

| CATEGORY        | NAME AND MODEL   | YEAR ACQUIRED | NO. | AMOUNT (UNIT) (1,000YEN) | SITUATION   |             | REMARKS         |
|-----------------|--|---------------|-----|--------------------------|-------------|-------------|-----------------|
|                 |  |               |     |                          | UTILIZATION | MAINTENANCE |                 |
| DUMP TRUCK      | ISUZU TSD40LQ  | 1977          | 1   | 4,348                    | A           | A           | ABOLISHED       |
| DUMP TRUCK      | ISUZU TSD40L GQ3   | 1978          | 1   | 4,348                    |             |             |                 |
| DUMP TRUCK      | ISUZU TSD40LD  | 1979          | 1   | 4,557                    |             |             | ABOLISHED       |
| DUMP TRUCK      | ISUZU TSD45L   | 1980          | 1   | 6,750                    | A           | A           |                 |
| DUMP TRUCK      | ISUZU TSD45LP  | 1981          | 1   | 7,000                    | D-1         | A           |                 |
| DUMP TRUCK      | ISUZU TSD45 6T   | 1984          | 1   | 6,000                    | A           | A           |                 |
| DUMP TRUCK      | ISUZU CXZ184 10T   | 1984          | 1   | 8,100                    | A           | A           |                 |
| DUMP TRUCK      | ISUZU HTS113L 6T   | 1985          | 1   | 4,292                    | A           | A           | TRAINING CENTER |
| PAY LOADER      | KOMATSU W30  | 1981          | 1   | 6,731                    | B           | A           |                 |
| WHEEL LOADER    | KOMATSU WA-100-1   | 1985          | 1   | 7,389                    | B           | A           |                 |
| ANGLE DOZER     | KOMATSU D60A-6   | 1977          | 1   | 17,970                   |             |             |                 |
| ANGLE DOZER     | KOMATSU D60A-6   | 1980          | 1   | 16,648                   | B           | A           | ABOLISHED       |
| ANGLE DOZER     | KOMATSU D60A-6   | 1981          | 1   | 14,350                   | B           | A           |                 |
| ANGLE DOZER     | KOMATSU D60A-8   | 1985          | 1   | 16,360                   | B           | A           |                 |
| DOZER SHOVEL    | KOMATSU D50S-10  | 1977          | 1   | 11,769                   | B           | A           |                 |
| DOZER SHOVEL    | KOMATSU D50S-16  | 1979          | 1   | 11,604                   |             |             | ABOLISHED       |
| MOTOR GRADER    | MTSUBISHI MG3-H  | 1978          | 1   | 11,850                   | A           | A           |                 |
| CRAWLER TRACTOR | IWAFUJI 5.5T CT-35AD   | 1977          | 1   | 6,936                    |             |             |                 |
|                 | IWAFUJI CT-35AD with ATTACHMENT ROTORVATOR ANGLE DOZER CULTI AUGER | 1977          | 1   | 7,390.                   | C           | A           | ABOLISHED       |
|                 |  |               | 1   | 897                      | D-3         | A           |                 |
|                 |  |               | 1   | 573                      | C           | A           |                 |
|                 |  |               | 1   | 1,309                    | D-3         | A           |                 |
| WHEEL TRACTOR   | IWATEFUJI 2.5T T-20 with ATTACHMENT AUGER                          | 1977          | 1   | 5,670                    | D-3         | A           | ABOLISHED       |
|                 |  |               |     | 674                      |             |             |                 |
| WHEEL TRACTOR   | IWATEFUJI 2.5T T-20A   | 1978          | 1   | 7,000                    | C           | B           |                 |
| WHEEL TRACTOR   | KUBOTA L3001DT 34HP  | 1984          | 1   | (285,820)                | B           | A           |                 |
| TRAILER         | IWATEFUJI TF14 B   | 1979          | 2   | 625                      |             |             | ABOLISHED       |

| CATEGORY         | NAME AND MODEL           | YEAR ACQUIRED | NO. | AMOUNT (UNIT) (1,000YEN) | SITUATION    |             | REMARKS   |
|------------------|--------------------------|---------------|-----|--------------------------|--------------|-------------|-----------|
|                  |                          |               |     |                          | UTILI-ZATION | MAINTENANCE |           |
| MINI EXCAVATOR   | IWAFUJI CT400            | 1981          | 1   | 6,210                    |              |             | ABOLISHED |
| MINI EXCAVATOR   | IWAFUJI CT400            | 1984          | 1   | 4,840                    | D-1          | C           |           |
| CATAPRA          | YANMAR FCT 2300R         | 1979          | 2   | 1,650                    |              |             | ABOLISHED |
| TANK TRAILER     | KOIKEKIKAI MK-1000       | 1979          | 2   | 1,450                    |              |             | ABOLISHED |
| TANK TRAILER     | KOIKEKIKAI MK-1000       | 1979          | 1   | 1,450                    | A            | A           |           |
| TANK TRAILER     | KOIKEKIKAI MK-1000       | 1981          | 1   | 1,600                    | A            | A           |           |
| EARTH AUGER      | THREE DRILL TYPE         | 1983          | 1   | 7,591                    | D-3          | A           |           |
| POTTING HOUSE    | FOREST ENGINEERING FILON | 1977          | 1   | 1,900                    |              |             | ABOLISHED |
| POTTING HOUSE    | FOREST ENGINEERING       | 1977          | 1   | 2,243                    |              |             | ABOLISHED |
| POTTING HOUSE    | with GREEN HOUSE         | 1978          | 2   | 2,374                    |              |             | ABOLISHED |
| POTTING HOUSE    | with GREEN HOUSE         | 1979          | 1   | 2,976                    | A            | A           |           |
| SHADE HOUSE      | FOREST ENGINEERING       | 1977          | 1   | 2,355                    |              |             | ABOLISHED |
| SHADE HOUSE      | FOREST ENGINEERING       | 1978          | 1   | 2,479                    | A            | A           |           |
| SHADE HOUSE      | FOREST ENGINEERING       | 1979          | 1   | 2,612                    | A            | A           |           |
| STOCK HOUSE      | DAIWA                    | 1980          | 2   | 786                      | A            | A           |           |
| SPRINKLER SYSTEM | TS 2027                  | 1977          | 1   | 1,432                    |              |             | ABOLISHED |
| SPRINKLER SYSTEM | TS 2027                  | 1978          | 1   | 3,369                    |              |             | ABOLISHED |
| PORTABLE PUMP    | FOREST ENGINEERING P 303 | 1978          | 1   | 737                      |              |             | ABOLISHED |
| PUMP             | FOREST ENGINEERING A 405 | 1978          | 1   | 895                      |              |             | ABOLISHED |
| PUMP             | EIWA                     | 1979          | 1   | 1,560                    |              |             | ABOLISHED |
| WATER PUMP       | IHARA EGLS               | 1982          | 1   | 1,474                    |              |             | ABOLISHED |

| CATEGORY                 | NAME AND MODEL                  | YEAR ACQUIRED | NO. | AMOUNT (UNIT) (1,000YEN) | SITUATION   |             | REMARKS         |
|--------------------------|---------------------------------|---------------|-----|--------------------------|-------------|-------------|-----------------|
|                          |                                 |               |     |                          | UTILIZATION | MAINTENANCE |                 |
| GENERATOR                | DENYO DCA-20S                   | 1977          | 2   | 1,357                    |             |             | ABOLISHED       |
| GENERATOR                | DENYO DBA-5FYS                  | 1977          | 1   | 619                      |             |             | ABOLISHED       |
| GENERATOR                | DENYO DBA-5FYS                  | 1977          | 1   | 555                      | A           | A           |                 |
| GENERATOR                | DENYO DBR-5FYS                  | 1984          | 1   | 550                      | A           | A           |                 |
| CULTURE BOX              | ISUZU SVL-320S                  | 1977          | 1   | 750                      | D-2         | A           |                 |
| PRESSURE CHAMBER         | DAIKIRIKA-KOGYO                 | 1977          | 1   | 771                      | D-2         | B           |                 |
| WIND METTER              | ISUZU 3-1425-01                 | 1980          | 1   | 940                      | A           | A           |                 |
| TURBIDITY METTER         | NIHONDENSHOKU NDH-20D           | 1981          | 1   | 840                      | A           | A           | TRAINING CENTER |
| TRANSCIEVER              | VHF FM JHV-224T 10W             | 1978          | 1   | 575                      |             |             | ABOLISHED       |
| TRANSCIEVER              | VHF FM JHV-224T 10W             | 1978          | 1   | 575                      | A           | A           |                 |
| RADIO                    | TWO-WAY RADIO JHV-224T          | 1980          | 3   | 602                      | A           | A           |                 |
| RADIO TELEPHONE          | JSB-50                          | 1978          | 1   | 940                      |             |             | ABOLISHED       |
| RADIO TELEPHONE          | JSB-50                          | 1978          | 1   | 940                      | C-1         | A           |                 |
| RADIO TELEPHONE          | VHF FM JHM-21S10T               | 1982          | 1   | 619                      | A           | A           |                 |
| RADIO TELEPHONE          | JRC SBB JSB-50                  | 1983          | 1   | 2,199                    | A           | A           |                 |
| ANTENNA                  | 468C for JSB-50 RADIO TELEPHONE | 1984          | 1   | 700                      | A           | A           |                 |
| CONCRETE MIXER           | HITACHI STE-10                  | 1979          | 1   | 787                      |             |             | ABOLISHED       |
| SEMI BATCHER SCALE       | TANIFUJI III                    | 1979          | 1   | 830                      | C           | A           |                 |
| BATCHER SCALE            | TANIFUJI NK-70                  | 1979          | 1   | 703                      | C           | A           |                 |
| PORTABLE CONCRETE TESTER | TANIFUJI GS-C                   | 1979          | 1   | 661                      | C           | A           |                 |
| WATER LEVEL RECORDER     | FL200K8                         | 1978          | 2   | 519                      | A           | A           |                 |
| HYDRO SEEDER             | SAIKO HS4, YANMAR 2F90          | 1979          | 1   | 4,263                    |             |             | ABOLISHED       |
| PORTABLE AIR COMPRESSOR  | HOKUETSU PDR 250                | 1978          | 1   | 2,662                    | D-5         | A           |                 |
| MOTOR BOAT               | YAMAHA FC2711 (ENGINE MF300)    | 1980          | 1   | 4,356                    | A           | A           |                 |
| RICOPY                   | MODEL AC-2000                   | 1980          | 1   | 881                      |             |             | ABOLISHED       |
| COPYING MACHINE          | RICOH DT-5300                   | 1981          | 1   | 1,088                    | D-1         | A           |                 |
| XEROX MACHINE            | FUJI XEROX 3500                 | 1984          | 2   | (45,000)                 | A           | A           | TRAINING CENTER |
| XEROX MACHINE            | FUJI XEROX 3870                 | 1985          | 1   | (58,500)                 | A           | A           |                 |

Remarks : The figures of Amount in parentheses are Pesos.

