

**PARTICIPANT SURVEY REPORT:
USAID/ECONOMIC GROWTH, AGRICULTURE, AND TRADE
BUREAU (EGAT) AND CLIMATE CHANGE TEAM INVITATIONAL TRAVEL**

**FOR THE PERIOD
NOVEMBER 2000 THROUGH NOVEMBER 2001**

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(Task Order No. 1)**



Submitted to

**The U.S. Agency for International Development (USAID)
Energy and Environment Training Program (EETP)
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EXECUTIVE SUMMARY

The Invitational Travel (IT) Task Order is a special contracting mechanism funded under the Energy and Environmental Training Program Indefinite Quantity Contract (EETP IQC) and implemented by CORE International, Inc. Through this Task Order, USAID provides funding for participants invited by USAID to attend international and regional workshops, conferences and other international activities. The results of this task order contribute to USAID's objective of facilitating human capacity building through adaptation of best practices in the development, management, and operation of clean energy initiatives. For the period November 2000 through November 2001, USAID supported the participation of 33 individuals from the following 16 countries: Bangladesh, Ecuador, Botswana, El Salvador, Guatemala, Kenya, Lesotho, Malawi, Mozambique, Namibia, Panama, Peru, South Africa, Swaziland, Uganda, and Zambia. The participants attended one of the nine programs covered under this assessment. A contact list of all of the participants is provided in Annex I.

As part of its commitment to maximizing the impact of the invitational travel activities by the participants, USAID is interested in gathering information on the experience of the participants, particularly as it relates to transfer of knowledge, capacity building, and best practices adaptation in the South Asia Region. Therefore, USAID requested CORE International to conduct a survey and document the impacts resulting from the participants' attendance at the various regional events. The Task Order assigned to CORE International required CORE to conduct three separate surveys resulting in three separate reports.

This report concentrates on an analysis of the survey responses for those activities that were initiated either by EETP or Climate Change Team program officials. The other two reports, submitted separately are (i) Participant Survey Report: South Asia Regional Initiative for Energy (SARI/Energy) Invitational Travel and Semi-Annual Meeting Participants and (ii) Participants Survey Report: SARI/Energy Rural Energy Services Task Order.

The total Level of Effort (LOE) for the entire Task Order for all three exercises was approximately 2 person months.

As the first step towards this exercise, CORE International developed a survey instrument for gathering information on the participants' experience in the various events and specifically determining the extent to which the participation of sponsored officials resulted in capacity building, skills transfer, adaptation of best practices, and regional cooperation. The survey instrument was reviewed, commented on, and approved by USAID. The survey was deliberately designed to be short with the main objective being to document concrete examples where participants have used their knowledge gained through their attendance at an Invitational Travel event. In addition to documenting what the participants were able to apply in their country, the survey also documents results, benefits, and impacts affected in their country as result of their participation in a particular program.

The design of the survey was carefully crafted to maximize the quality of information that would provide CORE the best opportunity to link the results/impacts of the participants' attendance at the various events with the intended objectives of the IT Task Order. Based on a number of iterations three key questions were included in the survey and were carefully worded to ensure clarity, focus, and brevity.

- 1. How were you able to share knowledge learned in your program with other individuals?**
- 2. Describe one or more occasions where you were able to apply your knowledge.**
- 3. What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?**

CORE sought the highest possible response rate from the surveys. Each survey was personalized with the participant's address, title, program name, dates of the program activity, and a deadline for the submittal of the information. As an incentive, CORE offered to provide a small gift to the 10 participants that best documented results of their participation in an activity. The top ten responses will be decided by representatives from USAID. A sample of the survey tool is provided in Annex II to this report.

After the initial electronic mailing of the surveys, CORE allowed a reasonable time for receiving responses. After this reasonable time, CORE followed up with various participants via telephone and fax in order to increase the overall response rate. Many of the participants could not be contacted due to their position changes and transfers to other locations and entities. The response rate from the participants exceeded 42% of those surveyed. This response rate was reported to USAID and was accepted as exceeding the expectations of USAID.

The review and analysis of the data included in the responses indicated certain themes that were common across the survey responses. These common themes were cross-cutting across all EGAT IT activities and were demonstrated through the responses.

