



UNITED NATIONS ENVIRONMENT PROGRAMME

EXPERT GROUP MEETING

TRAINING SERVICES TO PROMOTE CLEANER PRODUCTION INVESTMENTS

The Møller Centre for Continuing Education
Cambridge, United Kingdom
9 – 11 July 2000

REPORT

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28 July 2000

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I. INTRODUCTION

The Expert group Meeting was convened within the context of the UNEP project “Strategies and Mechanisms for Promoting Cleaner Production in Developing Countries” financed by the Kingdom of Norway. Professionals in the areas of cleaner production, financial mechanisms, environmental accounting and related training contributed their experience to the meeting. Representatives from two of the demonstration countries (Nicaragua and Zimbabwe) added a valuable "field" standpoint to the meeting's discussions. The List of Participants is available in Annex 1.

The immediate objective of this project was given as:

“To facilitate the financing of cleaner production investments in developing countries by:

- **Demonstrating** how to initiate and facilitate the financing of cleaner production investments through the case of 5 developing countries;
- Developing **financing instruments** for effectively promoting cleaner production investments in developing countries and designing **enabling strategies** for supporting public and private financial institutions and the industrial community to adopt these financing instruments;
- **Motivating** key decision-makers to pursue cleaner production investments in developing countries.”

The Project Manager, Mr. Ari Huhtala, presented the activities and results achieved so far, as well as the planned activities for the next year. The Expert Group Meeting was to provide guidance with regard to the training requirements, approaches and programmes which might be used in the case of Zimbabwe, Tanzania and in the three other project demonstration countries – Guatemala, Nicaragua and Vietnam. At the end of the project, the training packages will be made available to users in other countries (see the Issue Paper in Annex 3; EGM Agenda in Annex 4).

Mr. Huhtala stressed the importance of designing training programmes as tailored as possible to the needs and potentialities of the concerned countries, also on the basis of the findings of the training needs assessment conducted by Mr. Sutherland, UNEP consultant, in Tanzania and Zimbabwe. The participants had been provided with:

- A summary of the project
- The Issue Paper for the Expert group Meeting
- The Mr. Sutherland's reports on the training needs of Zimbabwe and Tanzania.

He also recalled that, in accordance with the list of six training programmes as proposed in the attached issue paper, the Expert Group Meeting would focus on Programme 3: “An Introduction to Business Investments and Funding with particular attention to Cleaner Production” and on Programme 4: “Investing in Cleaner Production.” Progress had already been made with Programmes 1 and 2 which were concerned with awareness raising and training on the cleaner production strategy.

The Moderator provided an overview of how the Expert Group Meeting would proceed during the next day and the modalities to be used in order to bring about a “consensus” as to the alternative training approaches and programmes best suited to promote investment in cleaner production in Zimbabwe and Tanzania.

II. THE SITUATION IN ZIMBABWE AND TANZANIA

Mr. Colin Sutherland, UNEP consultant, then presented the four proposed training programmes, the target groups, and the reasoning behind the selection of format, content and audience. While university students and training trainers were outside the scope of the study, the consultant considered them important in the interests of sustainable impact of the proposed training programmes.

Target Group	Industry and commerce	Bank and Financial Institutions	Government / State bodies and media	University students
Training Programme				
Awareness 1	Programme 1			Progr. 6
Awareness 2	Programme 2	Programme 2	Programme 2	Progr. 6
Skills 1	Programme 3			Progr. 6
Skills 2	Programme 4	Programme 4		
Train trainers	Programme 5	Programme 5	Programme 5	

Cleaner Production Focus

1. An Introduction to Cleaner Production, proposed as having a Distance Learning Options
2. Cleaner Production in Practice.

Investment Focused

- An Introduction to Business Investments and Funding with Particular
- Application to Cleaner production, proposed as Distance Learning Options
- Investing In Cleaner Production.

Emphasis in the proposed courses was placed on: -

- The current investment climate in the pilot countries
- Relevance of format to the current awareness and needs of the perceived learners
- The nature and scope of the matters to be addressed
- The availability both as to time and place for study
- The nature and size of the teams required to develop the training material
- The shelf life of the training material, bearing in mind the need to match the training with actual application
- Cost-effectiveness of the programmes
- The difference in levels of knowledge between different learner groups, in particular in finance and investment proposals
- The importance in clearly defining what the learner need to know and what is just nice to know.

III. SELECTED AVAILABLE TRAINING SERVICES

Some of the participating experts presented their experience and suggested what training services they might be able to offer in support of Zimbabwe and Tanzania:

- Ms. Deborah Savage, Tellus Institute, Boston, USA
- Ms. Fatima Reyes, Philippine Institute of Certified Public Accountants, Mandaluyong City, Philippines
- Mr. Martin Bennett, Cheltenham and Gloucester College, UK
- Mr. Martyn Riddle, IFC, Washington, USA
- Mr. C. Visvanathan, Asian Institute of Technology, Thailand
- Mr. Geoff Lane, PricewaterhouseCoopers, London, UK
- Mr. Mike Kelly, KMPG, London, UK
- Mr. Stuart Reid, CPI, Cambridge, UK.