\* REFERENCE OF EVALUATION

1. Utilization

- A : Fully Utilized
- B : Frequently Utilized
- C : Sometimes Utilized
- D : Hardly Utilized

- D-1 : on account of lack of spareparts
- D-2 : " being in trouble
- D-3 : " unapplicability to the site
- D-4 : " lack of operators
- D-5 : " no necessity for utilization
- D-6 : " other reasons

2. Management

- A : Very well managed
- B : Well managed
- C : Not very well managed
- D : Badly managed

- D-1 : on account of no utilization
- D-2 : " lack of personnel
- D-3 : " lack of storage place
- D-4 : " lack of finance
- D-5 : " other reasons

Table 15. ACCEPTANCE OF COUNTERPARTS IN JAPAN

| NAME                    | POSITION                                     | TERM                             | CATEGORY             |
|-------------------------|--|----------------------------------|----------------------|
| 1. Rogelio B. Baggayan  | Project Director                             | Oct. 6, 1976~<br>Nov. 6, 1976    | Forestry             |
| 2. Romeo B. Briones     | Project Manager                              | April 28, 1977~<br>June 11, 1977 | -do-                 |
| 3. Felipe D. Buenaflor  | Section Chief                                | Sept. 15, 1977~<br>Dec. 14, 1977 | -do-                 |
| 4. Rafael Cadiz         | Counterpart                                  | March 28, 1978~<br>June 27, 1978 | -do-                 |
| 5. Jonas Camat          | -do-   | -do-                             | -do-                 |
| 6. Manuel H. Zambrano   | -do-   | Oct. 13, 1978~<br>Dec. 20, 1978  | Silviculture         |
| 7. Elizardo B. Alberto  | Co-Project Manager                           | -do-                             | Forestry             |
| 8. Cirilo B. Serna      | Chief of Planning<br>& Evaluation Div.       | Nov. 14, 1978~<br>Dec. 3, 1978   | -do-                 |
| 9. Romualdo J. Villador | Asst. Project Manager                        | March 2, 1979~<br>May 2, 1979    | Forest<br>Protection |
| 10. Eriel B. Bumatay    | Counterpart                                  | -do-                             | Silviculture         |
| 11. Reginzld H. Domingo | -do-   | March 1980~<br>May 1980          | Erosion<br>Control   |
| 12. Jose U. Natibo-oc   | -do-   | -do-                             | Silviculture         |
| 13. Jose L. Lechoncito  | Asst. Proj. Director                         | Nov. 23, 1980~<br>Dec. 16, 1980  | Forestry             |
| 14. Aurea Ojerio        | Chief, Foreign Assis-<br>ted Proj. Unit, PMS | -do-                             | -do-                 |
| 15. Floro T. Tadena     | Counterpart                                  | March 1981                       | Silviculture         |
| 16. Meliton I. Vicente  | -do-   | Oct. 22, 1981~<br>Dec. 21, 1981  | Erosion<br>Control   |
| 17. James M. Jacob      | -do-   | -do-                             | Silviculture         |
| 18. Oscar M. Hamada     | Co-Project Manager                           | Nov. 3, 1981~<br>Nov. 24, 1981   | Forestry             |
| 19. Remelio C. Atabay   | -do-   | -do-                             | -do-                 |
| 20. Redentor M. Laureta | Counterpart                                  | Aug. 26, 1982~<br>Nov. 25, 1982  | Silviculture         |
| 21. Romeo T. Acosta     | Section Chief                                | Sept. 30, 1982~<br>Nov. 15, 1982 | Forestry             |

| NAME                     | POSITION                                   | TERM                             | CATEGORY             |
|--------------------------|--|----------------------------------|----------------------|
| 22. Elnora Taleon        | -do-                                       | -do-                             | -do-                 |
| 23. Ernesto C. Marquez   | Asst. Proj. Manager                        | -do-                             | -do-                 |
| 24. Isaias M. Domingo    | Asst. Chief of Planning & Evaluation Div.  | Aug. 25, 1993~<br>Oct. 24, 1983  | Forest Management    |
| 25. Gregorio I. Texon    | Asst. Chief of Forest Dev. Training Center | Sept. 21, 1983~<br>Nov. 20, 1983 | -do-                 |
| 26. Ernesto L. Lazada    | Asst. Chief of District Office             | Sept. 21, 1983~<br>Oct. 13, 1983 | Forestry             |
| 27. Manuel H. Zambrano   | Project Manager                            | Nov. 29, 1984~<br>Dec. 20, 1984  | Forest Protection    |
| 28. Jose Briones         | Senior Forester                            | Jan. 28, 1985~<br>April 12, 1985 | Erosion Control      |
| 29. Graciano Gayapa, Jr. | OIC Asst. Director Legal Services / BFD    | Oct. 11, 1985~<br>Oct. 24, 1985  | Forestry             |
| 30. Felix C. Mendoza     | OIC Asst. District Forester                | Nov. 4, 1985~<br>Dec. 10, 1985   | Erosion Control      |
| 31. Jose U. Natibo-oc    | Asst. Proj. Manager                        | Oct. 13, 1986~<br>Dec. 7, 1986   | Soil Erosion Control |
| 32. Arthur C. Salazar    | Forester                                   | -do-                             | -do-                 |

Table 16. ITEMIZED COSTING OF ASSISTANCE  
BY THE JAPANESE GOVERNMENT

(AS OF SEPTEMBER 1986)

| No. | Item   | Number of<br>Activitty | Total Cost<br>( Unit : Pesos ) |
|-----|--|------------------------|--------------------------------|
| 1.  | Model Infrastructure Improvement Work                                | 4                      | 4,195,416.87                   |
| 2.  | Pilot Infrastructure Improvement Work<br>( Family Approach Program ) | 1                      | 1,705,217.79                   |
| 3.  | Emergency Improvement Work   | 17                     | 1,682,504.32                   |
| 4.  | Improvement Work of Living Condition<br>of Experts                   | 2                      | 154,852.20                     |
| 5.  | Preparation Work of Textbooks<br>in Local Language                   | 3                      | 57,022.70                      |
| 6.  | Work for the Publicity and Dessemination<br>of Techniques            | 2                      | 162,250.00                     |
| 7.  | Assistance to the Middle Level Technicians<br>Training Program       | 11                     | 2,593,919.00                   |
| 8.  | Work for Others  | 2                      | 8,422.20                       |

ITEMIZED COSTING OF ASSISTANCE  
BY THE JAPANESE GOVERNMENT

1. Model Infrastructure Improvement Work

Number of activity : 4  
Total cost : P 4,195,416.87

- (1) Establishment of Seed Orchard (CTP) = 5.9ha  
 Establishment of Nursery = 2, 4.4ha  
 Water pool = 2  
 Waterway = 446m  
 Construction of forest road = 2, 420m  
 Look-out tower = 1  
 Cost = P 670,000.00  
 Period = July 1978 ~ Jan. 1979
- (2) Construction of forest road = 5,253m  
 Cross drainage = 3  
 Waterpool for fire prevention = 5  
 Fire break = 6,000m  
 Cost = P 902,716.87  
 Period = March 1979 ~ July 1979
- (3) Concrete retaining work = 10, 352.2m  
 Concrete bunk work = 5, 41m  
 PNC board retaining work = 6, 23.3m  
 Waterway work = 9, 489m  
 Cutting work = 752m<sup>3</sup>  
 Grading work = 1,786m<sup>2</sup>  
 Dam work = 1, 71m<sup>3</sup>  
 Temporary wooden bridge = 1, 12m  
 Service road for materials = 500m  
 Cost = P 1,050,000.00  
 Period = Aug. 1983 ~ Dec. 1983
- (4) Maringalo Intensive Forest Nursery Construction  
 Total Area = 4.6ha  
 Nursery Area = 4.0ha  
 Building Area = 0.5ha  
 Rest House = 108.8m<sup>2</sup>  
 Green House = 57.6m<sup>2</sup>  
 Ware House = 59.4m<sup>2</sup>  
 Garage House = 83.2m<sup>2</sup>  
 Nursery facilities Works  
 Intake Dame : H=3.5m ; L=28.5m ; V=351.1m<sup>3</sup>  
 Pipe Culvert : L = 531.4m  
 Drain Grate : L = 125.8m  
 Concrete Open-Channel : L = 510.9m ; V = 46.0m<sup>3</sup>  
 Rotating Garden Sprinkler  
 Cost = P 1,572,700.00  
 Period = Nov. 1984 ~ March 1985



## 2. Pilot Infrastructure Improvement Work (Family Approach Program)

Number of activity = 1  
Total cost = P 1,705,217.79  
Period = Jan. 1981 ~ July 1981

Cultivation : 100ha  
Forest road : 5,900m  
Operational road : 10, 100m  
Waterpool for fire prevention : 2  
Firebreak : 8, 400m  
Lookout tower : 1  
Corugate-arch bridge : 1  
Overflow : 1  
Office : 1