1. Sharing of knowledge with colleagues
2. Results showing amendments to power development policies, five year programs, and other energy sector policy documents attributable, all in or in part, to the participants' participation in an IT event
3. Demonstrations of a newly acquired knowledge relative to energy policies, practices, procedures, and technologies, as applied by other countries
4. Examples of human and institutional capacity improvements following the participants' participation in an IT event

The survey results compiled as part of this exercise provide direct evidence that the events sponsored by the EGAT Bureau and the Clean Energy Team under the IT Task Order have resulted in well documented positive impacts that support the overall EGAT objectives.

Exhibit I provides the percentage of participant responses documenting each of the four key themes that support the overall objectives of Clean Energy Production and Use.

EXHIBIT I: PERCENTAGE OF RESPONSES THAT RELATE TO THE RESULTS THEMES	
Theme 1: Sharing of Knowledge With Colleagues	65%
Theme 2: Amending Development Policies, Five Year Programs, and Other Energy and Environment Sector Documents	35%
Theme 3: Demonstrating Newly Acquired Knowledge Relative to Energy and Environment Policies, Practices, Procedures, and Technologies	75%
Theme 4: Highlighting Human and Institutional Capacity Improvements	65%

Although personal interviews could not be accommodated under the confines of the surveying activity, it is reasonable to conclude from the responses that the individuals selected to participate in the activities were well matched with each program's objectives. That is to say that the individuals were in positions of enough authority to take back to their home countries the knowledge acquired during the programs and to affect change within their own spheres of influence. It can also be deduced that for the more technical programs which often involved site visits, the exposure to the technologies increased human capacity which translated into institutional capacity enhancements.

A few examples deserve a special mention as they provide significant evidence of the fact that the IT activities are indeed making a difference. An important example is the initiative taken by the Technical Director of the Energy Regulation Board of Zambia following his participation in the AFUR Workshop in Accra, Ghana. He facilitated the organization of a thirteen week TV program on Zambia's national television for the Energy Regulation Board (ERB) to perform outreach and communication to the general public. The broadcasts explained the ERB's function and included public information on standards, inspections, and tips to consumers in dealing with a utility. Clearly this demonstrates an initiative to promote successful regulatory reform by involving relevant stakeholders, a major focus of the AFUR workshop.

Another strong example involves the Clean Production Manager of the National Environment Council of Peru who included the Clean Development Mechanism (CDM), as learned during the CDM Training Program, in a Terms of Reference for retrofitting boilers to natural gas. This is an excellent example of applied knowledge for the promotion of clean energy production and use resulting from an Invitational Travel activity.

The complete responses of the participants are provided in Annex III to this report. Annex IV includes brief descriptions of the IT activities covered as part of this report.

I. INTRODUCTION

The Invitational Travel (IT) Task Order is a special contracting mechanism funded under the Energy and Environmental Training Program Indefinite Quantity Contract (EETP IQC) and implemented by CORE International, Inc. Through this Task Order, USAID provides funding for invited participants to attend international and regional workshops, conferences and other international activities. The results of this task order contribute to USAID's objective of facilitating human capacity building through adaptation of best practices in the development, management, and operation of clean energy initiatives. Funding through the Bureau for Economic Growth, Agriculture, and Trade (EGAT) supports the participation of key energy sector representatives from throughout the world to participate in international workshops, conferences and roundtables that focus on energy and environmental issues.

For this reporting period, the IT Task Order was used to facilitate the attendance of 33 energy sector officials to 9 separate activities during the reporting period. For the period November 2000 through November 2001, USAID supported the participation of 33 individuals from the following 16 countries: Bangladesh, Ecuador, Botswana, El Salvador, Guatemala, Kenya, Lesotho, Malawi, Mozambique, Namibia, Panama, Peru, South Africa, Swaziland, Uganda, and Zambia. The participants attended one of the nine programs covered under this assessment.

Through the funding provided by USAID, these individuals were able to participate in international conferences, workshops, and forums that were organized by the multilateral banks, industry groups, country government entities, research institutes, and other stakeholders.

