SMART
Sustainable Management Action
Research and Training

Final Report
Seminar
Capacity Building for Environmental Management Systems for Caribbean Enterprises

Port of Spain, Trinidad & Tobago
22 – 26 November 2004
Table of contents

1. The SMART Programme
   1.1 Objectives
   1.2 Scope
   1.3 Expected Results

2. Prospective Study in the Caribbean
   2.1 Objectives
   2.1 Results

3. Preparation of Seminar
   3.1 Selection of location
   3.2 Selection of Participants
   3.3 Selection of INEM experts

4. The pedagogical framework and the dynamic of the Seminar

5. Abstracts of key notes and workgroup sessions
   5.1 Keynote- Heinz Werner Engel: Working with SME’s - making ISO 14001 accessible for small business
   5.3 Keynote – Anne Francoise Woitchik: Policy trends and market trends in the European Union and their influence
   5.4 Keynote – Ralf Gruner: European support instruments for private sector
   5.5 Keynote – Nigel Carter: Codes practice, Standards and working with Supply chain

6. The project outlines coming out from the Seminar
   6.1 Introduction
   6.2 Barbados
   6.3 Guyana & Suriname
   6.4 Jamaica
   6.5 Trinidad & Tobago

7. Conclusion

List of Annexes

Annex I : Seminar Program
Annex II: List of Participants
Annex III: Report on participants Evaluation
Annex IV: Photos of the SMART Seminar
1. The SMART Programme

1.1 Objectives
The Centre for Development of Enterprise (CDE) and the International Network for Environmental Management (INEM) have developed the Sustainable Management Action Research and Training (SMART) action programme in the Caribbean region with the aims of:

- raising awareness about environmental management approaches, tools and techniques;
- developing and training specific target groups on Environmental Management Systems (EMS);
- promote and facilitate the implementation and certification of internationally recognised EMS in small and medium-sized enterprises (SMEs);
- identifying future needs for environmental management training, tools, capacity-building and pilot projects and;
- building up the capacity of environmental professionals in emerging markets.

The programme should ultimately help the private sector in the region to build up environmental management know-how, expertise and capacity and develop markets by:

- providing more professionals who can work on environmental management in companies;
- developing new environmental consulting services for industry or;
- meeting the environmental requirements of export and international markets and customers.

1.2 Scope
The SMART programme for the Caribbean region consists of three phases:

- Phase 1. Prospective study: review of existing stakeholders and progress in the environmental management field and assessment of future needs.
- Phase 2. Actions for Capacity-building: training seminar for stakeholders, to transfer know-how and identify specific actions for the future.
- Phase 3. SMART Facility: further assistance for the implementation of Environmental Management Systems in Small and Medium sized enterprises.

1.3 Expected Results
The SMART programme is expected to have the following overall results:

- Stimulate the economy in ACP countries;
- Create new market opportunities;
- Reduce operational and external costs;
- Upgrade the environmental conditions in the enterprise and to reduce pollution loads;
- Reinforce professional capacities in the environmental sector at national and regional level;
SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

• Implement internationally recognized EMS in Caribbean SME’s;
• Increase environmental awareness;
• Establishment of access to environmental management experience and tools in specific sectors through the INEM network and;
• Promotion of bilateral and multilateral partnerships and collaboration.

2 Phase 1 Prospective study in the Caribbean

The Prospective Study was conducted by Mr. Alberto Marcolino of the Centre for the Development of Enterprise and Mr. Ralf Gruner for the International Network for Environmental Management in the month of July 2004 in the Caribbean region.

Based upon the experience and existing studies at CDE and CDE local representations, the following countries were selected as priority countries with respect to the SMART programme:
Barbados, the Dominican Republic, Guyana, Jamaica, Suriname, Trinidad & Tobago.

The following sectors were considered as priority targets:
• Agro-food sector;
• Hotel and tourism;
• Wood and forestry;
• Mining and quarrying.

2.1 Objectives
The aims of the prospective study were to:
• evaluate environmental management principles, tools and approaches currently applied;
• identify existing environmental management initiatives: stakeholders, beneficiaries and topics;
• analyse the existing environmental management capacity of professionals in the region;
• identify barriers to further progress in the environmental management field;
• identify future environmental management capacity-building and training needs and;
• get inputs for preparing capacity-building actions under Phase 2.

2.2 Results
The key players and actors in the environmental management field in the Caribbean region actively contributed to the success of the fact-finding mission and prospective study. Stakeholder meetings and the responses to the SMART questionnaire obtained valuable and interesting information about initiatives and needs in the environmental sector.

The tourism and agro-food sectors were identified as the key sectors in the Caribbean region to be targeted for future environmental management capacity-building, training and pilot projects. Tourism is dominating but Agro-food sector
provides export opportunities for organic foods such as coffee and fruits to Europe and the US markets.

Small and medium-sized Enterprises (SMEs) and micro-enterprises constitute the backbone of the Caribbean economy. The level of environmental awareness among these companies is relatively low and they are also faced with a lack of financial resources and trained personnel. Caribbean countries are small islands, which suffer from a lack of clean water resources and poor water quality, high-energy consumption and major transport problems. Therefore, particular interest was expressed in simple approaches for small and medium sized enterprises to address energy, waste and water pollution issues. If companies adopt a more proactive approach to environmental issues in the Caribbean region, the difficulties in enforcing environmental legislation can also be partly overcome. In the majority of countries reviewed, a need for building broader local EMS expertise was identified, so that local companies can offer their services to the private sector and develop their markets, instead of contracting out these services to costly international and foreign experts. The main demands of local professionals had the focus on:

- EMS training for SMEs;
- Pollution prevention and clean technology (agro-food, plastics and petroleum sectors);
- Solid waste recycling and reuse;
- Energy conservation & efficiency.

There was a specific demand for training in environmental management for small companies and medium-sized companies and micro businesses in all sectors and an opportunity for cost-effective ‘EMS cluster’ initiatives.
3 Preparation of the Seminar

The SMART seminar was scheduled for 22 – 26 November 2004. Based upon the results of the Prospective Study, INEM has developed a first Seminar programme outline in September 2004 and together with CDE the Seminar programme has been optimized to meet the demands and expectations of the Caribbean market and environmental professionals.

3.1 Selection of the Location and Partners

During the Prospective Study, three Caribbean countries, the Dominican Republic, Barbados and Trinidad & Tobago expressed interest in hosting and supporting the SMART seminar. Jamaica has expressed its interest in hosting the SMART seminar in September 2004.

The criteria for the selection of the location was based on the following items:

- Active participation in the Prospective Study
- Expression of interest of the country;
- Existing infrastructure to host a seminar for maximum 50 participants;
- Level of environmental expertise and professionals in the country;
- Financial support from local partners of the seminar.

The decision was taken by CDE and INEM to hold the SMART seminar in Port of Spain, Trinidad & Tobago, under consideration of the following aspects:

The CDE local antenna in Trinidad & Tobago, Caribbean Business Services Limited offered financial support to cover the participation costs of local environmental professionals.

Given the environmental impact of its oil and natural gas industry, Trinidad & Tobago has developed a strong environmental management sector with more than 25 private companies and 2 research companies working on environmental issues on national and Caribbean level.

In addition, Port of Spain has a variety of hotels equipped with the necessary infrastructure to host the seminar. The central location in the Caribbean and the good flight connections are additional positive factors for Trinidad & Tobago.

Further financial support was given from CTA, the Technical Centre for Agricultural and Rural Cooperation for the transportation and accommodation costs of ACP Caribbean participants to the SMART seminar.

3.2 Selection of Participants

As indicated in the Prospective Study report, there are an estimated 70 – 90 environmental consulting companies in the 6 Caribbean visited countries.
The target group of the SMART seminar is private sector professionals, who can act as multipliers for environmental management in the region, such as:

- Environmental consultants;
- Environmental site managers;
- Auditing and certification professionals;
- Regional planning consultants;
- Health and safety inspectors and
- Experts of nature conservation

During the month of September and October 2004, more than 65 private sector professionals and 3 professionals from regional organisations have been invited to express their interest in participating in the seminar.

In order to retain the most motivated candidates for the seminar, the participants were supposed to bear a small part of their transportation and accommodation costs.

