

VII. MISSION TEAM FROM JAPAN VISITED THE PROJECT

Up to now, the eight mission teams from Japan had visited our project for the various purposes and here the activity of these mission team will be stated briefly.

1. Cooperation planning survey team for the project

This cooperation planning survey team headed by Mr. K. KOTARI had visited the project from June 3 to 15, 1980 in order to examine the problems concerning the facilities and annual operational plan of the project through the inspection in the field site and the discussion with the Indonesian officials concerned and Japanese experts.

The member of team was as follows:

- * Katsuhiro KOTARI (Leader): Special assistant to the President of JICA.
- * Seinosuke KADOYA (Cooperation planning): Planning Division, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.
- * Kazuto ARIMITSU (Afforestation): Forest Soil Department, Forestry and Forest Products Research Institute, Ministry of Agriculture, Forestry and Fisheries.
- * Noriko NANBA (Liaison officer): Forestry Development Division, Forestry and Fisheries Development Cooperation Department, JICA.

They had discussed with Mr. Apandi and his staff on the improvement of accommodation at the project site in Benakat, supplementation of the budget for fiscal year 1980 and immediate take-over of machinery and equipment and their effective use. The report of the result of this survey team was published in Japanese in June, 1980 and the minutes of meeting with Mr. Apandi is as shown in Appendix 5 of this report. Thanks to the team activity, the problems were fairly improved afterwards.

2. Advice team for forestry technical cooperation project

This advice team headed by Mr. T. MATSUDA had visited the forestry technical cooperation project in Burma and Indonesia in order to give the JICA experts the advice and guidance from the technical and administrative point of view.

The member of the team who visited our project was as follows:

- * Takashi MATSUDA (Leader): Director, Planning Division, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.
- * Katsura WATANABE (Logging technique): Director, Forestry and Fisheries Development Cooperation Department, JICA.
- * Osamu TAKADA (Forestry machinery): Training officer, Forestry Training Institute, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.

They had stayed in Indonesian from November 23 to 30, 1980 and visited the field site on November 26 to 28 and their report written in Japanese was published in February, 1981. And they had left the letter as shown Appendix 6 of this report to Mr. Apandi, who had been unwell at that time and had no chance to discuss the project problem together.

3. JICA team for design of facilities for the project

In view of the situation that the living circumstances of Japanese experts was inferior, Japanese government wished to provide the grant aid of the amount of about 80 million yen for the construction of lodging house in the field.

This team came to our project in order to discuss and arrange the design of facilities from February 9 to 18, 1981. The member of this team was as follows:

- * Kunio TAKAHASHI (Chief): Second Economic Cooperation Division, Ministry of Foreign Affairs.
- * Masayuki OKAJI (Facility design): Deputy manager, Architectural Department, Nippon Koei Co., Ltd.
- * Akiyoshi MARUYAMA (Facility plan): Chief, Design Division, Architectural Department, Nippon Koei Co., Ltd.
- * Noriko NANBA (Coordinator): Forestry development Division, Forestry and Fisheries Development Cooperation Department, JICA.

After their visiting the project site, they consulted with the Indonesian authorities about the basic design for the facilities which was called the trial plantation training center including the facilities

for dormitory, workshop and training building as shown in Appendix 8 of this report. And from the beginning of June, 1981 the construction work which is now almost completed have begun.

4. Survey team for JICA expert's living condition

The purpose of this team was to decide whether the special allowance for remote rural area would be supplied or not for the expert of ATA-186. The member of this team was as follows:

- * Seijiro SHIRAHAMA: First Technical Cooperation Division, Ministry of Foreign Affairs.
- * Keizo KAGAWA: Technical Personnel Division, General Affairs Department, JICA.

After observing the expert's living condition in Palembang and Benakat on April 17 - 19, 1981 they made the report to JICA and Japanese government who had decided to supply the special allowance for the experts of ATA-186 from fiscal year 1981 because of their poor living condition in the field site.

5. JICA consultation mission for the project

This JICA consultation mission headed by Mr. M. FURUYA was dispatched from June 25 to July 10, 1981 in order to make the basic plan for the pilot infrastructure scheme that aims at carrying out the agro-forestry activity which is the important activity to test and study the social implication of our afforestation activity under the trial plantation project. The member of this mission was as follows:

- * Masato FURUYA (Leader): Director, Training Division, Forestry Training Institute, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.
- * Katsuo OKA (Forest management): Deputy Director, Planning Division, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.
- * Tadashi NAKAMICHI (Silviculture): Deputy Director, Forestry Development Division, Forestry and Fisheries Development Cooperation Department, JICA.

After their investigation the project site and discussion with the experts and Indonesian officials concerned, they made the minutes of

discussion and exchanged with the Indonesian authorities concerned as shown in Appendix 9, and their report written in Japanese is now under printing.

6. Guidance team for agriculture and forestry technical cooperation project

This guidance team headed by Mr. R. MATSUYAMA had visited our project site to observe our activity and discuss how to develop our activity on October 3 - 5, 1981. The member of the team was as follows:

- * Ryozo MATSUYAMA (Leader): Executive director, JICA.
- * Marehito IKEDA (Cooperation policy): Deputy Director, Second Technical Cooperation Bureau, Ministry of Foreign Affairs.
- * Haruo TSUCHIYA (Cooperation planning): Director, Office of Oversea Technical Cooperation, International Cooperation Division, Economic Affairs Bureau, Ministry of Agriculture, Forestry and Fisheries.
- * Isao KABURAKI (Project management): Director, Agricultural Development Division, Agricultural Development Cooperation Department, JICA.
- * Yoshizo TAKIZAWA (Project management): Deputy Director, Development Planning Division, Agricultural, Forestry and Fisheries Planning and Survey Department, JICA.
- * Eitaro MITOMA (Project management): Senior official, Forestry Development Division, Forestry and Fisheries Development Cooperation Department, JICA.

Their report written in Japanese was published on December, 1981 and also they sent the summary report to the Indonesian authorities concerned and in this summary report three matters concerning our project were stated by them as follows: i) The promotion of afforestation in deserted area is a very serious subject and we recognize the important role of this project. ii) Though there had been certain delay, this project is now going smoothly and we think it owes much to the joint effort of the expert and counterpart staff under the unfavorable condition. iii) To proceed the project more smoothly, we should like to draw your attention to the following points, a) to secure the necessary budget and it's quick and appropriate disbursement b) to secure the counterpart staff, especially those with sufficient experience.

7. JICA guidance team for pilot infrastructure improvement works on the project

This guidance team headed by Mr. K. KOTARI was sent to make the detailed plan for pilot infrastructure scheme which was made by Mr. M. FURUYA's JICA consultation mission as the basic plan. They had stayed in Indonesia from November 4 - 17, 1981 and the member of the team was as follows:

- * Katsuhiro KOTARI (Leader): Special assistant to the President, JICA.
- * Tsutomu HANDA (Afforestation): Deputy Director, Planning Division, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries.
- * Kyohei NISHIKAWA (Forest road): Chief, Technical Information Section, Forestry and Forest Products Research Institute, Ministry of Agriculture, Forestry and Fisheries.

After finishing their field survey they consulted with the Indonesian authorities concerned on the pilot infrastructure scheme and made their program and supplement document based on the informations by the short-term expert who had just stayed in the project site as shown in Appendix 10 and 11. These program and supplement document were discussed together and approved generally on the meeting with the Indonesia authorities concerned.

8. JICA equipment maintenance and management team for forestry cooperation project

This team headed by Mr. Y. AOKI had visited Indonesia in order to offer guidance on maintenance and management and also to make study on actual condition of equipment and machinery supplied to forestry cooperation project such as ATA-184 and ATA-186 projects. The member of the team was as follows:

- * Yukio AOKI (Leader, Afforestation and forest road machinery): Service Department, IWAFUJI Industry Co., Ltd.
- * Yoshiro YACHIUNE (Logging machinery): Quality Control Department, IWAFUJI Industry Co., Ltd.

They had visited our project site from November 22 to 30, 1981 and inspected the actual condition of the equipment and machinery in our project. The guidance for the maintenance and management on the equipment

and machinery given by them was very useful for our project activity, because the good results of the project activity would depend chiefly on the good condition of the machinery and equipment which had to be always maintained and managed properly.

VIII. VARIOUS KINDS OF MEETINGS AND CONFERENCES

There are various kinds of meetings and conferences that have important roles on the project. One of the most important meeting held by Indonesian side is the Joint Steering Group meeting and the other one is the Project Leader's Conference on agriculture, forestry and fishery that is held by JICA. The former meeting is held twice a year to discuss and get the solutions for the problems in order to implement the project activity smoothly, and also discuss the annual plan and the result of project activity. The latter conference is held once a year to exchange information and opinion on respective projects among the leaders, to study and examine annual operation plan of the project, and to explain new JICA administrative procedure concerning the supply of machinery and equipment, fellowship for trainee and expert's assignment with a view to implementing the projects smoothly and efficiently. Here, the various kind of meeting and conference concerning the project activity will be illustrated briefly.

1. Joint Steering Group meeting

Up to present, the Joint Steering Group meetings were held four times, so that there the contents of discussion and conclusion of each meeting will be explained in brief.

- i) First Joint Steering Group meeting: The first meeting was held on June 12, 1980 at the conference room of Directorate-General of Forestry under the chairmanship of Mr. Apandi, Director of Directorate Reforestation and Rehabilitation. The proceeding of this meeting was reported as ATA-186: JSGM-1. The number of attendant is 11 persons from Indonesian side and 10 persons from Japanese side including 4 observers who were the number of the cooperation planning survey team for the project headed by Mr. K. KOTARI and had just stayed in Indonesia.

In the opening statement, Mr. Apandi, the chairman, after introducing the attendance, informed the main task of this meeting would be to formulate annual operation work plan, to evaluate the progress and to deal with the specific problems of the project. Mr. M. MIYAMOTO, the representative of JICA JAKARTA office, also expressed his glad feeling to attend at this first meeting and he asked the experts and counterparts to find the suitable techniques in which social life can be involved as sounded in World Forestry Congress last year in Jakarta.

Mr. Sagala as the co-manager of the project reported three points on the project: plan of operation, progress and problems of the project. After discussing among the members and hearers the meeting had the conclusions as follows: the acceptance of the plan of operation as master plan without any commitments or budgeting, conducting the regular meeting to prepare annual working plan by Joint Steering Group, sitting the next meeting to legalize 1980/81 annual plan before Fasting month, acceleration for the dormitory establishment and equipment delivery from Palembang harbour to be ready for use in November 1980, and taking the effort to extend the lodging permit in Stanvac mess until completion of dormitory constructed by Indonesian side. In spite of the conclusion that next meeting would be held before Fasting month, the second Joint Steering Group meeting was not held until the end of October.

- ii) Second Joint Steering Group meeting: The second meeting was held at the conference room of Directorate-General of Forestry on October 30, 1980 attended by 8 persons from Indonesian side and 6 persons from Japanese side, but Mr. Apandi, the chairman, could not attend the meeting because of his health condition. The meeting was taken the chair by Mr. Soedjadi Hartono, Vice Director of Directorate Reforestation and Rehabilitation, and after opening remark by chairman, Mr. Suhariyanto, acting field manager at that time, stated the progress report and current matters that had been dealt with in the project. The result of the meeting was as follows: Adjustment of the seeds by Japanese team needed in next year, delivery of the remaining stock of seedlings planted in 1980/81 after arrangement of consultation with regional forest office by Mr. Wazil, supply of the document for custom clearing of angle dozer as soon as possible, preparation of the handling cost amounting 1.8 million rupiah to transport the equipment from Palembang harbour to Benakat, delivery of the lighter cargo truck (4 wheel drivers and 2 ton capacity) because of the difficulty to get the transportation licence, supply of mechanic and drivers for angle dozer and cargo trucks, and so on.

The total budget for the equipment for fisical year 1980/81 was reported from Japanese side as about 120 million yen. The annual plan 1980/81 was approved officially but the legalization the annual plan 1981/82 could not be approved because of the uncertainty of the budget amounting to 490 million rupiah at that time.

- iii) Third Joint Steering Group meeting: The third meeting was held at the meeting room of Secretary of Directorate General of Forestry on June 8, 1981 under the chairmanship of Mr. Apandi and the number of attendant is 14 persons from Indonesian side and 5 persons from Japanese side.

The meeting evaluated the conclusion of the second meeting and reported that the several matters, that is to say, preparation for seed requirement, delivery of seedlings remained and driver's and mechanic's problem did not yet be settled.

Progress report was delivered by the field manager and the meeting noted that the realization on planting activities was below the target because of the arrival delay of the equipment on the project site. In the meeting, the question on the absence of the project manager in the central office in Bogor was asked by Japanese side and the chairman explained that the position of project manager should be occupied by Mr. Soedjadi Hartono who was nominated as the co-manager.

The meeting approved the five-year plan and annual plan of 1981/82 and also discussed on the miscellaneous problem, that is to say, making the progress report, sitting of the seminar or workshop of the project activity, agroforestry activity, budgetal problem for forest ecological activity, schedule of the short-term expert, training schedule in Japan and so on.

- iv) Fourth Joint Steering Group meeting: The fourth meeting was held on January 5, 1982 at the conference room of Directorate General of Forestry attended by 13 persons from Indonesian side and 6 persons from Japanese side. Unfortunately, Mr. Apandi, the chairman of the meeting, did not attend due to his health condition. Mr. Soedjadi Hartono, the project manager, took the chair and introduced the participants, especially the newly assigned experts, and counterparts after expressing his welcome and wishing a Happy New Year.

The meeting evaluated the conclusion of the last meeting and recommended the sitting of the seminar or workshop again. The progress report was delivered by the field manager and discussed on the short supply of the seeds for species trial, the security problem in nursery site, the delay of building construction by Indonesian side, the delay of planting by the late coming of rainy season, the reason for the unsuccessful survival of the seedlings in the field, handling cost for the equipment and so on.

The plan of operation 1982/83 was decided by the meeting and other matters on standard terminology of the silvicultural subject, the meeting plan and form of compartment by making the accessible road based on the topography of the site, and so on were discussed.

2. Project Leader's Conference on agriculture, forestry and fishery

Two conferences were held during my assignment, the one was held in Jakarta and the other was held in Tokyo.

i) Ninth Project Leader's Conference in 1979/80

The ninth Project Leader's Conference was held at the Sari-Pacific hotel in Jakarta, Indonesia from February 19 to 25, 1980.

The number of leaders were 32 persons from 31 projects in the 13 countries, and the participants from the central government and JICA in Japan were 14 persons. The conference consisted of the plenary and sectional session. In the plenary session the main agenda was the symposium on the target and the management of the progress of project activity and it was discussed based on the case study reported by Mr. NAKADA, project leader of agricultural extension project in Bangladesh. As the contents and targets of each projects were different and the lapse of time of each projects were also varied, the results of management for the projects were not the same, but the progresses of all the projects are developing in general smoothly based on the initial plan in spite of holding a lot of problem.

The sectional session for forestry and fisheries was held under the chairmanship of Mr. K. HORI, Director of Forestry Deveopment Cooperation Department of JICA, and the number of leaders participated in this sectional session were 7 persons from 7 projects in 5 countries. The subject matter in the sectional session was how to utilize efficiently and maintain the supplied equipment and machinery and the opinions on the situation and the problem of this matter in each project were exchanged. The outline of the project activity in the next year such as the dispatch of the long-term and short-term experts, the total amount supplied equipment and machinery and the number of the trainees in Japan were discussed and decided roughly.

ii) Tenth Project Leader's Conference in 1980/81

The tenth Project Leader's Conference was held at the JICA headquarters

in Tokyo from February 18 to 24, 1981.