All of the events concerned regional and global energy and environment issues and complemented EGAT's broader objectives. Workshops and conferences covered such subjects as renewable energy options, energy markets, electricity policy, regulatory reform, global climate policy, and clean energy applications.

Individuals funded to attend these special conferences, workshops, and symposiums represented countries where USAID has an active presence. The participants were nominated based on their ability to apply the knowledge gained at these events upon their return to their home-country.

This report concentrates on an analysis of the survey responses for those activities that were initiated either by EETP or Climate Change Team program officials. The other two reports, submitted separately are (i) Participant Survey Report: South Asia Regional Initiative for Energy (SARI/Energy) Invitational Travel and Semi-Annual Meeting Participants; and (ii) Participants Survey Report: SARI/Energy Rural Energy Services Task Order.

The total Level of Effort (LOE) for the entire Task Order for all three exercises was approximately 2 person months.

Annex I provides a complete listing of the participants that attended the events. The listing includes each participant's title and organization.

II. METHODOLOGY

As part of its commitment to maximizing the impact of these invitational visits by the participants, the EGAT Bureau and climate Change Team at USAID are interested in gathering information on the experience of the participants, particularly as it relates to transfer of knowledge and capacity building in the energy sector to foster clean energy production and use. Therefore, USAID requested CORE International to conduct a survey and document the impacts resulting from the participants' attendance at the various invitational travel events. The funding for this results survey was provided through USAID/Washington/EGAT under CORE's Technical Advisory Group (TAG) Task Order.

A. SURVEY DESIGN

As the first step towards this exercise, CORE International developed a survey instrument for distribution to all of the participants who were funded through the Invitational Travel mechanism. The survey instrument was reviewed, commented on, and approved by officials from the EGAT Bureau including the Climate Change Team. The survey was deliberately designed to be short with the main objective being to document concrete examples where participants have used their knowledge gained through their attendance at an event. In addition to documenting what the participants were able to apply in their country, the survey also documents results, benefits, and impacts affected in their country as a result of their participation in a given program.

A second objective of the survey was to determine any cross-cutting issues and themes that may offer USAID valuable information in designing future participant travel activities.

The design of the survey was carefully crafted to maximize the quality of information that would provide CORE the best opportunity to link the results/impacts of the participants' attendance at the various events with the intended objectives of the IT Task Order. Based on a number of iterations, three key questions were included in the survey and were carefully worded to ensure clarity, focus, and brevity.

- 1. *How were you able to share knowledge learned in your program with other individuals?***
- 2. *Describe one or more occasions where you were able to apply your knowledge.***
- 3. *What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?***

The survey questions were designed to draw out from the respondents how they applied the knowledge gained from the program they attended. It encouraged participants to document actual success stories that resulted from their applying their knowledge gained during their IT activity. As CORE International, Inc. did not design or implement the

activities that the participants attended, the survey did not cover the programs' contents, length, or venue. Rather, the survey focused on documenting the results achieved and how those results relate to the objective of clean energy production and use.

B. PROGRAMS COVERED UNDER THE SURVEY

The survey covered a total of 9 programs/events. The participants that responded to the survey attended programs that focused on regional and global energy and environmental issues. Workshops and conferences covered a variety of topics including utility regulation, Clean Development Mechanisms (CDM), alternative energy applications, energy trading, and global climate change policy. Specifically, USAID supported activities implemented by the World Bank, the African Forum for Utility Regulation, the South African Power Pool (SAPP), and the U.S. Energy Association (USEA).

Following is a description of each of the programs. The description includes the name of the implementer (where applicable), key issues of the event program, time frame, and the number of attendees funded by USAID through the IT Task Order.

1. WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C, November 26 - 27, 2000

Key Issues

Wind Energy, Alternative Energy Applications

Sector

Energy

Timeframe

2 days

Number of Participants

Six

Description

This symposium focused on wind energy as part of a program of renewable and alternative energy applications.

2. South African Power Pool (SAPP) - Train the Traders Course, Harare, Zimbabwe, March 6 - 7, 2001

Key Issues

Energy Trading

Sector

Energy

Implementer

South African Power Pool (SAPP)

Timeframe

2 days

Number of Participants

Seven

Description

The purpose of this course was to "train the traders" from various Southern African countries in the operation of short-term energy markets.