3.3 Selection of INEM experts

In accordance with CDE procedures, the members of INEM have been consulted to submit to the open call an expression of interest in participating in the SMART seminar from 22-26 November in Port of Spain, Trinidad & Tobago.

The possible participation in the seminar was evaluated under the following criteria:

- Senior Experience in the topics expressed in the Prospective Study;
- Ability to address the audience in the specific topics requested by the local consultants;
- Experience and understanding of ACP Cooperation and Development;
- Ability to address at least the audience in 2 different languages;
- Commitment to assure follow up in the process;
- Remain within the allocated budget and price structure agreed with CDE;
- Availability at the foreseen dates.

INEM has put together the following team of experts to conduct the training:

- Heinz-Werner Engel, Brussels (Belgium): seminar moderator, expert on eco-mapping in micro enterprises and small businesses, ISO 14001 and EMAS, cluster approaches, vision-building, (small business waste electronic and electrical equipment);
- Jürgen Pager, Bochum (Germany): auditor, environmental and integrated management systems, agro-food, eco-Tourism (small business);
- Ralf Gruner, Bruxelles (Belgium): conference organiser and expert on developing projects and programmes for international donors and financing institutions, financial project management;
- Anne Françoise Woitchez, Milan (Italy): EMS expert, international development projects, coaching processes (small solvant manufacturers);
In addition, INEM has decided to support the participation of an additional expert with interesting experience for the seminar, which is not coming from a European country or an ACP country:

- Amel Jrad, Tunis (CITET - Tunisia): technical environmental monitoring services, developing private sector, (recycling of used oils and batteries).

4. THE PEDAGOGICAL FRAMEWORK AND DYNAMIC OF THE SEMINAR

Most of the 31 participants arrived on Sunday evening, 21 November 2004 in Port of Spain, Trinidad & Tobago.

The program of the 5 days seminar was organized in distinguished steps using group-work, plenary sessions, site visits, social events and interactive exercises for permanent exchange and discussions and moved through 10 different stages to allow emerging of future programs:

- Ice breaking and getting acquainted;
- Get a understanding of the program;
- Understand the overall objective;
- Be confronted with EMS Mega trends in the markets;
- Does this apply to you?
- European strategies and concepts;
- Is this relevant for your work and country?
- In case of yes, what kind of projects could you trigger of in your country with subsidies from CDE and help of the INEM Network;
- What kind of assistance would be required in the next weeks;
- Conclusion and evaluations.

Day One, Monday the 22 November:

The Morning session was devoted to Welcome and opening addresses by CDE Executive Board, CDE Europe, Minister of Public Utilities and the Environment, EU Commission and INEM.

The Introduction of Experts and to the program of the week and seminar dynamic and outline was followed by an interactive introduction of all Participants. This allowed in an icebreaking and random selection to mix all participants, regardless of nationality and profile and every body had to address the audiences with specific expectations.

The introductory presentations have been focusing on
1. The Smart Initiative and CDE environmental policy;
2. Results of Fact-finding mission and future visions;
3. The INEM network, members, tools and partnerships in order set the overall stage of the seminar.

The Monday afternoon gave insights into the
1. Policy trends and markets trends;
2. Norms, standards, labels and working with supply chains;
3. Environmental services in emerging economies.
In order to familiarize the participants with some trends observed in the marketplace from a European perspective

**Day Two**, Tuesday morning 23 November: continued with keynote addresses on:
1. EMS in Tourism and Agro-food: Trends & requirements
2. Working with SME’s: Tools and approaches
3. Sustainable environmental business models
4. Drafting programs and financing programs

The morning ended with Workgroups planning and facilitating. In the afternoon five EU consultants split into workgroups with max seven people to allow a wide surface for discussions. The workgroups had specific topics to gain insights into proven concepts of environmental management.

*Group I. Learn about coaching SME’s towards ISO 14001*
*Group 2 Learn to use simplified tools for micro enterprises*
*Group 3 Understanding standards, norms and supply chains*
*Group 4 Integrating systems - HACCP, ISO 9000-14000, labels*
*Group 5 Learning to draft structure and co-finance programs*

The composition of the working groups had been selective to assure mix of countries, level of knowledge and professional background.

**Day Two & Three**, Tuesday afternoon and Wednesday 24 November morning: the working groups continued.

Wednesday afternoon the site visits of ISO 14001 certified companies have been organised.

Destination: Angostura Distillery, Hotel Cascadia and British Petroleum

They offered a considerable insight into the application of ISO 14001, with the potential for further engagement in capacity-building partnerships

**Day Four**, Thursday 25 November: marked the middle of the process of this seminar and the participants gathered in groups with national and or regional focuses. CDE and experts stood by for counselling and advice if needed.

The morning session however served as a reminder with three keynotes
1. Resources: Toolkits and resources on line
2. Build your project
3. Co financing and program structures

The afternoon session focused on work groups “Draft your project “
- Public- private programs and other initiatives;
- Coaching SME’s and cluster or sector approaches;
- Sustainable supply-chain management (Tourism & agro-food);
- Ecomapping & ‘ISO Easy’ programs for SMEs;
- Sector specific pilot programs;
- Networks, assistance and helpdesk.
A plenary and a social evening closed the day, which was highlighted by an amusing learning exercise on Eco innovation using the metaphor of T-shirt folding.

**Day Five**, Friday 26 November:
The morning session focused on the presentation of fourteen national pilot projects and one regional elaborated project. The conclusion and evaluation of the seminar by CDE and INEM reminded participants to follow up their projects within the next three months and to be always well come on the CD’s ACP expert list and INEM membership access website.

The departure and conclusion of the workshop was at 14.00 after lunch.

5 **ABSTRACTS OF KEY ISSUES AND THEMATIC WORKING GROUPS**

5.1 **KEYNOTE—HEINZ WERNER ENGEL: WORKING WITH SME’s – MAKING ISO 14001 ACCESSIBLE FOR SMALL BUSINESS**

Heinz Werner Engel presented innovative approaches in the work with SME’s and environmental management system standards

He presented light EMS systems with ultra lean documentation, which has been certified against EMAS and ISO 14001 in Belgium back in December 2003. The methodology allows small SME’s now to participate in market based EMS standards like ISO 14001 and EMAS in a smart and cost effective way. The Barriers to the successful introduction of EMS for small SME’s have been mainly the burdensome procedures and paperwork, external costs and inherent requirements to ISO 14001. They have been recently reduced, by dematerializing the EMS through applications, with simple visual tool based on Ecomapping. Ecomapping is a proven, easy, creative process of “scanning” environmentally relevant topics and practice directly in the physical reality of the shop floor. Adult learning and the systematic focus on environmental thematic like waste, energy, airborne pollution, resource use, water, Risk, soil protection and storage results in instant corrective action. It may be used in different settings from supply chain management, sector specific improvement, industrial estates and starter kit for micro business. It allows ACP SME’s to live up to the consumer preferences of European individual and organisational consumers and become more competitive while in the same time local consultants dispose better tools to assist the local economy.

**WORKGROUP SESSION - HEINZ WERNER ENGEL: USING SIMPLIFIED TOOLS FOR SME’S AND CLUSTER APPROACHES**

The groups have been introduced to the Ecomapping methodology which is scanning environmental impacts, problems and practice in SME’s in a participatory process of learning and gathering systematically useful environmental information within the physical reality of the shop floor and not only in the books. This toolbox gives instructions to create maps in order to facilitate and visualize environmental problems (“hot spots”) within a company. The Different maps (water, energy, air, wastes) create a useful multi layer set of graphical information and lead immediately to
environmental action programs. As 80% of environmental information is location based and the Ecomaps show what is happen and where in terms of environmental protection. Ecomapping is a toolbox and its ten working steps are leading into - and enriching the next one. The Work is partly done in the office, mainly on the shop floor. It helps and assists in understanding environmental problems, materials flows, opinions and problem perception of workers and work processes in 10 steps. Eco-mapping can serve to help with an initial review to implement ISO 14001 and EMAS. It is:

- an inventory of practices and problems,
- a systematic method of conducting an on-site environmental review,
- a collection of information which shows the current situation using pictures,
- a work and awareness-raising tool,
- a do-it-yourself tool for SMEs,
- a tool which allows employee involvement and participation.