The number of leaders were 35 persons from 34 projects in the 14 countries. The participants from central government and JICA were 68 persons.

In the plenary session the special theme on "how to proceed the project activity" was discussed based on the reports by the leaders from 6 different projects of different fields. The sectional session for forestry and fishery was held under the chairmanship of Mr. K. WATANABE, Director of Forestry and Fisheries Development Cooperation Department of JICA and continued the discussion on the methods to proceed the project activity.

The result of the discussion was that the serious obstacle for the management of the project was the lack of correspondence by the partner country so that it was necessary to seize the real situation of the partner country for the human and economical correspondence in advance at the stage of prior survey.

The individual meeting with Mr. K. WATANABE was held at the room of forestry and fishery development cooperation department of JICA. And the outline of the project activity in the next year such as the dispatch of the long-term and short-term experts, the total amount of supplied equipment and machinery and the number of the trainees in Japan were discussed and decided roughly.

3. Meeting of Japanese Agricultural, Forestry and Fishery Expert in Indonesia

This meeting of Japanese agricultural, forestry and fishery experts in Indonesia under JICA programme has been held by JICA Jakarta office once a year in Jakarta.

The purpose of the meeting is to exchange the informations and views regarding the respective project, to brief the experts on new administrative system of technical cooperation procedure adopted by JICA and thereby to make it more efficient and smooth for the experts to perform their assigned duties in Indonesia.

During my stay in Indonesia, I had a chance to attend the meeting twice in 1980 and 1981 fiscal year.

i) Fourth meeting of agricultural, forestry and fishery expert

The fourth meeting was held at the President hotel on January 22-23, 1981 and the number of expert attended this meeting was 67 persons and the participants from Japanese Embassy and JICA Jakarta office were 11 persons. From our project, 4 persons, R. KATO, K. OHMI, H. YAMATE and K. TASIRO attended the meeting.

Meeting consists of plenary and sectional session. In the plenary session, after the opening greeting by Mr. M. MIYAMOTO, representative of JICA Jakarta office, the self-introduction by all participants, and the greeting by a Minister of Japanese Embassy, the recent situation of politics and economics, agricultural, forestry and fishery in Indonesia were explained by the secretaries of Japanese Embassy. And then the present situation on the agricultural cooperation by advanced countries in Indonesia was reviewed by Mr. I. SUZUKI, chief adviser for planning project of agricultural development in South Sulawesi. Before closing the plenary session, the present situations of the each project activities were reported by each project leaders. In the sectional session, the experts belonging to the forestry and fishery project discussed and exchanged the opinion on the managerial problem of the project and requiring matters for JICA. The main managerial problem of our project at that time was the poor living condition in the field as the result of the shortage of budget born by Indonesian side, especially the delay of construction for the accommodation facility in the field site. And also the delay of the custom clearance and handling cost for the equipment and machinery, especially for the heavy machines which had hindered the progress of the project activity was discussed.

ii) Fifth meeting of agricultural, forestry and fishery expert

The fifth meeting was held at the President hotel on December 10 - 11, 1981, and the number of expert attended this meeting was 64 persons and the participants from Japanese Embassy and JICA were 10 persons. From our project, four persons, R. KATO, K. KATO, S. MIURA and H. HACHINOHE attended the meeting.

The proceedings of the plenary and sectional session in the meeting was almost the same with the last meeting. In the sectional session our project offered some idea for JICA to set up the special cost by JICA in order to develop and improve the attachment of the machinery and tools suitable for nursery and reforestation activities in the field.

This matter will be consulted and discussed in the coming project leader's conference.

4. Other Meeting

There were various kind of meetings in the project office in Bogor and also in the implementation center in Benakat. The meeting between Mr. Apandi and the project manager or the chief adviser which was held irregularly when the problem had happened was the important administrative one. The communication meeting between project manager or co-manager and chief adviser or other Japanese experts was also held irregularly in the project office in Bogor.

In the field site the most important meeting was administrative staff meeting and technical staff meeting. The former meeting was chaired by Mr. Soedjadi Hartono, project manager, and held almost about every two months when he had visited the field site. The latter meeting was held also every two months when Mr. Sagala, co-project manager, or Mr. R. Kato, chief adviser, had visited the field site. Sometimes both meetings were held at the same time in Palembang or Benakat. The purpose of the both meetings were to discuss the administrative or technical problems which had happened after last meetings and to find out the way to solve the problems. But sometimes it was so difficult to solve the problems as soon as possible because of the financial or administrative reasons that the real solution was sometimes obliged to postpone until coming next fiscal year in spite of the efforts made by Indonesian and Japanese officials concerned. However, these meetings were very useful to improve the administrative and technical problems of the project and to promote the project activity. And also the meeting between counterparts and experts was held frequently in order to promote the project activity smoothly and effectively in the field site.

IX. IMPRESSION AND SUGGESTION

These statements mentioned below are my personal impression and suggestion on the effective implementation of the trial plantation project which were gained during my stay in Indonesia. Therefore, I have to say here that these are not the united view of Japanese expert and also the official opinion of the Japanese side.

However, these are also the matters which have been always discussed and argued with the project manager, co-manager, field manager, counterparts and experts personally and semi-officially when we had a chance to meet together and discuss frankly with each other. The suggestions and impressions are as follows:

1. Impression and suggestion on the organization of the project

Concerning the organization of the project, it is essential to establish the project implementation center in Benakat steady in order to carry out the project activity smoothly. The important step for the establishment is that all the counterparts, experts and staffs of the project should be in the center for a work day.

When the urgent problem to be solved in the field as soon as possible arose, sometimes it was very difficult to be solved because of the absence of decision maker, that is to say, field manager or counterpart. Accordingly, some part of the activity could not work well and slowed down. And also almost all the counterparts have always said that they didn't have a right to decide how to conquer the problem and the problem should be decided to solve by the top decision maker of the center, the field manager. Unfortunately, the field manager was always busy at the liaison office in Palembang and could not come to the field site frequently.

In order to establish the real organization of the implementation center, the field manager should do the office work at the center in Benakat and if it is impossible to do so, the essential condition to implement the project activity efficiently is to authorize some other counterpart to act for the field manager when he is not in the center.

It is not difficult to draw the organization map on the paper, but it is not easy to control the all member of organization including the foremen and laborers for the smooth implementation of the project activity. However, this management is the most important matter which should be always

considered by all officials concerned and it should be arisen from the observation or inspection of the project activity in the field. It seems to me that an old saying in Japan is a truth or principle to implement our trial plantation project smoothly, that is to say, the good forest plantation will be grown if the foresters concerned visit the plantation frequently.

2. Impression and suggestion on the budgetary problem

Concerning the budgetary problem, the budget for our project should be a little different from the other plantation project because our project is the trial plantation project and the experimental project like our project needs always more budget to make try and error than the ordinary plantation project.

Moreover, the trial plantation project needs some budgetary measure to implement the investigation for the result of trial, but in the past it was insufficient or lacked in the budgetary measure so that the investigation activity could not be carried out sufficiently to examine the result of project activity. Accordingly, the necessary adjustment in the budget for the investigation of all project activities should be done.

In connection with this examination, the special counterpart who has a responsibility for the investigation for all activities should be arranged in the organization of our project. And in Japanese side the short-term expert will be asked to be dispatched for this field to cooperate with the counterpart mentioned above from coming year.

Concerning the wages for the laborers working in the project, the wages for operators and mechanics for equipment and machinery should be raised to the same level with the wages for operators or mechanics who is working at the company near the project site. If not so, there is the possibility that the operators and mechanics will change the occupation from our project to the private project in order to get the higher wages after getting enough training from the expert and the project activity, especially the activity concerning the mechanization will be stopped or slowed down.

It is hoped that this problem should be examined earnestly, if the mechanization of reforestation activity has to be promoted in order to establish the large scaled industrial plantation by forestry sectors in Indonesia.

And though the cost for the maintenance and improvement for the

equipment and machinery should be prepared sufficiently to promote the mechanization in the reforestation activity, this problem should be stated in detail afterwards relating with the mechanization problem.

Anyhow, the insufficient budget for the facilities and buildings for our project has been the problem but thanks to the kind consideration by Japanese government there are considerable buildings and facilities now in the project site. It is hoped that the execution of the budget, especially for the facilities and buildings should be stepped up because the construction work for the facilities and buildings used to begin at the end of every fiscal year so that it caused inconvenience to the project activity.

The other problem which needs the financial support by Indonesian and Japanese government is the communication facility to connect by the wireless telephone between the center in Benakat, the liaison office in Palembang and the field site. There is no such a communication facility now in our project, so that it is difficult to communicate each other in case of emergency or trouble. Accordingly, it is urgent problem to establish the wireless telephone system between the project site and the liaison office in Palembang and also within the project site as soon as possible. As it does not matter to establish this facility in cooperation with the other project or forestry sector in South Sumatra, the establishment of wireless telephone should be considered by both Indonesian and Japanese side and it is hoped to be realized as soon as possible by the cooperation of both side.

3. Impression and suggestion on the technical activity

As our project is the trial plantation project, the result of the activity is not always successful but sometimes it may end in failure.

The real meaning of "trial" in the trial plantation is "try and error", so that it means that there may be lots of error in our project activity. However, we do not need to be afraid of the error or failure which will be arisen during the implementation of the activity based on the five years plan or annual plan, and the reason of the failure or error in the implementation of the activity should be investigated completely in order to conquer the error or failure, or not to do the same failure again in the future. Accordingly, the experts and counterparts must not be afraid of the failure after doing some activity with their own best effort, but they have to face the fact of the failure and investigate the reason frankly to improve their

own techniques and to promote the project activity.

For example, the survival percentage of the some planting species in 1980/81 was not so high, but the cause of low survival was examined as in the field manager's letter of Appendix 7 so that the technical consideration to improve the survival percentage has been implemented afterwards. This is a good example to conquer the failure.

Amongst the technical problems in the nursery activity, one of the most important problem is to establish the technique to produce the seedlings by bare root or stumps. It is the reason why the technique should be established without pot that the collecting the soil for pots and the transportation of the heavy potted seedlings from the nursery to the planting site are the toilsome work. Some part of this toilsome work is done by machinery to save the labour but if the seedlings are able to be raised without pots the mechanization of nursery activity will be promoted rapidly. Therefore, some effort should be directed to the experiment to examine the possibility in order to raise the bare root seedlings or stumps seedlings of various kind of tree species. Of course, there will be an absolute difficult tree species to be raised as the bare root and stump seedlings such as coniferous species like Pinus merkusii and Pinus caribaea, but among the broad leaved tree species there will be some possibility like teak and mahogany. Therefore, it is hoped to carry out the small scale experiment to raise the seedlings as the bare root or stump by various kind of broad leaved tree species in the nursery activity.

Concerning the road construction activity, the main consideration should be payed to construct the road which is easy to dry up after rain, that is to say, the form of road surface, the location of the road relating with the topography and the kind of pavement for the road should be examined thoroughly.

The most important problem on the establishment of fire belt is to select the most suitable firebelt for this area among the green fire belt which is planted with tree species or covered with cover crop, and yellow belt which is unplanted. It is said by Indonesian side that the fire belt planted with tree species will be the best, but it is doubtful whether the green fire belt planted with the species will be best because the information on this matter is not always enough to decide. Accordingly, it must be examined in future, but as far as the maintenance of the forest is concerned, it seems that the fire belt planted with tree species along the

forest road has an influence on the road to prevent the drying up quickly after rain.

On the agro-forestry activity of our project which will begin in earnest in next fiscal year, it is hoped that this activity should be examined not only whether it is useful system to promote the industrial plantation activity outside of Java in Indonesia, but also whether it is beneficial to raise the living condition of farmers who live in the rural area and want to participate in this activity.

4. Impression and suggestion on the mechanization of the project

For the mechanization of the nursery and reforestation activity, it is difficult to get the enough satisfaction by using the ready made machinery and it's attachment which is on the market because of the different condition and environment between the plantation site in the tropical country and the plantation site in the country of the temperate zone where the equipment and machinery are produced. Therefore, the constant improvement of the machine and it's attachment to be fitted to the condition of the along-alang grass land in the tropical country is indispensable and important to promote the mechanization of the nursery and reforestation activity efficiently. Of course, it is difficult to make a big improvement for the machine itself, but it is possible to make some improvement for the parts or attachment of the machine by giving an order to try to make at an ironworks or a blacksmith in this country. In this connection, some budget must be provided in order to develop and improve the machine, it's attachment and some tools for nursery and reforestation activity which has also important role for the field activity to be fitted to the given condition of the field.

Without these improvements and developments even in small parts and tools, the real mechanization of large scale reforestation and nursery activity is impossible. It is hoped that the cost for these improvement and development should be put in the annual budget in Indonesian side and also some special cost for these improvement and development by Japanese side should be prepared in future that is now being asked by our project to JICA but is not yet decided.

For example, some ideas on the mechanization of nursery and reforestation activity which was proposed by Mr. Y. SAKAMOTO as shown in Appendix 13 should be manufactured by way of trial experiment and examined whether it

is useful or not for the practical use in the field activity.

The mechanization of the nursery and planting activity is essential for the reforestation activity outside of Jawa where there is a large area of grass land to be reforested and some shortage of labourers to implement the large scale plantation activity. In this connection, it is indispensable to keep the good operators and mechanics in the project, but unfortunately the wages for the good operators and mechanics are not much different from the wages of ordinary workers as already mentioned above. Under such condition, the good operators and mechanics will be unable to be employed in our project, so that it is hoped that the wages for trained operators and mechanics should be improved as soon as possible.

In order to utilize the workshop and repairing machines for the equipment and machinery which is now being prepared by Japanese side at the nursery site, it is necessary to have a expert and counterpart who has a special ability to repair the equipment and machinery. However, in the Record of Discussion such a expert and counterpart as mentioned above is not included, so that some negotiation will be needed between Indonesian and Japanese side if these expert and counterpart for repairing the machines are needed actually. However, it is impossible to increase the number of expert by Japanese side, it must be considered to dispatch the short-term expert every year for repairing the machines who will be able to guide and train the Indonesian counterpart.

5. Other impression and suggestion

* Security problem: First of all, the security problem should be suggested. There are two aspects in the security problem of the project, namely, one of them is the security for the operating machine and the other one is the security for the theft in the nursery site.

In order to keep the security for the operating machine, it is essential to check the machine before and after the operating of machine exactly every day. And if there is something wrong the machine should be checked and repaired immediately.

For the theft problem in the nursery site, it is necessary to built the fence surrounding the nursery site in order to prevent the uninvited persons coming into the camp area, and also to establish the security management system including the personnel who has a right to be a forest police.

Fortunately, Japanese government has decided to supply the cost for the construction of the fence recently and also Indonesian side has promised to establish the security management system soon, so that this problem will be solved in a short time.

* Cleaning problem: It is seemed that there is no custom to clean the equipment and tools after using it here. However, in order to perform the business and work accurately, it is important to keep the equipment, tools and surroundings clean. All officials and labourers working in the nursery site may be too busy to keep the things and surroundings clean, but all peoples have to pay their attention always to keep their place of work clean. Accordingly, one day per a month should be appointed to clean the things and surroundings and in that day all officials and labourers working in the nursery and plantation site should be engaged in the work to clean the place of work. All the dusts and litters around the place of work should be picked up, the stopped ditches around the buildings and along the road should be dug up again, some small gardens with the ornamental plants should be established around the buildings, some kind of ornamental trees should be planted along the road and etc..

