

Project Design Matrix (PDM)

Project Name: Qurm Environmental Information Center (QEIC) Project Tentative Duration: Feb. 2006 – Feb. 2008 (2 years)

Implementing Agency in Oman: Ministry of Regional Municipalities, Environment and Water Resources

Project Site: QEIC

Target Group: (primary) Local communities in coastal zones in Oman

Appendix 1

edited on 06/20/05

Implementing Agency in Japan: JICA

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption |
|--|---|--|--|
| (Overall Goal) - Dissemination of sustainable mangrove ecosystems management in Oman and in the region. | By 2014 - Number of mangrove sites managed through partnership programs with local communities increased by five (5). - Number of new plantation sites increased by seven (7). - Country experience on mangrove ecosystems management is presented in ROPME ⁱ regional meetings and other international conference. | - Record of planting activity, List of plantation sites managed through partnership programs. - Annual report of QEIC - Proceeding of conference, paper presented | |
| (Project Purpose) - QEIC is established as the center for promoting sustainable mangrove ecosystems management in Oman. | By the end of the Project 1 QEIC is developed into the center for knowledge sharing by professionals, practitioners and scholars specialized in coastal environmental management 2 QEIC is able to counsel policy and technical issues related to management of mangrove ecosystems to private and public sectors concerned 3 QEIC completes mangrove plantation at the proposed artificial lagoon built in Qurm Nature Reserve as scheduled 4 Training on mangrove ecosystem management provided to professionals in Oman and beyond | 1. Annual report, interview to agencies contributed and not participated 2. List of recommendations and advises related to mangrove ecosystems 3. Annual report, record of planting activity 4. Record of training. List of participants. Interviews to participants and supervisors focusing on the learning goals ⁱⁱ | 1 Other ministry and agencies bring and share their resources and expertise in mangrove ecosystems protection and management to QEIC 3.1 Similar initiatives in mangrove ecosystem management are carried out by other ROPME countries. 3.2 Public – private sector partnership in GCC strengthened. |
| (Outputs) 0 The project operation unit in QEIC is established. | 0.1 Personnel are assigned according to the plan of operation (PO). 0.2 Joint Coordinating Committee (JCC) ⁱⁱⁱ is established. 0.3 Budget for construction of the center and for operation is allocated. 0.4 Facility is allocated. 0.5 Material and equipment is procured and installed. | 0.1 Organizational chart with name list 0.2 Minutes of meeting of JCC 0.3 Financial statement (balance sheet and profit and loss) 0.4 List of facility 0.5 List of material and equipment | |
| 1 Education and Training program targeting various stakeholders is carried out | 1.1 At least three (3) education/training activities targeting community members, students, and the public and private sector professionals are carried out. 1.2 At least 18 trainers are trained. 1.3 Number of participating schools increased by six (6). 1.4 Number of participating communities increased by six (6) at maximum. 1.5 Number of private sector assisting the program by three (3). | 1.1 List of education/training activities and the targets. Participants list. Evaluation/feedback from the participants 1.2 Participants list, Evaluation/feedback from the participants 1.3 List of schools 1.4 List of communities 1.5 List of the private sector | - Participants in the education and training program secure their own funding to attend the courses |
| 2 Monitoring functions aiming at protecting mangrove ecosystems is strengthened. | 2.1 Environmental monitoring ^{iv} is carried out and the results are reported regularly. 2.2 Data collected is organized and stored in an appropriate format to be available when requested. | 2.1 Record of data and information collected and stored 2.2 Record of data and information collected and stored | |
| 3 Sustainable measures for protection and management of mangrove ecosystems in Oman are enhanced. | 3.1 Extending mangroves trees in potential areas where they can be rehabilitated with approximately 50,000pots annually. 3.2 Approximately 4 (four) ha of proposed lagoon adjacent to QEIC is used as an experimental area for training and education. 3.3 Afforestation program through partnership with community and other agencies is carried out and implemented at least six (6) sites. | 3.1 List of rehabilitation areas initiated by MRMEWR. 3.2 Record of rehabilitation at QEIC experimental area. 3.3 List of afforestation sites implemented by community participation. | - Unexpected weather related adversary effects to the planting sites are minimal |
| 4 Exhibitions and community outreach programs to mobilize national efforts for mangrove ecosystems conservation and restoration are organized. | 4.1 Annual report containing of learning from QEIC activities published regularly 4.2 300 participants (=presenters) participated in exhibition. | 4.1 Annual report published 4.2 Brochures of exhibitions, list of participants, number of visitors | |

Project Design Matrix (PDM)

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Important Assumption |
|--|--|---|---|
| (Activity) 0.1 Prepare and review the Plan of Operation (PO). 0.2 Prepare the budget plan. 0.3 Establish the Joint Coordinating Committee. 0.4 Prepare monitoring plan. 0.5 Allocate the budget, personnel and facility. 0.6 Prepared the Job description. 0.7 Machinery and equipment provided are properly installed and maintained. | (Input from Japan) Personnel (1) Chief Advisor / Training Plan and Implementation (2) Environmental Monitoring (3) Analysis and Database Development (4) Exhibition Planning and Design (5) Community Outreach and Extension Training of Omani Project Personnel in Japan Machinery, Equipment and Materials | (Input from Oman) Personnel Project Director Project Manager Counterparts in the field of; Monitoring and Information Training and Education Mangrove Plantation Exhibition and Public Relations Environmental Education Administrative Personnel Local Cost Land, Building and Facilities Procurement of Goods and Consumables | |
| 1.1 Identify the target groups of education and training program 1.2 Define the goals and the objectives according to the target groups and choose the methodologies. 1.3 Develop a set of lesson plans for respective target groups and topics. 1.4 Prepare educational/training materials. 1.5 Deliver the lessons according to the lesson plan. 1.6 Evaluate the individual education and training program by target groups. 1.7 Modify the lesson plan as necessary. 1.8 Modify the staff training as necessary | | | |
| 2.1 Define and finalize the necessary parameters of fauna/flora/socio-economy to monitor in the monitoring function of the QEIC activities base on the P.O. 2.2 Furnish the monitoring plan accordingly. 2.3 Carry out monitoring and gather the information. 2.4 Compile and store in an appropriate format 2.5 Analyze the data and information as necessary 2.6 Publish the results for public use | | | |
| 3.1 Prepare seedlings. 3.2 Select the restoration/afforestation sites. 3.3 Transfer the seedling to the sites 3.4 Maintain and monitor the plants. 3.5 Evaluate the survival rate of planted seedling and feedback the planting methodology. 3.6 Modify the training as necessary. | | | |
| 4.1 Identify the target group for exhibition and public outreach. 4.2 Define the goals and the objectives according to the target groups and choose the methodologies. 4.3 Present outcomes of training and education activities 4.4 Present the results of on-going monitoring of mangrove ecosystems 4.5 Present the outcomes of mangrove conservation activities 4.6 Provide training in techniques in participatory social survey and how to mobilize communities 4.7 Provide training for trainers and for "Interpreters" in interactive education such as games and displays ("Nature Game"). 4.8 Organize and market topical mangrove exhibitions in QEIC targeting general public 4.9 Modify the activities as necessary | | | (Preconditions) - Schedule of the project is negotiated and agreed. - Construction schedule of QEIC is finalized. - MRMEWR put Construction of the QEIC facility tender prior to the project. |

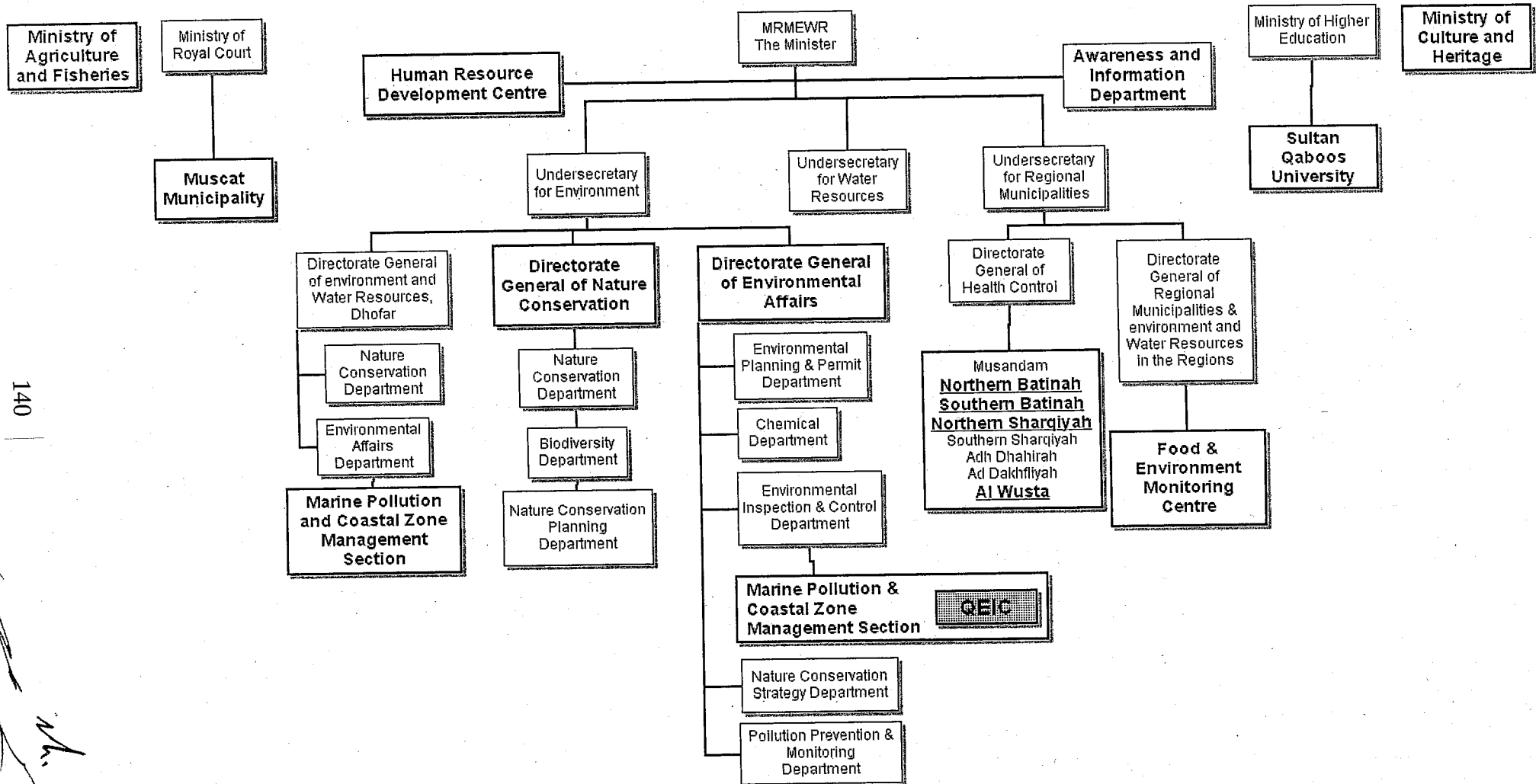
ⁱ ROPME: Regional Organization for the Protection of the Marine Environment.

