

State Environmental Conservation Department
(ECD), Sabah Malaysia

Training Package for the Monitoring and Enforcement Area

Background Paper

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Prepared	Theodore Kinson/Carsten H. Laugesen/Sinoh Mohamad/Tony Greer
Checked	Yabi Yangkat
Approved	Yabi Yangkat

Abbreviations

ECD	Environmental Conservation Department (State of Sabah)
ECD-CAB	Capacity Building of the Environmental Conservation Department Project
HRD	Human Resource Development
M&E	Monitoring & Enforcement

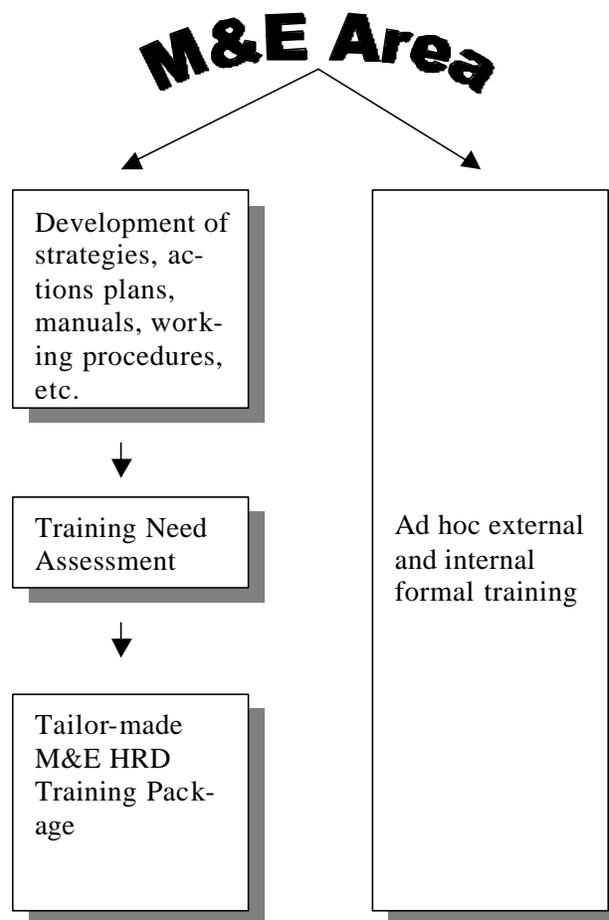
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1 M&E Training Approach

The training approach for developing professional skills and competencies for the M&E officers in the Environmental Conservation Department are two-fold, as illustrated in Figure 1.

Figure 1. Training Approach for the M&E Area



The Training Approach applied to the M&E area of the Environmental Conservation Department consists of two main elements, namely (i) tailor-made HRD M&E training packages and (ii) ad hoc M&E training.

1.1 Tailor-made M&E training package

Based on the developed strategies, action plans, manuals and working procedures for the M&E area, a training need assessment will be undertaken. The training need assessment will specify the areas within the M&E area that requires further upgrading of qualifications and skills.

Based on the training need assessment a tailored M&E training packages to suit the needs of the M&E area will be developed and implemented.

Under the ECD-CAB project the strategies, action plans, manuals and working procedures have been developed during the first half-one year. Based on these a training need assessment have been undertaken, see chapter 2, and a tailor-made training package have been developed, see chapter 3.

1.2 Ad hoc M&E training

By Ad hoc training is understood to take advantages of all relevant training opportunities within the sphere of environmental monitoring & enforcement, for example external M&E courses, seminars, workshops, etc.

Under the ECD-CAB project M&E officers will be offered to participate in available and relevant local, national and regional M&E training courses.

2 M&E Training Needs Assessment

Based on the Investigation & Prosecution Manual and the draft M&E Strategy and Action Plan, a training need assessment have been performed for the M&E officers in the M&E area of the ECD.

The results showed a need for training within the following fields:

- Investigation procedures
- Sampling techniques
- Prosecution procedures
- Compounding procedures
- Management of M&E programmes and activities
- Proactive M&E
- Establishment of baseline environmental data collection programmes.