## 3. Emergency Improvement Work

Number of activity = 17  
Total Cost = P 1,682,504.32

### (1) Model Nursery Restoration Work

Cost = P 48,348.40  
Period = March 1978 ~ July 1978

### (2) Construction of wooden bridge in the central trial plantation

Cost = P 84,122.90  
Period = Jan. 1979 ~ Feb. 1979

### (3) Restoration work of west Talatalan forest road

Cost = P 78,076.70  
Period = 1979

### (4) Restoration work of the forest road in TCP

Cost = P 73,636.48  
Period = March 1979 ~ June 1979

### (5) Construction of wooden bridge in the Daluat forest road

Cost = P 63,816.60  
Period = 1979

- (6) Maintenance work of main forest road to Parcel III
- Cost = P 63,701.50  
 Period = Jan. 1980 ~ June 1980
- (7) Restoration work of access road to Parcel II, III
- Cost = P 75,200.75  
 Period = Jan. 1981 ~ March 1981
- (8) Maintenance work of forest road in Parcel II-B
- Cost = P 71,286.95  
 Period = Feb. 1981 ~ March 1981
- (9) Restoration work of Digayap forest road at Parcel III  
 (concrete checkdam = 2)
- Cost = P 71,580.24  
 Period = March 1981
- (10) Restoration work of overflow in access road to P-II, III
- Cost = P 70,377.00  
 Period = Feb. 1982 ~ March 1983
- (11) Water supply facilities in Forest Conservation Training Center
- Cost = P 106,000.00  
 Period = July 1982 ~ Aug. 1982
- (12) Emergency improvement work of water supply facilities in RP-Japan  
 Afforestation Technical Center (construction of well)
- Cost = P 69,592.60  
 Period = Jan. 1983 ~ March 1983
- (13) Restoration work of overflow in access road to P-III
- Cost = P 124,564.00  
 Period = Sept. 1983 ~ Dec. 1983
- (14) Restoration work of overflow in the Manablon forest road to  
 Parcel II (Overflow = 2)
- Cost = P 176,900.00  
 Period = Dec. 1984 ~ March 1985

(15) Restoration work of the Maringalo overflow and forest road

Cost = P 137,000.00  
Period = July 1985 ~ Sept. 1985

(16) Restoration work of wooden bridge in access road to P-I, P-II -B  
(wooden bridge - 4A)

Cost = P 176,000.00  
Period = Nov. 1985 ~ March 1986

(17) Restoration work of the Maringalo and Amot overflows and  
construction of concrete wall

Cost = P 192,000.00  
Period = Jan. 1986 ~ March 1986

#### 4. Improvement Work of Living Condition of Experts

Number of activity = 2  
Total cost = P 154,852.20

(1) Extension work of dormitory for Experts

Cost = P 53,500.00  
(P 50,169.00 - Philippine Side)  
Period = March 1983 ~ April 1983

(2) Construction of well

Cost = P 101,352.20  
Period = Feb. 1985 ~ March 1985

## 5. Preparation Work of Textbooks in Local Language

Number of activity = 3  
Total Cost = P 57,022.70

- (1) Title of Textbook : Nursery Techniques  
as a textbook in the Forest Conservation Training  
Center (300) copies  
Cost = P 12,000.00  
Period = Feb. 1984 ~ March 1984
- (2) Title of Textbook : a) Leveling for Forestry Technician  
b) Surveying by Theodolite (Transit) for Forestry  
Technician  
c) Compass Survey for Forestry Technician  
as a textbook in the Forest Conservation Training  
Center (300 copies each)  
Cost = P 17,897.70  
Period = Feb. 1985 ~ March 1985
- (3) Title of Textbook : Manual for Forest Tree Diseases and their  
Control Measures in the Philippines  
as a textbook in the Forest Conservation Training  
Center (500 copies)  
Cost = P 27,125.00  
Period = March 1986

## 6. Work for the Publicity and Dissemination of Techniques

Number of activity = 2  
Total cost = P 162,250.00

- (1) Brochure of RP-Japan Forestry Development Project  
(200 copies)  
Cost = P 155,400.00  
Period = Feb. 1984 ~ March 1984
- (2) Brochure of RP-Japan Training Center for Forest Conservation  
(500 copies)  
Cost = P 6,850.00  
Period = Nov. 1985 ~ Jan. 1986

7. Assistance to the Middle Level Technicians Training Program

Number of activity = 11  
Total Cost = P 2,593,919.00

- (1) Forest Conservation Course : Cost = P 269,689.00  
Period = October 1, 1982 ~ November 30, 1982  
Silviculture Course : Cost = P 359,322.00  
Period = May 24, 1982 ~ August 11, 1982  
Total Cost = P 629,011.00
- (2) Forest Conservation Course : Cost = P 254,960.00  
Period = May 17, 1983 ~ July 28, 1983  
Silviculture Course : Cost = P 238,200.00  
Period = February 2, 1983 ~ March 31, 1983  
Total Cost = P 593,160.00
- (3) Forest Conservation Course : Cost = P 284,229.00  
Period = February 1, 1984 ~ March 30, 1984  
Silviculture Course : Cost = P 231,382.00  
Period = October 3, 1983 ~ December 1, 1983  
Total Cost = P 515,611.00
- (4) Forest Conservation Course : Cost = P 256,185.00  
Period = October 15, 1984 ~ December 13, 1984  
Silviculture Course : Cost = P 224,812.00  
Period = July 16, 1984 ~ September 20, 1984  
Total Cost = P 480,997.00
- (5) Forest Conservation Course : Cost = P 135,300.00  
Period = October 14, 1985 ~ December 12, 1985  
Silviculture Course : Cost = P 129,700.00  
Period = July 29, 1985 ~ October 3, 1985  
Total Cost = P 265,000.00
- (6) Silviculture Course : Cost = P 210,140.00  
Period = July 14, 1986 ~ September 24, 1986

8. Work for Others

Number of activity = 2  
Total cost = P 8,422.20

(1) Giving Volleyball playing set ( 20 balls and 10 nets )

Cost = P 2,968.65  
Period = 1982

(2) Giving Basketball playing set ( 20 balls and goalring )

Cost = P 5,453.55  
Period = 1982

Table 17 - 1. LIST OF TRAINING CENTER FOR FOREST CONSERVATION (JAPANESE GRANT AID)

| ITEMS   |                   | DESCRIPTION/QUANTITY   |   |
|---|-------------------|------------------------|---|
| <b>1. Training Center</b>                       |                   |                        |   |
| Main Building                                   |                   | 1,974.0 m <sup>2</sup> | 1 |
| Housing Blocks                                  |                   | 2,545.0 m <sup>2</sup> | 1 |
| Repairing Practice Workshop                     |                   | 661.0 m <sup>2</sup>   | 1 |
| Sub Total                                       |                   | 5,280.0 m <sup>2</sup> |   |
| <b>2. Model Erosion Control Works</b>           |                   |                        |   |
| Temporary Works                                 |                   |                        | 1 |
| Stream Works (No. 1-11 Concrete and Steel Dams) |                   | 3,050.3 m <sup>3</sup> |   |
| Hillside Works                                  |                   |                        |   |
| Concrete Wall                                   |                   | 200.7 m <sup>3</sup>   | 2 |
| Wire Basket Wall                                |                   | 802.0 m                | 1 |
| Wire Basket Open Channel                        |                   | 215.9 m                | 1 |
| Wooden Frame Work                               |                   | 1,980.1 m <sup>2</sup> | 1 |
| Cogon Step Work                                 |                   | 4,430.0 m              | 1 |
| Grading Work, etc.                              |                   | 8,140.0 m <sup>3</sup> | 1 |
| <b>3. Equipment and Tools</b>                   |                   |                        |   |
| Bulldozer                                       | Komatsu           | D50A-16                | 2 |
| Dozer Shovel                                    | Komatsu           | D50S-16                | 2 |
| Hydraulic Power Shovel                          | Komatsu           | 12-HD-1                | 1 |
| Air Compressor                                  | Komatsu           | EC50ZS                 | 1 |
| Portable Generator                              | Komatsu           | EG55                   | 1 |
| Truck Mixer                                     | Hino              | KB-402                 | 1 |
| Concrete Pump                                   | Ishikswajima      | PTF-65T                | 1 |
| Dump Truck                                      | Isuzu             | SBR-322RLD             | 2 |
| Dump Truck                                      | Isuzu             | SPZ-440LBD             | 1 |
| Regular Truck                                   | Isuzu             | SLR450L                | 1 |
| W/Crane Truck                                   | Isuzu             | SPZ580L                | 1 |
| Micro Bus                                       | Toyota            | Hi-Ace                 | 2 |
| Land Cruiser                                    | Toyota            | FJ45LP-U               | 1 |
| Cable Crane                                     | Forst Engineering | Y12E                   | 2 |
| Vibrators                                       | Hayashi           | HVE-FC 600             | 5 |
| Belt Conveyors                                  | Nichiko           | ESA-7M                 | 4 |
| Submersible Sand Pump                           | Tsurumi           | GP-100                 | 1 |

| ITEM  | DESCRIPTION/QUANTITY |                    |
|---|----------------------|--------------------|
| Aggregated Plant                                      | Rasa Ind.            | 1 set              |
| Meteorological Observation Equipment                  |                      | 1 set              |
| Measuring Instruments                                 | Sokkisha             | 1 set              |
| Pipe Strain Meter, etc.                               | Sakata Electric      | 1 set              |
| Level Inclinator, etc.                                | Nakaasa Meters       | 1 set              |
| Earthquake Detector                                   |                      | 1 set              |
| Boring Equipment, etc.                                | Tone Boring          | 1 set              |
| Water Regulation Testing                              | Nakaasa Meters       | 1 set              |
| Siol Surveying  | Nissei Sangyo        | 1 set              |
| Steel Forms, etc.                                     | Yuasa Metals         | 200 m <sup>2</sup> |
| Rock Drill  | Toy Rock Drills      | 1 set              |
| Wooden Forms  |                      | 1 set              |
| Equipment and Materials for Machinery Training Ground |                      | 1 set              |
| Hand Tools  |                      | 1 set              |
| Tracon  | Ushikata S-25        | 20 sets            |
| Drawing Instruments                                   | Germany Type         | 10 sets            |
| Overhead, etc.  |                      | 1                  |

Remarks : The total amount is ¥ 1,050 million.