ⁱⁱ Learning goals are summarized in a separate document.

ⁱⁱⁱ List of members of Joint Coordinating Committee is shown in Appendix 5.

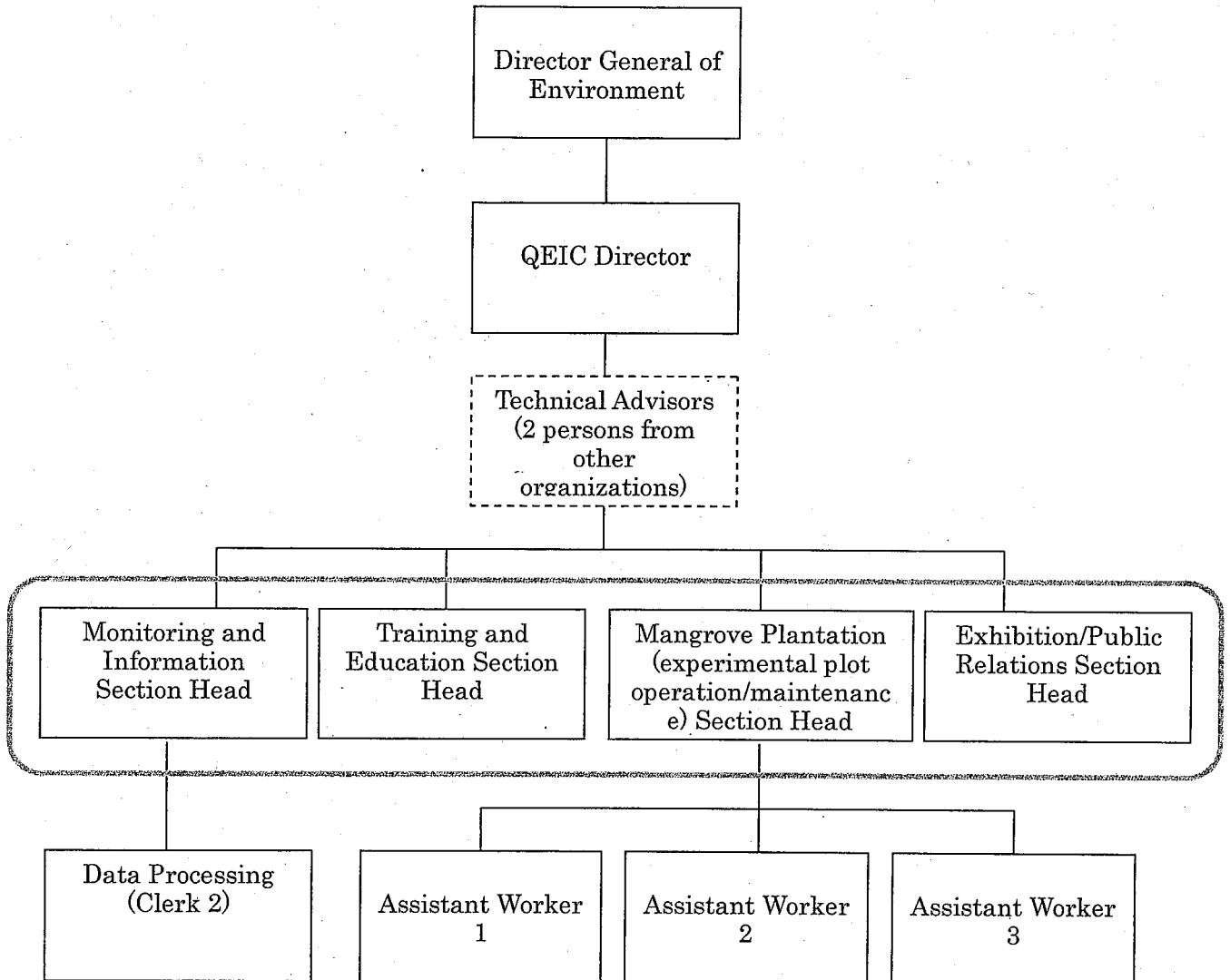
^{iv} Parameter for monitoring included is in a separate document.

Organizational Chart of MRMEWR and Other Related Agencies



[Handwritten signature]

Proposed Organizational Chart of the QEIC



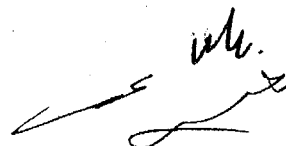
Proposed List of Members of JCC

1. Omani Side

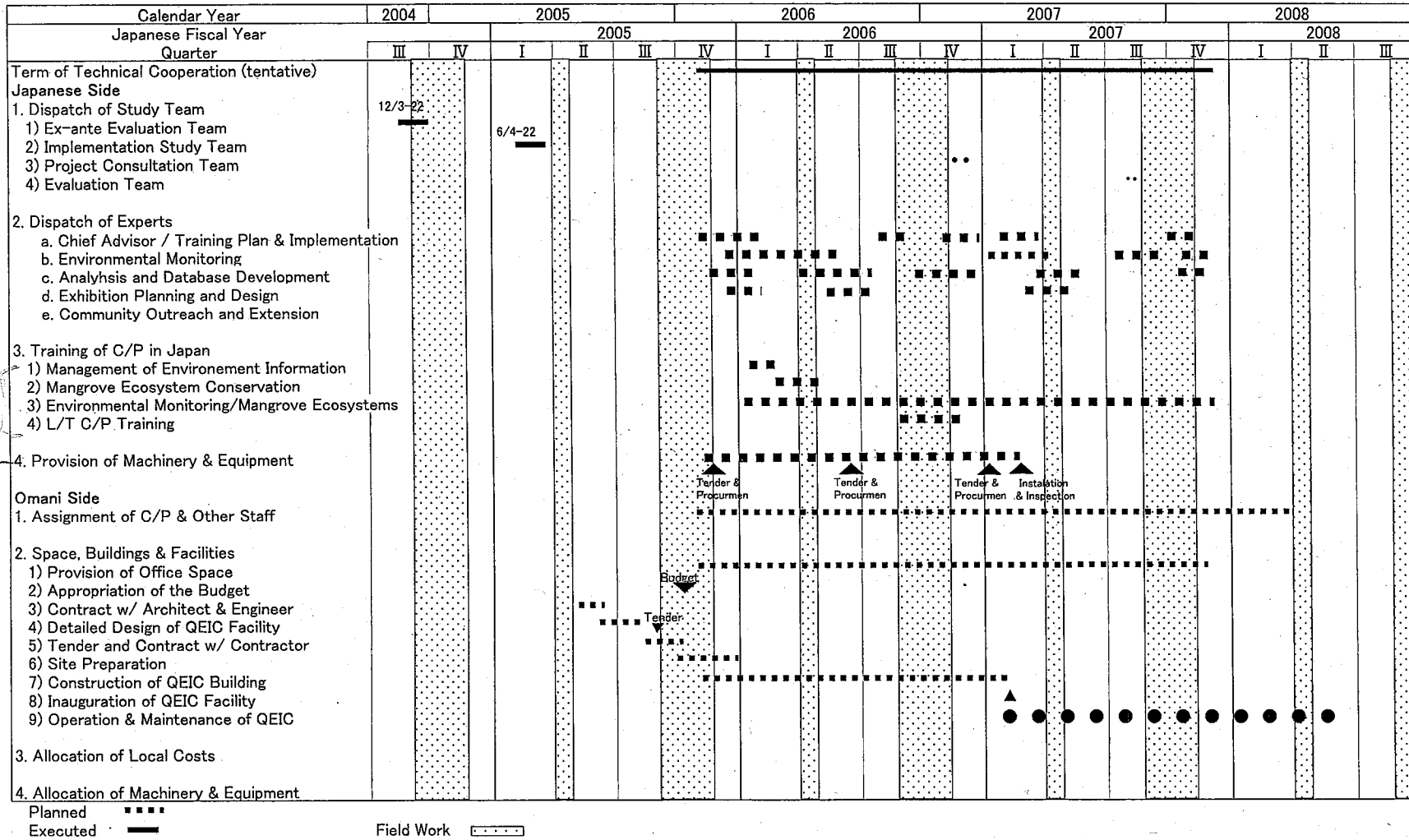
| 1) Ministry Of Regional Municipalities, Environment and Water Resources | | |
|---|--|--|
| Name | Title | Addresses |
| Mohammed Bin Abdullah Al-Muharmmi | Director General For Environmental Affairs | Tel: (968) 692535 Fax: (968) 692462 dgea@mrmewr.gov.om P.O.Box 323 , P.C 113, Sultanate Of Oman |
| Ali Amer Al-Kiyumi | Director General of Nature Conservation | Tel: (968) 602285 Fax: (968) 602283 dgnc@mrmewr.gov.om P.O.Box 323 , P.C 113, Sultanate Of Oman |
| 2) Ministry of Agriculture and Fisheries | | |
| Name | Title | Addresses |
| Dr. Younis Khalfan Al-Akhzami | Director General For Fisheries Resources | Tel: (968) 696369 Fax: (968) 605634 younisa@hotmail.com P.O.Box 467 , P.C 113, Sultanate Of Oman |
| 3) Muscat Municipalities | | |
| Name | Title | Addresses |
| Eng. Mohammed Galeb Al-Kishery | Director of Landscaping and Gardens Dep. | Tel: (968) 24-505461 Fax: (968) 24-505629 P.O.Box 511 , P.C 116, Sultanate Of Oman |
| 4) Sultan Qaboos University | | |
| Name | Title | Addresses |
| Dr. Hamed Said AL-Oufi | Assistance Vice President for science colleges | Tel: (968) 24-515093 Fax: (968) 24-513075 hamdoufi@squ.edu.om P.O.Box 50 , P.C 123, Sultanate Of Oman |

