices and their efficiency.

The survey of saw milling operation in PNG were conducted by a JICA short-term expert and a counterpart. This work is to be continued by a counterpart hereafter.

b) Assessment of seasoning practices and their efficiency.

The research techniques required to conduct the wood drying test were transferred to a counterpart by a short-term and a long-term expert of JICA. Several species were tested by using the dry kiln apparatus and made clear the drying schedule for each species.



c) Wood machining properties

Operation techniques of wood-working machineries including of setting of knife blade, sharpening and grinding of knife, and safety operation technique were transferred to a counterpart by a JICA long-term expert. Further experiment to clarify the difference of machining properties among species will be carried out in future.

2-2-2 Research Result

All of the activities as well as research findings of the Project are presented in various kinds of presentation meetings and reported in the research notes, proceedings of seminar and other publications.

(1) Presentation

Altogether 38 research results were presented until November, 1992. Majority of them was presented by short and long term JICA Experts. The former was 19 and the latter was 3. Research seminars were held 3 times and 15 presentations were given. In addition to them, one training meeting on the operation of scanning electron microscope was held.

Whereas not counted in the number, one international seminar was held in this September. It includes 10 general reports and 23 scientific presentations.

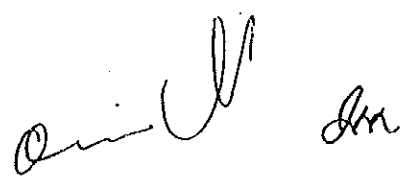
(2) Publications

Altogether 106 research results and introduction of the activities were reported. Major research findings were compiled in the research notes (1-6) and the proceedings of the seminars. Among them, 13 reports were for general view, 26 for silviculture, 10 for forest protection and 31 for forest products. Other reports were for JICA HQ by experts and PNG scientists who visited Japan.

In addition to above publications, about 18 reports were made by counterparts in 1992.

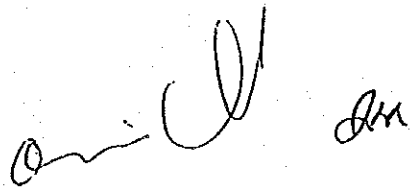
2-3 Accomplishment of the Project Masterplan

The objectives of the Project Master Plan which mentioned in the R/D were to promote research activities on reforestation, forest protection and effective utilization of forest products so as to contribute to the sustainable development of forest resources in PNG.

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According to the chapter of Input and Output on this document, the input by both side of Japan and PNG has almost been accomplished. As the output of the project, technology transfer on the techniques, research and training has bee also achieved except for some research subjects. During the implementation of the Project, 106 research papers were published as the results of research activities. The team recognized that almost all basis of research activities have been established, and the objectives of the Project is being accomplished gradually.

On the other hand, the team observed that the Project began to have some impacts on the reforestation, forest protection, effective utilization of forest products to other areas through the seminars and the training activities which has been implemented so far. The team recognized that the goal of the Project are still half away. Because, in general, the fruits of research and training activities are accomplished slowly.

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3. CONCLUSION

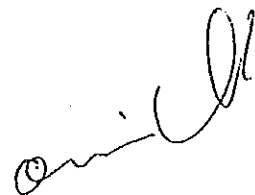
The bilateral cooperation of the Forest Research Project between JICA and PNG Forest Research Institute has been implemented in Lae, PNG ever since its commencement in 1989.

Excellent rapport has been achieved between Japanese and PNG sides over the years.

With reference to the R/D which was signed in 1988, most of the field of the objectives have been accomplished sufficiently, and research cooperation has been well managed.

However, many important research subjects are now undergoing in the present Annual Work Plan. Also, PNG side will conduct to review the research priorities of Forest Research Institute until end of this year.

Therefore, it is a necessity to continue research activities of the Project for more necessary period, but renewal of JICA-FRI cooperative research subjects will be prepared based on the results of review and approval of all research programs by PNG side. Also, renewal of those should be focussed on the research field of sustained yield management of natural forest such as natural regeneration, enrichment plant and tree improvement.