This is supposed to be a kind of green-movement of the environment for the place of work and the good result of work will be surely brought about from the neat and clean environment of the working place. Therefore, it is hoped that one day should be appointed to the day for cleaning the environment of the working place, especially in the site of project implementation center in Benakat.

* Future plan for the project: The recommendation or suggestion for the future plan after the expiration of the term of project will be decided by the evaluation mission team after consulting with the Indonesian side that will be dispatched in future. However, this problem should be always discussed between the counterparts, the experts and officials concerned.

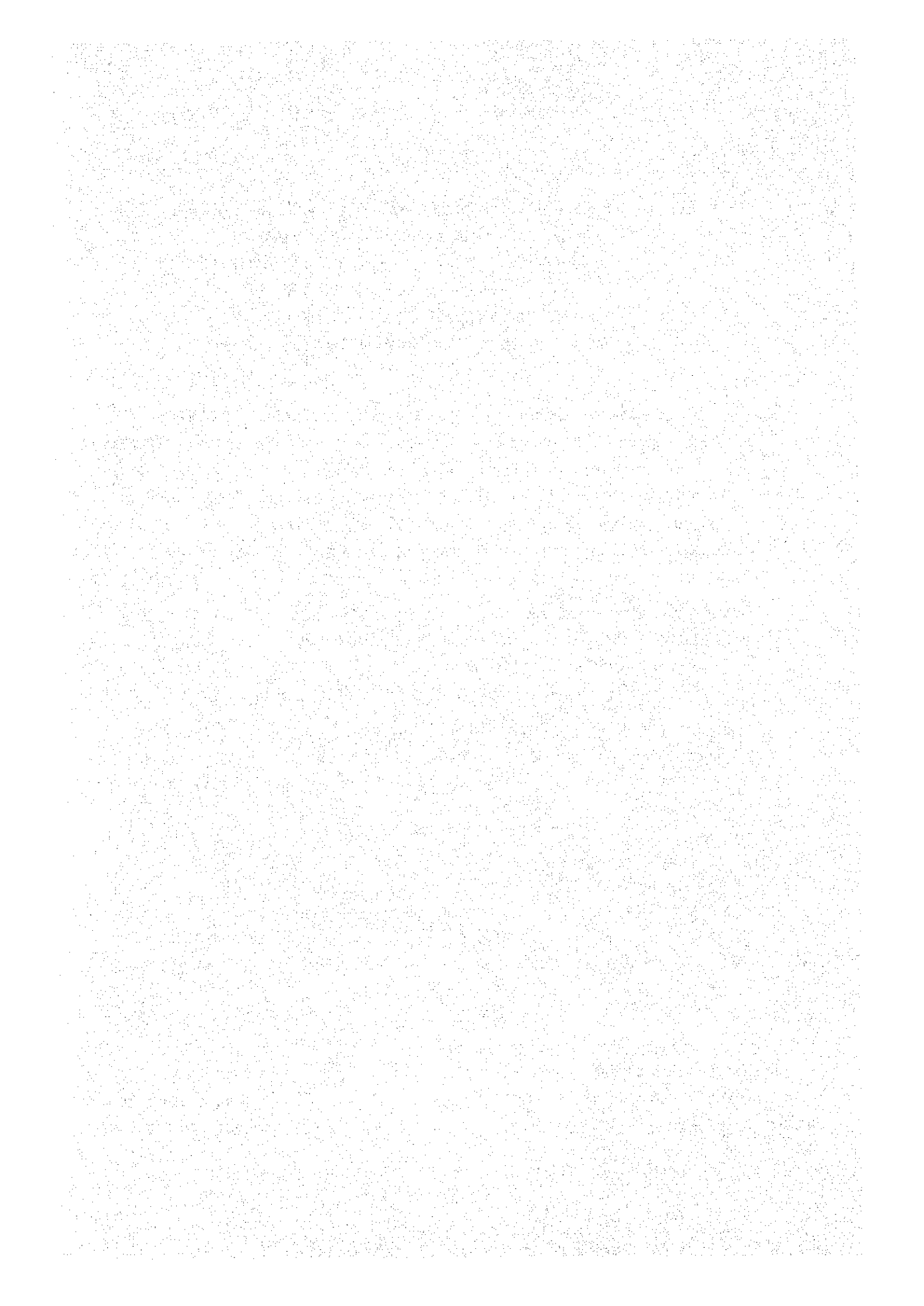
In order to develop the plantation activity in this country, especially in rural area out of Java, a lot of foresters and foremen who have the ability to support the activity in the field site, will be needed. Without these skilled foresters and foremen, the promotion of the artificial plantation activity will be resulted in a failure.

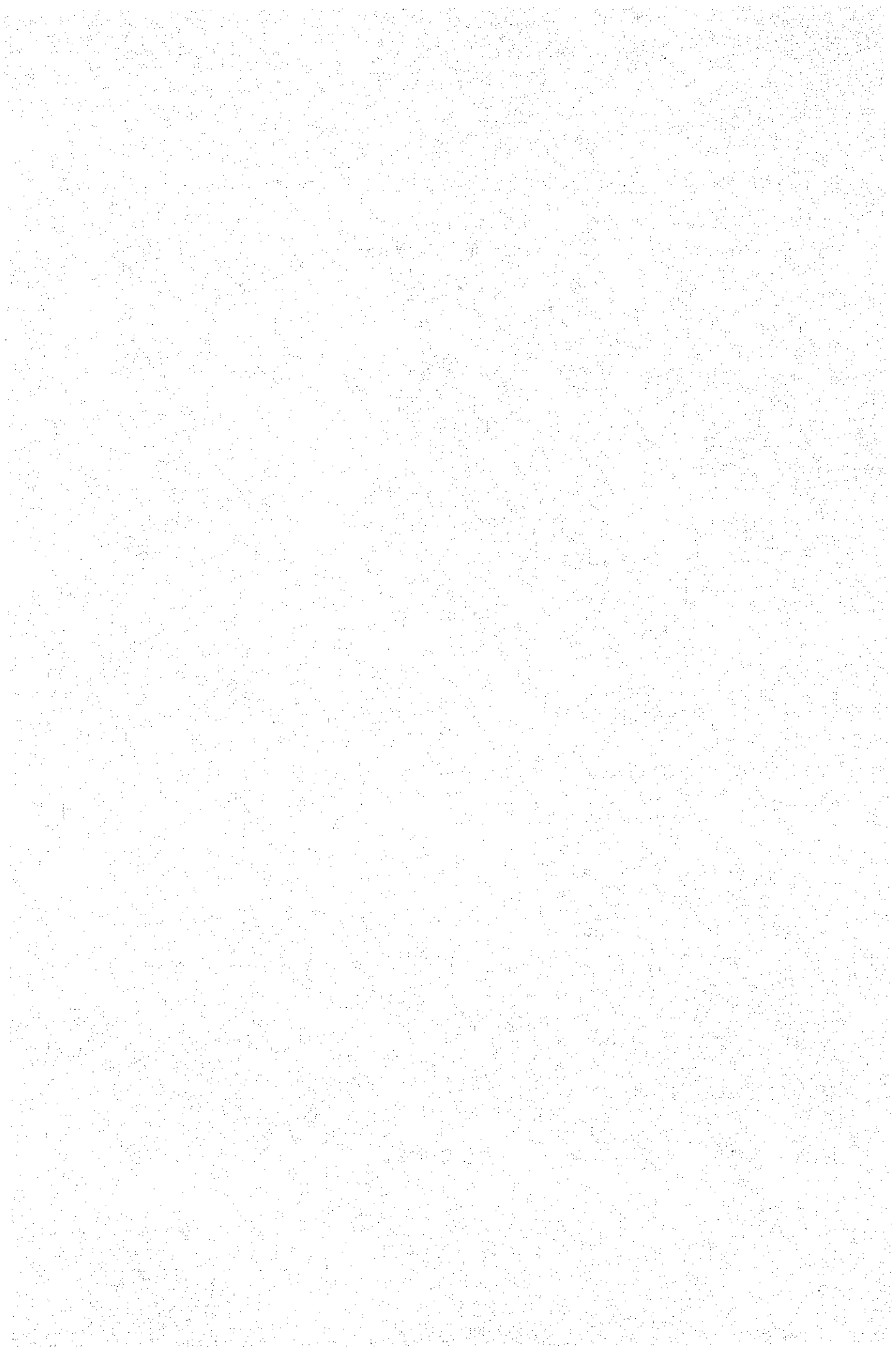
From this point of view, the training for the foresters and foremen is being considered one of the matter of urgency in this country. Fortunately, there are lots of facility and building in the nursery and

plantation site of our project that will be used as the training and lodging, and also the various kind of plantation activities including the agro-forestry which will be useful for the training are being implemented in the project site.

Accordingly, we should like to suggest and hope these facilities in the project site should be used effectively by Indonesian side as a kind of training center, for example, as the industrial plantation training center, after the expiration of the term of the project.

In closing my report, we hope these statement will be able to serve some improvement for the project activity and the project activity will be completed with success within the period of project activity by the good cooperation between the Japanese experts and Indonesian counterparts and also through the kind guidance and support by Japanese and Indonesian officials concerned.





THE RECORD OF DISCUSSION BETWEEN THE JAPANESE
IMPLEMENTATION SURVEY TEAM AND THE
AUTHORITIES CONCERNED OF THE GOVERNMENT OF
THE REPUBLIC OF INDONESIA
ON THE TECHNICAL COOPERATION FOR THE TRIAL
PLANTATION PROJECT IN BENAKAT, SOUTH SUMATERA
(ATA - 186).

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 Mr. Kenji Hori, Director of Forestry Development Cooperation Department, JICA, visited the Republic of Indonesia from April 2 to April 17 1979 for the purpose of working out the details of the technical cooperation programme concerning the trial plantation project in Benakat, South Sumatera, in the Republic of Indonesia.

During its stay in the Republic of Indonesia, the Team exchanged views and had a series of discussions with the Indonesian authorities concerned in the respect of the desirable measures to be taken by both Government for the successful implementation of the above-mentioned Project.

As a result of the discussion, the Team and the Indonesian authorities concerned agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Jakarta, April 12 1979

Signed

Signed

Kenji Hori
Head of the Japanese
Implementation TTSurvey Team.

Ir. Moch. Harris Soerengadjiwa
Director of Forestry Planning
The Directorate General of Forestry.

THE ATTACHED DOCUMENT

1. COOPERATION BETWEEN THE GOVERNMENT OF JAPAN AND THE GOVERNMENT OF THE REPUBLIC OF INDONESIA FOR THE TRIAL PLANTATION PROJECT IN BENAKAT, SOUTH SUMATERA.

1. The Government of Japan and the Government of the Republic of Indonesia will cooperate with each other in implementing the Technical Cooperation for the Trial Plantation Project in Benakat, South Sumatera (hereinafter referred as "the Project") for the purpose of establishing afforestation techniques so as to contribute to successful afforestation in the grassland in South Sumatera.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

II. DISPATCH OF JAPANESE EXPERTS

1. The accordance with the laws and regulation in force in Japan the Government of Japan will take necessary measures through JICA to provide at its own expense services of the 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 the Republic of Indonesia the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in the Republic of Indonesia under the Colombo Plan Technical Cooperation Scheme, and will include the following :
 - (1) Exemption from income tax and charges of any kind imposed on or in connection with the living allowances remitted from abroad.;
 - (2) Exemption from import and export duties and any other charges imposed in respect of personal and household effects which may be brought into from abroad or taken out of the Republic of Indonesia.

- (3) Exemption from import tax, import sales tax, sales tax, and other taxes and charges of any kind imposed on or in connection with the purchase in the Republic of Indonesia by the Experts of one motor vehicle each experts;
- (4) Free local medical services and facilities to the Japanese Experts and their families.

III. PROVISION OF MACHINERY AND EQUIPMENT

1. In accordance with the 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 the implementation of the Project as listed in annex III, through the 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 the Republic of Indonesia upon being delivered c.i.f. to the Indonesian authorities concerned at the ports and the airports of disembarkation, and will be utilized exclusively for the implementation of the Project in consultation with the Japanese experts referred to in Annex II.

IV. TRAINING OF INDONESIAN PERSONNEL IN JAPAN

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

V. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF INDONESIA

1. In accordance with the laws and regulation in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to provide at its own expense :
 - (1) Services of the Indonesian counterpart personnel and administrative personnel as listed in Annex IV;
 - (2) Land, building and facilities as listed in Annex V;
 - (3) Supply of replacement of machinery, equipment, instrument, vehicles, tools, spare parts and any other materials necessary for the implementation of the Project other than those provided through JICA under III above;
 - (4) Transportation facilities and travel allowance for the Japanese experts for the official travel within the Republic of Indonesia;
 - (5) Existing suitability furnished accommodations for the Japanese experts and their families.

2. In accordance with the laws and regulation in force in the Republic of Indonesia, the Government of the Republic of Indonesia will take necessary measures to meet.
 - (1) Expenses necessary for the transportation within the Republic of Indonesia of the articles referred to in III above as well as for instalation, operation and maintenance thereof;
 - (2) Customs duties, internal taxes and any other charges, imposed in the Republic of Indonesua on the articles referred to in III above;
 - (3) All running expenses necessary for the implementation of the Project.
 - (4) The safety of the Project in general and the Forest fire in particular.

VI. ADMINISTRATION OF THE PROJECT.

1. The Directorate General of Forestry will be responsible for the administrative matters for the implementation of the Project and the Japanese experts will provide technical advice and guidance for the implementation of the Project.
2. In order to secure smooth operation of the Project, a Joint-Steering Group will be established. The group will meet regularly at least once a year and its main task will be to formulate annual operational work plan and evaluate the progress of the Project, and to deal with the specific problems. The composition of the Group is specified in Annex VI.
3. The Project will be implemented with close cooperation extended by the Forest Research Institute, Forest Product Research Institute Project Organization is specified in Annex VII.

VII. CLAIMS AGAINST JAPANESE EXPERTS.

The Government of the Republic of Indonesia undertakes to bear claims, if any arises, against the Japanese expert engaged in the Project resulting from, occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Indonesia except for those arising from the wilful misconduct or gross negligence of the Japanese experts.

VIII. MUTUAL CONSUL.

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

IX. TERM OF CONSULTATION.

The duration of the technical cooperation for the Project under this Attached Document will be five years from the date of signature of the Record of Discussion.

ANNEX I. MASTER PLAN.

1. A Project office will be established at Bogor and Project Implementation Centre will be established at Benakat area in South Sumatera.

Note : Existing Forestry Office at Palembang will be used for communication.

2. The Project Office will conduct the administration and supervision of the Project. It will run the Joint - Steering Group referred to in Article VI.
3. The Project Implementation Centre consists of an administrative office related facilities, trial plantation forest and nurseries. Development and improvement of planting techniques and on the job training will be performed in the Project Implementation Centre.
4. Trial plantation forests will be established at three different areas, each of which is around 700 ha based on the afforestation model for trial plantation forests as the result of the studies carried out in the previous scope of work signed on September 1st 1977.
5. Items of development and improvement
 - (1) Species trial
 - (2) Nursery techniques
 - (3) Planting techniques
 - (4) Techniques for counter-measures against fire, insect, disease and meteorological damage.
 - (5) Techniques for designing and managing forest and soil-conservation work .
 - (6) Techniques for the application of machine power.

- (7) Test and investigation on the environmental implication of afforestation
- (8) Test and studies on the social implication of afforestation
- (9) Planning and evaluation technique of afforestation project
- (10) Other necessary techniques.