2. Japanese Side

| 1) QEIC Project JICA Expert Team | | |
|---|-------------|-----------|
| Name | Title | Addresses |
| To be assigned | Team Leader | |
| 2) Official(s) of the Embassy of Japan in Oman | | |
| Name | Title | Addresses |
| | | |
| 3) Personnel concerned with the Project to be dispatched by JICA (if necessary) | | |
| Name | Title | Addresses |
| | | |



Tentative Schedule of Implementation



143

[Handwritten signature]

Training Program

| Course Name and equivalent Activities in the PDM | Field | Target Groups | | | | | | | | Learning Goals | Duration of course (days) | Number of trainees *2 | Schedule of Implementation *1 | Total number of trainees in the project period (2 years) | |
|--|---------------------------------|--------------------------|--------------------------|----------------------------|---------------------------------|--------------------------|-------------------|--------------------------|------------------------------|--------------------------|---------------------------|-----------------------|-------------------------------|--|----------------|
| | | QEIC Staff | MR/ME/MR | Officers in other agencies | Researchers of other institutes | ROPME professionals | Community leaders | Teachers | Students of higher education | | | | | | Private sector |
| 1. Administration & operation of QEIC (1.5) | Administration & operation | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | 3 | 5 | Three times (six months, 1 year and 1.5 years after the Project starts) | 15 |
| 2. Monitoring of mangrove (1.5) | Monitoring of mangrove areas | <input type="checkbox"/> | <input type="checkbox"/> | | | <input type="checkbox"/> | | | | | | 7 | 7 | ditto | 21 |
| 3. Data collection, processing and analysis (1.5) | | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 4. Training and education for mangrove conservation (1.5, 4.7) | Training & education | <input type="checkbox"/> | <input type="checkbox"/> | | | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 5. Production of environmental educational material (1.5, 4.7) | | <input type="checkbox"/> | <input type="checkbox"/> | | | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 6. Conservation planning mangrove areas (1.5) | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 7. Community outreach and public awareness (1.5, 4.6) | Community outreach & exhibition | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 8. Exhibition and public relations (1.5, 4.6) | | <input type="checkbox"/> | <input type="checkbox"/> | | | <input type="checkbox"/> | | | | | | 3 | 7 | ditto | 21 |
| 9. Understanding mangrove (4.3, 4.4, 4.5) | Courses for the general public | | | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1 | 30 | Once every two months after QEIC construction (then continued after the Project) | 90 |
| 10. Conserving mangrove (1.5) | | | | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 | 15 | 6 times (at QEIC and five regional offices) | 90 |
| 11. Teaching mangrove (4.6, 4.7) | | | | | | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | 3 | 15 | Once every six month, (then continued after the Project) | 45 |

*1 Refer to the Plan of Operation (PO) of the Project.

*2 Number of trainees and frequency of each course would be changed according to number of people demanding the course.

Course Name: 1. Administration and Operation of QEIC **Category (Field):** Administration and Operation of the Organization

Trainees (Target Group): QEIC Staff

Learning Goal: The trainees are able to manage QEIC as a center of mangrove management by utilizing facility and resources designated.

Duration: 3 days **Number of trainees:** 5

Schedule: Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material | Hours |
|---|--|--|---|---------------------|--------------------|-------|
| Administration and operation of QEIC | Mandates, roles and responsibility of QEIC in natural resources management | Lecture | Director of QEIC, and/or JICA Chief Advisor | HRD Centre, or QEIC | | 2 |
| Case studies of other similar organizations | -Case studies of similar institutions are provided to get lessons learned. -Possible examples are Mangrove Information Center in Bali, International Society of Mangrove Ecosystems (ISME), and similar visitor centers elsewhere. | Lecture, Workshop (evaluation of the similar institutions) | JICA experts | HRD Centre, or QEIC | | 3 |
| Principle of management techniques | To understand the principle of management (leadership) technique. | Lecture | (Arranged by HRD Centre) | HRD Centre, or QEIC | | 2 |
| Project Management | -To understand the importance of project management, and also learn methodology of project management (planning, monitoring and evaluation) including the Project Cycle Management (PCM) method. -To understand how to prepare project proposals. | Lecture, Workshop, OJT | JICA Chief Advisor | HRD Centre, or QEIC | | 5+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Handwritten signature and initials in the bottom right corner of the page.

Course Name: 2. Monitoring of mangrove

Category (Field): Monitoring of mangrove areas

Trainees (Target Group): QEIC Staff, Officers in MRMEWR, ROPME professionals

Learning Goal: The trainees are able to demonstrate the daily tasks of monitoring and reporting.

Duration: 7 days Number of trainees: 7

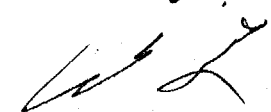
Schedule: Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|---|--|------------------|---|---------------------|---|-------|
| State of mangrove ecosystem | To understand the state of mangrove ecosystem in Oman and the world | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 1 |
| Mangrove ecosystem | To understand the relationship between individuals and populations, and their interaction with the environment. | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 1 |
| | | Site observation | | Qurm Nature Reserve | Binoculars | 2 |
| Human and mangrove (1) | Legal and institutional framework for mangrove and socio-economic conditions | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 1 |
| Human and mangrove (2) | Effect of damages of mangrove ecosystems on the society | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 1 |
| Human and mangrove (3) | Damaging effects of society on mangrove ecosystem | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 1 |
| Monitoring of mangrove | -To understand monitoring of number of trees, regeneration, growth in a permanent quadrat, monitoring of stretch of mangrove. -Including monitoring of damage on seeds and regenerating seedlings by fish, insects, camels, etc. | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | Measuring meter Measuring rod | 2 |
| | | Practice, OJT | | Qurm Nature Reserve | Measuring tape Vernier calliper Luminometer Leaf color-sample book | 2+ |
| Monitoring of Water and soil | -To understand monitoring of water and soil (soil accumulation, etc.) -Salinity concentrations and their effects on mangrove -Nutrients availability -Monitoring of abiotic factors (changes) such as temperature, humidity | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | Water-quality testing kits Thermometer | 2 |
| | | Practice OJT | | Qurm Nature Reserve | Soil color-sample book Scoop Soil durometer Soil sampling cylinder Multiple soil sampler Soil analyzer Water sampler Sample bottles Hand bearing compass Leveling equipment Rubber boat and engine Current meter | 2+ |
| Monitoring of fauna and flora | To understand monitoring of fauna and flora (number of species and population of birds, fish, crustacean, plankton, insects, spiders, etc.) | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | Field scope Binoculars | 2 |
| | | Practice OJT | | Qurm Nature Reserve | Tripods Magnifiers Sweeping net Casting net Wadars Fish catching bottle Sediment sampler Sieve Plankton net Sample bottles Formalin | 2+ |
| Monitoring of socio-economic conditions at mangrove sites | To understand monitoring of socio-economic conditions (any land-uses in and around mangrove, including grazing, fishing, etc.) | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Lecturer of the economic department of SQU | HRD Centre, or QEIC | | 2 |
| | | Practice OJT | | Qurm Nature Reserve | | 2+ |

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|---------------------------------------|--|------------------------|--|--|--|-------|
| Developing methodology for monitoring | -To understand how to develop and improve methodologies and protocols to monitor the mangrove ecosystem. -Demographic matrix (information): To know or determine the effect of human activities on mangrove and to understand of how human impacts ecosystems. | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, or QEIC | | 2 |
| | | Practice OJT | | Qurm Nature Reserve | | 2+ |
| Laboratory analysis | Salinity, Conductivity pH Dissolved oxygen Redox potential COD Chlorophyll Identification of fauna and flora | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis, -Lecturers of Department of Marine Science and Fisheries of SQU, and/or -Staff of Food and Environment Monitoring Centre | Food and Environment Monitoring Centre, SQU, or QEIC | Delicate balance Thermometer Do meter Salinity meter pH meter, ORP meter Insulation store box Sieves Vibration sieving machine Distiller Water-quality testing kits Dryer Microscope Magnifiers Flasks Beakers Pipettes | 4+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

* For the practices of any monitoring, camera, video camera, GPS, field note, board, car are needed.

bl.