Table 17 - 2. LIST OF FOREST FIREFIGHTING EQUIPMENT (JAPANESE GRANT AID)

| ITEM NO. | DESCRIPTION   | QUANTITY |
|----------|---|----------|
| 1.       | Fire Truck<br>Model: FT175SA  | 4        |
| 2-1.     | 4x4 Utility Vehicle (Wagon Type)<br>Model: LO48GVNSL                  | 4        |
| 2-2.     | 4x4 Utility Vehicle (Pick-up Type)<br>Model: UJLY720TF                | 4        |
| 3.       | Portable Water Reservoir<br>Model: YA-13 (6000L)                      | 8        |
| 4.       | Portable Pump<br>Model: 100SOEM                                       | 4        |
| 5-1.     | V.H.F. Radio Equipment Stationary Type<br>Model: SCS30EGD, W/S0922    | 4        |
| 5-2.     | V.H.F. Mobile Radio Equipment<br>Model: SCS30EGD                      | 12       |
| 5-3.     | Walkitalkie   | 12       |
| 6.       | Knapsack Type Water Bag Sprayer Firefighting<br>Model: JET SHOOTER II | 120      |
| 7.       | Personal Firefighting Kit   | 120      |
| 8.       | Swatter and Rake  | 40       |
| 9.       | Binoculars<br>Model: BAA180AA   | 15       |
| 10.      | Warehouse<br>Model: KS-A  | 4        |
| 11.      | Spare Parts (at least 20% of the total cost of each item of Machine)  |          |
| 12.      | Freight to Manila Port  |          |
| 13.      | Insurance (Port of Embarkation)                                       |          |
| 14.      | Inland Freight (Manila Port to Pantabangan)                           |          |

Remarks : The total amount is ¥ 103 million.

Table 18. LIST OF LAND, BUILDINGS AND OTHER FACILITIES

| ITEMS                        | UNIT | LOCATION                         |
|------------------------------|------|----------------------------------|
| 1. Administration Building   | 1    | Maringalo, Carranglan            |
| 2. Japanese Domitory         | 1    | " "                              |
| 3. Staff Domitory            | 1    | " "                              |
| 4. Motor Pool                | 1    | " "                              |
| 5. Warehouse                 | 4    | " "                              |
| 6. Powerhouse                | 1    | " "                              |
| 7. Look-out Tower            |      |                                  |
| (1) Tanaka Tower             | 1    | Baluarte, Carranglan             |
| (2) Melina Tower             | 1    | " "                              |
| (3) Konno Tower              | 1    | Talatalan, "                     |
| 8. Field Office              |      |                                  |
| (1) Field Office, P-I        | 1    | Baluarte, Carranglan             |
| (2) " P-II A                 | 1    | Mankitkit, "                     |
| (3) " P-II B                 | 1    | Talatalan, "                     |
| (4) " P-III                  | 1    | Debutod, Conversion, Pantabangan |
| 9. Nursery, Office/Bunkhouse |      |                                  |
| (1) Maringalo Nursery Office | 1    | Maringalo, Carranglan            |
| (2) Baluarte Nursery         | 1    | Baluarte, "                      |
| (3) Baluarte Extention       | 1    | " "                              |
| (4) Dalinat Sub-Nursery      | 1    | Dalinat, "                       |
| (5) Sipayan "                | 1    | Sipayan, "                       |
| (6) Bignay "                 | 1    | Bignay, "                        |
| (7) Tubuan "                 | 1    | Tuban, "                         |
| (8) Nanlagarian "            | 1    | Nanlagarian, "                   |
| (9) Mankitkit Bunkhouse      | 1    | Mankitkit, "                     |
| (10) Dianao Sub-Nursery      | 1    | Dianao, Gen. Luna                |
| (11) Turod "                 | 1    | Turod, "                         |
| (12) Salazar "               | 1    | Salazar "                        |
| (13) Talatalan A,B           | 1    | Talatalan, Carranglan            |
| (14) Kamangalan Nursery      | 1    | Kamangalan, "                    |
| (15) Banga-banga "           | 1    | Banga-banga, "                   |
| (16) Salvacion "             | 1    | Salvacion, Pantabangan           |
| (17) Pamalian "              | 1    | Pamalian, "                      |
| (18) Pisil "                 | 1    | Pisil, Conversion                |
| (19) Dubutod "               | 1    | Dubutod, Pantabangan             |
| (20) Manablong "             | 1    | Manablong, "                     |
| 10. Greenhouse               | 1    | Maringalo Nursery                |

Table 19 - 1. LIST OF PHILIPPINE COUNTERPARTS

CENTRAL OFFICE

|                           |  |  |
|---------------------------|--|--|
| 1. Project Director       | Lorenzo J. Guillermo<br>(Rogelio B. Baggayan<br>(Feliciano V. Barrer | May 13, 1986 to present<br>Jan. 1977 - Dec. 1984)<br>Jan. 1985 - April 1986) |
| 2. Asst. Project Director | Jose L. Lechoncito   | Jan. 1977 to present   |

SUB-PROJECT I

(Afforestation Technical Cooperation Center)

|                           |  |   |
|---------------------------|--|---|
| 1. Project Manager        | Floro T. Tadena<br>(Romeo Briones<br>(Manuel H. Zambrano                         | May 13, 1986 to present<br>Jan. 1977 - Dec. 1978)<br>Jan. 1979 - May 1986)  |
| 2. Co-Project Manager     | Remelio C. Atabay (FORI)<br>(Oscar M. Hamada (BFD)                               | 1977 to present<br>1977 to 1984)  |
| 3. Deputy Project Manager | James M. Jacob<br>Jose U. Natibo-oc<br>(Romouido J. Villador<br>(Floro T. Tadena | May 1986 to present<br>June 1986 to present<br>1978 - 1986)<br>1980 - 1985) |
| 4. Civil Engineering      | Antonio S. Manaloto  | 1977 to present   |
| 5. Mechanical Engineering | Romeo G. Mejia<br>(Zacarias Millanar<br>(Danilo A. Crespo                        | June 1986 to present<br>1977 - 1982)<br>1982 - Jan. 1986)                   |
| 6. Forest Protectio       | Jose U. Natibo-oc<br>(Meliton Vicente<br>(Nestor P. Parado<br>(Eriel B. Bumatay  | June 1986 to present<br>1977 - 1980)<br>1980 - 1981)<br>1982 - 1985)        |
| 7. Forest Research        | Lodita D. Robasto<br>(Meliton Vicente  | 1980 to present<br>1979 - 1980)   |
| 8. Planning & Evaluation  | Pacifico Crisologo<br>(Floro T. Tadena<br>(Rendentor Laureta                     | 1986 to present<br>1979 - 1983)<br>1984 - 1986)                             |

## 9. Field Officers

|                          |                           |                     |
|--------------------------|---------------------------|---------------------|
| Parcel I                 | Marlon Paderes            | 1986 to present     |
|                          | (Floro T. Tadena          | 1977 - 1979)        |
|                          | (Eriel B. Bumatay         | 1980 - 1981)        |
|                          | (Jose U. Natibo-oc        | 1982 - 1986)        |
| Parcel II -A             | Ernesto M. Diso, Jr       | 1985 to present     |
|                          | (Meliton Vicente          | 1980 - 1985)        |
| Parcel II -B             | Romulo E. Corpuz          | May 1986 to present |
|                          | (Jose U. Natibo-oc        | 1979 - 1981)        |
|                          | (James M. Jacob           | 1982 - May 1986)    |
| Parcel III               | Nestor Parado             | 1985 to present     |
| (10. Silviculture)       | (Romouldo J. Villador)    |                     |
|                          | (Floro T. Tadena)         |                     |
| (11. Forest Environment) | (Jose U. Natibo-oc)       |                     |
| (12. Forest Management)  | (James M. Jacob)          |                     |
|                          | (Reginildo R. Domingo)    |                     |
|                          | (Meliton I. Vicente, Jr.) |                     |
| (13. Erosion Control)    | (Floro T. Tadena)         |                     |
|                          | (Reginildo R. Domingo)    |                     |

### SUB-PROJECT II

(Training Center for Forest Conservation)

|   |                     |                         |
|---|---------------------|-------------------------|
| 1. Project Manager<br>(Training Director) | Nestor F. Cariño    | May 13, 1986 to present |
|   | (Richard L. Delizo  | July 1982 - Dec. 1985)  |
| 2. Asst. Training Director                | (Nestor F. Cariño   | Jan. 1984 - Dec. 1985)  |
|   | (Ernesto C. Marquez | July 1982 - Dec. 1985)  |
| 3. Training Specialist                    | Adeluisa G. Siapno  | July 1984 to present    |
| 4. Chief of Technical Section             | Carlos S. Arida     | July 1984 to present    |
| 5. Forester                               | Ricardo L. Calderon | April 1986 to present   |
|   | (Carlos S. Arida    | July 1982 - June 1984)  |

Table 19 - 2. NUMBER OF PHILIPPINE COUNTERPARTS AND OTHER PERSONNEL

|  |     |
|--|-----|
| Central Office                             |     |
| Counterparts                               | 2   |
| Sub Project I                              |     |
| 1. Counterparts                            | 12  |
| 2. Field Officers                          | 13  |
| 3. Finance Unit                            | 10  |
| 4. Property Unit                           | 6   |
| 5. Motor Pool                              | 12  |
| 6. General Services                        | 15  |
| 7. Operators & Drivers                     | 30  |
| 8. Clerical                                | 5   |
| Sub Total                                  | 103 |
| Sub Project II                             |     |
| 1. Counterparts                            | 4   |
| 2. Technical Section                       |     |
| (1) Plans & Program & Field Operation Unit | 4   |
| (2) Implementation & Extention Unit        | 5   |
| (3) Research & Evaluation Unit             | 4   |
| (4) Engineering Unit                       | 2   |
| 3. Administrative Section                  |     |
| (1) Personnel Unit                         | 3   |
| (2) Property Unit                          | 2   |
| (3) Finance Unit                           | 5   |
| (4) Grounds Development & Maintenance Unit | 12  |
| (5) Building Maintenance & Utility Service | 12  |
| (6) General Service Unit                   | 16  |
| (7) Security Service Unit                  | 4   |
| Sub Total                                  | 73  |
| Total                                      | 178 |

Remarks : The figures are as of November 1986.