Annex III. Japanese Experts

	Category	Field	Field	
1.	Chief Adviser			1
2.	Experts	Silviculture and Nursery		2
		Forest Ecology		1
		Forest Protection		1
		Forest Engineering		1
3.	Liaison Officer			

- Note :
1. The Chief Adviser will be attached to the Project Office at Bogor.
 2. A team leader will be nominated by JICA from among the Experts.
 3. Short-term expert in the fields mentioned above and other fields may be dispatched when necessity arises.

Annex III. Articles to be provided by the Japanese Authorities concerned

1. Machinery, equipment, spare parts and materials for nursery work
2. Machinery, equipment, spare parts and materials for planting work
3. Machinery, equipment, spare parts and materials for tending work
4. Machinery, equipment, spare parts and materials for forest roads, fire break, and soil conservation work
5. Machinery, equipment, spare parts and materials for fire control
6. Equipment, implements, instruments, spare parts and materials for research and training.

7. Vehicles and their spare parts
8. Equipment, tools, spare parts and materials for repair work
9. Equipment, spare parts and materials for public utilities including radio communication system
10. Other necessary equipment, tools and materials to be mutually agreed upon.

Annex IV. Indonesian Counterparts and Other Personnel

Category	Field	
1. Project Manager (Senior Officer)		1
2. Field Manager		1
3. Counterparts	Silviculture and Nursery	2
	Forest Ecology	1
	Forest Protection	2
	Forest Engineering and Soil Conservation	2
4. Clerical and service Employees		
5. Laborers.		

Note : Number and period of service of the above mentioned officials and other personnel will be adjusted according to the necessity from time to time..

Annex V. Land Buildings

1. Land

- (1) Land for nurseries
- (2) Land for trial plantation forest
- (3) Land for administration office and related facilities

2. Buildings

- (1) A Project office at Bogor
- (2) Administration office and related facilities in Benakat Area.

1. administration office
2. laboratories and lecture rooms
3. sheds for machinery and equipment
4. storehouse for forestry materials
5. workshop and garage
6. generator and pump house
7. field accommodation for Japanese experts and Indonesian counterparts
8. Guest house
9. Others.

Annex VI. Composition of the Joint-Steering Group.

1. Chairman

Director of Forestry Planning, Directorate General of Forestry

2. Members

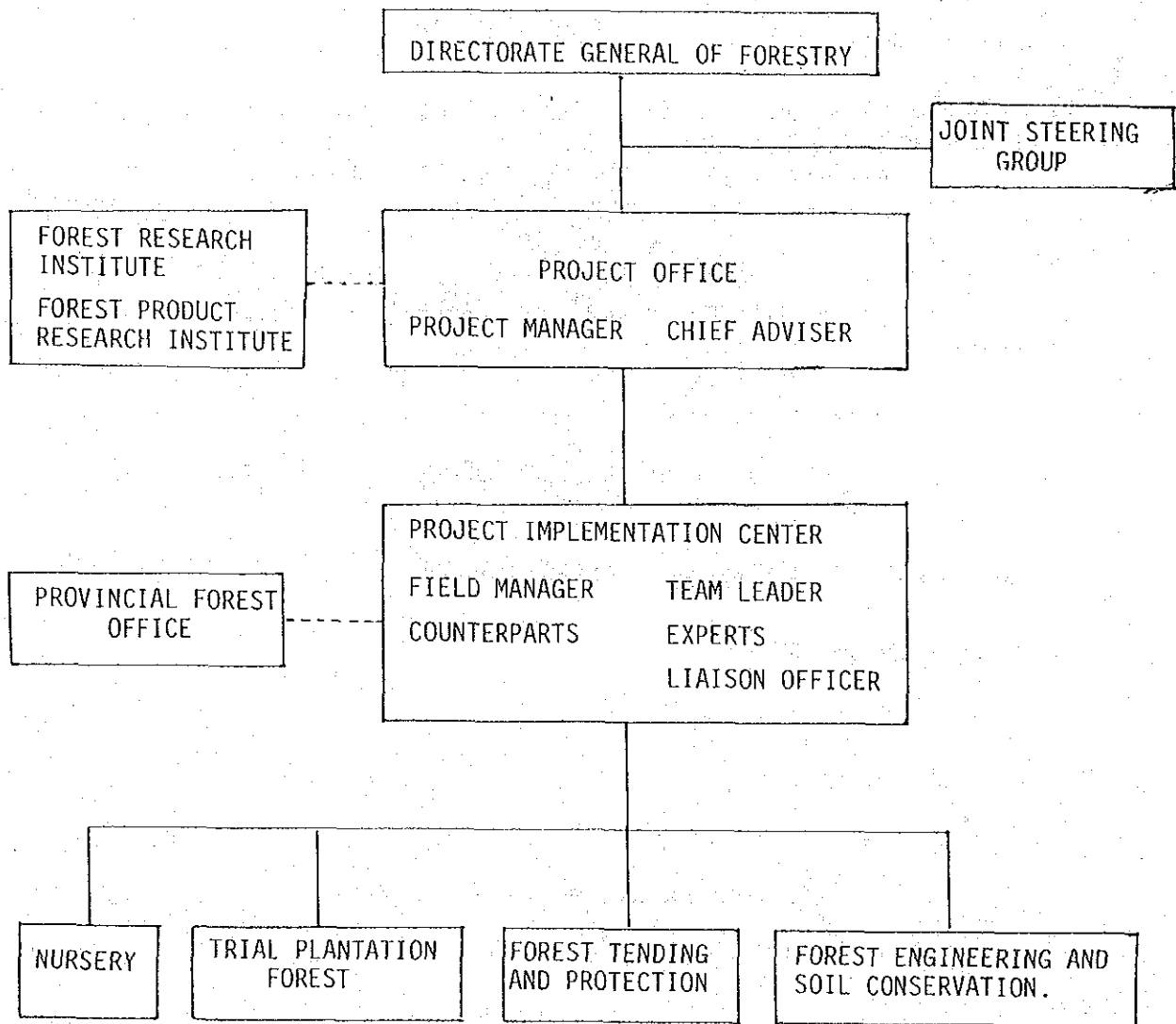
(1) Indonesian side

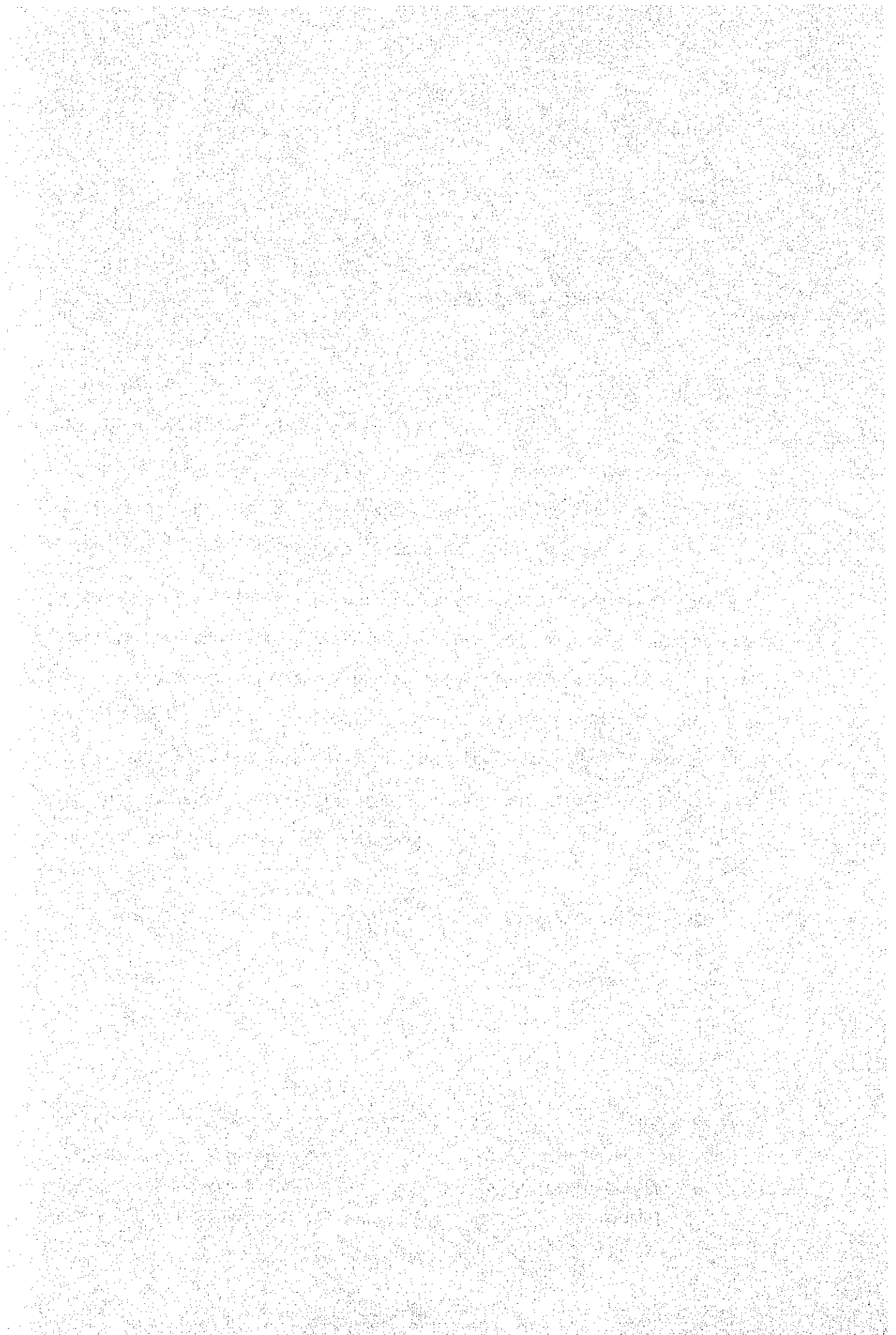
- Representative of Bureau Planning, Department of Agriculture
- Representative of the Directorate of Forestry Planning
Directorate General of Forestry
- Representative of the Directorate of Reforestation and
Rehabilitation, Directorate General of Forestry
- Representative of the Forest Research Institute and Forest
Product Research Institute
- Representative of the South Sumatera Provincial Forest
Office
- Project Manager and Field Manager

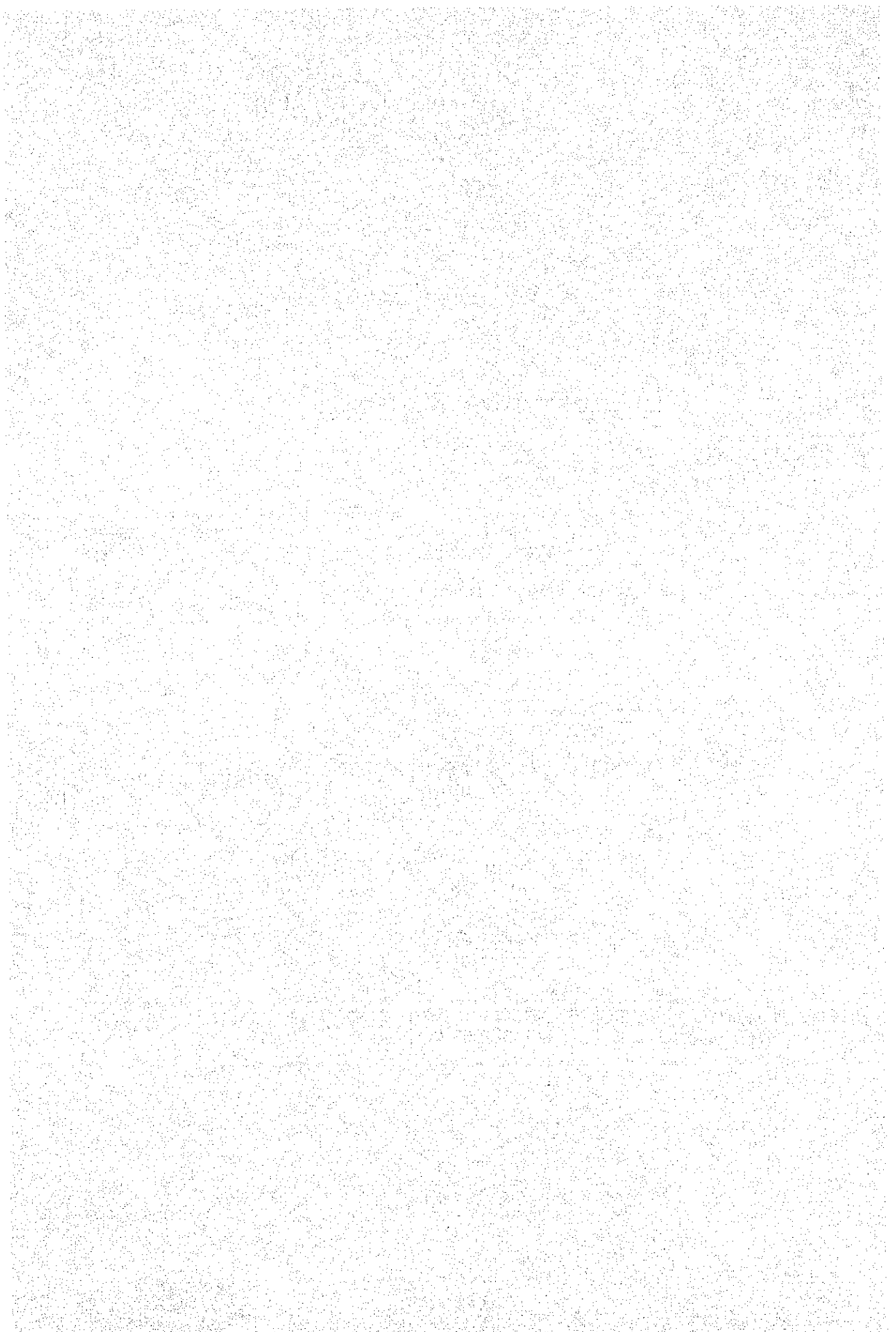
(2) Japanese side

- Chief Adviser
- Team Leader
- Representative of JICA
- Expert(s) designated by Chief Advisor
- Liaison Officer.

- Note :
1. Officials of the Embassy of Japan may attend the meeting of the Joint-Steering Group as observers
 2. Officials of the Government of the Republic of Indonesia assigned by the Director General, Directorate General of Forestry may attend the meeting of the Joint-Steering Group as observers







THE RECORD OF DISCUSSION
ON THE TECHNICAL COOPERATION FOR THE TRIAL
PLANTATION PROJECT IN BENAKAT, SOUTH SUMATERA (ATA - 186)

Mr. Moriya MIYAMOTO, Resident Representative of the Japan International Cooperation Agency in Indonesia has a series of talks with the authorities concerned of the Government of the Republic of Indonesia on the Provision of Special measures by the Government of Japan in the Technical Cooperation for the Trial Plantation Project in Benakat, South Sumatera.

As a result of the talks, both sides agreed to recommend to their respective Governments to add the matter referred to in the document attached here to the Record of Discussions on the Technical Cooperation for the Trial Plantation Project in Benakat, South Sumatera which was signed on April 12th, 1979 between the Japanese Implementation Survey Team Organized by the Japan International Cooperation Agency and the authorities concerned of the Government of the Republic of Indonesia.

Jakarta, March 21, 1980.