3. South African Power Pool (SAPP) Regional Roundtable for Training Program Development, Harare, Zimbabwe, March 5 - 6, 2001

Key Issues

Energy Policy, Regulatory Reform, Legal Reform, Energy Trading

Sector

Energy

Implementer

South African Power Pool (SAPP)

Timeframe

2 days

Number of Participants

Five

Description

At the SAPP Regional Roundtable for Training Program Development, the discussions centered on the development of electricity policy, as well as legal and regulatory reform, and trade issues.

4. Clean Development Mechanism (CDM) Training Program, Tegucigalpa, Honduras, March 20 - 25, 2001

Key Issues

Climate Change, Clean Development

Sector

Environment, Energy

Timeframe

5 days

Number of Participants

Two

Description

The program aimed to train professionals from the region in the use of the Clean Development Mechanism (CDM) in promoting global climate policy.

5. World Bank/African Forum for Utility Regulation (AFUR) Meeting, Accra, Ghana, May 2 - 3, 2001

Key Issues

Utility Regulation, Consumer Awareness

Sector

Energy

Implementer

World Bank, Africa Forum for Utility Regulation

Timeframe

2 days

Number of Participants

Four

Description

The forum, sponsored by the World Bank, sought to encourage senior level utility officials in the region to promote consumer awareness of the regulatory process and encourage transparency.

6. *Technical Workshop for the Project-Based Activities in the Clean Energy Sector, Asuncion, Paraguay, May 23 - 24, 2001*

Key Issues

Clean Energy, Project Monitoring

Sector

Energy and Environment

Timeframe

2 days

Number of Participants

Three

Description

The workshop focused on existing project-based activities in the clean energy sector and sought to provide information on best practices and practical approaches to relevant issues (i.e. carbon management) and other key components, such as project monitoring.

7. *World Bank/African Forum for Utility Regulation (AFUR) Meeting, Dakar, Senegal, November 27 - 29, 2001*

Key Issues

Energy Regulation

Sector

Energy

Implementer

World Bank, Africa Forum for Utility Regulation

Timeframe

3 days

Number of Participants

Five

Description

This AFUR program focused on training representatives from regional regulatory agencies to manage relationships with their service providers.

CORE sought the highest possible response rate from the surveys. Each survey was personalized with the participant's address, title, program name, dates of the program activity, and a deadline for the submittal of the information. As an incentive, CORE offered to provide a small gift to the 10 participants that best documented results of their participation in an activity. The top ten responses will be decided by representatives from USAID.

An example of the survey tool is provided in Annex II.

After the initial electronic mailing of the surveys, CORE allowed a reasonable time for receiving responses from the participants. After this reasonable time, CORE followed up with various participants via telephone and fax in order to increase the overall response rate. Many of the participants could not be contacted due to their position changes and transfers to other locations and entities. The response rate from the participants exceeded 42% of those surveyed. This response rate was reported to USAID and was accepted as exceeding the expectations of USAID.

This report summarizes the results of the survey including common themes, true success stories which can be credited in whole or in part to the participants' attendance at an IT event, as well as a summary of the key areas where results can be shown to support the IT Task Order objectives.

III. SURVEY RESULTS

The IT Task Order was used to facilitate the attendance of 33 persons to 9 separate activities during the reporting period. Through funding provided by EGAT, individuals from throughout the world were able to participate in international conferences, workshops, and forums that were organized by the multilateral banks, industry groups, country government entities and research institutes, and other stakeholders. Funding from EGAT supports the participation of key energy and environmental sector representatives worldwide to participate in organized workshops, conferences, and roundtables that focus on energy and environmental development.

This section presents a summary of the survey results based on an analysis of the raw data received from the participants.