Copies of some of the presentations are available from the project management team at UNEP/DTIE on request.

In the discussion that followed each presentation, the experts made several important points – particularly from those with experience in developing countries:

- Training modules must be fun!
- Motivation of potential trainees to attend; but how? Career development ?
- Key point: to have well qualified professional trainers
- Distance-learning: opinions varied pointing to the advantages and disadvantages given the conditions prevailing in Zimbabwe and Tanzania
- Methods and tools which work in USA and Europe may not work as well in developing countries
- Training on cleaner production should not be isolated from general business training, but rather integrated into the latter.

Other points raised by the other experts included:

- The nature of the case studies to be developed
- The importance of cost accounting in the Credit Application calculations
- Need to design courses to be "taken on the road", and be capable of redesign to be company specific
- The issue of certification on completion of training courses
- The integration of the course into overall career development
- Availability on Web Sites of a wide range of programmes
- Value of the computer game approach as a basis of increasing awareness
- The need for a strong costing module for enterprise accountants
- Use of films to illustrate CP situations and solutions
- The need to pilot test training before the launch
- Care in the use of technical terms and the understanding of meaning.

IV. WHAT IS MOST USEFUL TO ZIMBABWE AND TANZANIA

The moderator asked the participating experts to write what in their view was most important in order to successfully promote cleaner production investments specifically in Zimbabwe and Tanzania. They were to do this primarily on the basis of the presentations made by several of them during the Expert Group Meeting.

The **results** showed that experts emphasised the need to look and aim beyond the present. They particularly emphasised the importance of leadership to bring about a process of change through training and learning. Hence the importance of the quality of leaders/ trainers in these areas – to motivate others – and there would be a need to train the trainers. The representatives from the two demonstration countries emphasised the importance of motivation as a means to broadening participation and improving the impact of training. Several experts noted that learning should be fun and that stimulating techniques and games be introduced in the training modules in line with trainees' cultural background – their beliefs, values, and learning styles.

Experts also debated the advantages and disadvantages of distance learning; while a greater number of people could be reached, there might be difficulties its implementation due to power cuts, difficulties in accessing the Internet, etc. in either Zimbabwe or Tanzania. The experts stressed that cleaner production should be incorporated into business training programmes and not treated separately – financial institutions are interested in the overall investment proposal, and not necessarily in cleaner production per se.

V. THE NEXT STEPS

The UNEP Consultant provided extensive comments and recalled the main concerns of the project, UNEP and the situation he had found in the developing countries visited. In particular, he pointed to some of the main training risks which might negatively affect the achievement of the results expected in the project.

These risks were:

- The concepts and skills are too early to be implemented in practice
- Training is offered out of context to the users
- Material is too theoretical and cannot be applied by either banks or borrowers
- Trainers have no real experience of the issues and thus lack credibility
- The project fails to recognise other complimentary training or trainers already working in Capital Investment process and techniques
- Too few will benefit from the training to make any critical mass
- Training will not be sustained after the project has been completed.

The proposed training programmes, in the view of the Consultant, would have to take into account these risks, as well as:

- The objective of the training as described in the Project Document
- The Consultant's findings in Zimbabwe and Tanzania
- The need for them to have global application
- The training programmes and materials already available and what would need to be tailor-designed.

The UNEP Consultant outlined **the next stages** of the training design as follows:

- Final Agreement of the overall structure - four courses as envisaged at present or another
- Preparation of the Macro Design of each showing:-
 - Overall goal and the immediate objective for each phase
 - The content of each section - facts and information to be addressed
 - The nature of the learning process - presentation, case study etc.
 - The time to be spent on each learning stage
 - The evaluation of the learning process
- Collection of best available content
- Writing of the Micro Designs for each section of each course
 - The development of the Trainer, Instructor or Facilitator Guidance Material, for them to be able to offer or guide the learners
 - Review and agreement of the detailed programme
- First pilot run of each programme and final edits.

The Consultant noted that the **results** achieved would be reflected in the:

- Effective inter-action between financial institutions and the manufacturing sector
- Improved ability of the public and private financial institutions and industrial authorities to assess investment proposals

- Improved ability of technical assistance providers and Cleaner production assessors to develop creditworthy cleaner production investment proposals
- An increase in cleaner production investments in the 2 countries, particularly in their priority sectors
- New priority initiatives (credit lines, trust funds, policy changes, training) to foster additional cleaner production investments.

The above reflect the type of **indicators** which can be used to assess the impact of the project and its sustainability.