Signed

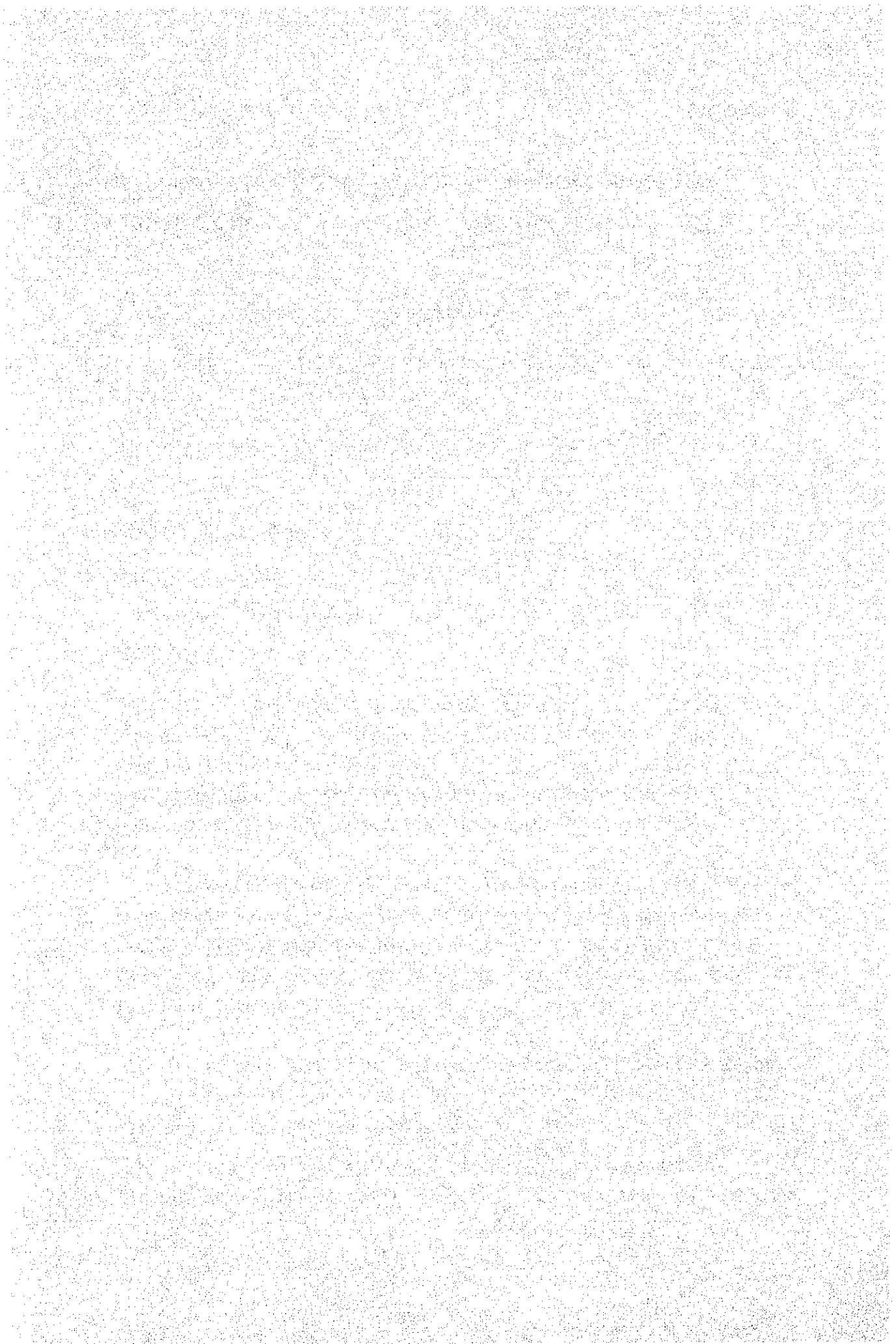
Signed

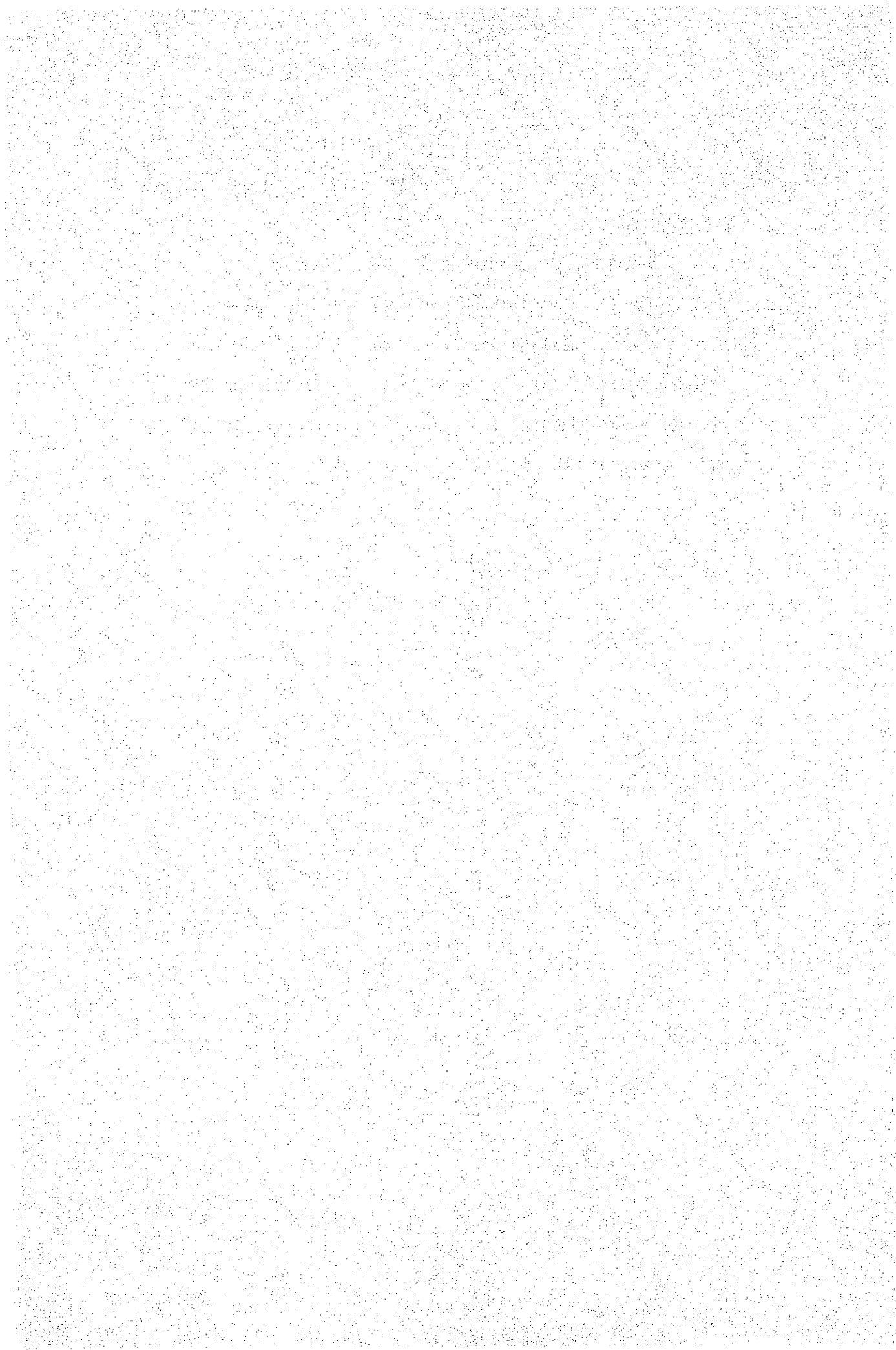
Ir. Moch. Harris Soerengadjiwa
Director of Forestry Planning
The Directorate General of Forestry.

Moriya MIYAMOTO
Resident Representative
Japan International
Cooperation Agency.

X. PROVISION OF SPECIAL MEASURES

For fostering the smooth promotion of the Project, in accordance with the laws and regulations in force in Japan, the Government of Japan will take necessary measures through JICA to supplement a portion of the local cost expenditures for the execution of the physical infrastructure such as construction work of nursery, forest road and so on when necessity arises.





PRELIMINARY REPORT OF THE JAPANESE IMPLEMENTATION SURVEY TEAM
(THE TECHNICAL COOPERATION FOR THE TRIAL PLANTATION PROJECT IN BENAKAT).

1. Plantation site for the trial plantation project;

The area of plantation site is around 2,100 ha and is situated at the place in the attached map.

The target of this annual planting area during 5 (five) year is as follows;

Second year 200 ha

Third year 400 ha

Fourth year 700 ha

Fifth year 800 ha

Although the species of *Peronema canescens* was planted in this area in 1976/1977, the rate of the survival of seedling planted is very low according to the survival survey performed in 1979. Therefore it is necessary that the replanting in this areas will be implemented as quickly as possible to get them more productive.

The vegetation of this area is alang-alang grass with scattered shrub trees such as *Eupatrium* and *Lantana*. As the vegetation is a little different from the so-called through alang-alang grass area, therefore, the land preparation may be more difficult than usual and take many labours.

The nursery site of this project is shown in the attached map.

2. Planting species for the trial plantation project:

The planting species in this project was recommended in Dr. Sakaguchi's report based on the scope of work dated on September-

- first 1977. Some species in the above mentioned report do not, however, all the time apply for this area, such as *Acacia catechu*, *Maesopsis eminii* and *cassia siamea*.

Reviewing the planting species in this area is necessary, therefore and the decision of the species suitable for this area is formed to be done through the Joint Steering Group for this project.

However, we weight to suggest through our survey that the following five species should be selected at the first step in order to collect necessary seeds for the project in this fiscal year 1979.

- (1) *Pinus merkusii*
- (2) *Albizia falcataria*
- (3) *Eucalyptus deglupta* (or *Eucalyptus urophylla*)
- (4) *Switenia macrophylla*
- (5) *Leucaena glauca*.

Among these species the last tree species, *Leucaena glauca*, is used for soil improvement and should be mixed the other 4 (four) tree species. And the seeds of these species are prepared by Indonesian side. On the second year, the other 4 (four) tree species as follows should be added to be above mentioned 5 (five) species.

- (1) *Pinus caribaea* var. *hondurensis*
- (2) *Gmelina arborea*
- (3) *Peronema canescens*
- (4) Giant ipil - ipil

The following tree species should be taken into construction in the near future.

- (1) *Eucalyptus urophylla* (or *E. deglupta*)
- (2) *Anthocephalus cadamba*
- (3) *Aleurites mollucana*
- (4) *Camptosperma auriculata*
- (5) *Eusideroxylon zwageri*
- (6) *Dalbergia latifolia*

- (7) Shorea species
- (8) Sopea species
- (9) Cordia alliodora
- (10) Albizzia lebleck
- (11) Cedrea alliodora
- (12) Cedrea toona
- (13) Octomelis Sumatrana
- (14) Pterocarpus indicus
- (15) Acacia mangium
- (16) Legume species and others

3. Accomodation for Japanese experts:

As the suitable accomodation for Japanese experts was not able to find at Benakat and so on, it is recommended that Japanese experts will stay at Benakat from Monday to Saturday for work at Palembang from Saturday to Sunday. Accordingly, the traffic facilities between Palembang and Benakat on every Monday and Saturday and the suitable dormitory for Japanese experts at Benakat are needed.

Until the time when the suitable dormitory is built at Benakat, one room of STANVAC Guest House or suitable village house just near STANVAC campus should be used for Japanese experts.

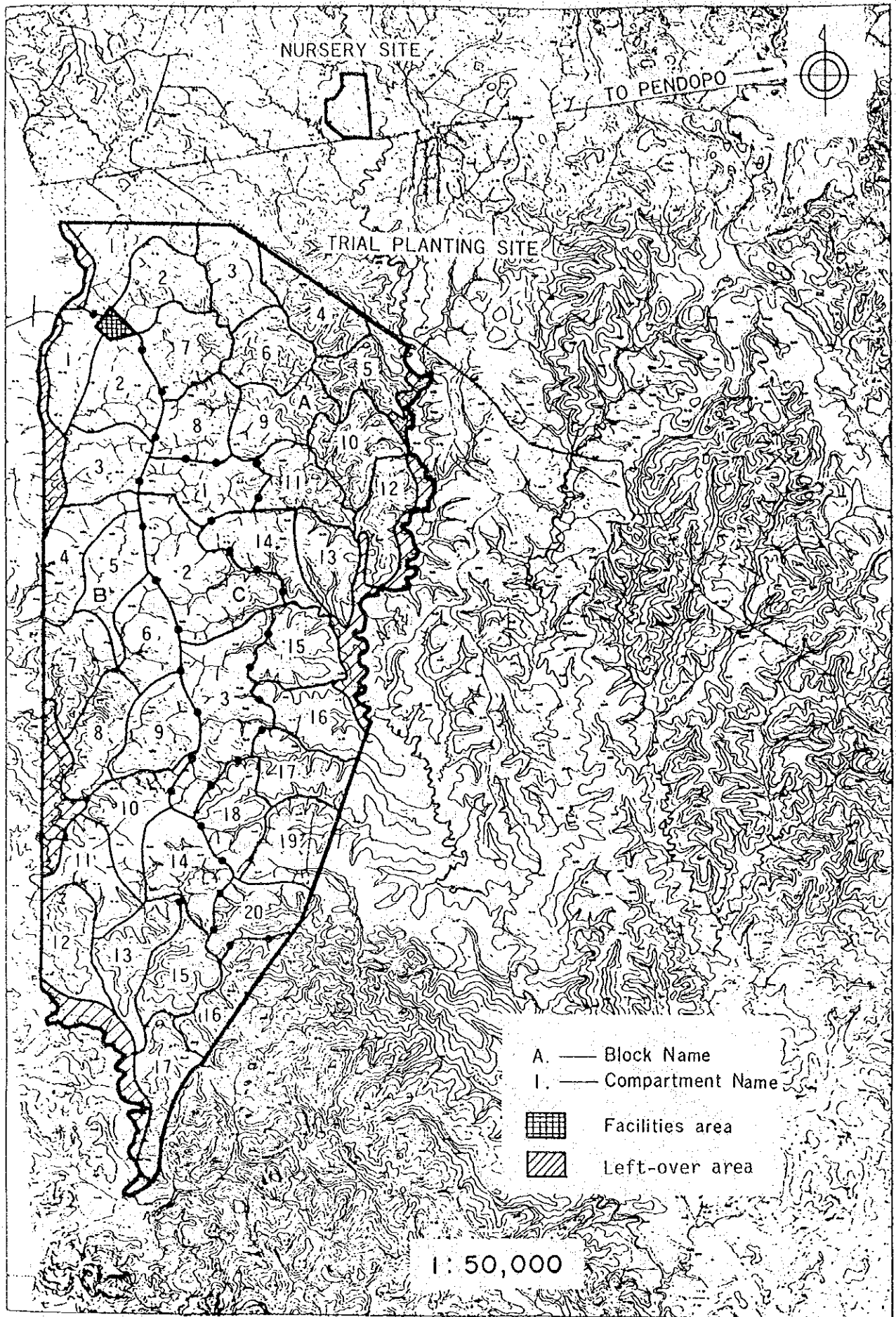
4. Construction of buildings and facilities;