THE RECORD OF DISCUSSIONS
BETWEEN THE JAPANESE IMPLEMENTATION SURVEY TEAM
AND THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF
PAPUA NEW GUINEA
ON THE JAPANESE TECHNICAL COOPERATION
FOR THE FOREST RESEARCH PROJECT IN PAPUA NEW GUINEA

The Japanese Implementation Survey Team (hereinafter referred to as "the Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Takao Fujimori, Director, Silviculture Section, Forestry and Forest Products Research Institute, visited Papua New Guinea from November 6, 1988 to November 18, 1988 for the purpose of working out the details of the technical cooperation program concerning the Forest Research Project in Papua New Guinea.

During its stay in Papua New Guinea, the Team exchanged views and had a series of discussions with the Papua New Guinea authorities concerned on desirable measures to be taken by both Governments for successful implementation of the above-mentioned project.

As a result of the discussions, the Team and the Papua New Guinea authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Port Moresby, Papua New Guinea

November 16, 1988

Takao Fujimori

Dr. Takao Fujimori
Leader,
Implementation Survey Team,
Japan International Cooperation
Agency

Michael Kontagarea

Mr. Michael Kontagarea
Secretary,
Department of Forests,
Papua New Guinea

Witnessed by

Gabriel Pepson

Mr. Gabriel Pepson
Assistant Secretary,
Foreign Aid Management Division,
Department of Finance & Planning,
Papua New Guinea

THE ATTACHED DOCUMENT

I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of Papua New Guinea will cooperate with each other in implementing the Forest Research Project (hereinafter referred to as "the Project") at the Forest Research Institute in Lae for the purpose of promoting research activities on reforestation, forest protection and effective utilization of forest products, and thus contribute to the sustainable development of forest resources in Papua New Guinea.
2. The Project will be implemented in accordance with the Master Plan given in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. In accordance with laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense the services of Japanese experts as listed in Annex II through normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Japanese experts referred to in 1 above and their families will be granted in Papua New Guinea privileges, exemptions and benefits no less favorable than those accorded to experts of third countries working in Papua New Guinea under the Colombo Plan Technical Cooperation Scheme, and will include the following:
 - (1) Exemption from income taxes and charges of any kind imposed on or in connection with the living allowances remitted from abroad in relation to implementation of the Project;
 - (2) Exemption from import and export duties and any other charges imposed on personal and household effects which may be brought in from abroad or taken out of Papua New Guinea;
 - (3) Exemption from import taxes, import sales taxes, sales taxes and other taxes and charges of any kind imposed on or in connection with the purchase in Papua New Guinea by the Japanese experts of one motor vehicle per expert;
 - (4) Free local medical services and facilities for the Japanese experts and their families.

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III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to provide at its own expense such machinery, equipment and other materials necessary for implementation of the Project as listed in Annex III, through normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The articles referred to in 1 above will become the property of the Government of Papua New Guinea upon being delivered C. I. F. to Papua New Guinea authorities concerned at the ports and/or airports of disembarkation, and will be utilized exclusively for implementation of the Project in consultation with the Japanese experts referred to in Annex II.

IV. TRAINING OF PAPUA NEW GUINEA PERSONNEL IN JAPAN

1. In accordance with laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to receive at its own expense the Papua New Guinea personnel connected with the Project for technical training in Japan through normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Government of Papua New Guinea will take necessary measures to ensure that the knowledge and experience acquired by the Papua New Guinea personnel from technical training in Japan will be utilized effectively for implementation of the Project.

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V. SERVICES OF PAPUA NEW GUINEA COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. In accordance with laws and regulations in force in Papua New Guinea, the Government of Papua New Guinea will take necessary measures to secure at its own expense the necessary services of Papua New Guinea counterpart and administrative personnel as listed in Annex IV.
2. The Government of Papua New Guinea will allocate the necessary number of suitably qualified personnel corresponding to each Japanese expert to be dispatched by the Government of Japan as specified in Annex II for effective and successful transfer of technology under the Project.