Course Name: 3. Data collection, processing and analysis

Category (Field): Monitoring of mangrove areas

Trainees (Target Group): QEIC Staff , Officers in MRMEWR, Researchers of other institutes, ROPME professionals

Learning Goal: The trainees are able to assist decision-making for planning and conservation of mangrove ecosystem.

Duration: 3 days **Number of trainees:** 7 **Schedule:** Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material # | Hours |
|--|---|------------------------|--|-------------------------|--|-------|
| Objectives of data analysis | Objectives and methodology of data processing and information collection | Lecture | JICA expert for environmental monitoring and analysis/ database development | HRD Centre, SQU or QEIC | | 1 |
| Data input and conversion | Data input and conversion (to order raw data and make tables and figures) | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis/ database development, and/or -Lecturer of SQU | HRD Centre, SQU or QEIC | Computer Color printer Image Processing Software GIS software MSOffice Other software | 3+ |
| Statistical analysis of environmental data | Analysis includes tree ecology data. | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis/ database development, and/or -Lecturer of SQU | HRD Centre, SQU or QEIC | Computers Software for statistical analysis (such as SPSS) | 3+ |
| Interpretation of data | -To interpret the data. -To write reports and articles. | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis/ database development, and/or -Lecturer of SQU | HRD Centre, SQU or QEIC | | 1+ |
| Development of database | | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis/ database development, and/or -Lecturer of SQU | HRD Centre, SQU or QEIC | Internet server Firewall facilities Computer Other software | 3+ |
| Programming | Programming to make an introductory programme | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis/ database development, and/or -Lecturer of SQU | HRD Centre, SQU or QEIC | | 3+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 4. Training and education for mangrove conservation

Category (Field): Training and education

Trainees (Target Group): QEIC Staff , Officers in MRMEWR, ROPME professionals

Learning Goal: The trainees are able to train others and to evaluate the training for enhancement of the training programme.

Duration: 3 days **Number of trainees:** 7 **Schedule:** Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|--|---|-----------------------------------|---|---------------------|--|-------|
| Training and education for mangrove conservation | Objectives and methodology of training and education for mangrove conservation | Lecture | -JICA expert for environmental education, and/or -Director of QEIC | HRD Centre, or QEIC | | 1 |
| Planning of training | Planning of training and educational activities for environmental issues | Lecture, workshop, OJT | -JICA expert and/or -Lecturer arranged by HRD Centre | HRD Centre, or QEIC | | 1+ |
| Implementation of training | Implementation of the plan of training and educational activities | Lecture | -JICA expert and/or -Lecturer arranged by HRD Centre | HRD Centre, or QEIC | | 1 |
| | | Practice, OJT | | Qurm Nature Reserve | Scoops Boots Binoculars | 2+ |
| Evaluation of training | Evaluation of training and educational activities | Lecture, practice (workshop), OJT | -JICA expert and/or -Lecturer arranged by HRD Centre | HRD Centre, or QEIC | | 1+ |
| Interpretation of wildlife in mangrove | Identification of wildlife (plants, birds, snails, crabs, insects, fish etc.) and interpretation of them. | Lecture, practice, OJT | JICA expert | Qurm Nature Reserve | Field scope Binoculars Tripods Magnifiers Sweeping net Casting net Wadars Fish catching bottle Sieve | 4+ |
| Hands on activities in mangrove | Games, quizzes, handicrafts etc. utilising the wildlife in mangrove. | Lecture, practice, OJT | JICA expert | Qurm Nature Reserve | | 4+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 5. Production of environmental educational material

Category (Field): Training and education

Trainees (Target Group): QEIC Staff, Officers in MRMEWR, ROPME professionals

Learning Goal: The trainees are able to prepare materials for training/education/exhibition for meeting respective learning goals and objectives.

Duration: 3 days **Number of trainees:** 7 **Schedule:** Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|--------------------------------------|--|------------------------|---|---------------------|---|-------|
| Environmental awareness material | Theory to prepare effective materials for training/education/exhibition. | Lecture | JICA expert | HRD Centre, or QEIC | | 1 |
| Production of printed materials | Understand how to plan, edit and print materials such as reports, pamphlets, brochures, posters etc. | Lecture, practice, OJT | -JICA expert, and/or -Officer in charge of awareness and information in MRMEWR | HRD Centre, or QEIC | Computers MSOffice Adobe pagemaker Color printer FAX & photocopier Lamination machine Document binding machine Color photocopier Plotter (A0size) | 5+ |
| Production of audio visual materials | Understand how to plan, edit and copy A/V materials, such as video clips etc, slides, etc. | Lecture, practice, OJT | -JICA expert, and/or -Officer in charge of awareness and information in MRMEWR | HRD Centre, or QEIC | Computers Video editing software Video camera Camera Capture software | 5+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 6. Conservation planning mangrove areas

Category (Field): Training and education

Trainees (Target Group): QEIC Staff, Officers in MRMEWR, Officers of other agencies, ROPME professionals

Learning Goal: The trainees are able to prepare mangrove management plan to be implemented and evaluated against the data collected.

Duration: 3 days

Number of trainees: 7

Schedule: Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|---|--|---------------------------------|---|--|---|-------|
| Planning and management of mangrove conservation | Objectives and methodology of management of conservation activities based on monitoring and analysis | Lecture | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, QEIC, or MRMEWR regional office | | 1 |
| Planning of mangrove management | Understand and practice how to make a mangrove management plan in a specific area | Lecture, practice/workshop, OJT | JICA expert for environmental monitoring and analysis | HRD Centre, QEIC, or MRMEWR regional office | | 4+ |
| Monitoring and evaluation of mangrove management plan | Understand and practice how to make monitoring plan for a specific area | Lecture, practice/workshop, OJT | -JICA expert for environmental monitoring and analysis, and/or -Prof. Saiyed I. Ahmed of SQU | HRD Centre, QEIC, or MRMEWR regional office | | 4+ |
| Mangrove rehabilitation technique | -Site selection for replanting mangrove. -Methods of propagation (by transplanting or seeds). | Lecture, Practice, OJT | -JICA expert for environmental monitoring and analysis, and/or -QEIC staff | Qurm Nature Reserve, or regional mangrove forest | Seedling pots Shading net Scoops Boots Binoculars Water pump | 5+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 7. Community outreach and public awareness **Category (Field):** Community outreach and exhibition

Trainees (Target Group): QEIC Staff, Officers in MRMEWR, Officers in other organizations, ROPME professionals

Learning Goal: The trainees are able to mobilize community members and the general public to participate in various activities related to mangrove ecosystems management.

Duration: 3 days **Number of trainees:** 7 **Schedule:** Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|--|---|------------------------|--|---------------------|---|-------|
| Communication, education and public awareness for environmental conservation | Necessity of communication, education and public awareness for nature conservation | Lecture | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 1 |
| Communication theories | Theories of communication, diffusion of innovation, etc. | Lecture | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 1 |
| Case studies of community outreach and public awareness program | -Case studies are provided to get lessons learned. -Possible examples are Mangrove Information Center in Bali, other nature conservation projects assisted by JICA, community outreach and public awareness by the Awareness and Information Department in MRMEWR etc. | Lecture | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 1 |
| Planning of community outreach and public awareness program | To understand how to plan outreach or public awareness activity for a specific objective. | Lecture, Practice, OJT | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 3+ |
| Implementation of community outreach and public awareness program | Implementation of the activity planned. | Lecture, Practice, OJT | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | Compact sound system Tent Monitor Videocassette recorder DVD player Megaphone White board | 5+ |
| Monitoring and evaluation of community outreach and public awareness program | Evaluation of the activity implemented. | Lecture, Practice, OJT | -JICA expert for community outreach and extension, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 3+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 8. Exhibition and public relations

Category (Field): Community outreach and exhibition

Trainees (Target Group): QEIC Staff, Officers in MRMEWR, ROPME professionals

Learning Goal: The trainees are able to prepare attractive yet informative exhibition and publicity suitable for the target population.

Duration: 3 days **Number of trainees:** 7 **Schedule:** Three times (six months, 1 year and 1.5 years after the project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material * | Hours |
|---|---|-------------------------|---|---------------------|---|-------|
| Objectives of public relations for environmental conservation | -Objectives, resources and management of public relations for mangrove conservation -Promotion, marketing, advertising for mangrove to get sponsorship. | Lecture | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 1 |
| Case studies of public relations for environmental conservation | -Case studies are provided to get lessons learned . -Possible examples are Mangrove Information Center in Bali, other nature conservation projects assisted by JICA, public relations by the Awareness and Information Department in MRMEWR etc. | Lecture | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 2 |
| Practice of press release | To organize a press conference and prepare press release on an actual activity under the project. | Workshop, practice, OJT | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 3+ |
| Methodology to plan and prepare exhibition | Objectives of exhibition and methodology for exhibition planning | Lecture | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 1 |
| Case studies of exhibition plan and preparation | -Case studies are provided to get lessons learned . -Possible examples are Mangrove Information Center in Bali, other nature conservation projects assisted by JICA, exhibitions prepared by the Awareness and Information Department in MRMEWR etc. | Lecture | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | | 2 |
| Practice of exhibition | Planing and development or improvement of the exhibition plan in QEIC | Workshop, practice, OJT | -JICA expert, and/or -Officer in charge of Awareness and Information in MRMEWR | HRD Centre, or QEIC | Exhibition panels Monitor or screen Speakers Megaphone Videocassette recorder DVD player Specimen platform Glass tanks Binoculars | 3+ |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 9. Understanding mangrove

Category (Field): Courses for the general public

Trainees (Target Group): Community leaders, teachers, students of higher education, private sector, the general public.