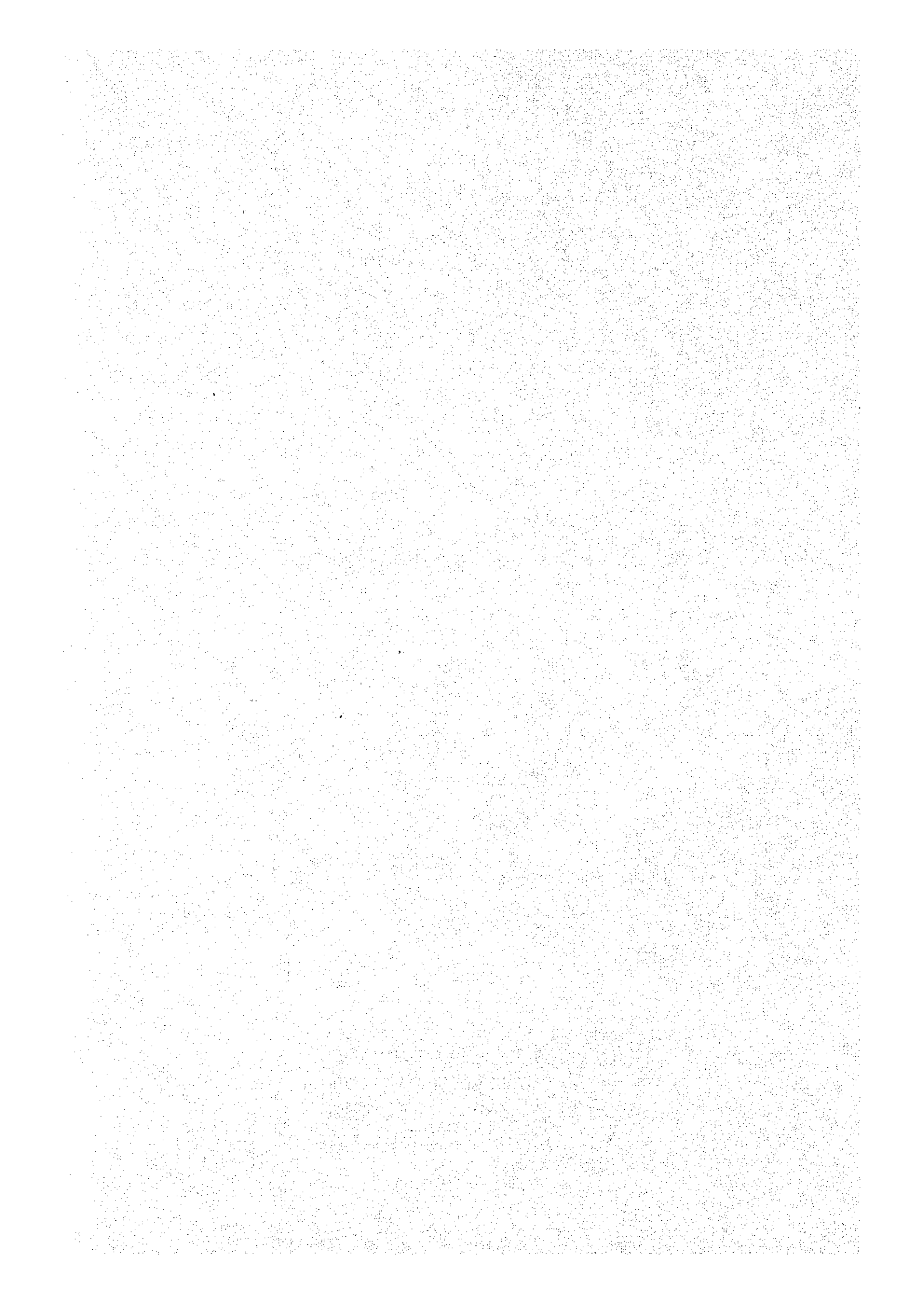
Indonesian side will prepare necessary buildings and facilities for the implementation of this project under the following plan.

THE PLAN OF BUILDING FACILITIES

No. I t e m	Area (m ²)	Place	Date of Target Of Completion
1. Project office	100	Boyor	November - 1979
2. Administration office	250	N.S.	February - 1980
3. Sheds	100	N.S.	February - 1980
4. Store house	150	N.S.	February - 1980
5. Japanese expert's dormitory	520	N.S.	February - 1980
6. Workshop garage	200	N.S.	October - 1980
7. Generator house	60	N.S.	J u l y - 1980
8. Pump house	20	N.S.	J u l y - 1980
9. Laboratories and lecture rooms	320	N.S.	October - 1980
10. Oil stock room	30	N.S.	J u l y - 1980
11. Afforestation office	150	T.P.S	October - 1980
12. Potting house	100	N.S.	February - 1980
13. Fertilizer stock house	80	N.S.	October - 1980
14. Guest house	380	N.S.	October - 1980
15. Others	-	-	-

N O T E : 1. N.S. : Nursery Site
 2. T.P.S. : Trial Planting Site.





The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial statements. This includes not only sales and purchases but also expenses, income, and transfers between accounts.

Next, the document outlines the process of reconciling bank statements with the company's records. This involves comparing the bank's record of transactions with the company's ledger to identify any discrepancies. Common reasons for these differences include timing differences, such as deposits in transit or outstanding checks, as well as errors in recording or bank charges.

The document then provides a detailed explanation of the accounting cycle, which consists of eight steps: 1) identifying and recording transactions, 2) journalizing, 3) posting to the ledger, 4) determining debits and credits, 5) preparing a trial balance, 6) adjusting entries, 7) preparing financial statements, and 8) closing the books. Each step is described in detail, including the necessary journal entries and ledger postings.

Finally, the document discusses the preparation of financial statements, including the balance sheet, income statement, and statement of cash flows. It explains how these statements are derived from the accounting records and how they provide a comprehensive view of the company's financial performance and position.

Appendix 4.

TECHNICAL COOPERATION FOR
THE TRIAL PLANTATION PROJECT
BENAKAT, SOUTH SUMATERA.

FIVE YEAR PLAN (1979 - 1984).

DIRECTORATE GENERAL OF FORESTRY
DIRECTORATE REFORESTATION AND
LAND REHABILITATION
JULY , 1981.

TECHNICAL COOPERATION FOR
THE TRIAL PLANTATION PROJECT IN BENAKAT ,
SOUTH SUMATERA ATA - 186

Project Title : Trial Plantation in Benakat,
South Sumatera.

Record of Discussion : April 12, 1979

Location : Benakat, South Sumatera

Duration : Five (5) Years, starting date ;
12 April, 1979.

Government Cooperation Agency : Directorate of Reforestation and
Land Rehabilitation.

Target : Manual method = 1.000 Ha
: Mechanical method = 850 Ha
: Species trial = 250 Ha
= 2.100 Ha

Budget : Rp. 1.100.000.000

Machinery 580.000.000 Yen

Jakarta, Jnuary , 1980.

INTRODUCTION

This Five Year Plan was drawn from Record of Discussion which was signed in April 1979, and it is a revised Five Year Plan. Originally this plan was prepared in 1979 and has been submitted in the First Joint Steering Meeting held in June 14th 1980 for discussion, which needed further improvement. Once again in the Second Joint Steering Meeting held in October 30, 1980, it was noted that the Five Year Plan would be completed in accordance with the guide lines given by the management and legalized by the Director of Reforestation and Land Rehabilitation.

During the last meeting, the Third Joint Steering Meeting held in June, 8th, it was once again being discussed and it should become the valid document describing the objectives and goal of the project for the coming years of activity, and must be used as a guidance to prepare Annual Plan. For example the Annual Plan of 1981/1982 was already based on this Five Year Plan.

The budget requirement which is being presented in this plan is an estimated amount to cover all the activities, since it is subject to the budget allocation every year from the Government of Indonesia. Contribution either by JICA or the Japanese Government is a amount which is known to date such as the development of infrastructure for equipment and dormitory facilities. The other contribution for Agroforestry development is being supplemented later after feasibility study has been done by the coming JICA expert late this month.

Jakarta, June, 1981.

(Ir. Apandi Mangundikoro)

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I. LEGAL CONTEXT

This project document (here in after referred to as plan of operation) is an instrument specifying the technical implementation of Project ATA-186. With this plan of operation it is hoped that single minded action will be taken by the Field Manager, Expert and Counterparts in carrying out this project.

II. DEVELOPMENT OBJECTIVES

The record of discussion signed in April 1979, states that the purpose of the project is to develop and improve the following items ;

1. Species trial
2. Nursery techniques
3. Planting techniques
4. Techniques for counter-measures againts fire, insect and disease
5. Techniques of designing and managing forest roads and soil conservation work
6. Techniques for application of machine power
7. Test and investigation on the environmental implication of afforestation.
8. Test and studies of the social implication of afforestation (Agroforestry)
9. Planning and evaluation techniques of afforestation
10. Other necessary techniques.

The output of the project will be take the from of reports, manuals working paper/publication, and trained personnel in the field of plantation establishment as follows;

A. Relative to Objective 1(species trial)

To test the initial growth and suitability of number of species on grass land (REPORTS)

B. Relative to Objective 2 (Nursery techniques)

1. To develop an adequate nursery and facilities to produce at least 1,5 million plants (REPORTS)
2. To test and develop suitable and economical plant production for different species (MANUALS)
3. To prepare a cost benefit study of plant production for different species (REPORTS)
4. To provide adequate training in all aspect of nursery development and plant production for 10 - 25 selected personal through out of the period of the project (TRAINING COURSE)

C. Relative to Objective 3 (Planting techniques).

1. To investiagte and compare a variety of techniques of planting by hand, mechanical and agri-silvicultureal method (MANUAL)
2. To investigate and to develop suitable techniques of plant transportation and planting method (MANUAL)
3. To investigate and compare a variety of techniques of tending including hand, mechanical, chemical, fertilizer, and nurse plant treatments (MANUAL).

D. Relative to Objective 4 (Protection againts fire, insect and disease).

1. To investigate and determine suitable measure for prevention and control of fire (REPORTS)
2. To develop a suitable training programme and conduct training course in fire protection for selected personal (TRAINING COURSE).

E. Relative to Objective 5 (Road construction).

1. To develop suitable method of plantation road construction (REPORTS).

F. Relative to Objective 6 (Application of machine power).

1. To develop the organization of machines and equipment in mechanized afforestation project (REPORTS).
2. To implement an on-job training course in machine and equipment (Training course).
3. To prepare recommendation for selection of suitable machine and equipment (REPORTS).

G. Relative to Objective 7 (Environmental implication).

1. To determine the effects of different tree species and planting distance in alang - alang (Imperata cylindrica) (REPORTS).

H. Relative to Objective 8 (Social implication)

1. Social pattern and requirements of an integrated afforestation project (REPORTS).
2. Suitability of a modified tumpangsari system (REPORTS).

I. Relative to Objective 9 (Planning and evaluation techniques).

1. To develop and implement a suitable cost recording system (REPORTS)
2. Cost benefit analysis identification of the recommended afforestation techniques (REPORT)
3. Outline a management for large scale industrial plantation on grassland (REPORT).

J. Relative to Objective 10 (Others).

1. Any other activities identified during the course of the project relevant to conduct of the project.
2. The technical data and information resulting from the project will be published in the interest of reforestation activities in Indonesia (Working paper/Publication).

III. OUTLINE OF THE TRIAL PLANTATION.

Detailed specification of the above mentioned activities :

A. DESIGN OF THE TRIAL PLANTATION.

Location : The site is established on National Forest, situated at Benakat about 15 km Westward from Pendopo.

The area of site : The total area of trial plantation site is about 2,400 Ha including the land for the forest road, fire breaks and left over area about 300 Ha.

The main purpose of the trial plantation are :

- To select the suitable treespecies from the ordinary planting species in Rainforest area for the grassland and to establish their right afforestation techniques by mechanization for the grassland.
- Accordingly the trial plantation consist of 3 types of experiment and species trial .

1. Manual experiment (Experiment A)

This experiment carried and by using tree species that have already been experimented at various countries under the rainforest climate. The aims of this experiment are to select the suitable tree species for this area from the following eight tree species and to make clear the relationships between the growth of each species and the various silvicultural operation in this area by manual. The eight tree species taking part in this experiment are as follows :

<u>Botanical name</u>	<u>Species code</u>	<u>Indonesian name</u>
1. <u>Pinus merkusii</u>	PIM	Pinus
2. <u>Albizzia falcataria</u>	ALF	Albisia
3. <u>Eucalyptus deglupta</u>	EUD or	Eukaliptus

E. Urophylla

4. <u>Switenia macrophylla</u>	SWM	Mahoni
5. <u>Schima bancana</u>	SCB	Puspa
6. <u>Acacia auriculiformis</u>	ACA	Formis
7. <u>Peronema canescens</u>	PEC	Sungkai
8. <u>Anthocephalus cadamba</u>	ANC	Jabon

The items of the experiment taking into account in this as follows:

a. Effect of topography : 2 catagories

- a) top and upper slope of terrain
- b) foot and lower slope of terrain

b. Effect of site preparation: 3 catagories

- a) strip
- b) cutover
- c) cutover with burning

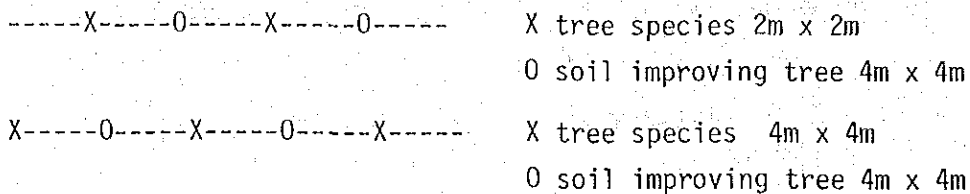
Site preparation is carried out by strip in general, effect of cutover with burning will be examined separately.

The strip are cleared 1 m wide by using bush cleaner and plowing the planting spots in area of 50cm x 50cm.

c. Effect of planting distance : 3 catagories

- a) 2m x 2m
- b) 4m x 2m
- c) 4m x 4m

d. Effect of soil improving tree such as Leucaena glauca. The half of planting area is planted with soil improving tree by using planting distance 4m x4m as follows :



e. Effect of planting season : 3 catagories

- a) rainy season (November - January)
- b) intermediate season (March - May)
- c) dry season (July - September)

Planting season on rainy season will be carried out in general, while b) and c) will be examined separately.

f. Effect of fertilizer : 3 levels

- a) non fertilizer
- b) standar amount of fertilizer and
- c) half amount of fertilizer standar

Fertilizer using on this polynutrient fertilizer NPK = 13 : 17 : 12 or 14 : 16 : 12. Other kind of fertilizer will be tested. 20 gr Nitrogen per seedling for broad leaves and 8 gr Nitrogen per seedling for pine, and 6 gr. Nitrogen per seedling for Leguminans tree, about 2 monts after planting.

The area of each plot of fertilizer test is 0,25 Ha (50m x 50m) and repeated twice. The plot are settled on two catagories of topography. Fertilizerto be examined during 3 years after planting. The amount of fertilizer in second year to be increase about 20 % of the first year and in the third year will be increased more 20 % than that 2nd year.

g. Effect of tending : 3 catagories

- a) Weeding is done by clearing strip twice a year
- b) Weeding is done by clearing strip three times a year
- c) Weeding is done by using grass killers

Catagories :

- a) Will be carried on in general, while
- b) will be examined separately.

h. The arrangemnet of plot :

The planting area for one species (petak) is 50 Ha. The area devided into 3 area equally according to the planting distance and also the half them is planted with soil improvement tree. So each petak has 6 " anak petak " or sub-petak. In each sub-petak 12 plots of fertilizer -

-test are settled on two categories of topography. The area of a fertilizer test is 0,25 Ha (50m x 50m).

Annual planting area of each species is as follows :

Species code	2nd	3rd	4th	5th	Total
PIM	50	-	50	50	150
ALF	50	-	50	50	150
EUU or EUD	50	-	50	50	150
SWM	50	-	50	50	150
SCB	-	50	50	50	150
ACA	-	50	-	-	50
PEC	-	50	-	-	50
ANC	-	50	50	50	150
<hr/>					
Total (Ha)	200	200	300	300	1.000

2. Mechanization experiment (Experiment B)

Under this experiment, the experimental introduction of mechanization for the site preparation, planting and tending in this grassland area and how to develop and improve the machine suitable for this area will be tried. Moreover, the effect of mechanization and the process of work be surveyed and analysed.