At the **Closing Session of the Expert Group Meeting**, Mr. Huhtala thanked all experts for their contributions, noting how constructive they had all been. He also thanked the staff of the Møller Centre, which hosted the meeting, and the UNEP/DTIE project and CPI staff who organised it; together they had made it possible for the Meeting to run so smoothly.

VI. NOTE BY THE MODERATOR

During the Closing Session, the Moderator made the following observations concerning the approach to the training to be undertaken:

It is important to recognise that the purpose of training is that people learn and take ownership of what they have learned. Only then can there be sustainable impact.

A change such as increased investment in cleaner production starts with the concerned people themselves. If this change is to be sustainable in the long run, it is not only a matter of improving or acquiring new skills. It is also – and more importantly – essential to help people change their beliefs, values, attitude and behaviour on this subject and to build on their working and motivation traits. The trainers and the design of their programmes must then be geared to those beliefs and values and to their own work environment.

People's behaviour is based on:

- Their identity (who they are and what they want to achieve in life)
- What they believe and value;(their motivation and working traits; learning styles)
- Their capabilities and skills
- Their work environment.

People's performance is excellent when these are aligned with each other. Applying certain skills while not believing in them nor thinking that they are important will lead to unsatisfactory results; the new cleaner production skills will be applied only in half measures. The same is generally true when the work environment (institutional or company policy and strategy, processes etc.) is not supportive or conducive to the cleaner production.

The effectiveness of training (sustainable impact) depends very much on the ownership people take of that learning. People have different learning styles (motivation and working traits) so that all trainers will need to identify those learning styles before designing whichever of the proposed training programmes. All programmes should preferably be of an experiential nature – people generally learn best and are willing to change their beliefs and values by experiencing new concepts and skills.

In short, trainers will need to be able to act at the level of beliefs and values in addition to acting at the traditional level of capabilities and skills; they may therefore require coaching on how to identify learning styles and how to design programmes which build on their trainees' learning styles.

**EXPERT GROUP MEETING ON TRAINING SERVICES TO PROMOTE
CLEANER PRODUCTION INVESTMENTS**

**Moller Centre – Cambridge, U.K.
9-11 JULY 2000,**

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EXPERT GROUP MEETING ON TRAINING SERVICES TO PROMOTE CLEANER PRODUCTION INVESTMENTS

CAMBRIDGE, UNITED KINGDOM, 9 TO 11 JULY 2000

ISSUE PAPER

1. BACKGROUND

The UNEP/DTIE project "Strategies and mechanisms for promoting cleaner production investments in developing countries" includes extensive awareness and capacity building with policy makers, financial institutions and the business community in the five demonstration countries: Guatemala, Nicaragua, Tanzania, Vietnam and Zimbabwe. Training needs assessment missions have been carried out in Tanzania and Zimbabwe and will be carried out in the three other countries during the second half of 2000. Before designing implementation plans and training modules for each country, for implementation until 2002, a series of consultations will be held to a) review expert opinions and expertise on available approaches and modules, and b) to generate generic training platforms for refinement at the country level.

2. OBJECTIVE

To review the results of training needs analysis conducted in the demonstration countries and to discuss proposed training concept and patterns (see attached paper) in order to define capacity building programmes to promote cleaner production investments.

3. OUTPUTS

- Types of suggested training programmes at different levels and of different duration;
- Proposed contents of each type of training programme (generic curricula);
- Suggested use of existing training tools and instruments;
- Tentative proposals for timing and modalities of implementation in selected countries and disciplines; and
- Suggested use of other methods and partners in adapting and introducing the curricula.

4. PARTICIPANTS

Specialists in human resource development and training with experience in environmental accountancy, risk assessment and appraisal of environmentally related investment projects. These specialists will be supported by selected representatives of target groups in the demonstration countries.

5. TARGET GROUPS/CLIENTS FOR THE OUTPUTS (SEE 3 ABOVE)

1. **Government and State Institutions.**

Policy makers in government ministries and agencies related to financial, industrial and environmental policy and regulations, taxation, customs, etc.;

2. **Industry, Professional Associations and National Cleaner Production Centres**

CEOs, engineers, cost and financial accountants of industrial enterprises; financial analysts and auditors in industrial enterprises and professional bodies; cleaner production consultants; Chamber of Industry's staff;

3. **Banks and Financial Institutions**

Bank senior managers, loan assessors, investment promotion officers, chairmen of credit committees, Central Bank officials;

4. **University, Research and Business Institutions**

5. **Other intermediaries** (e.g. media)

Proposed training concept and curriculum for five demonstration countries

April 2000

The Structure of the programme has been developed to meet the perceived situation and needs of the four main potential participants groups from:

- Industry and Commerce,
- **Public and Private Banks and Financial Institutions,**
- Government and State Bodies, and
- Universities and other Educational Institutes.