3 M&E Training Activities

Based on the training need assessment the following training activities will be planned and implemented during the period of the ECD-CAB project for officers involved in M&E activities.

3.1 Training in investigation

Three key training activities will be implemented:

A one day seminar on investigation procedures and techniques

An expert will prepare and undertake a one-day seminar will be based on the new Investigation & Prosecution Manual for ECD. Participants: Yabi Yangkat, Theodore Kinson, Junik Ampongau, Romuld Petrus, Abdul Rahim Yunus and other staff

A one day seminar on sampling techniques

An expert will prepare and undertake a one-day seminar will be based on the new Investigation & Prosecution Manual for ECD. Participants: Yabi Yangkat, Theodore Kinson, Junik Ampongau, Romuld Petrus, Abdul Rahim Yunus and other staff

A three-month exercise program in practical sampling techniques

An expert will prepare and undertake a three-month exercise programme in practical sampling techniques. The officers will be given theoretical knowledge and practical test in the use of a number of key environmental sampling techniques. Participants: Yabi Yangkat, Theodore Kinson, Junik Ampongau, Romuld Petrus, Abdul Rahim Yunus and other staff

Expert participation to on-site investigations

An expert will be contracted to undertake on-site investigation training. The following have been planned:

- Selection of minimum four cases for on-site training. The areas will be within for example logging, hill cutting, mangrove clearing, pig farming, river sand mining.

- When a case has been taken by the Department (for example a complaint), the expert will be called upon to participate in the planning, the actual on-site investigation, sampling, and the preparation of the investigation report
- The expert will in the first cases participate actively in the execution of the investigation, while in the following will undertake a more observant role
- The expert will prepare an assessment and lesson learned report to be used for feedback to ECD and for revision of the Investigation & Prosecution Manual
- The expert will - based on the participation in the courses and the case investigation - assess each M&E Officer and issue a Qualification Certification of the M&E officers.

3.2 Training in prosecution

Three key training activities will be implemented:

A one day seminar on compounding procedures

An expert will prepare and undertake a one-day seminar will be based on the new Investigation & Prosecution Manual for ECD. Participants: Yabi Yangkat, Theodore Kinson, Junik Ampongau, Romuld Petrus, Abdul Rahim Yunus and other staff

A one day seminar on prosecution procedures

An expert will prepare and undertake a one-day seminar will be based on the new Investigation & Prosecution Manual for ECD. Participants: Yabi Yangkat, Theodore Kinson, Junik Ampongau, Romuld Petrus, Abdul Rahim Yunus and other staff

Expert participation in specific prosecution cases

An expert will be contracted to undertake case prosecution training. The following have been planned:

- Selection of minimum four cases for on-site training
- When a case has been taken by the Department, the expert will be called upon to participate in the planning, preparation, documentation and undertaking of the prosecution
- The expert will in the first cases participate actively, while in the following will undertake a more observant role
- The expert will prepare an assessment and lesson learned report to be used for feedback to ECD and for revision of the Investigation & Prosecution Manual

- The expert will assess the M&E Prosecution Officers and issue a Qualification Certification of the M&E officers.

3.3 Attachment programmes

In order to expose the ECD M&E officers to M&E practices in other states or countries a number of attachment programmes will be implemented. The following have been planned (an agreement with the mentioned attachment places have not been made and the location - as well as the officer to be attached - may therefore change):

- **A Management of M&E attachment** to a local municipality and county in Denmark. Ringkøbing Kommune and Amt will be asked. Duration 1 month. Participant Theodore Kinson
- **A monitoring & enforcement attachment** to state or federal M&E area. NREB, Sarawak, will be asked. Duration 1 month. Participant Junik Ampongau
- **A monitoring & enforcement attachment** to state or federal M&E area. NREB, Sarawak, will be asked. Duration 1 month. Participant Romuld Petrus
- **A prosecution attachment** to a state prosecution authority. The attachment will be undertaken as an 'case-attachment' - to follow a case from the decision to prosecute to actual prosecution. NREB, Sarawak, Sabah State AG Chamber, and a Sabah State Department, will be asked. Duration approximately 2 weeks. Participant Yabi Yangkat
- **A sampling techniques attachment** to a private or federal sampling technique institute or company. Asma, Kuala Lumpur will be asked. Duration 1 month. Participant Abdul Rahim Yunus.