But Ecomapping as such is not an EMS following in all details the PDCA cycle. This proven concept from baseline assessments like Ecomapping to real ISO 14001 had to be developed. New cluster approaches allowed to transform it into a collective, cost effective and certifiable approach "ISO Easy". One external consultant coaches a number of selected SME's to introduce "management" into very informal, small organisations while focusing on individual efforts by each company but collective approach in the documentation. This allows Cost sharing, Network auditing and integrating into business processes.

The discussion focused on time and costs and it was outlined that if a company has done some environmental work already in its own way, the workload with Ecomapping to be in compliance with ISO 14001 is done within a week maximum. External document audits and site audits can be done within a day easily. The procedures required by ISO 14001 fit on a double page and most of the relevant instructions are oral and informal or visual.

**PROJECT OPPORTUNITIES**

Using Ecomapping in the Dominican Republic to highlight Pollution costs in the tourism sector, and Trinidad in supply chain management. Focus in the Caribbean should micro enterprises e.g. room guesthouses, agro-food distribution outlets & similar enterprises. (Barbados and Suriname, Jamaica) Develop the capacity within the region & use Ecomapping tools in all sectors from basic environmental assessment to certificate to ISO 14001.

The Session was evaluated as valuable as the visual tool is easy to use to communicate issues & implement action and corresponds to the state and culture of operation in the regional small business.
Tourism is one of the world’s largest industries and one of its fastest growing economic sectors (1999: 453 billion US$ spending on international tourism, Caribbean region 12 billion US$) with huge environmental impact: road, rail and air transport are major contributors to global warming, hospitality businesses contribute to air pollution as electricity consumers, use of fossil fuels and ozone-depleting substances contribute to air emissions.

On the other side, tourism has a vested interest in maintaining environmental quality, has been responsible for the conservation of natural habitats and is a stimulus for conservation. Strengthening good practice comes through initiatives like Tour Operators Initiative for Sustainable Tourism Development, Eco-Labeling Schemes (Blue Flag, Green Globe Americas etc.) and Environmental Management Systems (ISO 14001).

Food industry will have to feed a world population that will grow to 9 billion in 2050. The agri-food chain has major environmental impacts (falling water tables, over-exploited fisheries, soil degradation, etc.). Reducing these impacts through environmental management includes water management, better efficiency, greater control of product wastage and cleaning processes and avoiding ozon-depleting substances in cooling processes.

Along Environmental Management Systems there are other relevant management systems, e.g. quality management systems (ISO 9001, etc.), Occupational Health and Safety Management Systems (OHSAS 18001, etc.), Hygiene Management (HACCP), etc. The best way to integrate these management systems is a process approach that means to integrate the requirements from the different management systems into the business activities. The process approach includes the identification of relevant processes, the sequence and interaction of processes (process map), the understanding of the relevant activities inside the process, and the operational control of the processes. The processes can be documented with a process flowchart, and improved by the classical P-D-C-A-cycle. Examples for the integration of ISO-14001 and HACCP-management-systems were given.

The questions raised included the methodology of integration (e.g., using an process model as the base, considering that ISO 9001 requires an process approach anyway - but the process model used for integrated management systems must consider all the processes of an organization, not only those relevant to quality management), the necessity for an transfer of Ecomapping results that was understood as a very useful tool for an initial environmental review especially in small and medium enterprises, to business activities as part of an process approach, and the need to market/introduce the concept to businesses.
Project opportunities include the training in general process mapping and in developing tools for implementing integrated management systems in SMEs, as well as the execution of pilot projects in areas like agro-food business (including integration of HACCP) and ecotourism (including integration of requirements arising from Green Globe Americas and alike).

5.3 **Keynote – Anne Francoise Woitichik: Policy trends and market trends in the European Union and their influence**

The content of the 20’ keynote presentation was the following:
1. Environment: mentality evolution since 1970: from ecological disasters to sustainable development
3. Challenge and opportunities for Caribbean SME’s

**Workgroup session – Anne Francoise Woitichik: Learn about coaching SME’s towards ISO 14001, The CITET-GTZ experience in Tunisia**

Five working groups were organised and the CITET-GTZ experience in Tunisia was presented with the help of Mrs. Amel Jrad from CITET to the participants in each working group as follow:

1. Group coaching: a participative method for better environmental performance
2. How to select and organise the group of enterprises
3. How to plan the whole project
4. Which human resources are necessary (skills, training needs, time)
5. What is the role of the different actors (enterprises, coaching organisation, local consultants, external consultants, donors)
6. How to start the program – identification of needs, available tools and financial aspects
7. How to organise and implement the different ISO 14001 steps
8. How to build a network of excellence for sharing experiences and continuous improvement

5.4 **Keynote – Ralf Gruner: European support instruments for private sector**

The presentation started with an introduction to the EU-ACP Cotonou Agreement, focusing on the involvement of the private sector and civil society in the new partnership between the European Union and the ACP Group of States. All major innovations and important pillars of the new partnership were introduced, as well as the financial cooperation & resources mechanism.
Highlights and basic facts from the national and regional programs of the EU cooperation with the Caribbean region from 1976 – 2001 were presented with a short outlook of future partnership policy.

The European Support instruments for the private sector: The European Investment Bank, the Centre for the Development of Enterprise, Pro Invest, CTA and Programmes of Europe Aid were introduced with respect to the following items:
- Their mandate;
- Their objectives;
- The budgets & procedures;
- The beneficiaries.

**WORKGROUP THEMATIC: DRAFTING PROJECTS & GUIDELINES FOR REPORTING**
The workgroups have been introduced to draft projects based upon official documents of CDE request forms for project support.

The idea was to submit a checklist to assist in the preparation of project proposals for submission to European institutions. The presentation was designed in a general nature, to enumerate and explain the most important data & factors to insert in a project proposal. The following information was forwarded:

- **The Background**
  - Project rationale, sector description and local availability of materials/consumables;
- **The Promoter**
  - General information about the enterprise, its legal status, principal partners and shareholders, organizational structure;
- **The Project**
  - Technical data
  - Market & socio-economic data
  - Financial data
  - Environmental data
- **Reporting Procedures & Dissemination**
  - Guidelines for procedures and dissemination of results
  - Best practice
5.5 **KEYNOTE – NIGEL CARTER: CODES PRACTICE, STANDARDS AND WORKING WITH SUPPLY CHAINS**

Abstracts:
- The promotion of environmental excellence and the drivers – regulation, fiscal measures, supply chain pressure, client/consumer interest and competition. Sustainability was seen as an altruistic commercial ambition for mainstream business.
- The need to balance profitability and the ‘licence to operate’ with measures for environmental performance improvement.
- The recognition that guidelines and codes of practice could not be consistently applied, but standards could.
- Labels could be sector-specific, Government-driven or promoted in international standards.
- In the Supply Chain, pressure is top down, usually, collaborative and supporting sustainable production.

**WORKGROUP SESSION: COMBINE BUSINESS FOR SUSTAINABLE DEVELOPMENT**

Session reviewed:
- The ‘definition’ of SMEs in terms of their size;
- Barriers to progress in contributing to environmental improvement – waste collection thresholds, costs of consultants/certification;
- Opportunities, perhaps, for consolidation of waste streams and ‘take-back’ price rather product specification the driver;
- Employees’ lack of understanding;
- The idea of EMS implementation in clusters through workshops and group mentor

**WORKGROUP OUTCOMES**

- Support for working in clusters;
- Widespread recognition for the problems of waste collection and its unrecognised costs;
- Recognition of the total lack of recycling opportunities;
- Presumption of waste merely as (physical) and no recognition for potential wins from better control of utilities and working practices;
- Lack of central (Government/Standards Body) influence over proceedings – certification, conformity assessment and, thus, preference for offshore consultants parachuted in, leaving little in the way experience or knowledge transfer.
6. THE DRAFT PROJECT PROPOSALS COMING OUT OF THE WORKING PROCESS

6.1 INTRODUCTION

The afternoon session on Thursday, 25 of November, the seminar focused on work groups “Draft your project”. During these sessions, the participants were invited to create national groups and one regional group. Based upon the information from the seminar, these groups were asked to draft environmental projects for the Caribbean region.