Table 20 - i. EXPENDITURES (LOCAL COST)

Unit: Pesos

| YEAR         | TOTAL                | SUB-PROJECT I        | SUB-PROJECT II       |
|--------------|----------------------|----------------------|----------------------|
| 1977         | 999,748.08           | 999,748.08           |                      |
| 1978         | 5,099,140.00         | 5,099,140.00         |                      |
| 1979         | 7,099,642.00         | 7,099,642.00         |                      |
| 1980         | 8,448,320.00         | 8,448,320.00         |                      |
| 1981         | 12,983,901.74        | 12,557,940.00        | 425,961.74           |
| 1982         | 13,673,142.04        | 12,288,467.70        | 1,384,647.34         |
| 1983         | 7,265,124.44         | 5,024,214.88         | 2,240,909.56         |
| 1984         | 11,253,581.71        | 9,441,638.96         | 1,811,942.75         |
| 1985         | 14,268,551.36        | 11,606,513.16        | 2,662,038.20         |
| 1986         | 11,575,002.45        | 9,057,368.03         | 2,517,634.42         |
| <b>TOTAL</b> | <b>92,666,126.82</b> | <b>81,622,992.81</b> | <b>11,043,134.01</b> |

Remarks : The figures for 1986 and total are as of September 1986.

Table 20 - 2.

ITEMIZED EXPENDITURES OF THE RP-JAPAN FORESTRY DEVELOPMENT PROJECT  
SUB-PROJECT I : AFFORESTATION TECHNICAL COOPERATION CENTER

| ACTIVITY   | Unit : Pesos      |                     |                     |                     |                      |                      |
|--|-------------------|---------------------|---------------------|---------------------|----------------------|----------------------|
|  | 1977              | 1978                | 1979                | 1980                | 1981                 | 1982                 |
| Nursery Operation                                    | 343,994.55        | 1,217,471.00        | 1,580,049.00        | 2,323,200.05        | 2,285,872.00         | 1,936,989.50         |
| Plantation Establishment                             | 245,165.00        | 810,065.00          | 1,700,996.20        | 1,192,066.70        | 1,796,794.90         | 1,329,742.90         |
| Plantation Maintenance & Protection                  |                   | 849,706.00          | 1,200,768.00        | 1,406,639.80        | 3,036,086.50         | 3,284,730.20         |
| Infrastructure, Forest Engineering & Erosion Control | 65,000.00         | 1,743,865.00        | 2,057,690.90        | 1,734,714.75        | 2,233,106.00         | 2,305,368.60         |
| Seed Orchard   |                   |                     | 53,254.60           | 151,850.20          | 126,322.00           | 160,339.00           |
| Research   |                   | 44,180.00           | 73,553.80           | 87,223.50           | 269,149.70           | 267,485.80           |
| Family Approach                                      |                   |                     |                     |                     | 634,041.70           | 591,100.00           |
| Pomology   |                   |                     | 17,172.50           |                     |                      |                      |
| General Administration                               | 345,588.53        | 433,853.00          | 416,157.00          | 1,552,625.00        | 2,668,147.20         | 2,412,711.70         |
| <b>GRAND TOTAL</b>                                   | <b>999,748.08</b> | <b>5,099,140.00</b> | <b>7,099,642.00</b> | <b>8,448,320.00</b> | <b>12,557,940.00</b> | <b>11,966,533.50</b> |

Unit : Pesos

| ACTIVITY   | 1983                | 1984                | 1985                 | 1986                 |
|--|---------------------|---------------------|----------------------|----------------------|
| Nursery Operation                                    | 1,415,930.80        | 1,938,373.00        | 2,265,328.75         | 1,230,347.90         |
| Plantation Establishment                             | 479,768.00          | 1,261,889.00        | 1,594,983.40         | 1,926,208.73         |
| Plantation Maintenance & Protection                  | 1,475,355.41        | 2,355,739.12        | 2,626,356.74         | 1,531,559.96         |
| Infrastructure, Forest Engineering & Erosion Control | 511,156.00          | 874,717.36          | 802,225.17           | 748,685.33           |
| Seed Orchard   | 118,813.00          | 109,986.12          |                      |                      |
| Research   |                     | 228,384.36          | 350,657.37           | 264,535.70           |
| Family Approach                                      | 101,498.00          | 297,987.00          | 116,642.00           |                      |
| Pomology   |                     |                     |                      |                      |
| General Administration                               | 921,693.67          | 2,374,563.00        | 3,850,319.73         | 3,806,030.15         |
| <b>GRAND TOTAL</b>                                   | <b>5,024,214.88</b> | <b>9,441,638.96</b> | <b>11,606,513.16</b> | <b>11,606,977.00</b> |

Remarks : The figures for 1986 are as of September 1986.



Table 20 - 3. ITEMIZED EXPENDITURES OF THE RP-JAPAN FORESTRY DEVELOPMENT PROJECT  
 SUB-PROJECT II : TRAINING CENTER FOR FOREST CONSERVATION

| ACTIVITY                                       | 1981              | 1982                | 1983                | 1984                | 1985                | 1986                |
|--|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Completion of Training Center Facilities       |                   | 10,993.75           | 98,888.16           | 105,819.90          |                     |                     |
| Implementation of Training Courses             |                   |                     |                     |                     |                     |                     |
| • Middle Level Forestry Technicians Training   |                   |                     | 184,100.60          | 196,023.60          | 208,780.20          | 286,200.00          |
| • Silviculture                                 |                   |                     | 55,000.00           | 329,703.15          | 202,685.65          | 371,234.75          |
| • Forest Conservation                          |                   |                     |                     | 116,478.00          | 453,999.65          |                     |
| • Others                                       | 118,470.10        | 34,998.50           |                     |                     |                     |                     |
| Sub total                                      | 118,470.10        | 34,998.50           | 239,100.60          | 642,204.75          | 865,465.50          | 657,434.75          |
| Monitoring & Evaluation                        |                   |                     |                     |                     |                     | 98,139.50           |
| Construction of Erosion Control Works          |                   | 44,976.60           | 12,318.40           | 78,177.50           |                     |                     |
| Maintenance and Repair                         | 49,500.00         | 90,000.00           | 177,680.00          |                     |                     | 15,000.00           |
| General Supervision and Administrative Support | 257,991.64        | 1,203,678.49        | 1,712,922.40        | 985,740.60          | 1,796,572.70        | 1,647,060.17        |
| <b>GRAND TOTAL</b>                             | <b>425,961.74</b> | <b>1,384,647.34</b> | <b>2,240,909.56</b> | <b>1,811,942.75</b> | <b>2,662,038.20</b> | <b>2,517,634.42</b> |

Remarks : The figures for 1986 are as of September 1986.

Table 21. JOINT COMMITTEE

- |    |  |                                |               |
|----|--|--------------------------------|---------------|
| 1. | The First Joint Committee  | BFD Central Office             | June 30, 1977 |
|    | <ul style="list-style-type: none"> <li>(1) Confirmation of functions of the Committee</li> <li>(2) Confirmation of the Frequency of the Committee</li> <li>(3) Confirmation of location of Project site</li> <li>(4) Annual Workplan for CY 1977</li> <li>(5) Progress report from November, CY 1976 to June, CY 1977</li> <li>(6) Kick-off the planting for RP-Japan Project</li> </ul>   |                                |               |
| 2. | The 2nd Joint Committee  | BFD Carranglan District Office | Nov. 18, 1977 |
|    | <ul style="list-style-type: none"> <li>(1) Progress Report from July to October, CY 1977</li> <li>(2) Workplan for the 4th Quarter of CY 1977</li> <li>(3) Annual Workplan for CY 1978</li> <li>(4) Countermeasures on the control of forest fire</li> </ul>   |                                |               |
| 3. | The 3rd Joint Committee  | BFD Central Office             | May 1978      |
|    | <ul style="list-style-type: none"> <li>(1) Progress Report of the 1st Quarter, CY 1978</li> <li>(2) Workplan for the 2nd Quarter, CY 1978</li> <li>(3) Budgetary requirement, CY 1979</li> <li>(4) Preparation of Bilateral Agreement to replace the Record of Discussions.</li> </ul>   |                                |               |
| 4. | The 4th Joint Committee  | BFD Central Office             | Nov. 16, 1978 |
|    | <ul style="list-style-type: none"> <li>(1) Approval of the Minutes of the previous meeting</li> <li>(2) Progress Report for the 2nd and 3rd Quarter, CY 1978</li> <li>(3) Progress Report for the last two years</li> <li>(4) Workplan for the 4th Quarter, CY 1978</li> <li>(5) Workplan for Cy 1979</li> <li>(6) Proposal from the Japanese reports               <ul style="list-style-type: none"> <li>a. Designation of assistant project director</li> <li>b. Increase of RP-Counterparts</li> </ul> </li> </ul> |                                |               |