The tree species to be planted is the same as Experiment A.

The effect of mechanization in this area is examined on the following items :

- a. Effect of topography : 2 categories, this is the same as Experiment A.
- b. Effect of site preparation : 2 categories
 - a) strip clearing and strip cultivation
 - b) cutover and strip cultivation, but this will be examined separately.

c. Planting season : it is performed only from November to January

d. Planting method : to use Earth auger and tree planter will be employed.

e. Arrangement of plot :

the planting area (petak) for species is 50 Ha.

This area is divided into 2 area equally

according to the planting distance and also the half of them is planted with soil improving tree.

So each petak has 4 "anak petak" or sub-petak.

In each sub-petak 12 plots of fertilizer test are settled on two categories of topography. The area of fertilizer test is 0,25 Ha (50m x 50m).

Annual planting area of each species as follows :

Species code	:	2nd	:	3rd	:	4th	:	5th	:	Total
PIM	:	-	:	50	:	50	:	50	:	150
ALF	:	-	:	50	:	50	:	50	:	150
EUU or EUD	:	-	:	50	:	50	:	50	:	150
SWM	:	-	:	-	:	50	:	50	:	100
SCB	:	-	:	-	:	50	:	50	:	100
ACA	:	-	:	-	:	50	:	50	:	100
PEC	:	-	:	-	:	-	:	50	:	50
ANC	:	-	:	-	:	-	:	50	:	50
Total	:	-	:	150	:	300	:	300	:	850

3. Introduction experiment of new tree species (Experiment C)

Under this experiment, the indigeneous tree species in Indonesia and exotic tree species introduced in Indonesia will have adaptability and possibility of good growing, will be experimented.

The tree species that supposed to be tried are as follows, but they will be re-examined not only with the advancement of the project but also with the accumulation of the information on the possibility -

-of artificial planting by all kind of tree species :

	Botanical name	Species code	Local name
1.	<u>Pinus merkusii</u>	PIC	-
2.	<u>Aleurites moluccana</u>	ALM	Kemiri
3.	<u>Eusideroxylon swageri</u>	EUZ	Ulin
4.	<u>Shorea sp.</u>	SHS	Meranti
5.	<u>Hopea sp.</u>	HOS	Hopea
6.	<u>Octomalis sumatrana</u>	OCS	Benuang
7.	<u>Dalbergia latifolia</u>	DAL	Sonokeling
8.	<u>Cordia alliodora</u>	COA	-
9.	<u>Cedrea odorata</u>	CEO	-
10.	<u>Pterocarpus indicus</u>	PTI	Angsana
11.	<u>Acacia mangium</u>	ACM	Mangium
12.	<u>Khaya sp.</u>	KHS	Kaya
13.	<u>Enterolobium sp.</u>	ENS	Petai brasil
14.	<u>Gmelina arborea</u>	GMA	-
15.	<u>Leucaena leucocephalla</u>	LEL	Ipil - ipil
16.	<u>Ochroma bicolor</u>	OCB	Balsa
17.	<u>Pterygota allata</u>	PTA	-

However, it is necessary to collect enough seed to establish the plantation of 10 Ha one species. Total number of species is expected to reach 25 species.

The experiment will be tried under following items :

- a. Effect of topography : this is the same to Experiment A.
- b. Site preparation : it is performed only by strip clearing.

- c. Effect of planting distance : 2 catagories
 - a. 2m x 2m
 - b. 4m x 4m
- d. Planting season : it is performed only from November to January.
- e. Planting method : this is the same to Experiment B
- f. Effect of fertilizer : 2 catagories
 - a. standard amount of Experiment A.
 - b. non fertilizer.
- g. Tending : this is the same to Experiment A.
- h. Arrangement of block, compartment (petak), sub-compartment and plot

Trial plantation area is devided into 3 experimental areas. Trial plantation are devided into experimental block (A,B,C), area are further devided into compartment and compartment are devided into sub-compartment. Every compartment is intended for one tree species and every sub-compartment has one kind combination of treatment.

Each block, compartment and sub-compartment has its code number as follows = I - B - 10 - a

I = Annual planting area (I = 80/81; II = 81/82; III = 82/83; IV = 83/84)

B = Type of experiment

10 = Number of compartment

a = code of sub-compartment.

B. NURSERY

1. Location of nursery site : the location is on the west Bank of Baung river, about 12 km, westward from Pendopo.
2. Area of nursery site : total area is about 16,2 ha; area of nursery bed is 3,5 ha and about 12,7 ha for arboretum.

3. Facility of nursery site :

- a. Three pond for reservoir are established by utilizing the creek of Baung river. The capability of a pond is 500 m³.
- b. Shed for soil, shed for soil hetaing, shed for potting work, germination room, place for transplanting, germination beds, seedling beds, sprinkling systems, drainage ditch and sun shade lawn are established.
- c. Seedling beds :
Size of a bed is 1,2 m (width) x 12m (length) x 0,1m (height) and is paved with the bricks arpiles up. The soil and cover with the mortar or plastic sheet. Total number of potted seedling beds about 1.000 beds, but they include 36 spare beds. Number of pot per a bed is 2.250 pots in case of Pinus merkusii. Total number of germination bed is about 85.

C. FOREST ROAD PLAN

Main road will be establish along watershed running from north to to south. Operation road is established arround the trial plantation site and spur road. Main items of standard in construction of each forest road as follows :

I t e m	Main road	Operation road	Spur road
Expectant speed by car (KM/Hr)	20	10	-
Minimum radius of curvature (m)	30	20	10
Visual distance of curvature (m)	40	20	20
Maximum survace slope	7	10	12
Thickness of sand	30	20	10
Surface of embarkment	Sodding work	Sodding work	-
Culvert	Corrugated pipe	Corrugated pipe	-

D. FIRE BREAK

Fire breaks are established along the main road, operation road, spur road and also around the trial plantation established annually (block). The width of fire breaks are 30m along the main road and 20 m along the operation road and 20 m along the spur road including the width of road. The width of fire breaks will be covered with cover plant or planted with green fire breaks tree species.

E. FIRE LOOK OUT TOWER

The fire look out tower with the height of 15 m will be constructed on 4 spots along the main road.

IV. BUDGET ALLOCATION

Budget allocation for the Trial Plantation Project is estimated budget from the Government of Indonesia and the Government of Japan. Budget allocation will be compared with available the budget from every Government in every year.

The Government of Indonesia prepares the budget which use for performance development objectives and the Government of Japan will contribute equipment, machinery and infrastructure. Infrastructures budget is used for construction of dormitory and other facilities.

Detail budget allocation are as follows on table VIII B and VIII C. Budget available for each activity is as follows :

A. INDONESIAN BUDGET

<u>Item</u>	<u>Total x Rp. 1.000,-</u>
1. Nursery	39.000,-
2. Plantation	388.000,-
3. Tending	115.000,-
4. Fertilizing	52.000,-
5. Fire break	44.000,-
6. Road construction	112.000,-
7. Fire tower	4.000,-
8. Building & facilities	95.670,-
9. Management constant operational cost	241.956,-
	<hr/>
Total	1.105.126,-

B. JAPANESE BUDGET

1. Machinery & Equipment	580.000.000 Yen
2. Infrastructure	180.000.000 Yen
	<hr/>
	760.000.000 Yen

V. PERSONAL REQUIREMENT

The Trial Plantation Project can success if personal requirement is enough. Personal requirement must in conformity with objectives, experts, counterparts, supervisor, formans and workers.

The Government of Japan will send for long term expert and short term experts, the other are Indonesians.

The Trial Plantation Project to execute objectives requirs personal as follows :

<u>Objectives</u>	<u>Expert</u>	<u>Counterpart</u>	<u>Supervisor</u>	<u>Forman</u>
1. Chief Advisor	1	1	1	-
2. Silviculture	1	1	2	6
3. Nursery	1	1	1	-
4. Forest protection	1	1	1	2
5. Forest engineering	1	1	1	-
6. Forest ecology	1	1	2	-
7. Liaison officer	1	-	-	-

VI. REGISTRATION, EVALUATION, AND REPORT

A. Registration

Registration are made of nursery and plantation aim and to provide comprehensive and precise description and histories of plantation and also to storage the authentic date and information for the preparation of report, evaluation etc.

The registers will be maintained and will be kept up to date by regular entries.

Registers of nursery is made per a tree species and registers of plantation is made per a "sub-petak" (form 1 and form 2).

B. Evaluation.

Periode evaluation of project activities and result will be made a twice a year in order to know which techniques are unsuitable and which one should be further developed.

Evaluation is made in the field and the result are then discussed in Joint Steering Group Meeting.

Evaluation is also made in order to prepare annual Work Plan ("DUP"), and working paper/publications.

C. Reports

At the end of the project or during the project is implemented, various reports and manual will be is used as mentioned above.

(PART II - B. Output).

VII. TABLES

A. Activities and Work Plan.

Activities	79/80	80/81	81/82	82/83	83/84	Total
1	2	3	4	5	6	7
<u>1. Nursery</u>						
Seedlings (x 1.000)	-	450	788	1.375	1.513	-
Beds (1.2 x 12 x 0.1m)	-	233	464	812	988	-
Soil for pots(m3)	-	267	660	1.139	1.271	-
<u>2. Planting.</u>						
Experiment A (manual)	-	200	200	300	300	1.000
Experiment B (mechanization)	-	-	150	300	400	850
Experiment C (species trial)	-	-	50	100	100	250
	-	200	400	700	800	2.100
<u>3. Tending.</u>						
1st year old (one/year)	-	200	400	700	800	-
2nd year old (3 x/year)	-	-	200	400	700	-
3th year old (3 x/year)	-	-	-	200	400	-
4th year old (3 x/year)	-	-	-	-	200	-
<u>4. Chemical (Ha)</u>						
	-	-	5	5	5	-

	1	2	3	4	5	6	7
5. Fertilizing (tons)	-	15.5	18.5	33.25	45.25		
6. Fire break (Km)							
Along main road (30m)	-	3.6	2.4	5.2	7.6		18.8
Along operational road (20m)	-	1.8	13.8	18.4	32.0		66.0
Along annual planting area	-	-	14.2	23.8	24.0		62.0
7. Road construction (Km)							
Main road	0.7	2.3	2.6	3.8	-		9.4
Operational road	0.9	6.9	9.2	16.2	-		33.0
Spur road	-	7.1	11.9	12.0	-		31.0
8. Fire Tower	-	1	1	1	1		
9. Building and Facilities							
(1) Administration office (m2)	50	200	-	-	-		250
(2) Sheds (m2)	100	-	-	-	-		100
(3) Store house (m2)	25	125	-	-	-		150
(4) Experts dormitory (m2)	50	470	-	-	-		520
(5) Workshop garage (m2)	-	200	-	-	-		200
(6) Generator house (m2)	-	60	-	-	-		60
(7) Pump house (m2)	6	14	-	-	-		20
(8) Pond (m2)	12	-	-	-	-		12
(9) Laboratories and Lecture room (m2)	-	-	320	-	-		320
(10) Oil stock room (m2)	-	30	-	-	-		30
(11) Plantation office (m2)	-	150	-	-	-		150
(12) Potting house (m2)	30	70	-	-	-		100

	1	2	3	4	5	6	7
(13) Fertilizer stock house (m2)	80	-	-	-	-	-	80
(14) Guest house (m2)	-	380	-	-	-	-	380
	341	1,699	320	-	-	-	2,360

10. Machinery and Equipment

A. Nursery and Planting

(1) Wheel tractor (unit)	2						
(2) Auto-auger (unit)	1						
(3) Auger (unit)	10						
(4) Bush cleaner (unit)	4						
(5) Chain saw (unit)	2						
(6) Dump truck (unit)	1						
(7) Truck (unit)							
(8) Cransler (unit)							
(9) Trencher (unit)							
(10) Soil mixer (unit)	1						
(11) Fork lift (unit)							
(12) Sprinkler (unit)	1						
(13) Conveyor (unit)	1						
(14) Auto-seeder (unit)	1						
(15) Auto-seedling selector							
(16) Hand tractor (unit)							

	1	2	3	4	5	6	7
B. Road construction							
(1) Angle dozer	(unit)	1	:	:	:	:	:
(2) Shovel dozer	(unit)	:	:	:	:	:	:
(3) Rammer	(unit)	:	:	:	:	:	:
(4) Motor grader	(unit)	:	:	:	:	:	:
(5) Road roller	(unit)	:	:	:	:	:	:
(6) Dump truck	(unit)	:	:	:	:	:	:
(7) Crawler truck	(unit)	:	:	:	:	:	:
(8) truck	(unit)	:	:	:	:	:	:
(9) Trencher	(unit)	:	:	:	:	:	:
(10) Conveyor	(unit)	:	:	:	:	:	:
(11) Road mark	(unit)	:	:	:	:	:	:
C. General machine							
(1) Jeep	(unit)	1	:	:	:	:	:
(2) Bus	(unit)	1	:	:	:	:	:
(3) Motor cycle	(unit)	:	:	:	:	:	:
(4) Fire fighting equipment	(unit)	:	:	:	:	:	:
(5) Generator	(unit)	:	:	:	:	:	:
(6) Service equipment	(unit)	:	:	:	:	:	:
(7) Experimental equipment	(unit)	:	:	:	:	:	:
(8) Radio and electric equipment	(unit)	:	:	:	:	:	:
(9) Meteorological observation equipment	(unit)	1	:	:	:	:	:

B. Budget Covering Government Construction (X Rp. 1.000,-)

NO.	Activities	79/80	80/81	81/82	82/83	83/84	Total
1.	Plantation						
	: To design Plantation area	-	2.000	4.000	7.000	8.000	21.000
	: Experiment A (manual)	-					
	: Experiment B (mechanical)	-	35.000	70.000	122.500	140.000	367.000
	: Experiment C (species trial)	-					
		-	37.000	74.000	129.500	148.000	388.000
2.	Nursery	3.700	7.300	13.000	15.000	-	39.000
3.	Tending		9.000	20.000	36.000	50.000	115.000
4.	Fertilizing		2.500	10.000	15.000	25.000	52.000
5.	Fire break		2.500	8.000	15.000	19.000	44.000
6.	Road construction						
	: Main road						
	: Operation road						
	: Spur road						
			14.000	24.000	33.000	40.000	112.000

	1	2	3	4	5	6	7
7. : Fire tower		-	4,000	4,000	4,000	4,000	4,000
8. : <u>Building and Facilities</u>							
1. Administration office		1,500	8,000				9,500
2. S h e d s		500					500
3. Store house		750	3,750				4,500
4. Experts dormitory		2,750	25,850				
5. Workshop and garage			5,000				5,000
6. Generation house			2,400				2,400
7. Pump house		90	280				370
8. P o n d		1,200					1,200
9. Laboratories and lecture room				12,800			12,800
10. Oil stock room			900				900
11. Plantation office			4,500				4,500
12. Potting house		300	700				1,000
13. Fertilizer stock house							1,600
14. Guest house			22,800				22,800
T o t a l	8	7,090	75,780	12,800			95,670