The INEM and CDE experts were asked to assist the different groups, in case the participants required it. Following aspects covered the assistance:

- Public-private programs and other initiatives;
- Coaching SME’s and cluster or sector approaches;
- Sustainable supply-chain management (Tourism & agro-food);
- Ecomapping & ‘ISO Easy’ programs for SMEs;
- Sector specific pilot programs;
- Networks, assistance and helpdesk.

During the seminar 15 project ideas for regional and local projects have been outlined covering five main economic sectors in five Caribbean countries and involving a potential of 50 private companies to be assisted in a three years implementation cycle. These projects will fall under the SMART Facility to be developed for Phase Three in the Caribbean.

The presented projects are in process of being elaborated and they are expected for appraisal before the end of February 2005.

6.2 BARBADOS

Project 1 Barbados

Name of project: National Capacity Building of Small & Medium sized Enterprises

Promoter:
Lead agent: Consortium of APA/ECOLINK/EASO with APA as Lead Consultant)
Partners: Ministry of the Housing, Lands & the Environment (Environmental Unit);
BNSI

Objective:
Building capacity among SMEs and supporting entities, to meet the challenges of globalisation with respect to environmental management.

Impact on economy:
- Improved efficiency and earning potential of SME’s in the respective sectors;
- Improved employment opportunities;
- Overall stimulation of economy;
- Overall enhancement on the environment.
Project Description:
Phase 1: Assessment of SMEs with respect to:
- Awareness
- Capacity
- Compliance

Phase 2: Education & Training
- Identification of clusters
- Education of SMEs;
- Training the trainer of environmental standards and associated trade barriers.

Phase 3: Development & Implementation
Identification of projects for implementation:
- In sectors (Agro-business, tourism and waste mgt operators);
- As per individual or integrated management.

Estimated costs & timeframe:
Estimated costs: €200 000
Timeframe for implementation: 24 months

Project 2 Barbados

Name of project: Implementing Environmental Management Systems in Tourism
Micro enterprises (less than 20 rooms and relevant sites and attractions).

Promoters:
Intimate Hotels (BHTA), APA Consortium (ECOLINK lead), and Ministry of
Tourism/ MHE.

Objectives:
The utilization of relevant EMS tools (i.e. Ecomapping in cluster approach) to
improve efficiency, environmental stewardship and profitability thereby improving
the economy.

Project Description:
Project envisage to have two phases
Phase 1:
Development of sector specific tools as a template for micro tourism enterprise
Pilot 10 entities (7 accommodation & 3 sites and attractions)

Phase 2:
Support mechanism within Intimate Hotels to enable that the EMS effort is
sustained in the future;
Addressing additional tourism entities.

Estimated costs & timeframe:
Estimated budget: €150,000
Timeframe: 18 months
Project 3 Barbados

Name of project: Enabling 10 SMEs in the Agro-processing sector to attain certification in ISO 14001/HACCP utilizing Ecomapping and cluster tools.

Promoters: BIDC/ APA Consortium/ BAS/BMA/SBA/Trade

Description of the project:
- Phase 1: Pilot project
  Coaching of 10 SMEs (Agro-processors/Horticulture) in development of relevant systems and subsequent certification.
- Phase 2: Full project
  Impact: Improved competitiveness and the ability to meet environmental and other entry requirement for export markets.

Estimated costs & timeframe:
- Estimated budget: €200,000
- Timeframe: 18 months

6.3 GUYANA & SURINAME

Project 1 Guyana & Suriname

Name of the project: Capacity building for EMS

Promoter(s):
- GUYANA: Private Sector Commission; Consultative Association of Guyanese Industry; Guyana Environmental Protection Agency, Business and Environmental Services, the Ministry of Tourism, Industry and Commerce
- SURINAME: Chamber of Commerce; Association of Companies; National Institute for Environment and Development; Forestry Association and Ministry of Trade

Objectives:
This project will seek to enhance capacity and awareness of environmental management systems in the private sector in Guyana and Suriname. It will also focus on SMEs and environmental consultants in the two countries.

Project description
This project will involve the following key components:

- Assessment of national EMS capacity in Guyana and Suriname;
- Establishment of national professional environmental management bodies;
- Awareness and training programmes for environmental consultants, managers and Chief Executive Officers of SMEs;
SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

- Awareness and training programmes will include the following areas:
  - Introduction to EMS, EMS tools, ISO 14001, ISO 9000 and HACCP

It is expected that the project will result in increased capacity at the national and sector related levels to implement EMS in private sector operations, as well as create a drive towards EMS implementation in SMEs.

**Project 2 Guyana & Suriname**

**Name of the project:** Pilot Project on Coaching SMEs to implement EMS

**Promoters:**

**Guyana:**
- **Lead Agency:** Private Sector Commission
- **Others:** Bureau of Standards; Tourism and Hospitality Association of Guyana; EPA and the Professional Body on Environmental Management; Guyana Gold and Diamond Miners Association, The Ministry of Fisheries, Crops and Livestock and the Guyana Geology and Mines Commission

**Suriname:**
- **Lead Agency:** National Institute on Environment and Development in Suriname
- **Others:** Ministry of Trade; Ministry of Natural Resources; Ministry of Agriculture and Fisheries, the Ministry of Tourism.

**Objectives:**
- To promote an awareness and understanding of the importance and usefulness of EMS to SMEs;
- To provide technical assistance to SMEs in the implementation of EMS;
- To monitor and provide feedback on the progress of implementation of EMS in SME;
- To document and disseminate information on the experiences in implementing EMS in SMEs.

**Key Components**
- Awareness programme in the form of seminars/workshops;
- Technical assistance relating to ISO 14001 and other environmental standards through eco mapping of environmental management issues, formulation of mitigation measures, environmental policy and action framework to meet the required standards.
Project 3 Guyana & Suriname

Name of the project: Pilot Project on Coaching Hotels towards implementation of EMS from the Design Phase in Guyana

Promoters:
Lead agency: Hotel Owner
Others: Business and Environmental Services (local consultants); Bureau of Standards, Ministry of Tourism, Industry and Commerce; EPA and Tourism and Hospitality Association.

Objectives:
To assist a new hotel (proposed) to implement EMS from the design phase;
To provide a replicable example of implementation of EMS in the hotel industry from the design phase.

Key Component:
Training and personal assistance throughout the planning and implementation of EMS from the design phase to the execution of the hotel project; Documentation, evaluation and dissemination of the experience.

6.4 JAMAICA

Project 1 Jamaica

Name of Project: Implementation of EMS (ISO 14001) into a community based agro-processing facility (banana chips).
Agro-industrial sector - facility based in the rural community and operated by an incorporated community based company.

Promoters:
Maroon Town Community Economic Organization
Rural company comprising local farmers;
Incorporated company with a chairman and Board of Directors who hold executive positions;
Technological and Environmental Network (TEMN) Ltd.
Incorporated company operating since 1993;
Offers comprehensive consulting services in the field of Environmental management and Engineering.

Objectives:
Improve production efficiencies / productivity / competitiveness of the factory.
Expand market opportunities and increase profitability.
Minimize impact of the operations on the environment.
Develop environmental stewardship within the community.
To certify organization to ISO 14001;
To be a role model for other similar initiatives;
Training of environment project managers.

**Outcome:**
The project should result in:
- Expanded markets;
- Increased turnover;
- Increased employment opportunities;
- Collection and dissemination of information to emerging eco-tourism sector and other community based industries.

**Project Management:**
A committee comprising of will manage the project:
- A project manager from TEMN Ltd;
- Managing Director of the enterprise;
- Other senior administrative and technical staff from the enterprise.

**Indicative cost & duration:**
The project is expected to cost approximately €100,000 and is expected to be implemented over 12 months.

**Project 2 Jamaica**

**Name of Project:** Coaching SME to MES implementation and developing capacity within the consulting sector (Train the Trainer)
Target: Agro processing, eco tourism, horticulture and consultancy.