Learning Goal: The trainees get the basic knowledge of the mangrove and importance of its conservation.

Duration: 1 days **Number of trainees:** 30

Schedule: Once every two months after QEIC construction (then continued after the Project)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material | Hours |
|--------------------------------------|--|---------------------|---|---|---------------------|-------|
| Mangrove in Oman and other countries | To understand the state of mangrove ecosystem in Oman and other countries. | Lecture | QEIC Director | QEIC | | 1 |
| Mangrove ecosystem | -To understand the relationship between individuals and populations, and their interaction with the environment. - Eco-physiology (basic): to understand how the interaction between different abiotic conditions can effect mangrove performance | Lecture | QEIC staff in charge of Monitoring and Information, and/or SQU lecturer | QEIC | | 1 |
| | | Site observation | | Qurm Nature Reserve | Boots Binoculars | 1 |
| Our society and mangrove | -Value of mangrove Policy and regulation about mangrove conservation. -Threat to mangrove. -Measures to conserve mangrove. -Role of QEIC | Lecture | QEIC staff in charge of Training and Education; and/or SQU lecturer | QEIC | | 1 |
| | | Workshop/discussion | | QEIC | | 1 |
| Planting mangrove seedlings | The trainees participate in the conservation activities. | Practice | QEIC staff in charge of Mangrove Plantation, and/or SQU lecturer | Qurm Nature Reserve (artificial wetlands) | Scoops Boots | 1 |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Course Name: 10. Conserving mangrove

Category (Field): Courses for the general public

Trainees (Target Group): Community leaders, teachers, students, private sector, etc. (who can help the monitoring and rehabilitation)

Learning Goal: The trainees are able to perform as agents for mangrove conservation (monitoring and rehabilitation).

Duration: 4 days **Number of trainees:** 15

Schedule: 6 times (at QEIC and five regional offices)

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material | Hours |
|---|--|-----------------|--|--|--|-------|
| Objectives of the monitoring and rehabilitation | To understand necessity of rehabilitation, enhancement and daily monitoring procedure. | Lecture | QEIC Director | QEIC, or MRMEWR regional office | | 1 |
| Monitoring of mangrove trees | -To understand monitoring of number of trees, regeneration, growth in a permanent quadrat, monitoring of stretch of mangrove. -Including monitoring of damage on seeds and regenerating seedlings by fish, insects, camels, etc. | Lecture | QEIC staff in charge of Monitoring and Information, and/or SQU lecturer | QEIC, or MRMEWR regional office | Measuring meter Measuring rod Measuring tape Vernier calliper Luminometer Leaf color-sample book | 1 |
| | | Practice | | Qurm Nature Reserve, or regional mangrove forest | | 2 |
| Monitoring of Water and soil | -To understand monitoring of water and soil (soil accumulation, etc.) -Salinity concentrations and their effects on mangrove -Nutrients availability -Monitoring of abiotic factors (changes) such as temperature, humidity | Lecture | QEIC staff in charge of Monitoring and Information, and/or SQU lecturer | QEIC, or MRMEWR regional office | Water-quality testing kits Thermometer Soil color-sample book Scoop Soil durometer Soil sampling cylinder Multiple soil sampler Soil analyzer Water sampler Sample bottles Hand bearing compass Leveling equipment Rubber boat and engine Current meter | 1 |
| | | Practice | | Qurm Nature Reserve, or regional mangrove forest | | 2 |
| Monitoring of fauna and flora | To understand monitoring of fauna and flora (number of species and population of birds, fish, crustacean, plankton, insects, spiders, etc.) | Lecture | QEIC staff in charge of Monitoring and Information, and/or SQU lecturer | QEIC, or MRMEWR regional office | Field scope Binoculars Tripods Magnifiers Sweeping net Casting net Wadars Fish catching bottle Sediment sampler Sieve Plankton net Sample bottles Formalin | 1 |
| | | Practice | | Qurm Nature Reserve, or regional mangrove forest | | 2 |
| Monitoring of socio-economic conditions at mangrove sites | To understand monitoring of socio-economic conditions (any land-uses in and around mangrove, including grazing, fishing, etc.) | Lecture | QEIC staff in charge of Monitoring and Information, and/or SQU lecturer | QEIC, or MRMEWR regional office | | 1 |
| | | Practice | | Qurm Nature Reserve, or regional mangrove forest | 2 | |
| Laboratory analysis | To understand what are monitored through the laboratory analysis of samples collected. | Lecture | QEIC staff in charge of Monitoring and Information, Staff of Food and Environment Monitoring Centre, and/or SQU lecturer | QEIC, Food and Environment Monitoring Centre, or SQU | Delicate balance Thermometer Do meter Salinity meter pH meter, ORP meter Insulation store box Sieves Vibration sieving machine Distiller Water-quality testing kits Dryer Microscope Magnifiers Flasks Beakers Pipettes | 2 |

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material | Hours |
|-----------------------------------|--|------------------------|---|--|---|-------|
| Mangrove rehabilitation technique | -Methods of propagation (by transplanting or seeds). | Lecture, Practice, OJT | QEIC staff in charge of Mangrove Plantation | Qurm Nature Reserve, or regional mangrove forest | Seedling pots Shading net Scoops Boots Binoculars Water pump | 3 |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

Val.
V.L.

Course Name: 11. Teaching mangrove

Category (Field): Courses for the general public

Trainees (Target Group): Community leaders, teachers, university students, NGOs, etc. (who will act as interpreters)

Learning Goal: The trainees are able to plan and implement lessons/awareness activities for mangrove conservation, including interpretation in the field.

Duration: 3 days

Number of trainees: 15

Frequency: 4/year

| Subject | Lesson Content | Teaching Method | Trainer (Lecturer, Facilitator, etc.) | Location | Equipment/Material | Hours |
|---|---|-------------------|--|----------------------|--|-------|
| Public awareness for mangrove conservation | Necessity of public awareness for mangrove conservation. Theories of communication, diffusion of innovation, etc. | Lecture | QEIC Director | QEIC | | 1 |
| Interpretation of wildlife in mangrove | Identification of wildlife (plants, birds, snails, crabs, insects, fish etc.) and interpretation of them. | Lecture, practice | QEIC staff in charge of Training and Education | Qurm. Nature Reserve | Field scope Binoculars Tripods Magnifiers Sweeping net Casting net Wadars Fish catching bottle Sieve | 4 |
| Hands on activities in mangrove | Games, quizzes, handicrafts etc. utilising the wildlife in mangrove. | Lecture, practice | QEIC staff in charge of Training and Education, and/or QEIC staff in charge of Exhibition/Public Relations | Qurm Nature Reserve | | 4 |
| Planning and implementation of awareness activities for mangrove conservation | Games, quizzes, handicrafts etc. utilising the wildlife in mangrove. | Lecture, workshop | QEIC staff in charge of Training and Education | QEIC | | 1 |
| Case studies of community outreach and public awareness programme | -Case studies are provided to get lessons learned. -Possible examples are community outreach and public awareness by QEIC and/or the Awareness and Information Department in MRMEWR etc. | Lecture | QEIC staff in charge of Training and Education | QEIC | | 1 |

* For presentation in the lectures, projector, OHP, laptop computer, videocassette recorder, microphones and speakers are needed.

LIST OF MACHINERY AND EQUIPMENT

| Target | Purpose (No. in PDM) | Equipment | Specification | Number |
|-----------------------|--|--|---|---------|
| Facilities in QEIC | Audiovisual(0.6), Training Course(1.5) | Video projector | for PC and OHP | 1 |
| | | Computer | laptop | 1 |
| | | Videocassette recorder | | 1 |
| | | Microphones and speakers | transportable | 3 |
| | Database (2.3, 2.4, 2.5, 2.6) | Computer | workstation, 20minotor | 1 |
| | | Server | for intranet | 1 |
| | | Firewall | for server | 1 |
| | | Color printer | network, laser | 1 |
| | | GIS software | add 1 user licence | 1 |
| | | Satellite Image processing software | e.g. ERDAS IMAGINE Anti-virus, Anti-spiware, | 1 |
| | | Security Software | Internet security | 6 |
| | | Plotter | A0 size | 1 |
| | | Preparation of Documents(0.6), Materials (1.4) | Computers | desktop |
| | Drawing Software | | e.g. Adobe Illustrater | 1 |
| | Picture Processing Software | | e.g. Adobe Photoshop | 1 |
| | FAX, photocopier and printer | | A3 | 1 |
| | Lamination machine | | | 1 |
| | Document binding machine | | | 1 |
| | Color photocopier | | | 1 |
| | Laboratory (2.3)*1 | pH meter, ORP meter | | 1 |
| | | DO meter | | 1 |
| | | Electic balance | 0.1mg | 1 |
| | | Dryer | 40-300oC, 30L | 1 |
| | | Refrigerator | -5 - +20oC | 1 |
| | | Freezer | -20 - +5oC | 1 |
| | | Turbidity meter | 0-1000 NTU | 1 |
| | | Salinity meter | | 1 |
| | | Vibration sieving machine | sievs(0.02-2mm) | 1 |
| | | Compound microscope | with camera | 1 |
| | | Binocular microscope | | 4 |
| | | Magnifier | | 10 |
| | | Standard solutions | | 1 |
| | | Solutions | | 1 |
| Thermometer | | mercury treatment of chemical | 10 | |
| Drainage treatment | | disposal flasks, beakers, pipettes, | 1 | |
| Glassware | | templates | 1 | |
| Training Course | Training materials(1.4), Exhibitions(4.3-4.5) | Computer | desktop | 2 |
| | | Video camera | | 1 |
| | | Camera | | 1 |
| | | Capturing software | e.g. Adobe premiere | 1 |