	1	2	3	4	5	6	7
<u>9. Management</u>							
A. Salary/Wages/honorarium							
1. Head office personal							
- Manager		600	600	600	600	600	3.000
- Co Manager		480	480	480	480	480	2.400
- S t a f f (7)		2.520	2.520	2.520	2.520	2.520	12.600
<u>T o t a l 9. A. 1.</u>		3.600	3.600	3.600	3.600	3.600	18.000
2. Field Personal							
- Field Manager (1)		480	480	480	480	480	2.400
- Treasur (1)		360	360	360	360	360	1.800
- Administration (1)		360	360	360	360	360	1.800
- Staff Administration (6)		1.800	1.800	1.800	1.800	1.800	9.000
- G u a r d (3)		900	900	900	900	900	4.500
- Drivers (cars) (4)		1.200	1.200	1.200	1.200	1.200	6.000
- Mechanic (4)		1.920	1.920	1.920	1.920	1.920	9.600
- Driver (tractor, bulldozer) (6)		2.880	2.880	2.880	2.880	2.880	14.000
<u>T o t a l 9.A.2</u>		9.900	9.900	9.900	9.900	9.900	49.000
3. Counterpart							
- Nursery (1)							
- Silviculture (1)							
- Road construction (1)		2.880	2.880	2.880	2.880	2.880	14.400

	1	2	3	4	5	6	7
- Forest protection (1)	:	:	:	:	:	:	:
- Soil conservation (1)	:	:	:	:	:	:	:
- Liaison officer (1)	:	:	:	:	:	:	:
Total 9.A.3	:	2.880	2.880	2.880	2.880	2.880	14.400
Total 9.A.	:	16.380	16.380	16.380	16.380	16.380	81.900

B. Travelling

- Head personal	:	4.000	4.000	4.000	4.000	4.000	20.000
- Field personal	:	4.000	4.000	4.000	4.000	4.000	20.000
- Experts	:	4.000	4.000	4.000	4.000	4.000	20.000
- Counterparts	:	4.000	4.000	4.000	4.000	4.000	20.000

C. Others

1. J e e p	:	5.090	6.500	:	:	:	11.590
2. Rent on office at Bogor (1)	:	-	2.500	2.500	2.500	2.500	10.000
3. Rent on house at Palembang (1)	:	2.000	2.000	2.000	2.000	2.000	10.000
4. Rent on house at Palembang (1)	:	2.000	2.000	2.000	2.000	2.000	10.000
Meetings							
- Bogor	:	1.000	1.000	1.000	1.000	1.000	5.000
- Palembang	:	1.000	1.000	1.000	1.000	1.000	5.000
6. Overtimes	:	200	500	500	500	500	2.000
7. Running/service/ (3 cars)	:	1.466	3.000	3.000	3.000	3.000	13.466
8. Postage, telegram etc.	:	1.500	1.500	1.500	1.500	1.500	7.500
9. Film, documentation, fotocopy	:	300	500	500	500	500	2.300

	1	2	3	4	5	6	7
10. Medicines (experts)							
Total 9.C.		15.156	21.100	14.600	14.600	14.600	80.056
Total 9		47.536	53.480	46.980	46.980	46.980	241.956
Total 1/s/d 9		58.326	205.560	213.780	294.480	332.980	1.105.126

C. Budget Covering JICA Construction.

No.	I t e m s	79/80	80/81	81/82	82/83	83/84	T o t a l
:	1	2	3	4	5	6	7
I. :	<u>Machinery and Equipment</u>	:	:	:	:	:	:
:	A. Nursery and planting	:	:	:	:	:	:
:	(1) Wheel tractor 50 Hp (2 unit)	11.600	:	:	:	:	:
:	(2) Auto auger (1 unit)	-	:	:	:	:	:
:	(3) Auger (10 unit)	5.000	:	:	:	:	:
:	(4) Bush cleaner (4 unit)	950	:	:	:	:	:
:	(5) Chain saw 13 Hp (2 unit)	400	:	:	:	:	:
:	(6) Dump truck (1 unit)	3.500	:	:	:	:	:
:	(7) T r u c k	:	:	:	:	:	:
:	(8) Cransler dump	:	:	:	:	:	:
:	(9) Trencher	:	:	:	:	:	:
:	(10) Soil mixer (1 unit)	2.000	:	:	:	:	:
:	(11) Forklift	:	:	:	:	:	:
:	(12) Sprinkler system (1 unit)	5.500	:	:	:	:	:
:	(13) Conveyer system (1 unit)	1.500	:	:	:	:	:
:	(14) Auto seeder (1 unit)	2.500	:	:	:	:	:
:	(15) Auto seeding selector (1 unit)	:	:	:	:	:	:
:	(16) Hand tractor	:	:	:	:	:	:
:	(17) Others	:	:	:	:	:	:
:	T o t a l A.	36.750	:	:	:	:	:

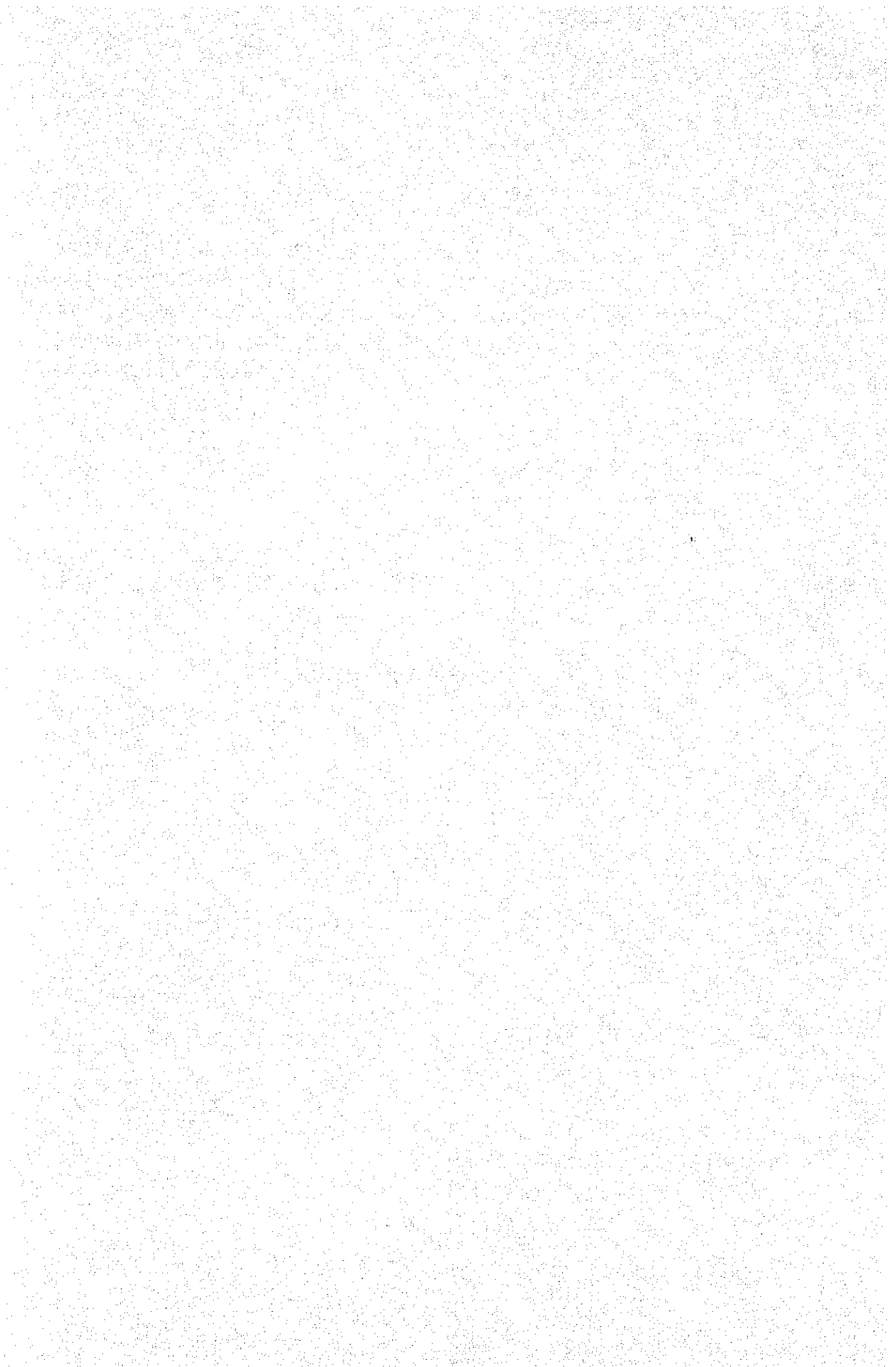
1 : 2 : 3 : 4 : 5 : 6 : 7 :

B. Road construction

(1) Angledozer	:	:	:	:	:	:	:	:	:	:
(2) Shoveladozer	:	:	:	:	:	:	:	:	:	:
(3) Rammer	:	:	:	:	:	:	:	:	:	:
(4) Motor grader	:	:	:	:	:	:	:	:	:	:
(5) Road roller	:	:	:	:	:	:	:	:	:	:
(6) Dump truck	:	:	:	:	:	:	:	:	:	:
(7) Crawler dump	:	:	:	:	:	:	:	:	:	:
(8) Truck	:	:	:	:	:	:	:	:	:	:
(9) Trencher	:	:	:	:	:	:	:	:	:	:
(10) Main road	:	:	:	:	:	:	:	:	:	:

: : : : : : : : :

NO. : I t e m s	2	4	5	6	7	Total
C. <u>General use machines</u>	:	:	:	:	:	:
(1) J e e p & others	:	:	:	:	:	:
(2) B u s	:	:	:	:	:	:
(3) Motor cycle	:	:	:	:	:	:
(4) Fire fighting equipment	:	:	:	:	:	:
(5) Generator	:	:	:	:	:	:
(6) Service equipment	:	:	:	:	:	:
(7) Experimental electric equipment	:	:	:	:	:	:
(8) Radio and electric equipment:	:	:	:	:	:	:
(9) Meteorological observation equipment	:	:	:	:	:	:
Total C.	:	:	:	:	:	:
Total A + B C (machinery)	120.000	160.000	100.000	100.000	580.000	
II Infrastructure						
1. Model infrastructure for nursery and forest road	25.000.000	:	:	:	:	:
2. Construction of dormitory and other facilities	:	:	100.000.000	:	:	:
3. Pilot infrastructure for agro-forestry	:	:	55.000.000	:	:	:



The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry, no matter how small, should be recorded to ensure the integrity of the financial data. This includes not only sales and purchases but also expenses and income. The document provides a detailed list of items that should be tracked, such as inventory levels, customer orders, and supplier invoices. It also outlines the procedures for recording these transactions, including the use of specific forms and the assignment of responsibilities to different staff members.

The second part of the document focuses on the analysis of the recorded data. It describes various methods for identifying trends and anomalies in the financial records. This includes comparing current performance with historical data and industry benchmarks. The document also discusses the importance of regular audits and reconciliations to detect and correct any errors or discrepancies. It provides a step-by-step guide for conducting these audits, from the selection of samples to the final reporting and corrective actions.

The final part of the document addresses the communication of the results of the financial analysis. It emphasizes the need for clear and concise reporting to management and other stakeholders. The document provides a template for a financial report, including sections for executive summary, detailed findings, and recommendations. It also discusses the importance of transparency and accountability in the reporting process, and provides guidelines for how to handle sensitive information and respond to inquiries from external parties.

MINUTES OF MEETING HELD BETWEEN THE COOPERATION PLANNING SURVEY TEAM FOR THE TRIAL PLANTATION PROJECT IN BENAKAT, SOUTH SUMATERA AND THE DIRECTOR OF REFORESTATION AND LAND REHABILITATION, THE DIRECTORATE GENERAL OF FORESTRY, THE REPUBLIC OF INDONESIA (MEMORANDUM).

The Cooperation Planning Survey Team for Trial Plantation Project in Benakat, South Sumatera, headed by Mr. Katsuhiko Kotari, and the Director of Reforestation and Land Rehabilitation, the Directorate General of Forestry, the Republic of Indonesia held a meeting in a friendly atmosphere for smooth implementation of the project. The result of the above-mentioned meeting is outlined as follows.

June 9, 1980

The Cooperation Planning Survey
Team for Trial Plantation Project
in Benakat, South Sumatera.

1. Outline of the Meeting

1. Topics of the Meeting.

- (1) Improvement of accommodation at the project site in Benakat.
- (2) Supplementation of the budget for fiscal 1980
- (3) Immediate take-over of machinery and equipment and their effective use.

2. List of Attendance

(1) Japanese side

Mr. Katsuhiro Kotari	Leader, the Cooperation Planning Survey Team for Trial Plantation in Benakat, South Sumatera.
Dr. Kazuto Arimitsu	Afforestation, ditto
Mr. Seinosuke Kadoya	Cooperational Planning, ditto
Mr. Mr. Noriko Namba	Liaison Officer, ditto
Mr. Mr. Takeichi Ishikawa	Embassy of Japan
Mr. Ryosuke Kato	Chief Adviser, Trial Plantation Project in Benakat, South Sumatera.
Mr. Yoshiichi Sakamoto	Coordinator, ditto
Mr. Tomochika Uchida	JICA Jakarta Office.

(2) Indonesian side

Mr. Apandi Mangundikoro	Director of Reforestation and Land Rehabilitation, Directorate General of Forestry .
Mr. Djumra	Chief of Sub Directorate Kawasan.

Mr. Arif P.S. Sagala	Staff of Sub Directorate Reforestation
Mr. Syahrir	Chief of Sub Directorate Nursery
Mr. Pramono	Staff of Sub Directorate Rehabilitation.
Mr. Zulkifli Mulsani	Field Manager of Trial Plantation Project in Benakat, South Sumatera.

3. Place of the Meeting
Conference Room of Director, Directorate General of Forestry.

4 Time and date of the Meeting
June 9, 1980 from 10:to 12:00

II. Result of the Meeting

1. Improvement of accommodation at the project site in Benakat.

- (1) The Government of the Republic of Indonesia will complete the construction of the dormitory for both Japanese experts and Indonesian counterparts by the end of November, 1980, based on the Record of Discussion signed on April 12, 1979.
- (2) The quality of the above-mentioned dormitory should be higher than the guest house in STANVAC Residential Area which Japanese experts are using at present.
- (3) The Government of the Republic of Indonesia will make as much effort as possible to extend the period of rental contract between STANVAC, so that business of Japanese experts is not interfered further than present.
- (4) Preparation of accommodation mentioned by the Government of the Republic of Indonesia at the meeting (above-mentioned(1) is not-

Sufficient for the smooth operation of the project. Official concerned of both Japan and Indonesia will discuss the construction of the other facilities, such as administration office, ware house, generator house and oil stock room, which are supposed to be prepared this fiscal year at the Joint Steering Committee held on June 12, 1980.

2. Supplementation of the budget for fiscal 1980

There exists difference of about 50 million rupiah between the required cost (174,474,000 Rp) of fiscal 1980 estimated by Japanese experts and the Indonesian budget available for this project (123,286,000 Rp). The Government of the Republic of Indonesia will make as much effort as possible to supplement the shortage of the of the budget (approximately 17,000,000,000 Rp), excluding the of improvement of accommodation and handling charge of machinery provided by Japan.

3. Immediate take-over of machinery and equipment and their effective use

- (1) The Government of the Republic of Indonesia will made effort as possible to take over machinery provided by Japan which has already arrived at Palembang Harbour (sent from Japan at the ebginning of April, 1980 and arrived at Palembang on April 15, 1980; sprinkler, Fertilizer, sent from Japan at the beginning of May, 1980 and arrived at Palembang on June 6, 1980; vehicle, bulldozer) and promote their effective use.
- (2) The Government of Japan will make as much effort as possible to inform the Government of the cost and content of machinery which will be provided next fiscal year for the purpose of smooth take-over of machinery by the project.