**Promoters:**
- Jamaica Institute of Environmental Professional (J IEP)
- JMA, JEA, SBAJ, JHTA

J IEP is an association of Environmental Professionals incorporated in 2000 with a membership of >60 professionals with a wide diversity of expertise in the environmental sector. 
JMA, JEA, SBAJ, JHTA are private sector umbrella organizations

**Objectives:**
To coach approximately 10 SME across the agro processing, tourism, waste management and light manufacturing sectors in implementation of the EMS and eventual certification to ISO 14001
To train consultants in EMS implementation using ISO Easy and Eco Mapping methodologies
To use the project as a model. To demonstrate the benefits of EMS to the small business sector and to promote its wider use.
Training of environment project managers

**Project Management:**
The project will be managed by the J IEP as well as top level memberships form the partner agencies.
**Indicative cost & duration:**
The project is expected to cost approximately €300,000.00 and the duration for full implementation is around 36 months.

**Project 3 Jamaica**

**Name of Project:** Implementing waste management system / facilities in SME’s
**Target:** Agro-processing and distilleries.

**Promoters:**
Jamaica Institute of Environmental Professional (JIEP);
SRC, JMA, JEA;
JIEP is an association of Environmental Professionals incorporated in 2000 with a membership of >60 professionals with a wide diversity of expertise in the environmental sector;
JMA, JEA, are private sector umbrella organizations. SRC is the national agency for scientific research and development focusing on utilization of local natural resources.

**Objectives:**
To introduce waste management treatment systems in the agro-industrial sector;
To train SME’s in effective installation and management of the systems;
To use project as a demonstration to other entities;
To utilize the by-product as a source of clean energy;
To further develop as a CDM project.

**Outcome:**
The project should result in:
Introduction of anaerobic treatment system into SMEs to reduce impact of discharge on the environment;
To use waste as a resource (energy);
To improve access to Kyoto CDM mechanism.

**Project Management:**
The project will be managed by the JIEP as well as top level memberships form the partner agencies.

**Indicative cost & duration:**
The project is expected to cost approximately €500,000 and is expected to be implemented over 24 months.

6.5 **TRINIDAD & Tobago**

**Project 1 Trinidad and Tobago**

**Name of the project:** Guidance Protocols for management of solid waste in the Republic of Trinidad and Tobago

**Proposed lead agent and partner:** SWMCOL
Trinidad and Tobago Solid Waste Management Company Limited
Function: Provide technical assistance and facilitate training
Objectives of the project:
Promote waste exchange and recycling.
Provide existing and potential SMEs in the waste management sector with interpretation of the regulatory framework of their operations.
Provide assistance in locating national, regional and international partnerships in waste management.
To engage SME’s operating outside the formal economy.
Bridge the gap between policy, standards, specifications and implementation.

Management and organization:
Project manager is directly supervised at SWMCOL;
Recruitment of Specialist Services - Legal Consultant;
Review and interpretation of national legislative issues in Waste Management;
SMEs are consulted/Needs Assessment completed;
Seminars and Workshops, teaching on the use of the guides.

Anticipated overall costs & time frame for implementation:
An estimated budget of €120,000.00 with 2/3 contribution from EU;
Stakeholders including government and private/corporate enterprises will provide 1/3 contribution.
Project requires at least 24 months:
6 months – Preparation
12 months – Preparation and documentation of guidance protocols
3 months – Seminars
3 months – Evaluation
7. CONCLUSION

The seminar organized by CDE and INEM is part of the so-called “SMART” initiative. SMART – Sustainable Management Research Action Training - is a CDE program which targets environmental consultants and managers and companies in the Caribbean region. It aimed to:

1. Raise awareness about new environmental management approaches, tools and techniques;
2. Empower regional consultants to support the private sector and in particular small businesses in implementing Environmental Management Systems according to internationally recognised standards (ISO 14001 & EMAS);
3. Identify opportunities for developing and financing environmental management pilot projects and for networking with INEM members;
4. Enable Caribbean environmental professionals to create links with international networks, to access their knowledge base and to increase local environmental management capacity.

Thirty-one (31) participants from seven (7) ACP countries and six European experts participated in the program of the 5 day seminar. The workshop was organized in distinguished steps using group-work, plenary sessions, site visits, social events and interactive exercises for permanent exchange and discussions and moved through different stages to allow emerging of future programs.

Welcome and opening addresses by CDE Executive Board, CDE Europe, Minister of Public Utilities and the Environment, EU Commission, CTA and INEM highlighted the seminar.

Generally the seminar was very well received by participants and was regarded as an excellent opportunity for interaction between Caribbean environmental for environmental professionals. Participants commented that they valued the networks developed at the meeting and appreciated the opportunity for information sharing.

Participants regarded the interactions with INEM and CDE experts as constructive and informative. The INEM resource persons were described as enthusiastic and showed a genuine interest in the ‘job’. The team of experts was very organized and participants were grateful for their encouragement and support.

Participants foresee the possibility of follow-up activities from their attendance at the meeting, such as developing project ideas that could qualify for funding and many expressed the desire to work with INEM, CDE and CTA in the future.

During the seminar 15 project ideas for regional and local projects have been outlined covering five main economic sectors in five Caribbean countries and involving a potential of 50 private companies to be assisted in a three years implementation cycle. They range from coaching processes of implementing ISO
SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

14001 in entire sectors, raising the capacity of local consultants to live up to the higher standards of processes and products required by the international market and up-to the creation and recognition of regional intermediary environmental professional organizations to benefit local business and consultants.

These projects will fall under the SMART Facility to be developed for Phase Three in the Caribbean.
Annex 1: Seminar Program
### SEMINAR PROGRAM
**Monday the 22 November 2004, Port of Spain**

<table>
<thead>
<tr>
<th>Form</th>
<th>Session</th>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Moderation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plenary</td>
<td></td>
<td>8:00</td>
<td>Registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opening</td>
<td>Registration</td>
<td>8:30</td>
<td>Welcome and opening CBSL</td>
<td>Kerston Coombs, Chairman CBSL</td>
<td>CDE</td>
</tr>
<tr>
<td>Ceremony</td>
<td>CDE Executive Board</td>
<td>8:45</td>
<td>CDE Executive Board</td>
<td>Audley Walker CDE,</td>
<td>Nigel Carter</td>
</tr>
<tr>
<td></td>
<td>Minister of Public Utilities and Environment</td>
<td>9:00</td>
<td>Minister of Public Utilities and Environment</td>
<td>The Honourable Penelope Beckles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EU Commission</td>
<td>9:15</td>
<td>EU Commission</td>
<td>Anthony Smallwood Chargé d'Affaires</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INEM Closing remarks</td>
<td>9:30</td>
<td>INEM Closing remarks</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group Picture</td>
<td>9:40</td>
<td>Group Picture</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coffee</td>
<td>10:00</td>
<td>Coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10:30</td>
<td>The Smart Initiative and CDE environmental policy</td>
<td>Alberto Marcolino</td>
<td></td>
</tr>
<tr>
<td>Session 1</td>
<td>Prospective Study of SMART Caribbean Key findings</td>
<td>10:45</td>
<td>Prospective Study of SMART Caribbean Key findings</td>
<td>Ralf Gruner</td>
<td></td>
</tr>
<tr>
<td>Plenary</td>
<td>INEM network, members, tools and partnerships</td>
<td>11:00</td>
<td>INEM network, members, tools and partnerships</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td>Introduction of Experts</td>
<td>11:15</td>
<td>Introduction of Experts</td>
<td>AFW, HW, JP, RG, AD</td>
<td></td>
</tr>
<tr>
<td>Interactive</td>
<td>The program of the week and seminar dynamic</td>
<td>11:30</td>
<td>The program of the week and seminar dynamic</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tour de table of participants</td>
<td>12:00</td>
<td>Tour de table of participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>12:30</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 2</td>
<td>Policy trends &amp;markets trends in EU and their influence</td>
<td>14:00</td>
<td>Policy trends &amp;markets trends in EU and their influence</td>
<td>Anne Françoise Woitchik</td>
<td></td>
</tr>
<tr>
<td>Keynotes</td>
<td>Questions and Discussions</td>
<td>15:00</td>
<td>Questions and Discussions</td>
<td>Nigel Carter</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coffee</td>
<td>16:00</td>
<td>Coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keynotes</td>
<td>From public to private the Tunisian experience</td>
<td>17:00</td>
<td>From public to private the Tunisian experience</td>
<td>Amel J rad</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conclusion of the day and agenda of next day</td>
<td>17:15</td>
<td>Conclusion of the day and agenda of next day</td>
<td>All experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Welcome cocktail</td>
<td>18:30</td>
<td>Welcome cocktail</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# SEMINAR PROGRAM
Tuesday 23 November 2004, Port of Spain