VI. MEASURES TO BE TAKEN BY THE GOVERNMENT OF PAPUA NEW GUINEA

1. In accordance with laws and regulations in force in Papua New Guinea, the Government of Papua New Guinea will take necessary measures to provide at its own expense:
 - (1) Land, buildings and facilities as listed in Annex V;
 - (2) Supply or replacement of machinery, equipment, instruments, vehicles, tools, spare parts and any other materials necessary for implementation of the Project other than those provided through JICA under III above;
 - (3) Transportation facilities and travel allowance for the official travel of the Japanese experts within Papua New Guinea;
 - (4) Suitably furnished accommodations for the Japanese experts and their families.
2. In accordance with laws and regulations in force in Papua New Guinea, the Government of Papua New Guinea will take necessary measures to meet:
 - (1) Expenses necessary for the transportation of articles referred to in III above, within Papua New Guinea, as well as for the installation, operation and maintenance thereof;
 - (2) Customs duties, internal taxes and any other charges imposed in Papua New Guinea on the articles referred to in III above;
 - (3) All running expenses necessary for implementation of the Project.

VII. ADMINISTRATION OF THE PROJECT

1. The Secretary of the Department of Forests will bear overall responsibility for implementation of the Project.
2. The Director of the Forest Research Institute, as the Project Manager, will be responsible for administrative and managerial matters of the Project.
3. The Japanese Team Leader will provide necessary recommendations and advice on technical and administrative matters concerning implementation of the Project to the Project Manager.
4. The Japanese experts will give necessary technical guidance and advice to Papua New Guinea counterpart personnel on matters pertaining to implementation of the Project.
5. For effective and successful implementation of the Project, a Joint Committee will be established with the functions and composition as referred to in Annex VI.
6. The Project will be implemented in collaboration with relevant organizations in line with the organization chart as shown in Annex VII.

VIII. CLAIMS AGAINST JAPANESE EXPERTS

The Government of Papua New Guinea undertakes to bear claims, if any arise, against the Japanese experts engaged in the Project resulting from, occurring in the course of, or otherwise connected with, the discharge of their official functions in Papua New Guinea except for those arising from the willful misconduct or gross negligence of the Japanese experts.

IX. MUTUAL CONSULTATION

There will be mutual consultation between the two Governments on any major issues arising from, or in connection with, this Attached Document.

X. TERM OF COOPERATION

The duration of technical cooperation for the Project under this Attached Document will be five (5) years from April 1, 1989.



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A N N E X

I. MASTER PLAN

1. Objectives of the Project

The objectives of the Project are to promote the research activities of reforestation, forest protection and effective utilization of forest products at the Forest Research Institute, and thus to contribute to the sustainable development of forest resources in Papua New Guinea.

2. Activities of the Project

To attain the above-mentioned objectives, the following cooperation activities will be implemented.

(1) Forestry Research on

- (a) Nursery practice, planting and tending
- (b) Seed technology of major species
- (c) Soil classification and soil fertility
- (d) Forest entomology and insect control method
- (e) Forest pathology

(2) Forest Products Research on

- (a) Wood preservation
- (b) Chemical properties of major and lesser-known species
- (c) Physical and mechanical properties of tree species
- (d) Wood seasoning and sawmilling techniques

II. JAPANESE EXPERTS

1. Team Leader

2. Experts in the fields of:

(1) Silviculture

(2) Seed technology

(3) Management of forest pests

(4) Wood technology

3. Liaison Officer

Note: 1. Team Leader may serve concurrently as an expert in one of the fields mentioned above.

2. Short-term experts will be dispatched when the necessity arises for smooth implementation of the Project.

III. LIST OF EQUIPMENT

1. Equipment and machinery necessary for:

(1) Research on forestry

(2) Research on forest products

2. Books and other necessary printed matters

3. Vehicles and their spare parts

4. Other materials necessary for implementation of the Project.

IV. LIST OF PAPUA NEW GUINEA COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Counterpart personnel

- (1) Project Manager
- (2) Counterpart experts in the field of:
 - (a) Silviculture
 - (b) Seed technology
 - (c) Management of forest pests
 - (d) Wood technology

2. Administrative personnel

- (1) Clerical and service employees
- (2) Drivers and laborers
- (3) Other necessary supporting staff

- Note. 1. The Papua New Guinea side will assign at least one (1) suitably qualified Papua New Guinea research personnel corresponding to each long/short term expert to be dispatched from Japan.
2. The Project Manager may nominate the Deputy Project Manager when the necessity arises for smooth implementation of the Project.
3. The number of staff mentioned under 2 above will be adjusted as and when required.