5. The 5th Joint Committee                      BFD Central Office                      May 16, 1979
- (1) Approval of the Minutes of the previous meeting
  - (2) Progress Report from November CY 1978 to April CY 1979
  - (3) Workplan for the 2nd and 3rd Quarters, CY 1979
  - (4) Workplan for CY 1980
  - (5) Proposals to facilitate further smooth implementation of the Project
    - a. Replanning of the on going program and budgetary requirements
    - b. Settlements solution on the problem of the pasture leases
    - c. Seed Procurement
6. The 6th Joint Committee                      BFD Central Office                      Nov. 16, 1979
- (1) Review and approval of the Minutes of the previous meeting
  - (2) Progress Report for the 2nd and 3rd Quarters, CY 1979
  - (3) JICA Assistance for Japanese, Fiscal Year 1979
  - (4) Workplan for the 4th Quarter, CY 1979
  - (5) Workplan for CY 1980
  - (6) Budgetary requirement for 1981
7. Emergency Meeting                              BFD Central Office                      March 27, 1980
- (1) Forest Fires
    - a. Report of forest fires, the use of fires, fire fighting
    - b. Countermeasure for the control fires
8. The 7th Joint Committee                      BFD Central Office                      June 23, 1980
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Progress Report for the 4th Quarter, CY 1979 and 1st Quarter, CY 1980
  - (3) JICA Assistance
  - (4) Work and Budgetary Program for 2nd, 3rd, and 4th Quarters, CY 1980
  - (5) Pilot Infrastructure Plan of RP-Japan Afforestation Project for CY 1980~ 81
9. The 8th Joint Committee                      BFD Central Office                      Nov. 5, 10, 1980
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Progress Report for the 2nd and 3rd Quarters for CY 1980
  - (3) JICA Assistance
  - (4) Pilot Infrastructure
  - (5) Budget and Work program for the 4th Quarter, CY 1980
  - (6) Budget and Work Program for CY 1981
  - (7) Budget Request for CY 1982

10. The 9th Joint Committee      BFD Central Office      Feb. 13, 1981
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Budget and Work Program for the 1st and 2nd Quarter, CY 1981
  - (3) Report of activities on maintenance and protection of established Plantations and Pilot Infrastructure Project
11. The 10th Joint Committee      BFD Central Office      July 3, 1981
- (1) Accomplishment Report for the 1st and 2nd Quarter, CY 1981
  - (2) Budget and Work Program for the 3rd and 4th Quarters, CY 1981
12. The 11th Joint Committee      BFD Central Office      Feb. 25, 1982
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Annual Report for Cy 1981
  - (3) Work and Budget Program for 1st and 2nd Quarters, CY 1982
  - (4) Middle Level Training Course
13. The 12th Joint Committee      BFD Central Office      July 13, 1982
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Accomplishment Report for the 1st and 2nd Quarters, CY 1982
  - (3) Work and Financial Plan for the 3rd and 4th Quarters, CY 1982
14. The 13th Joint Committee      BFD Central Office      Aug. 19, 1983
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Annual Accomplishment Report, CY 1982
  - (3) Mid-Year Accomplishment Report, CY 1982
  - (4) Work and Financial Plan for the 3rd and 4th Quarters, CY 1982
  - (5) Training design of Middle Level Training Course
15. The 14th Joint Committee      BFD Central Office      Feb. 2, 1984
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Annual Accomplishment Report, CY 1983
  - (3) Work and Financial Plan for the 1st and 2nd Quarters, CY 1984
  - (4) JICA Assistance

16. The 15th Joint Committee      BFD Central Office      Aug. 16, 20, 1984
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Mid-Year Accomplishment Report, CY 1984
  - (3) Work and Financial Plan for the 3rd and 4th Quarters, CY 1984
17. The 16th Joint Committee      BFD Central Office      Sept. 25, 1985
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Annual Accomplishment Report, CY 1984
  - (3) Mid-Year Accomplishment Report, CY 1985
  - (4) Work and Financial Plan for the 4th Quarter, CY 1985
18. The 17th Joint Committee      BFD Central Office      Oct. 30, 1986
- (1) Review and Approval of the Minutes of the previous meeting
  - (2) Annual Accomplishment Report, CY 1985
  - (3) Mid-Year Accomplishment Report, CY 1986
  - (4) Work and Financial Plan for the 4th Quarter, CY 1986
  - (5) CY 1986 expanded planting programme
  - (6) CY 1987 Proposals and Financial plans
  - (7) Other Matters

Table 22. LIST OF PUBLICATIONS

## I. Sub-Project I : Afforestation Technical Cooperation Center

## 1. Technical Note

| NO. | TITLE   | DATE SUBMITTED | REPORTER          |
|-----|---|----------------|-------------------|
| 1.  | Cultivation by Mechanized Method<br>(Cost Analysis)   | December 1982  | Ryo KUROKI        |
| 2.  | The Manual of the Cultivation by<br>Bulldozer (Cultivation by the Bulldozer<br>with Ripper for Site Preparation)                              | January 1983   | Shinji TANABE     |
| 3.  | Cuttings  | February 1983  | Setsuo KOYAMA     |
| 4.  | CTM box Application Trial   | March 1983     | Hajime NAGANAWA   |
| 5.  | Afforestation Experiments of Forest<br>Road Embankment Slopes by Direct Sowing<br>and Cutting Methods Kakawate<br>( <u>Gliricida sepium</u> ) | March 1983     | Kiyohiro YAMAZAKI |
| 6.  | Empirical Study of Erosion Control<br>Works at the RP-Japan Training Center<br>for Forest Conservation  | March 1983     | Kiyoshi IWAI      |
| 7.  | Seeds   | April 1983     | Setso KOYAMA      |
| 8.  | Planting Techniques for Acacia<br>( <u>Acacia auriculiformis</u> )  | May 1983       | Hajime NAGANAWA   |
| 9.  | Planting Techniques for Yemane<br>( <u>Gmelina arborea</u> )  | June 1983      | Hajime NAGANAWA   |
| 10. | Planting Techniques for Narra<br>( <u>Pterocarpus spp.</u> )  | July 1983      | Hajime NAGANAWA   |
| 11. | Nursery Techniques<br>(Nursery Establishment, Sowing)   | August 1983    | Setsuo KOYAMA     |
| 12. | Nursery Practice  | August 1983    | Setsuo KOYAMA     |
| 13. | Fire Resistance Study by Tree Species   | October 1985   | Tsutomu HANDA     |
| 14. | Comparative Trial on Fireline by<br>Construction Method   | October 1985   | Tsutomu HANDA     |
| 15. | Analysis of the Existing State of<br>Fire Occurrence  | October 1985   | Tsutomu HANDA     |

## 2. Other Publications

| NO. | TITLE  | DATE SUBMITTED                    | REPORTER           |
|-----|--|-----------------------------------|--------------------|
| 1.  | Forest Tree Diseases and their Control Measures  | September 1977<br>( First Issue ) | Takao KOBAYASHI    |
| 2.  | Planning of afforestation in Pantabangan Area ( In Japanese )  | September 1978                    | Yasushi MORIKAWA   |
| 3.  | Site Classification in Pantabangan Area  | April 1981                        | Hisayoshi YAGI     |
| 4.  | Development and Improvement of Nursery Practice  | December 1982                     | Yoshiyuki FUJIMOTO |
| 5.  | Investigation of Forest Insect Damage ( In Japanese )  | January 1984                      | Akiomi YAMANE      |
| 6.  | Soil and Site Classification in Pantabangan Area, the Philippines (2)<br>- Classification and naming of soils, and site classification - | October 1985                      | Hisayoshi YAGI     |
| 7.  | Manual for Forest Tree Diseases and their Control Measures in the Philippines  | March 1986<br>( Revised Edition ) | Takao KOBAYASHI    |
| 8.  | Distribution of precipitation and regional division of Northern and Central Luzon Island ( In Japanese )                                 | 1986                              | Masayuki ARAKI     |

## II. Sub-Project II : Training Center on Forest Conservation

### Text Books

| NO. | TITLE  |
|-----|--|
| 1.  | Erosion Control in Mountainous Area                            |
| 2.  | Concrete Handbook  |
| 3.  | Compass Survey for Forest Technician                           |
| 4.  | Surveying by Theodolite (Transit) for Forestry Technician      |
| 5.  | Levelling for Forestry Technician                              |
| 6.  | Methods of Section for Erosion Control Dams and Sheathing Work |
| 7.  | How to Use Curve Functional Table                              |
| 8.  | Nursery Techniques   |