<table>
<thead>
<tr>
<th>Form</th>
<th>Session</th>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Moderation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plenary</td>
<td>Session 4</td>
<td>8:30</td>
<td>EMS in Tourism and Agro-food: Trends &amp; requirements</td>
<td>Jürgen Pager</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Keynotes</td>
<td>9:30</td>
<td>Working with SME 's: Tools and approaches Ecomapping</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10:00</td>
<td>Coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plenary</td>
<td>Session 5</td>
<td>10:30</td>
<td>Sustainable management capacity test</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Keynotes</td>
<td>11:15</td>
<td>Working with SME 's: ISO Easy</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12:00</td>
<td>The EU-ACP Agreement Cotonou and financing instruments</td>
<td>Ralf Gruner</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12:15</td>
<td>Workgroups planning and facilitating</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12:30</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14:00</td>
<td>Workgroups facilitation (7 people per group)</td>
<td>Anne F. Woitchik</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14:05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group work</td>
<td>Session 6.1</td>
<td>15:00</td>
<td>Thematic working groups 1 2 3 4 5</td>
<td>All experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16:00</td>
<td>Thematic working groups 1 2 3 4 5</td>
<td>All experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16:00</td>
<td>Coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group work</td>
<td>Session 6.3</td>
<td>16:30</td>
<td>Thematic working groups 1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plenary</td>
<td></td>
<td>17:30</td>
<td>Wrap up the day</td>
<td>One participant per group</td>
<td></td>
</tr>
<tr>
<td>Room</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rumba</td>
<td></td>
<td></td>
<td>Group I. Learn about coaching SME's towards ISO 14001</td>
<td>Anne F. Woitchik</td>
<td></td>
</tr>
<tr>
<td>Samba</td>
<td></td>
<td></td>
<td>Group 2 Learn to use simplified tools for micro enterprises</td>
<td>Heinz Werner Engel</td>
<td></td>
</tr>
<tr>
<td>Calypso</td>
<td></td>
<td></td>
<td>Group 3 Understand standards, norms and supply chains</td>
<td>Nigel Carter</td>
<td></td>
</tr>
<tr>
<td>Salsa</td>
<td></td>
<td></td>
<td>Group 4 Integrate systems HACCP, ISO 9000-14000 labels</td>
<td>Jürgen Paeger</td>
<td></td>
</tr>
<tr>
<td>Tango</td>
<td></td>
<td></td>
<td>Group 5 Funding projects &amp; guidelines for reporting</td>
<td>Ralf Gruner</td>
<td></td>
</tr>
</tbody>
</table>
### SEMINAR PROGRAM
**Wednesday 24 November 2004, Port of Spain**

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Moderation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4</td>
<td>8:30</td>
<td>Workgroups facilitation (7 people per group)</td>
<td>Facilitator</td>
<td>Int'l Experts</td>
</tr>
<tr>
<td>6.5</td>
<td>9:30</td>
<td>Thematic working groups 1 2 3 4 5</td>
<td>Int'l Experts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10:30</td>
<td>Coffee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>11:00</td>
<td>Presenting results, Workgroups planning and facilitating, Building thematic focal groups</td>
<td>INEM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12:30</td>
<td>Lunch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**VISIT**
14:00 Site visits of ISO 14001 certified companies
Angostura, British Petroleum Trinidad & Tobago
Scanning environmental problems

<table>
<thead>
<tr>
<th>Room</th>
<th>Group I. Learn about coaching SMEs towards ISO 14001</th>
<th>Anne F. Woitchik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rumba</td>
<td>Group 2 Learn to use simplified tools for micros</td>
<td>Heinz W. Engel</td>
</tr>
<tr>
<td>Samba</td>
<td>Group 3 Combine Business for sustainable development</td>
<td>Nigel Carter</td>
</tr>
<tr>
<td>Calypso</td>
<td>Group 4 Integrate systems (HACCP, ISO 9000-14000 labels)</td>
<td>Jürgen Paeger</td>
</tr>
<tr>
<td>Salsa</td>
<td>Group 5 Funding projects &amp; guidelines for reporting</td>
<td>Ralf Gruner</td>
</tr>
<tr>
<td>Tango</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Session</td>
<td>Time</td>
</tr>
<tr>
<td>--------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>Plenary</td>
<td>Session 8</td>
<td>8:30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9:15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>10:00</td>
</tr>
<tr>
<td>Workgroup</td>
<td>Session 9</td>
<td>10:30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11:15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12:30</td>
</tr>
<tr>
<td>Workgroup</td>
<td>Session 9</td>
<td>14:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16:00</td>
</tr>
<tr>
<td></td>
<td>17:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17:15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**SEMINAR PROGRAM**
Friday 26 November 2004 Port of Spain

<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Topic</th>
<th>Moderation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 10</td>
<td>9:00</td>
<td>Presentation of drafted pilot projects</td>
<td>Participants</td>
</tr>
<tr>
<td></td>
<td>9:30</td>
<td>Starting, Integrating and coaching SMEs towards EMS</td>
<td>Participants</td>
</tr>
<tr>
<td></td>
<td>10:00</td>
<td>Coffee</td>
<td></td>
</tr>
<tr>
<td>Session 10</td>
<td>10:30</td>
<td>Ecomapping &amp; ISO Easy programs for SME's</td>
<td>Participants</td>
</tr>
<tr>
<td></td>
<td>11:00</td>
<td>Sector specific pilot programs</td>
<td>Participants</td>
</tr>
<tr>
<td></td>
<td>11:30</td>
<td>Networks assistance and helpdesk</td>
<td>Participants</td>
</tr>
<tr>
<td></td>
<td>11.30</td>
<td>Conclusion of the workshop</td>
<td>CDE</td>
</tr>
<tr>
<td></td>
<td>12:00</td>
<td>Certification for participants</td>
<td>CDE</td>
</tr>
<tr>
<td></td>
<td>12:15</td>
<td>Evaluation of the workshop</td>
<td>Heinz Werner Engel</td>
</tr>
<tr>
<td></td>
<td>12:30</td>
<td>Lunch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>14:00</td>
<td>Departure</td>
<td></td>
</tr>
</tbody>
</table>
Annex 2: List of Participants
# SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