LIST OF MACHINERY AND EQUIPMENT

| Target | Purpose (No. in PDM) | Equipment | Specification | Number | |
|------------|--|--|---|--------|----|
| Monitoring | Mangrove trees (2.1-2.3, 3.4), Training course(1.5) | Measuring meter | measuring of tree heights | 5 | |
| | | Measuring rod | | 5 | |
| | | Measuring tape | water proof | 5 | |
| | | Vernier caliper | | 5 | |
| | | Luminometer | | 5 | |
| | | Number tape | | 2 | |
| | | Leaf color sample book | | 5 | |
| | Water quality and soil (2.1-2.3, 3.4), Training course(1.5) | Water quality testing kits | pH, COD, PO ₄ -P, NH ₄ - N, NO ₂ -N, NO ₃ -N | | 10 |
| | | Current meter | water current direction and speed, direct reading | | 1 |
| | | Leveling equipment | clinometer level | | 1 |
| | | Thermometer | mercury | | 10 |
| | | Soil color sample book | | | 5 |
| | | Scoop | | | 5 |
| | | Soil durometer | | | 5 |
| | | Soil sampling cylinder | | | 5 |
| | | Multiple soil sampler | | | 5 |
| | | Soil analyzer | pH, Eh, Nitrogen | | 2 |
| | | Water sampler | e.g. Van-dorn type | | 1 |
| | | Sample bottles | | | 1 |
| | Fauna and Flora (2.1-2.3, 3.4), Training course(1.5) | Field scope | | | 5 |
| | | Binoculars | x8 | | 5 |
| | | Tripods | | | 5 |
| | | Magnifier | | | 5 |
| | | Sweeping net | | | 5 |
| | | Casting net | | | 5 |
| | | Wadars | | | 5 |
| | | Fish catching bottle, cage | | | 10 |
| | | Sediment sampler | e.g. Ekman-birge type | | 1 |
| | | Sieve | 1mm | | 2 |
| | | Plankton net | | | 2 |
| | | Sample bottles | | | 1 |
| | | Formalin | | | 1 |
| | | Social economy (2.1-2.3, 3.4), Training course(1.5) | Counter | | |
| | Questionnaire | | | | 1 |
| | For all monitoring (2.1-2.3, 3.4), Training courses(1.5) | Camera | | | 1 |
| | | Video camera | | | 1 |
| | | Hand bearing compass | | | 5 |
| | | GPS | handy type | | 2 |
| | | Field note, board | | | 1 |
| | | Rubber boat & engine | | | 1 |
| | Car | 4WD-Hatchback, 4WD- Pickuptruck | | 2 | |

LIST OF MACHINERY AND EQUIPMENT

| Target | Purpose (No. in PDM) | Equipment | Specification | Number |
|-----------------------|--|---------------------------|---------------|--------|
| Conservation | Seedling and nursery(3.1) | Seedling pots | | 50000 |
| | | Shading net | | 1 |
| | | Water pump | | 2 |
| | Plantation (3.3) | Scoop | | 10 |
| | | Boots | | 10 |
| Exhibition | Exhibition(4.3-4.5, 4.8), Training Course (1.5) | Exhibition panels | | 1 |
| | | Monitor or screen | | 5 |
| | | Speakers | | 5 |
| | | Theater projector | | 1 |
| | | Megaphone | | 2 |
| | | Videocassette recorder | | 3 |
| | | DVD player | | 2 |
| | | Specimen platform | | 5 |
| | Glass tanks | pumps and filtering tanks | 10 | |
| | Observation in QEIC(4.5), Training Course (1.5) | Binoculars | x20 | 2 |
| Community outreach | Presentation at local communities(4.8), Field training (1.5, 4.6, 4.7) | Compact sound system | transportable | 1 |
| | | Tent | | 1 |
| | | Monitor | | 1 |
| | | Videocassette recorder | | 1 |
| | | DVD player | | 1 |
| | | Megaphone | | 2 |
| | | White board | | 2 |

Basic concept: Main function of QEIC is environmental education in the field,
such as introduction of monitoring method and support of field monitoring.

ANNEX IV

Project Progress Report

Achievement of Outputs (from _____ to _____) (*"Output" must be the same as the description in PDM*)

| Outputs | Indicators | Targets in this term | Achievements in this term | Reasons if planned targets were not satisfied |
|---------|-------------------------|----------------------|---------------------------|---|
| ①----- | ----- ----- ----- | | | |
| ②----- | ----- ----- ----- | | | Necessary countermeasures |
| ③----- | ----- ----- ----- | | | |
| | | | | Impact (expected/unexpected) |
| | | | | |

Mr. [Signature]

Progress of Activities for each Output (*Output No. in the PDM and its description ;*)

| Progress of activities | | | Problems in this term | Targets and activities in the next term |
|--|---------|--------|-----------------------|---|
| Activities | Planned | | | |
| | | Actual | | |
| | | | | (Targets) |
| | | | | (Activities plan) |
| Progress of technology transfer to C/P | | | | |
| | | | | |

Handwritten signature

TECHNICAL COOPERATION
BY THE GOVERNMENT OF JAPAN
PROPOSAL

By the Government of _____ to the Government of Japan

for an expert in _____

Notes.— This Form has been devised for the general guidance of the Government agencies concerned (Japan) in order to facilitate the supply of relevant information and data necessary to afford an adequate appreciation of the nature technical assistance required. Full and accurate completion of this application form will avoid much reference back and lead to speedier action.

| | |
|--|--|
| <p>1. Background information This section should show as precisely as possible the nature of the general nature of the project for which the expert is required, starting whether it comes within the Government's development programme. It is important to indicate whether the project is new enterprise or whether it was started previously. In the latter case, any assistance received under other technical co-operation programmes (e.g. under United Nations auspices) should be stated. With regard to industrial enterprises some impression of size is important and the output and number of workers to be employed are useful indications. The type of process, make and age of industrial or scientific equipment with which expert will be concerned should be specified. In the case of academic establishments, it is an advantage to know the number of annual intake of students, their level of attachment, numbers and status of existing staff and details of any research facilities and the level of research being undertaken (Copies of brochures, annual reports, financial statements, calendars, syllabus of instruction etc. should be attached where applicable).</p> | |
| <p>2. Specification of the Post (a) Post title (b) duties for which the expert will be responsible. There should preferably be listed, and it is important to give as much details as possible. (c) authority to whom the expert will be responsible. (d) qualification and experience required and approximate age limits. (e) number of personnel required.</p> | |
| <p>3. In the case of continuous projects, give name and particulars of under study or counterpart who is to work with the expert.</p> | |
| <p>4. Terms and condition of appointment (a) duration (b) actual place of employment, nearest town and post (c) if living accommodation to be provided, state whether furnished and unfurnished, and whether suitable for married man with family. (i) daily allowance for food if accommodation only provided. (ii) daily rate for accommodation and food if neither are provided in kind.</p> | |

• It is essential that full particulars should be given. If the space provided is inadequate, they should be given on a separate sheet.

(2)

4. Terms and condition of appointment (Cont'd)
- (d) daily and nightly rates of substance payable when away from base on duty
 - (e) are cost of internal travel paid or car provided ?
 - (f) what leave arrangement are suggested ?
 - (g) extent to which free hospital and medical treatment is to be provided for the expert and his accompanying dependents, is any.
 - (h) is expert free from income tax ?
 - (i) will personal effects imported on first arrival ?
 - (j) does host government undertake to indemnify expert in respect of damages awarded against him for actions performed in the course of his official duties ? and his accompanying
 - (k) approximate date on which the expert is required to arrive in receiving country
 - (l) any other information.

5. Proposals for apportionment of costs of salary and allowance and passage:

6. Previous steps, if any to fill the posts :
if any previous attempts has been made to fill the post under the Colombo Plan (including ICA) or from any external source (UN, Specialized, Agency or other) please indicate:

- (a) to whom application was addressed with care
- (b) result of present stage of negotiations
- (c) are other experts working in this area in associated projects or have there been reports by these experts working in this field previously ? If so, are any available ?