Figure 1 MAP SHOWING THE RP-JAPAN TECHNICAL COOPERATION PROJECT SITE

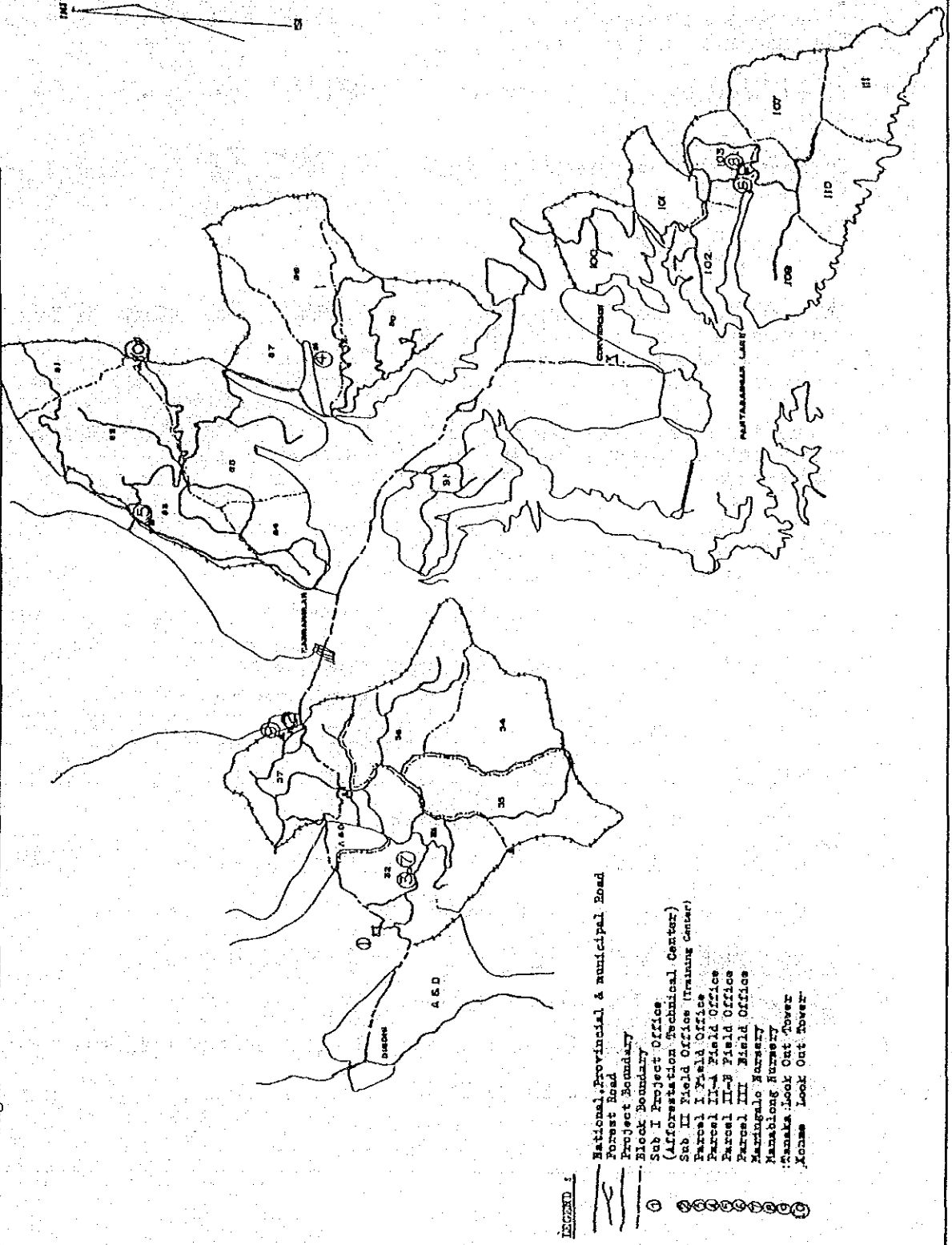
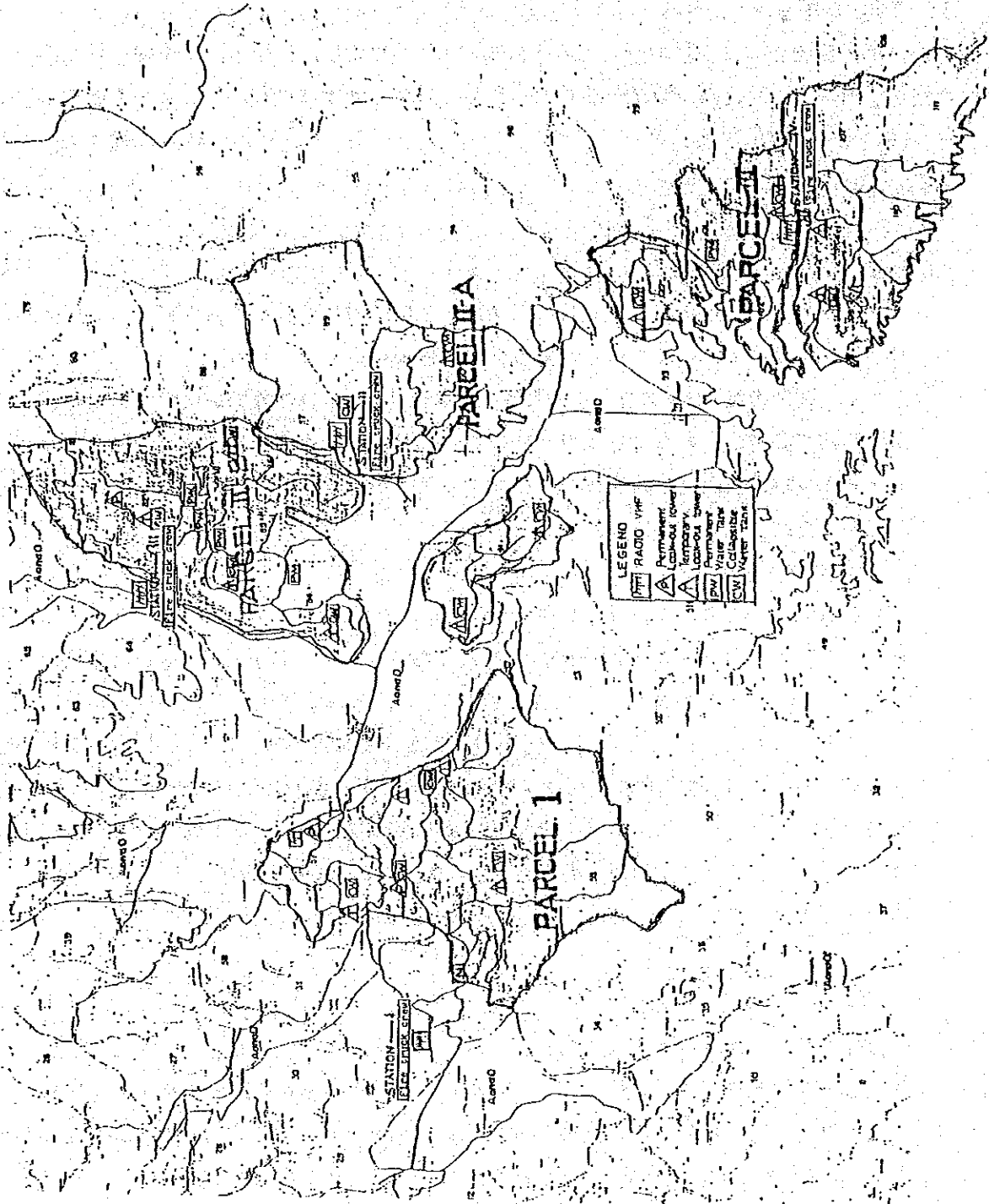




Figure 2 SHOWING MAP OF FIRE EQUIPMENTS DISTRIBUTION



### Ⅲ 本計画フェーズⅡに係る新R/Dの署名

#### 1. 新R/D署名までの経緯

フェーズⅡ協力に係る比側要請書の提出及びR/D署名は、比国側関係機関の組織改正、及び比側ローカルコスト負担の問題から予定された時期から大幅に遅れ、フェーズⅠ協力の終了（7月23日）間近の7月7日、及び7月10日に行われた。新R/D署名に致る経緯は次のとおりである。

##### (1) 61年12月～62年2月

フェーズⅠの日比合同エバリュエーション（61年12月）の勧告内容（フェーズⅡ協力の必要性）を受けて、年度内にも比側の正式要請が見込まれたため、事務ベースにより事前に入手した要請書案（BFD作成）により、日本側は新R/Dの骨子を検討・作成した。この間、環境天然資源省はその呼称を変更（MENR→DENR）すると共に、同大臣（マセダ→ドミングス）及び担当次官（サラガ→フィコ）の交代が行われた。

##### (2) 62年3月～5月

DENRからNEDAに要請書が提出されたが、NEDAは正式要請を6～7月に予定された年次協議で他案件と共に一括提出する方針であったため、日本側はR/D署名後のA<sub>1</sub>等のスケジュールから早期提出の必要性を説明し、NEDAは本件を年次協議と切り離して要請することとした（3月）。しかしながら、NEDAは要請書の内容についてDENRに一部修正を求め（4月）、以降数度にわたり要請書の一部修正が繰り返されることとなった。

日本側は、事務ベースで入手した要請書案に基づき、R/D日本側案を作成し、「本案に係る比側との協議は、比側から正式要請書の提出があったのち実施する」こととして、R/Dの日本側署名者となるJICAフィリピン事務所長にこれを提示した（5月）。

##### (3) 62年6月～7月

6月10日、R/D日本側案に関し、JICA事務所等が非公式にフィコ次官、セルナBFD局長等と協議を行ったが、比側はローカルコスト予算の不足を理由に新R/D日本側案のローカルコスト負担部分（本文Ⅳ第2項及び本文Ⅶ第1項）の記載について難色を示した。6月24日、再度レオン次官補、セルナBFD局長等と協議を行ったが、比側からは当該部分に係る妥協案が示されず、日比双方の主張が平行線をたどることとなった。

一方、6月10日付でDENRを含む比国政府機関の組織改正が公示された（これに伴う人事移動を60日以内に行うこととされた）。DENRに係る主な改正は次のとおりである（詳細な情報の入手、6月25日）。

- ① BFDを含む現行3局体制を、改正6局体制とする。

- ② BFD（森林開発局）を，FMB（森林管理局）とする。
- ③ 外国援助プロジェクトに係る担当を次官補室に移管する。
- ④ BFDを含む現行3局の地方局をDENR地方局に統合し，州，市町村事務所を新たに設ける。等

この間，R/D成案に係る模索が続けられ，R/D案当該部分の表現振りについて，比側案を一部受入れることで，双方合意することとなった。

比側正式要請書は，7月7日付で日本側に提出され，R/D署名は，フィコDENR次官と宮本JICAフィリピン事務所長との間で7月10日署名された。

なお，7月16日付でDENR大臣（ドミンゲス退任後空席→ロケ），7月24日付で担当次官（フィコ→ウマリ）が交替した。

2. R/D 本文

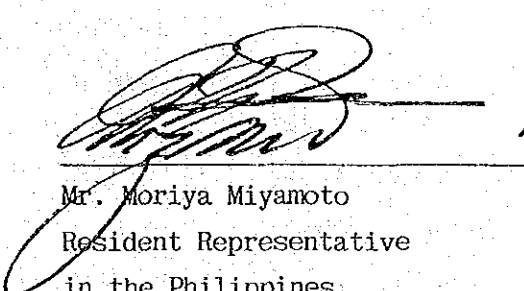
THE RECORD OF DISCUSSIONS

BETWEEN THE AUTHORITIES CONCERNED OF THE GOVERNMENT OF JAPAN  
AND THE GOVERNMENT OF THE REPUBLIC OF THE PHILIPPINES  
ON THE JAPANESE TECHNICAL COOPERATION FOR  
THE FORESTRY DEVELOPMENT PROJECT - WATERSHED  
MANAGEMENT IN PANTABANGAN AND CARRANGLAN, NUEVA ECIJA

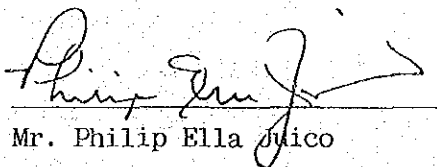
The Japan International Cooperation Agency (hereinafter referred to as "JICA"), with regard to the recommendation of the Report of the Joint Evaluation on the Forestry Development Project of the Pantabangan Area dated December 8, 1986, had a series of discussions through the Resident Representative of JICA in the Philippines with the authorities concerned of the Government of the Republic of the Philippines in view of the desirable measures to be taken by both Governments for the Japanese technical cooperation program concerning the Forestry Development Project - Watershed Management in Pantabangan and Carranglan, Nueva Ecija.