It recognises that certain participants may need an introduction to both Cleaner Production and Developing Investment Proposals, thus the inclusion of Courses 1 and 3. These may be event based, but could be designed to be completed as Distance Learning Programmes.

The core programmes are numbers 2 and 4. These are planned to be event-based and to have participants from all three non-student groups.

1. "Introduction to cleaner production"

A Distance Learning programme, designed and made available on a Web-site and paper, which aims to develop awareness of the importance of good environmental management in business and commerce and in particular Cleaner Production. The material and study would also provide the introduction to Course 2.

The participant profile would be any person from business, finance and public sector wishing to develop their insight into environmental good practice and cleaner production.

The format would consist of six lessons, each to include:

- Short readings with tests for comprehension,
- Illustrated case situations and real life examples,
- Yes / no and multi-choice questions ,
- Case questions on Cleaner Production opportunities,
- Closing test of achievement.

The programme development would require a two-person team, one for content and the second for training methodology and programme design.

This programme would be prepared by international experts and reviewed and edited by National Experts. Shelf life 5 to 10 years. Participant numbers – no limit.

2. "Cleaner Production in Practice"

This programme would take the form of a portable two-day workshop, on Cleaner Production projects, identification and development, based on successful demonstration cases. The main deliverables will be a series of guides or primers to assist business manage Cleaner Production investment projects for their own enterprises.

The participant profile would be managers and accountants from manufacturing and related enterprises who wish to develop their insight into environmental good practice and cleaner production in their own enterprises.

This programme would be prepared by National Cleaner Production Experts and reviewed by international experts from an agreed Marco-design.

Shelf life 2 to 3 years, depending on the availability of the national experts.
Participant numbers – 20 per workshop.

3. “An Introduction to Business Investments and Funding with Particular Application to Cleaner Production.”

A Distance Learning programme to introduce the concepts of Capital Budgeting and Investment Proposal submissions.

The participant profile would be accountants and financial managers who have not had the opportunity to study project finance. The material and study would also provide the introduction to programme 4.

The format would consist of four study lessons covering the nature of management accounting, capital investment decisions and sources of funds. Again the format would be:

- Short readings with tests for comprehension,
- Illustrated case situations and real life examples,
- Yes / no and multi-choice questions,
- Case questions on capital investment and their funding,
- Closing test of achievement.

This would be prepared by international experts and reviewed by the National Experts.
Shelf life 5 to 10 years - Participant numbers – no limit.

4. “Investing in Cleaner Production”

A portable two-day workshop to train both industrialist and bankers, on how to submit and evaluate Cleaner Production Investment proposals.

Checklists and primers in soft and hard copy would part of the outputs of this programme. Tellus E2/FINANCE software would be illustrated and made available to all participants. The participant profile would be accountants and financial managers who may submit investment proposals and bankers who must evaluate them.

The programme would be prepared by initially by national experts including bankers, from and agreed Macro-Design. It would be reviewed by international experts.

Shelf-life 2 to 3 years, depending on the ongoing availability of the national experts.
Participant numbers – 10/15 at each workshop.

5. Train-the-trainers programme

A Train Trainer programmes developed to permit national experts to be able to design and deliver the workshops in 2 and 4 above. The train trainer programmes would also develop the Consultancy skills of the nominate trainers. This would be prepared and presented by International Training experts with a knowledge of both Cleaner Production and investment practices.

6. University curricula

A university course for business and science undergraduates to create an awareness of Cleaner Production within the university curriculum and those selected lecturers are trained to be able to offer this course. This programme would be designed and prepared jointly by International Experts and national university teachers.

Annex 3

EXPERT GROUP MEETING ON TRAINING SERVICES TO PROMOTE CLEANER PRODUCTION INVESTMENTS

MOLLER CENTRE
CAMBRIDGE, UNITED KINGDOM

TENTATIVE AGENDA

Sunday, 9 July 2000

18.00 Welcome and introduction of participants
Brief description of project status and implementation plans per country
(Ari Huhtala, Elena Ciccozzi)

19.00 Dinner

Monday, 10 July 2000

09.00 Presentation of Tanzania and Zimbabwe training needs assessments
(Colin Sutherland, Atle Milford, Rosie Chekenya)

10.00 Coffee break

10.15 First session on suggested training programmes by participants
(IFC, Cambridge, EBRD)

12.30 Lunch break

13.45 Second session on suggested training programmes by participants
(Gloucestershire, Tellus, KPMG)

15.45 Coffee break

16.00 Third session on suggested training programmes by participants
(Philippines, AIT, PWC)

18.00 End of third session

Tuesday, 11 July 2000

09.00 Reaction of UNEP experts to the three sessions on 10 July

10.30 Coffee break

10.45 Suggested use of other methods and partners

11.30 Agreement on timing, modalities of implementation and work plan

13.00 Concluding remarks

13.30 Lunch