3.4 Training in development and execution of focused proactive monitoring & enforcement programmes

Based on the Strategy and Action Plan, experts will be involved in training activities linked to the action plans determination of proactive monitoring & enforcement programmes for specific environmental issues or sectors.

Oil Palm Plantations might be a sector selected for proactive monitoring and enforcement, and the following training activities undertaken by an expert are envisaged:

- Developing a database for oil palm plantations in Sabah
- Issuing orders in order to create the legal base for the proactive monitoring programme

- Planning of a proactive monitoring programme for oil palm plantations
- Use a investigation procedures and sampling techniques
- Implementation of the monitoring programme through participation in min. 4 on-site monitoring visits
- Planning of reporting and follow-up of the oil palm plantation monitoring programme.

The same training activities will be applied to the subsequent proactive monitoring programme to be implemented by the ECD. This will probably be a proactive monitoring programme for hill cutting and construction on hill slopes.

3.5 Training in development and implementation of baseline environmental data collection programmes

Based on the Strategy and Action Plan, experts will be involved in training activities linked to the action plans determination of baseline environmental data collection programmes for specific environmental issues.

Water Quality around KK and Copper Mining activities might be selected for baseline environmental data collection, and the following training activities undertaken by an expert are envisaged:

- Developing a baseline data collection programme
- Data collection methods
- Actual establishment and set-up of data collection programme
- Analysis and presentation of data collected.

3.6 Ad hoc training

All possible and relevant training opportunities will be pursued. The opportunities can either come to the Department 'accidentally' through invitations and planned courses or 'planned' through a proactively search for training possibilities.

Of 'planned' participation in M&E training courses are presently considered participation in for example AIT Bangkok courses and Intan Kuala Lumpur courses.

Furthermore are planned to invite M&E officers from other Departments to participate with the M&E officers of ECD in these ad hoc training activities.

4 Training materials

Books and M&E equipment will be purchased for training purposes.

Books will be purchased during the total length of the training package implementation.

The following books are initially planned for procurement:

- Compilation of EPA's Sampling and Analysis Methods (1991)
- Environmental Site Assessment Phase 1: A Basic Guide (1993) Hess, K
- Aquatic Pollution (1993) Laws, E.A.
- Field Sampling Methods for Remedial Investigations (1994) Byrnes, M.E.
- Description and Sampling of Contaminated Soils (1994) Boulding, J.R.
- Field Sampling Methods for Remedial Investigation (1994) Byrnes, M.E.
- Limnology: an Introduction to Fresh Water Environments W.H. Amos
- Environmental Sampling and Analysis: A Practical Guide (1991) Keith, L.H.
- Practical Guide to Environmental Management () Friedman, F.B.
- LaMotte Monitor's Handbook
- Investigating Water Problems () Renn, C.E.

Equipment will be purchased during the total length of the training package implementation.

The following M&E equipment are initially planned for procurement:

Water Sampling

- Hand-held meter (YSI 55 Dissolved Oxygen Meter w/ 25 ft cable)

- pH meter (OAKTON Waterproff pH tester 2)
- Multitester GREEN Program Water Monitoring Kit)
- Sampler (Swing sampler)
- Cooler Box (Rubbermaid cooler box)
- Water bottles
- Stop watch (Extech Digital Stopwatch)

Locality Indicator

- GPS (GARMIN GPS 12 XL)
- GPS (Land Navigation Book)
- Compass (non-electronic wayfinder outback)
- Measurer (SONIN Combo Pro Distance Measurer)
- Tape
- Levelling Rod (Telescoping Levelling/Measuring Rod)

Soil Sampler

- Auger (TMS Telescoping Regular Augers)
- Shovels
- Container (Plastic Bags)

Mapping

- Scaler (SCALEX PlanWheeler Plan/Map scaler)
- Case (map casing)

Accessories

- Binoculars (Nikon 7x50)
- Camera (Nikon AF240SV)
- Tape recorder (mini tape recorder)
- Others (torch light, rope, parang with cover, axe, carry bag).