<table>
<thead>
<tr>
<th>NAME</th>
<th>POSITION</th>
<th>COMPANY</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Speakers Opening Ceremony</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Honourable Penelope Beckles</td>
<td>Minister</td>
<td>Ministry of Public Utilities and the Environment</td>
<td></td>
</tr>
<tr>
<td>Mr. Anthony Smallwood</td>
<td>Charge D’Affaires</td>
<td>Delegation of the European Commission Trinidad &amp; Tobago</td>
<td></td>
</tr>
<tr>
<td>Mr. Audley Walker</td>
<td>Chairman</td>
<td>Centre for the Development of Enterprise</td>
<td></td>
</tr>
<tr>
<td>Mr. Kersten Coombs</td>
<td>Chairman</td>
<td>Caribbean Business Services Limited</td>
<td></td>
</tr>
<tr>
<td><strong>Participants Opening Ceremony</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Ray Braithwaite</td>
<td>Executive Chairman</td>
<td>Solid Waste Management Company of T&amp;T</td>
<td><a href="mailto:rmsbrath@swmcol.co.tt">rmsbrath@swmcol.co.tt</a></td>
</tr>
<tr>
<td>Mr. Sammy George</td>
<td>Managing Director</td>
<td>Ecoengineering Consultants Ltd.</td>
<td><a href="mailto:ecoeng@tsitt.net.tt">ecoeng@tsitt.net.tt</a></td>
</tr>
<tr>
<td><strong>Speakers Seminar</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Alberto Marcolino</td>
<td>Environmental Sector</td>
<td>Centre for the Development of Enterprise</td>
<td><a href="mailto:ama@cde.int">ama@cde.int</a></td>
</tr>
<tr>
<td>Mr. Heinz-Werner Engel</td>
<td>Member of the Board</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:inem-brussels@skynet.be">inem-brussels@skynet.be</a></td>
</tr>
<tr>
<td>Ms. Amel Jrad</td>
<td>Environmental Expert</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:labo@citet.tn">labo@citet.tn</a></td>
</tr>
<tr>
<td>Ms. Anne Françoise Wolchik</td>
<td>Environmental Expert</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:anne.wolchik@eksolutions.net">anne.wolchik@eksolutions.net</a></td>
</tr>
<tr>
<td>Mr. Nigel Carter</td>
<td>Environmental Expert</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:enventure@btinternet.com">enventure@btinternet.com</a></td>
</tr>
<tr>
<td>Mr. Jürgen Paeger</td>
<td>Environmental Expert</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:Juergen.Paeger@t-online.de">Juergen.Paeger@t-online.de</a></td>
</tr>
<tr>
<td>Mr. Ralf Gruner</td>
<td>Financial Expert</td>
<td>International Network for Environmental Management</td>
<td><a href="mailto:smart@eco-counselling.com">smart@eco-counselling.com</a></td>
</tr>
<tr>
<td><strong>Seminar Participants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Barbados</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ms. Vernese Inniss</td>
<td>Environmental Planner</td>
<td>Alleyne Planning Associates Inc.</td>
<td><a href="mailto:vinniss@apa.com.bb">vinniss@apa.com.bb</a></td>
</tr>
<tr>
<td>Ms. Danielle Lorde</td>
<td>Environmental Consultant</td>
<td>Environmental and Administrative Solutions</td>
<td><a href="mailto:dllorde@yahoo.com">dllorde@yahoo.com</a></td>
</tr>
<tr>
<td>Ms. Wendy C.A. Walker-Drakes</td>
<td>Environmental Manager</td>
<td>Ecolink</td>
<td><a href="mailto:wwdecolink@sunbeach.net">wwdecolink@sunbeach.net</a></td>
</tr>
<tr>
<td><strong>Dominican Republic</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mr. Fernando Cabrera</td>
<td>Environmental Expert</td>
<td>Independent Consultant</td>
<td><a href="mailto:fdjcabrera@gmail.com">fdjcabrera@gmail.com</a></td>
</tr>
</tbody>
</table>

---

**Speakers Opening Ceremony**

The Honourable Penelope Beckles, Minister of the Ministry of Public Utilities and the Environment, opened the seminar with an opening ceremony. Mr. Anthony Smallwood, Charge D’Affaires of Delegation of the European Commission Trinidad & Tobago, also delivered remarks. Mr. Audley Walker, Chairman of Centre for the Development of Enterprise, and Mr. Kersten Coombs, Chairman of Caribbean Business Services Limited, welcomed participants.

**Participants Opening Ceremony**

Mr. Ray Braithwaite, Executive Chairman of the Solid Waste Management Company of T&T, and Mr. Sammy George, Managing Director of Ecoengineering Consultants Ltd., led the participants opening ceremony.

**Speakers Seminar**

The seminar was attended by a variety of speakers from different sectors and organizations. Mr. Alberto Marcolino represented the Centre for the Development of Enterprise. Mr. Heinz-Werner Engel, a member of the Board of the International Network for Environmental Management, also participated. Ms. Amel Jrad, an environmental expert, was present, as well as Ms. Anne Françoise Wolchik from the International Network for Environmental Management. Mr. Nigel Carter, another environmental expert, participated. Mr. Jürgen Paeger, Mr. Ralf Gruner, and Ms. Vernese Inniss, Ms. Danielle Lorde, and Ms. Wendy C.A. Walker-Drakes from the Ecolink also attended.

**Seminar Participants**

The seminar was attended by participants from Barbados and the Dominican Republic, including Ms. Vernese Inniss, Ms. Danielle Lorde, Ms. Wendy C.A. Walker-Drakes, Mr. Fernando Cabrera Martinez, and others from different organizations.
## SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Ricardo Fernandez-Sardina</td>
<td>Director Environment Department</td>
<td>Sercitec</td>
</tr>
<tr>
<td>Mr. Juan Manuel Heredia</td>
<td>Chemical Engineer</td>
<td>Independent Environmental Consultant</td>
</tr>
<tr>
<td>Mr. Edwards Matos</td>
<td>Ministry of Environment</td>
<td>of the Dominican Republic</td>
</tr>
<tr>
<td>Mr. Pedro Luis Pichardo</td>
<td>Financial Director</td>
<td>Instituto de Derecho Ambiental de la Republica Dominicana</td>
</tr>
<tr>
<td>Ms. Milagros J. Puello</td>
<td>Executive Director</td>
<td>Santo Domingo Chamber of Commerce</td>
</tr>
<tr>
<td>Mr. Edwards Matos</td>
<td>Ministry of Environment</td>
<td>of the Dominican Republic</td>
</tr>
<tr>
<td>Mr. Pedro Luis Pichardo</td>
<td>Financial Director</td>
<td>Instituto de Derecho Ambiental de la Republica Dominicana</td>
</tr>
<tr>
<td>Ms. Milagros J. Puello</td>
<td>Executive Director</td>
<td>Santo Domingo Chamber of Commerce</td>
</tr>
<tr>
<td>Mr. Edwards Matos</td>
<td>Ministry of Environment</td>
<td>of the Dominican Republic</td>
</tr>
<tr>
<td>Mr. Pedro Luis Pichardo</td>
<td>Financial Director</td>
<td>Instituto de Derecho Ambiental de la Republica Dominicana</td>
</tr>
<tr>
<td>Ms. Milagros J. Puello</td>
<td>Executive Director</td>
<td>Santo Domingo Chamber of Commerce</td>
</tr>
</tbody>
</table>

### Guyana

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Paulette Bynoe</td>
<td>Environmental Consultant</td>
<td>Independent Consultant</td>
</tr>
<tr>
<td>Ms. Denise Fraser</td>
<td>Environmental Consultant</td>
<td>Business and Environmental Services</td>
</tr>
</tbody>
</table>

### Jamaica

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Bert Brown</td>
<td>General Manager</td>
<td>SGS Supervise Jamaica Ltd.</td>
</tr>
<tr>
<td>Mr. Paul Carroll</td>
<td>Director</td>
<td>Technological &amp; Environmental Management Network</td>
</tr>
<tr>
<td>Ms. Denise Forrest</td>
<td>Principal Consultant</td>
<td>Forrest &amp; Associates</td>
</tr>
<tr>
<td>Mr. Peter Reeson</td>
<td>Director &amp; Partner</td>
<td>Environmental Solutions</td>
</tr>
<tr>
<td>Ms. Iantie T. Smith</td>
<td>Managing Director</td>
<td>Environmental &amp; Engineering Managers Ltd.</td>
</tr>
</tbody>
</table>

### Saint Lucia

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Camille Roopnarine</td>
<td>Sanitary Engineer</td>
<td>Caribbean Environmental Health Institute</td>
</tr>
</tbody>
</table>

### Suriname

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Farzia Hausil</td>
<td>Legal Advisor</td>
<td>National Institute for Environment and Development in Suriname</td>
</tr>
</tbody>
</table>