V. LIST OF LAND, BUILDINGS AND FACILITIES

1. Land for:

- (1) Nurseries
- (2) Experimental forests
- (3) Other related facilities if necessary

2. Buildings and facilities

- (1) The Project Office and related facilities in the premises of the Forest Research Institute
 - (a) Project Office
 - (b) Laboratories and lecture rooms
 - (c) Warehouse for forestry materials
 - (d) Garage
- (2) Field facilities for research and survey
 - (a) Experimental forests
 - (b) Nurseries
 - (c) Seed Bank
 - (d) Facilities for forest products in the premises of the Timber Industry Training College
- (3) Other related buildings and facilities for effective implementation of the Project.

VI. THE JOINT COMMITTEE

1. Functions

The Joint Committee, composed of those members listed under 2 below, will meet at least once a year and whenever necessity arises, and work:

- (1) To formulate the Annual Work Plan of the Project in line with the Tentative Schedule of Implementation formulated under the framework of this Record of Discussions;
- (2) To review the overall progress of the technical cooperation program as well as the achievements of the above-mentioned Annual Work Plan;
- (3) To review and exchange views on major issues arising from or in connection with the technical cooperation program.
- (4) To submit reports containing their findings and recommendations to the Department of Forests and JICA.

2. Composition

(1) Chairman

Secretary of the Department of Forests

(2) Members

1) Papua New Guinea side:

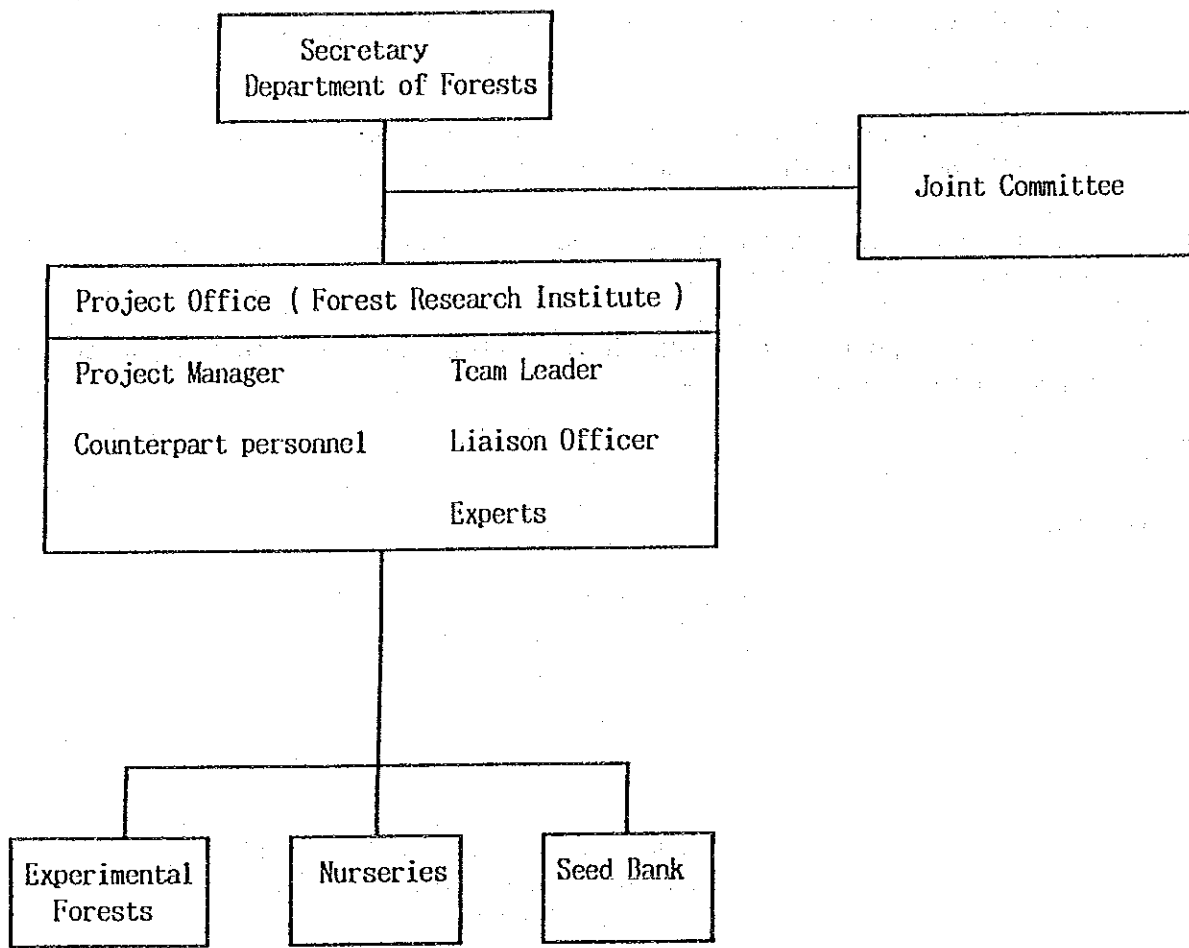
- a) Project Manager
- b) Representative of the Department of Finance and Planning
- c) Representative of the Timber Industries Training College
- d) Other personnel concerned with the Project