As a result of the discussions, JICA and the authorities concerned of the Government of the Republic of the Philippines agreed to recommend to their respective Governments the matters referred to in the document attached hereto.

Manila, July 10, 1987



Mr. Moriya Miyamoto  
Resident Representative  
in the Philippines,  
Japan International Cooperation  
Agency



Mr. Philip Ella Juico  
Undersecretary  
Department of Environment and  
Natural Resources

## THE ATTACHED DOCUMENTS

### I. COOPERATION BETWEEN BOTH GOVERNMENTS

1. The Government of Japan and the Government of the Republic of the Philippines will cooperate with each other in implementing the Forestry Development Project - Watershed Management in Pantabangan and Carranglan, Nueva Ecija (hereinafter referred to as "the Project") for the purpose of developing and improving the techniques on afforestation and forest conservation, disseminating these techniques by means of technical training and developing a system of active participation of the rural community in afforestation and thus contributing to the development of the integrated forest management system in the Pantabangan area.
2. The Project will be implemented in accordance with the Master Plan which is given in Annex I.

### II. DISPATCH OF JAPANESE EXPERTS

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 services of the Japanese experts as listed in Annex II through the normal procedures under the Colombo Plan Technical Cooperation Scheme.
2. The Japanese experts referred to in item 1 above and their families will be granted in the Republic of the Philippines the privileges, exemptions and benefits no less favourable than those accorded to experts of third countries working in the Republic of the Philippines under the Colombo Plan Technical Cooperation Scheme.

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### 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 (hereinafter referred to as "the Equipment") 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 Equipment will become the property of the Government of the Republic of the Philippines upon being delivered c.i.f. to the Philippine authorities concerned at the ports and/or 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.
3. All equipment, machinery and materials provided by the Government of Japan through JICA during the period from June, 1976 to July, 1987 for the implementation of the Forestry Development Project of the Pantabangan Area will be utilized for the implementation of the Project.

### IV. SPECIAL MEASURES TO BE TAKEN BY THE GOVERNMENT OF JAPAN

In order to assure the smooth implementation 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 support the Government of the Republic of the Philippines in financing the following expenditures necessary for the training program of middle-level manpower conducted in the Republic of the Philippines.

- (1) travel allowances to and from the place of training for training participants;



- (2) expenditures for preparation of training materials;
- (3) travel allowances for field trips for training participants;
- (4) expenditures for the purchase of the supplies and equipment necessary for training program;
- (5) travel allowances for instructors when they accompany training participants on field trips;
- (6) fees for instructors invited from institutions other than the ones directly connected with the Project.

V. TRAINING OF PHILIPPINE 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 Philippine 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 the Philippines will take necessary measures to ensure that the knowledge and skills acquired by the Philippine personnel from technical training in Japan will be utilized effectively for the implementation of the Project.

VI. SERVICES OF PHILIPPINE COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures to secure at its own expense the services of Philippine counterpart and administrative personnel as listed in Annex IV.
2. The Government of the Republic of the Philippines will endeavor



to allocate the necessary number of qualified personnel corresponding to each Japanese expert to be dispatched by the Government of Japan as specified in Annex II, for the effective and successful transfer of technology under the Project.

VII. MEASURES TO BE TAKEN BY THE GOVERNMENT OF THE REPUBLIC OF THE PHILIPPINES

1. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures to provide at its own expense the following:

- (1) Land, buildings and facilities as listed in Annex V;
- (2) Supply or 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 item III above;
- (3) Housing accommodations for the Japanese experts within or around the Project area as determined by the Government of the Republic of the Philippines, and transportation facilities for their official travels within the Republic of the Philippines.

2. In accordance with the laws and regulations in force in the Republic of the Philippines, the Government of the Republic of the Philippines will take necessary measures to meet:

- (1) Expenses necessary for the transportation of the Equipment within the Republic of the Philippines as well as for the installation, operation and maintenance thereof;
- (2) Customs duties, internal taxes and any other charges, imposed on the Equipment in the Republic of the Philippines;
- (3) All running expenses necessary for the implementation





of the Project.

#### VIII. ADMINISTRATION OF THE PROJECT

1. The Secretary, Department of Environment and Natural Resources will bear overall responsibility for the implementation of the Project.
2. The Director, Forest Management Bureau, Department of Environment and Natural Resources, as the Head of the Project, will be responsible for the administrative and managerial matters of the Project.
3. The Japanese Chief Adviser will provide necessary recommendation and advice on technical and administrative matters concerning the implementation of the Project to the Head of the Project.
4. The Japanese experts will give necessary technical guidance and advice to the Philippine counterpart personnel on matters pertaining to the implementation of the Project.
5. For the effective and successful implementation of the Project, a Joint Committee will be established with the function and composition as referred to in Annex VI.

#### IX. CLAIMS AGAINST JAPANESE EXPERTS

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


#### X. MUTUAL CONSULTATION

J. (S)

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

XI. TERM OF COOPERATION

The duration of the technical cooperation for the Project under this Attached Document will be five (5) years from July 24, 1987.



## A N N E X I

### MASTER PLAN

#### 1. Objectives of the Project

To develop and improve the techniques on afforestation and forest conservation, to disseminate these techniques by means of technical training and to develop a system of active participation of the rural community in afforestation and thus contributing to the development of the integrated forest management system in the Pantabangan area.

#### 2. Activities of the Project

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

- (1) Development and improvement of the techniques on tending, forest protection and species alteration.
- (2) Development and improvement of the techniques on erosion control works applicable to the local conditions and the techniques on afforestation combined with erosion control works.
- (3) Technical training on afforestation and forest conservation.
- (4) Development and improvement of the techniques to introduce social forestry.

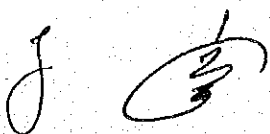
*J.* 

## A N N E X II

### JAPANESE EXPERTS

1. Chief Adviser
2. Team Leader
3. Experts in the fields of:
  - (1) Tending and Forest Protection
  - (2) Forest Management
  - (3) Afforestation
  - (4) Forest Conservation
  - (5) Erosion Control Works
4. Liaison Officer

- Note:
1. Team Leader may serve concurrently as an expert in one of the fields mentioned above.
  2. Short-term experts in other related fields will be dispatched when necessity arises, for the smooth implementation of the Project.

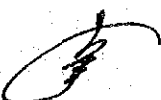


A N N E X III

LIST OF EQUIPMENT

1. Equipment, machinery, instruments, tools and their spare parts for nursery work
2. Equipment, machinery, instruments, tools and their spare parts for planting and tending work
3. Equipment, machinery, instruments, tools and their spare parts for forest road and erosion control works
4. Seeds, fertilizers, pesticides and other materials
5. Vehicles
6. Other materials necessary for the activities of the Project

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A N N E X IV

LIST OF PHILIPPINE COUNTERPART AND ADMINISTRATIVE PERSONNEL

1. Counterpart Personnel

- (1) Head of the Project
- (2) Project Director
- (3) Assistant Project Directors (2)
- (4) Counterpart Personnel in the fields of:
  - Afforestation
  - Forest Protection
  - Forest Management
  - Forest Conservation
  - Erosion Control Works
  - Training
  - Civil Engineering
  - Forest Research

2. Other Staff

- (1) Field Officers
- (2) Assistants
- (3) Operators

3. Clerical and Service Employees

4. Crew Leaders and Laborers

Note: Necessary number of counterpart and other personnel will be distributed for the smooth and effective implementation of the Project.

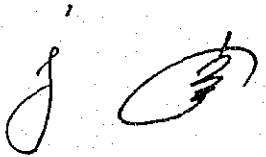
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A N N E X V

LIST OF LAND, BUILDING AND FACILITIES

1. Head office (in the Central Office of Forest Management Bureau)
2. Land, Buildings and other Facilities in the Pantabangan area
  - (1) Administration office
  - (2) Storehouses for forestry materials
  - (3) Sheds for equipment and machinery
  - (4) Field accommodations for Japanese experts and Philippine counterparts
  - (5) Dormitory for the trainees
  - (6) Nurseries
  - (7) The area for pilot artificial forest
  - (8) Model erosion control facilities
  - (9) Repair shop
  - (10) Other related facilities

Note: The area for pilot artificial forest will be about 8,100 hectares including the planted area established through the activities of the Forestry Development Project of the Pantabangan Area initiated in 1976.



## A N N E X VI

### JOINT COMMITTEE

#### 1. Functions

The Joint Committee will meet at least once a year and whenever necessity arises, and work:

- (1) To formulate the Annual Work Plan of the Project in line with the Tentative Schedule of Implementation formulated under the frame work of this Record of Discussions;
- (2) To review the overall progress of the technical cooperation program as well as the achievements of the above mentioned Annual Work Plan;
- (3) To review and exchange views on major issues arising from or in connection with the technical cooperation program.

#### 2. Composition

- (1) Chairman : Director of the Forest Management Bureau/  
Head of the Project
- (2) Members :

##### a. Philippine side

- Project Director
- Assistant Project Directors
- Representative from the Department of Environment and Natural Resources

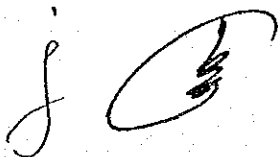


- Representative from the National Irrigation Administration
- Representative from the Forest Research Institute
- Representative from the Project Management Staff of the Forest Management Bureau

b. Japanese side

- Chief Adviser
- Experts designated by Chief Adviser
- Liaison Officer
- Resident Representative of Philippine Office, JICA

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







JICA