7. Correspondences:

Name, postal and telegraphic address of official to whom correspondence regarding this application should be forwarded.

signed _____

on behalf of the Government of _____

Date: _____



Form A2A3

Technical Cooperation by The Government of Japan

Training Award of Japan International Cooperation Agency (JICA)

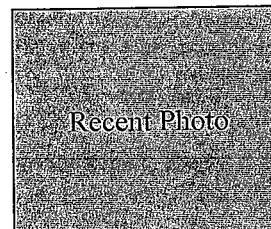
Application by the Government of

for a training course in the field of

Please provide one original and three copies.
Please print or type

(FOR JAPANESE OFFICIAL USE)

- Ordinary Group Course **集団コース** Course No. _____
 Special Group course **一般特設** Course No. _____
 Country-focused Group Course (**国別特設**)
 Counterpart (**カウンターパート**) **専門家** _____
 プロジェクト名 _____
 Ordinary Individual Course (**個別一般**)
 Others (C.S. **特別案件等**)

**PART A** To be completed by the nominee.

| | | | | |
|---|--|--|------|--------|
| 1. FULL NAME (as in Passport, underline Family Name) | | | | |
| 2. ADDRESS FOR CORRESPONDENCE | | 4. DATE OF BIRTH | | 5. AGE |
| | | Month | Date | Year |
| 3. NAME AND ADDRESS OF PERSON TO BE NOTIFIED IN CASE OF EMERGENCY | | 6. SEX <input type="checkbox"/> MALE <input type="checkbox"/> FEMALE | | |
| | | 7. MARITAL STATUS <input type="checkbox"/> SINGLE <input type="checkbox"/> MARRIED | | |
| | | 8. NATIONALITY | | |
| | | 9. RELIGION | | |

10. EDUCATIONAL RECORD

| Institution | City/Country | Years Attended | | Qualification Obtained | Subject |
|-------------|--------------|----------------|----|------------------------|---------|
| | | From | To | | |
| | | | | | |

11. TRAINING OR STUDY IN FOREIGN COUNTRIES (in relation to professional interests)

| Institution | City/Country | Years Attended | | Certificate/Degree Awarded | Field of Study |
|-------------|--------------|----------------|----|----------------------------|----------------|
| | | From | To | | |
| | | | | | |

12. EMPLOYMENT RECORD

1) Present Place of Employment

| | |
|---|---|
| Name Address Telephone : Telex/Fax : | Title of Present Job |
| | Date of Taking Up Post |
| | Type of Organization <input type="checkbox"/> Governmental/Public <input type="checkbox"/> Private <input type="checkbox"/> International <input type="checkbox"/> Others |

2) Previous Job

| | |
|--|----------------------------------|
| Name and Address of Organization Previous Title/Post and Dates(from/to) | Description of Your Previous Job |
|--|----------------------------------|

3) Describe briefly the work of your organization and the service it provides

.....

4) Describe your own job.

.....

5) Explain how the proposed training will be benefit to you in the work you will be doing on your return.

.....

13. LANGUAGE PROFICIENCY

| | | | | |
|-------------------------|------------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1. English | | | | |
| Listening | <input type="checkbox"/> excellent | <input type="checkbox"/> good | <input type="checkbox"/> fair | <input type="checkbox"/> poor |
| Speaking | <input type="checkbox"/> excellent | <input type="checkbox"/> good | <input type="checkbox"/> fair | <input type="checkbox"/> poor |
| Writing/Reading | <input type="checkbox"/> excellent | <input type="checkbox"/> good | <input type="checkbox"/> fair | <input type="checkbox"/> poor |
| 2. Mother Tongue _____ | | | | |
| 3. Other Language _____ | | | | |
| | <input type="checkbox"/> excellent | <input type="checkbox"/> good | <input type="checkbox"/> fair | <input type="checkbox"/> poor |

14. NOMINEE'S DECLARATION To be signed by the nominee.

I certify that the statements made by me in this form are true and correct to the best of my knowledge.

If accepted for training award, I agree

- (a) not to bring any member of my family
- (b) to carry out such instructions and abide by such conditions as may be stipulated by both the nominating Government and the Japanese Government in respect of this course of training.
- (c) to follow the course of study or training and abide by the rules of the institution or establishments with which I undertake to study or train.
- (d) to refrain from engaging in political activities, or any form of employment for profit or gain.
- (e) to submit any progress report or evaluation questionnaires which may be prescribed.
- (f) to return to my home country at the end of my course of study or training.

I also fully understand that if granted a training award it may be subsequently withdrawn if I fail to make adequate progress, or for other sufficient cause including physical conditions determined by the Government of Japan.

Date : _____ Signature : _____

PART B To be completed by nominee's Director or Head of Department.
OBSERVATIONS OF NOMINATING ORGANIZATION

1. Describe what work the nominee will be expected to do on his return.

2. Explain how the proposed training will be benefit to the work of your organization.

3 (For Non-Group Training only)

Describe:

1) Subject area of training required.

Four horizontal lines for writing the subject area of training required.

2) Special subjects which are particularly important and should be included in the training program (continue on an additional sheet if necessary)

Four horizontal lines for writing special subjects to be included in the training program.

3) Period of training required (from/to)

One horizontal line for writing the period of training required.

4) Notice required before nominee can be released from present post.

One horizontal line for writing the notice required before release.

PART C to be completed and signed by responsible government official.
OFFICIAL NOMINATION

I certify that :

I have examined the documents in this form and I am satisfied that they are authentic and relate to the nominee.

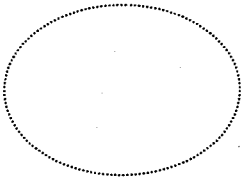
I accordingly nominate this person on behalf of the Government of _____

Date _____ Signature _____

Position _____ Name _____

Organization _____

Official stamp



Handwritten signature and initials.

MEDICAL HISTORY AND EXAMINATION FOR JICA TRAINING AWARD

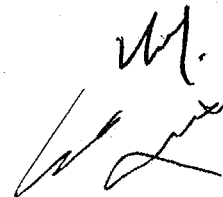
| MEDICAL HISTORY TO BE COMPLETED BY NOMINEE | | | | |
|--|---------------|-------------------------------------|--|-----------------------|
| 1 NAME OF NOMINEE (last name, first name, middle name) | | | | |
| 2 DATE OF BIRTH (mo/day/yr) | 3 NATIONALITY | 4 SEX _____ male _____ female | | 5 ADDRESS FOR CONTACT |
| 6 NAME OF TRAINING COURSE/SEMINAR | | | | |
| 7 LENGTH OF TRAINING COURSE/SEMINAR (weeks, months) | | | | |

8 IMPORTANT NOTICE

Before you complete the Medical History Questionnaire, you are hereby notified that :

A medical condition resulting from an undisclosed pre-existing condition may not financially compensated for by JICA and may result in termination of your training program.

I understand and accept the terms of this notice _____ Yes _____ No



9 NOMINEE WILL CHECK "YES" OR "NO" AND EXPLAIN

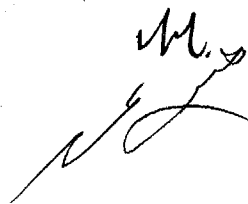
| | YES | NO | EXPLANATION |
|----|-----|----|--|
| a. | | | Have you had any significant or serious illness or injury? (If hospitalized, give place & dates) |
| b. | | | Have you had any operations or advised by a physician to have an operation? (Give place & dates) |
| c. | | | Do you currently use any drugs for treatment of a medical condition? (Give name & dose) |
| d. | | | Have you ever been a patient in a mental hospital or sanitarium or treated by a Psychiatrist? (Give place & dates) |

**10 NOMINEE WILL INDICATE "YES" OR "NO" TO EACH ITEM
DO YOU NOW HAVE OR HAVE YOU EVER HAD THE CONDITIONS LISTED BELOW?
(Check each item, if yes, enclose the relevant condition with circle)**

| | YES | NO | CONDITION |
|----|-----|----|---|
| a. | | | Asthma, emphysema, or other lung condition |
| b. | | | Tuberculosis or live with anyone who has tuberculosis |
| c. | | | High blood pressure, heart disease |
| d. | | | Stomach, liver (hepatitis), gall bladder disease |
| e. | | | Kidney or bladder disease, stone or blood in urine. |
| f. | | | Diabetes (sugar in the urine) |
| g. | | | Depression, excess worry, attempted suicide, or other psychological symptoms. |
| h. | | | Acquired Immune Deficiency Syndrome (AIDS) |
| i. | | | Tumor, abnormal growth, cyst, or cancer |
| j. | | | Bleeding disorder, blood disease (sickle cell anemia) |

I CERTIFY THAT I HAVE READ THE ABOVE INSTRUCTIONS AND ANSWERED ALL QUESTION TRULY AND COMPLETELY TO THE BEST OF MY KNOWLEDGE.

| | | |
|-----------------------------------|----------------|--------------------------------|
| 11 PRINTED NAME OF NOMINEE | 12 DATE | 13 SIGNATURE OF NOMINEE |
| | | |



TECHNICAL COOPERATION
BY THE GOVERNMENT OF JAPAN

PROPOSAL

By the Government of.....to the Government of Japan

For the supply of equipment

- Notes- (a) This form has been devised for the general guidance of co-operating countries in order to facilitate the supply of relevant information and data necessary to afford an adequate appreciation of the nature of technical cooperation required. The careful completion of this form will avoid much reference back and lead to speedier action. Separate A 4 should be used for requests for equipment for each individual institute or project.
- (b) The requisite number of copies of the form A 4 duly endorsed by the appropriate Foreign Aid Department of the requesting government should be forwarded to the donor government concerned through appropriate channels.
- (c) The equipment to be supplied by the Government of Japan will become the property of the requesting government upon receipt of the shipping documents through the Japanese Embassy. Since the equipment is supplied on C.I.F. basis, it is requested that the recipient government will meet:
- Customs duties, internal taxes and other similar charges, if any, imposed in respect of the equipment, and
 - Expenses necessary for the transportation, installation, operation and maintenance of the equipment.