2) Japanese Side:

- a) Team Leader
- b) Expert(s) designated by the Team Leader
- c) Liaison Officer
- d) Resident Representative of JICA in Papua New Guinea
- e) Personnel concerned to be dispatched by JICA, if necessary

Note: Official(s) of the Embassy of Japan may attend the Joint Committee as observer(s).

VII. ORGANIZATION CHART FOR IMPLEMENTATION OF THE PROJECT



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TENTATIVE SCHEDULE OF IMPLEMENTATION
OF
THE FOREST RESEARCH PROJECT
IN
PAPUA NEW GUINEA

The Japanese Implementation Survey Team and the authorities concerned of the Government of Papua New Guinea have jointly formulated the Tentative Schedule of Implementation of the Forest Research Project (hereinafter referred to as " the Project") at the Forest Research Institute in Lae as annexed hereto.

This has been formulated in connection with the Attached document of the Record of Discussions signed between the Japanese Implementation Survey Team and the authorities concerned of the Government of Papua New Guinea for the Project on the condition that the necessary budget will be allocated for implementation of the Project by both sides, and that the above-mentioned Schedule is subject to change within the framework of the Record of Discussions, when the necessity arises, in the course of Project implementation.

Port Moresby, Papua New Guinea
November 16, 1988

Takao Fujimori

Dr. Takao Fujimori
Leader,
Implementation Survey Team,
Japan International
Cooperation Agency

Michael Komtagarea

Mr. Michael Komtagarea
Secretary,
Department of Forests,
Papua New Guinea

Witnessed by

Gabriel Pepson

Mr. Gabriel Pepson
Assistant Secretary,
Foreign Aid Management Division,
Department of Finance & Planning
Papua New Guinea

Item	1st	2nd	3rd	4th	5th
I. Research activities of the Project					
1. Forest Research on					
(1) Nursery practice, planting and tending					
(2) Seed technology of major species					
(3) Soil classification and soil fertility					
(4) Forest entomology and insect control method					
(5) Forest pathology					
2. Forest Products Research on					
(1) Wood preservation					
(2) Chemical properties of major and lesser-known species					
(3) Physical and mechanical properties of tree species					
(4) Wood seasoning and sawmilling techniques					

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Item	Year	1st	2nd	3rd	4th	5th
II. Dispatch of Japanese experts 1. Team Leader 2. Experts in the fields of: (1) Silviculture (2) Seed technology (3) Management of forest pests (4) Wood technology 3. Liaison Officer III. Provision of Equipment						

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Item	Year	1st	2nd	3rd	4th	5th
IV. Training of Papua New Guinea personnel in Japan V. Papua New Guinea personnel I. Counterpart personnel (1) Project Manager (2) Counterpart experts in the field of: (a) Silviculture (b) Seed technology (c) Management of forest pests (d) Wood technology		---	---	---	---	---

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Item	Year	1st	2nd	3rd	4th	5th
2. Administrative personnel						
(1) Clerical and service employees						
(2) Drivers and laborers						
(3) Other necessary supporting staff						
VI. Land, buildings and facilities						
VII. Allocation of running costs						

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