### Trinidad and Tobago

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Organization/Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Resha Ali</td>
<td>Biologist</td>
<td>EPAS Consultants Ltd.</td>
</tr>
<tr>
<td>Ms. Camille Arietas</td>
<td>Environmental Engineer</td>
<td>Green Engineering Services</td>
</tr>
<tr>
<td>Ms. Michele Barthol</td>
<td>Safety Coordinator</td>
<td>Jaric Environmental Health &amp; Safety Services Ltd.</td>
</tr>
<tr>
<td>Mr. Johann Cesar</td>
<td>Environmental Scientist</td>
<td>Green Engineering Services</td>
</tr>
<tr>
<td>Mr. Steve Maximay</td>
<td>Managing Director</td>
<td>PLANTPRO Associates Ltd.</td>
</tr>
<tr>
<td>Name</td>
<td>Position</td>
<td>Organization</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Mr. Haroon Mohammed</td>
<td>Chemical Engineer</td>
<td>Caribbean Industrial Research Institute</td>
</tr>
<tr>
<td>Mr. Daren Ragoonanan</td>
<td>Industrial Engineer</td>
<td>Caribbean Industrial Research Institute</td>
</tr>
<tr>
<td>Mr. John Roberts</td>
<td>Business Support Associate</td>
<td>Premier Quality Services Ltd.</td>
</tr>
<tr>
<td>Ms. Judy Rocke</td>
<td>Project implementation Officer</td>
<td>Institute of Marine Affairs</td>
</tr>
<tr>
<td>Ms. Crystal-Marie Sealy</td>
<td>Environmental Engineer</td>
<td>T&amp;T Solid Waste Management Company Ltd.</td>
</tr>
<tr>
<td>Ms. Ann-Marie Ward</td>
<td>IRCA Certified Auditor</td>
<td>Quality Management Systems</td>
</tr>
</tbody>
</table>
Annex 3: Participants Evaluation
Results of the INEM SMART Seminar Evaluation Sheet:

30 evaluation sheets were returned and analyzed.
In general all participants find that the seminar will bring new ideas, projects, practices that will be implemented in the near future. Most of them wish to obtain technical assistance from the SMART program. More training needs on EMS were identified and capacity building is requested. Ecomapping, ISO easy tools, EMAS easy, coaching cluster of SMEs towards ISO14001 and integrated management systems were identified as to be implement in the near future. Most of the participants identify the need to create a regional association of environmental professionals in the Caribbean.

1. **Seminar Content**

The Smart seminar content has been:

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Interesting</td>
<td>25</td>
<td>83,3%</td>
</tr>
<tr>
<td>Well explained</td>
<td>13</td>
<td>43,4%</td>
</tr>
<tr>
<td>Too superficial</td>
<td>1</td>
<td>3,3%</td>
</tr>
</tbody>
</table>

Comment: Almost all participants find the seminar content interesting and well explained, one complains that the time did not allow for more in-depth explanation.

2. **Link to your working situation**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Partially useful</td>
<td>5</td>
<td>16,7%</td>
</tr>
<tr>
<td>Very useful</td>
<td>25</td>
<td>83,3%</td>
</tr>
</tbody>
</table>

Comment: All participants found, that the content was useful to their working situation.

3. **The level of the training was:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Too low</td>
<td>1</td>
<td>3,3%</td>
</tr>
<tr>
<td>Adequate</td>
<td>26</td>
<td>86,7%</td>
</tr>
<tr>
<td>Too high</td>
<td>3</td>
<td>10%</td>
</tr>
</tbody>
</table>

Comment: Most of the participants find the level adequate, for 3 of them the level was too high and one finds it too low.

4. **The welcome, organization and infrastructure of the seminar was:**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td>Insufficient</td>
<td>4</td>
<td>13,3%</td>
</tr>
<tr>
<td>Good</td>
<td>18</td>
<td>60%</td>
</tr>
<tr>
<td>Excellent</td>
<td>8</td>
<td>26,7%</td>
</tr>
</tbody>
</table>

Comment: Most of the participants find the organization and infrastructure good but some few complain on hotel and convention facilities.
SMART  
Sustainable Management Action Research and Training  
Report on Seminar of SMART for Caribbean Enterprises

5. If asked to explain content and learning of this workshop to someone else in your organization, would you be able to do so

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Partially</td>
<td>11</td>
<td>36,7%</td>
</tr>
<tr>
<td>Yes</td>
<td>19</td>
<td>63,3%</td>
</tr>
</tbody>
</table>

Comment: 63,3% of the participants is able to explain thoroughly content and learning of the seminar and 36,7% could do it partially.

6. The dynamic of the seminar and its output

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate</td>
<td>15</td>
<td>50%</td>
</tr>
<tr>
<td>Excellent</td>
<td>15</td>
<td>50%</td>
</tr>
</tbody>
</table>

Comment: All participants were satisfied about the dynamic and output of the seminar.

7. Strength and Weaknesses

Strengths

Not all participants put additional comments. In general, participants find facilitators flexible and competent, appreciate the case studies presented and particularly appreciate the opportunity of meeting colleagues from the Caribbean to establish contacts and share information.

Weaknesses

Some people find the seminar too long and the period of the year not adequate, and a need of Spanish translation for participants from the Dominican Republic came up.

8. Did the training allow you to obtain a knowledge and know-how, which you wish to implement in the future? Give examples.

All participants answered with yes. 2 participants say, that they need more in-depth exposure and specific training to be able to do this. Examples given are the following:

- Eco-mapping s a tool for developing EMS (19)
- Coaching SMEs (3)
- Integrated systems (6)
- Application of ISO easy (3)
- Implementing EMS and integrated management systems in SMEs (2)
- Consider implementation of some new projects
- Useful information on new funding approaches, new approaches to implement EMS to SMEs and integrated systems
- Knowing and working with professionals across the Caribbean
- Tools for SMEs

Yes because some of the content applied to my activity
Have you identified new project ideas?

Almost all participants have identified new project ideas but some say that they still need more information. Major project ideas are:

- Coaching SMEs using integrated systems
- Waste management (2)
- Application of EMS, eco-mapping to SMEs in agro-processing sectors
- Develop rural community based tourism/eco-tourism
- Coaching cluster of SMEs in EMS (5)
- Establishment of National Professional Body (2)
- Awareness and training program for SMEs and consultants
- National capacity building of SMEs (awareness, capacity and compliance)
- Enabling SMEs in agro-processing sectors to obtain certification (ISO 14001/HACCP)
- Implementing EMS in tourism Micro Enterprises
- Creation of a regional network of environmental professionals (2)
- EMS implementation with Eco-mapping and ISO easy methods
- Waste management
- ISO training/Implementation in SMEs
- Regional networking within the Caribbean
- Awareness- educational seminars

To what extent has this meeting opened up new opportunities for your company?

<table>
<thead>
<tr>
<th>Practice</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>New practices</td>
<td>18</td>
<td>60%</td>
</tr>
<tr>
<td>Reorientation</td>
<td>2</td>
<td>6.6%</td>
</tr>
<tr>
<td>Diversification</td>
<td>5</td>
<td>16.7%</td>
</tr>
<tr>
<td>New networking</td>
<td>5</td>
<td>16.7%</td>
</tr>
</tbody>
</table>

With regard to your company's immediate development prospects, do you wish to obtain technical assistance from CDE?

Almost everybody proposed to introduce 1 to 3 projects in the next three months. Some participants’ required further information and guidelines for the project development. Examples of proposed projects are:

- Capacity building for SME’s
- Development of EMS projects with SMEs
- Technical assistance in the coaching of a new hotel project in implementing EMS from the design phase
- Expand expertise of the company by pursuing training in auditing to become certified auditors (2)
12. **Barriers to progress**

The most cited barriers are:

Absence of environmental regulation to comply with;
Poor enforcement of environmental policies on Government side;
Low environmental awareness;
Lack of local expertise;
Certification & implementation costs.
Annex IV: Photos of the SMART Seminar
SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

(Photo 1 cover page: Group Picture of all Seminar participants in front of the Hotel Cascadia, Port of Spain, and Trinidad & Tobago)

Photo 2: Opening Ceremony of the SMART Seminar in presence of from left to right Mr. Audley Walker, CDE Executive Board, The Honourable Penelope Beckles, Minister of Public Utilities and Environment of Trinidad & Tobago, Mr. Kerston Coombs, Chairman CBSL, Mr. Anthony Smallwood, Chargé d’Affaires EU Commission Trinidad & Tobago, Mr. Alberto Marcolino, Responsible CDE Environment Sector and Mr. Heinz Werner Engel, INEM Board Member

Photo 3: Plenary Session in the SMART Seminar
SMART
Sustainable Management Action Research and Training
Report on Seminar of SMART for Caribbean Enterprises

Photo 4: Icebreaking T-shirt folding exercise

Photo 5: Field visit to ISO 14001 certified Angostura Distillery, Trinidad & Tobago
Photo 6: Workgroup sessions – Draft your environmental project

Photo 7: Handing over the Seminar participation certificate