1. **Back ground information**

Please describe as concisely as possible the general outlines of the project for which the equipment is required, indicating whether the latter is (a) for use by an expert in the performance of his duties (b) for a training scheme of institution or (c) for research institution. If either (b) or (c) please say whether the equipment is for the establishment of a new institution or expansion or reorganization of an existing one (eg., by the provision of a new department, & c.). The name an exact location of the institution, its approximate cost and the authority responsible for it should be stated. Where appropriate details should be given of the availability of any services required for the operation of the equipment. This would include operation by electricity (i.e. type of current, periodicity, voltage and any variations, phases, frequency etc. and if D.C. is only current available please give full details), water reticulation or steam gas etc. Details of similar equipment already in use should be given.

2. **Description of equipment required.**

Please give a full description of each item and general specifications where possible. The manufacturer and estimated cost of each item if known together with details of proposed end use of item should be given. Where applicable, give details of any special packing or tropic proofing required and indicate whether hand books or instruction data supplied in English will suffice. If appropriate, please indicate any required priorities or phasing of deliveries and advice whether adequate facilities exists for maintenance and servicing of the type of equipment requested. (If lengthy, detailed lists should be annexure for (a) film, books and (c) other equipment

3. Has this equipment request already been directed to any other Agency of Colombo Plan country and if so to whom was it addressed and with what result?.

4. Has the list of equipment already been discussed with representatives of the supplying country/ies? If so, please indicate what stage the discussions have reached

5. Furnish full particulars in respect of:

- Consignee;
- Official to receive documents and enquiries; and
- Clearing agent at port of entry

(2)

| | |
|--|--|
| <p>6. Where equipment is required for use by an expert Please indicate:</p> <ul style="list-style-type: none"> (a) The country or agency from which the expert has been requested or obtained. (b) His duties and length of secondment (a reference to the relative Form A. 1 will suffice when expert is being provided by the by the country to whom the equipment requested is addressed). (c) What use is proposed for the equipment when the expert's period of secondment terminates? (d) By what date is the equipment required? | |
| <p>7. Where equipment is required for Training or Research Institutions Please indicate:</p> <ul style="list-style-type: none"> (a) Name and standard of training or research to be undertaken. (b) Total number of students to be accommodated from within the country or from else where in the Region, the qualification for admission, the duration of courses, and the annual output of trainees. (c) Whether there is a similar institute (s) in the country. If so, please give details. (d) Whether the buildings are already available. If not has construction started and when is it expected to be completed? (e) Whether qualified staff to handle the equipment has been recruited locally. If not is it proposed: <ul style="list-style-type: none"> (i) to recruit foreigners under aid programmes? (ii) To train locally recruited personnel abroad in handling equipment?. (the reference numbers of any Forms A.1 or A.2 relating to such requests should be quoted) (f) Taking into account the answers to (d) and (c) above, what is the date by which the equipment is required and the date on which training or research work commence. (g) Whether any assistance in drawing up the Scheme has been obtained from outside experts? (Any specialist report on government survey (e.g., Educational Committee Reports, etc.) bearing on the request should be provided if possible) | |
| <p>8. Correspondence: Name, postal and Telegraphic Address of official to whom correspondence regarding this proposal is to be forwarded</p> | |

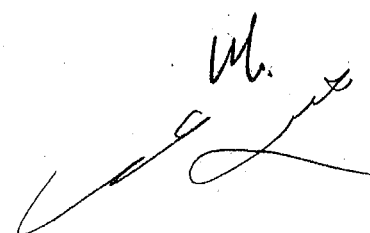
Signed.....

On behalf of the Government of.....

Date:.....

For use only by Donor Government

Proposal accepted/rejected/withdrawn



Check Items**Question 1 Address of a project site:**

The Qurm Nature Reserve, Shati Al-Qurm, Muscat, Oman.

Question 2 Outline of the project:

2-1 Does the project come under following sectors?

Yes No

If yes, please mark the corresponding items.

- Mining development
- Industrial development
- Thermal power (including geothermal power)
- Hydropower, dams and reservoirs
- River/erosion control
- Power transmission and distribution lines
- Roads, railways and bridges
- Airports
- Posts and harbors
- Water supply, sewage and waste treatment
- Waste management and disposal
- Agriculture involving large-scale land clearing or irrigation
- Forestry (Nature Conservation Project)
- Fishery
- Tourism

2-2 Does the project include any of the following items?

Yes No

If yes, please mark following items that the project includes

- Involuntary resettlement (scale: households persons)
 - Groundwater pumping (scale: m³/year)
 - Land reclamation, land development and land clearing (scale: 10~15 hectares)
 - Logging (scale: 0.02 hectares)
- (Drawings are under preparation)

2-3 Description of the Project:
(Scale and /or Basic Information)

The QEIC will carry out the following activities:

- (1) Establish an information and monitoring centre to collect and compile necessary information and data concerning conservation and management of the mangrove forests in Oman, including information on natural and socio-economic conditions of designated mangrove forest areas, as this is the most fundamental activity for the conservation management of the mangrove forest.
- (2) Management of mangroves in an artificial pond, which is part of the plan for the QEIC site, and the management of mangrove and facilities in the Qurm Nature Reserve.
- (3) Co-operate with or assist the people who study and investigate mangroves and the coastal environment of Oman. To provide basic equipment and facilities for environmental studies or field surveys of mangrove forest and other coastal ecosystems by researchers, students as well as ordinary citizens who are interested in the conservation of mangroves and nature, is an effective way of upgrading the data and information of the QEIC. This will contribute to public awareness through understanding of the mangrove environment by people in Oman as well as by foreign visitors. Advanced research and investigation will not normally be implemented in QEIC, but will be carried out at academic organizations or research institutes.
- (4) Provide necessary facilities and materials for implementation of public awareness and educational programme on mangrove and coastal environments for school children as well as residents and visitors, tourists. Public awareness is the key for conservation activities. It is impossible to conserve mangrove forests without public understanding and co-operation, and training and education of personnel engaged in the activities, concerning mangrove ecosystem conservation. Staff training and education is important to widen conservation. Staff training and education is important to widen conservation activities in Oman. Personnel engaged in coastal environmental conservation should have training courses relating to mangrove forests. Various levels of training courses should be provided

2-4 Is the project consistent with the higher program/policy?

Yes: please describe the higher program/policy.

Dissemination of sustainable mangrove ecosystems management in Oman and in the region envisaging its future role in marine environment monitoring function.

No:

2-5 Did the proponent consider alternatives before this request?

Yes: please describe outline of the alternatives

No:

2-6 Did the proponent have meeting with related stakeholders before this request?

Yes

No

If yes, please mark the corresponding stakeholders.

Administrative body

Local residents

NGO

Others

Question 3

Is the project a new one or an on-going one? In case of an on-going one, have you received strong complaints, etc; from local residents?

- New
- On-going (there are complaints)
- On-going (there are no complaints)
- Others

{

 }

Question 4 Name (s) of laws or guidelines:

Is Environmental Impact Assessment (EIA) including Initial Environmental Examination (IEE) required for the project according to the laws or guidelines in the host country?

- Yes
- No

If yes, please mark corresponding items.

- Required only IEE (Implemented, on going planning)
- Required both IEE and EIA (Implemented on going planning)
- Required only EIA (Implemented on going planning)

Others:

{ Environmental Impact Statements

 }

Question 5

In the case when EIA steps were taken, was the EIA approved by the relevant laws in the host country? If yes, mark date of approval and the competent authority.

| | | |
|---|--|-----------------|
| Approved: without a supplementary condition | Approved: with a supplementary condition | Under appraisal |
|---|--|-----------------|

(Date of approval: _____ Competent authority) _____

- Not yet started an appraisal process
- Others (_____)

Question 9

**Please mark related environmental and social impacts, and describe
Their outlines.**

- | | |
|--|---|
| <input checked="" type="checkbox"/> Air pollution | <input type="checkbox"/> Involuntary resettlement |
| <input checked="" type="checkbox"/> Water Pollution | <input type="checkbox"/> Local economy such as employment and livelihood etc |
| <input type="checkbox"/> Soil pollution | <input type="checkbox"/> Social institutions such as social infrastructure and local decision-making institutions |
| <input checked="" type="checkbox"/> Waste | <input type="checkbox"/> Offensive odors |
| <input checked="" type="checkbox"/> Noise and vibration | <input type="checkbox"/> Existing social infrastructures and services |
| <input checked="" type="checkbox"/> Ground subsidence | <input type="checkbox"/> The poor, indigenous of ethnic people |
| <input checked="" type="checkbox"/> Geographical feature | <input type="checkbox"/> Misdistribution of benefit and damage |
| <input checked="" type="checkbox"/> Bottom sediment | <input type="checkbox"/> Local conflict of interests |
| <input checked="" type="checkbox"/> Biota and ecosystem | <input type="checkbox"/> Gender |
| <input type="checkbox"/> Water usage | <input type="checkbox"/> Children's rights |
| <input type="checkbox"/> Accidents | <input checked="" type="checkbox"/> Cultural heritage |
| <input type="checkbox"/> Global warming | <input type="checkbox"/> Infectious diseases such as HIV/AIDS etc |
| | <input type="checkbox"/> Others () |

Outline of related impacts:

{ Minor damage on the existing vegetation & habitat }

Question 10

Information disclosure and meeting with stakeholders

10-1 If environmental and social considerations are required, does the proponent agree on information disclosure and meeting with stakeholders in accordance with JICA Guidelines for Environmental and Social Considerations?

Yes No

10-2 if no, please describes reasons below.

{ }