A. COMMON THEMES DESCRIBED IN PARTICIPANT RESPONSES

CORE reviewed all of the responses and conducted an analysis of the raw data received from the participants. The review and analysis of the data included in the responses indicated certain themes that were common across the survey responses. The most common themes include the following:

- 1. Examples of sharing of knowledge with colleagues following a participants' participation in an IT event**
- 2. Results showing amendments to development policies, five year programs, and other energy and environment sector policy documents attributable, all in or in part, to the participants' participation in an IT event**
- 3. Demonstrations of a newly acquired knowledge relative to energy and environment policies, practices, procedures, and technologies**
- 4. Examples of human and institutional capacity improvements following the participants' participation in an IT event**

These common themes were cross-cutting across all EGAT IT activities and were demonstrated through the responses of individuals that participated in the IT activities. The following includes excerpts from the respondents which best demonstrate each of the four themes.

Theme 1: Sharing of Knowledge with Colleagues

Nearly each respondent documented sharing specific components of their IT events with their colleagues, superiors, or private sector counterparts. The respondents documented that they shared their knowledge through numerous venues including informal discussions, especially arranged group meetings, meetings arranged with superiors, and formal presentations. Some respondents also provided formal trainings using the materials provided to them at their IT event. Some examples of the comments by respondents which highlight this theme follow.

**Clean Development Mechanism (CDM) Training Program,
Tegucigalpa, Honduras**

I had the opportunity to share with the previous Minister, Ana María Majano, information on the different institutional figures for the implementation of the Clean Development Mechanism (CDM) in Honduras, Nicaragua, Panamá, and Mexico, and we compared these figures with our institutional configuration and we clarified and ratified the role of the Salvadorian CDM office.

'I had the opportunity to share with the Minister, information on the different institutional figures for the implementation of the Clean Development Mechanism (CDM) in Honduras, Nicaragua, Panamá, and Mexico and we compared these figures with our institutional configuration and we clarified and ratified the role of the Salvadorian CDM office.'

**Mr. Mauricio Fuentes Edgar Ayala
Economist
Ministry of Environment and Natural Resources
El Salvador**

**Mr. Mauricio Fuentes Edgar Ayala
Economist
Ministry of Environment and Natural Resources
El Salvador**

**World Bank/Africa Forum for Utility Regulation (AFUR) Meeting
Dakar, Senegal**

When I returned to Kenya, I briefed the Electricity Regulatory Board (ERB) Directors and the concerned staff on the knowledge learned in the program. At the time, the confidence of the Service Providers in the functioning of ERB appeared to be low due to a prevailing secretive culture. I emphasized to ERB the importance of conducting its affairs in a transparent and accountable manner vis-à-vis its stakeholders. The electricity regulatory process in Kenya is now transparent and accountable because ERB involves its key

"When I returned to Kenya, I briefed the Electricity Regulatory Board (ERB) Directors and the concerned staff on the knowledge learned in the program."

**Mr. Jeremia K. Murithi
Chairman
Electricity Regulatory Board
Kenya**

stakeholders (i.e., the consumers, the suppliers, and the government) in all of its major programs.

Mr. Jeremia K. Murithi
Chairman
Electricity Regulatory Board
Kenya

Technical Workshop for the Project-Based Activities in the Clean Energy Sector, Asuncion, Paraguay

I believe that attending the Technical Workshop has led me to incorporate and promote, within my organization and my university, new schemes which add value to clean production projects. In both positions, as a clean development manager and as a professor at the university, I am providing leadership and I am sharing the knowledge acquired to create awareness in the industrial sector and amongst consultants and students of the economic and environmental benefits of the clean energy and clean production.

The people involved in the projects I am developing are incorporating the clean production concepts and modern economic instruments in projects as a result of the knowledge shared in the Technical Workshop.

"The people involved in the projects I am developing are incorporating the clean production concepts and modern economic instruments in projects as a result of the knowledge shared in the Technical Workshop."

Mr. Manuel Humerto Luque Casanave
Clean Production Manager
National Environment Council of Peru
Peru

Mr. Manuel Humerto Luque Casanave
Clean Production Manager
National Environment Council of Peru
Peru

World Bank/Africa Forum for Utility Regulation (AFUR) Meeting
Accra, Ghana

When I came back from the AFUR program, I spoke to our Acting Consumer Affairs Manager (A/CAM) about the various ways of reaching out to different consumers. I had realized through the workshop that consumer education was extremely important for a regulatory agency. People have to know why you exist as an agency, what you do, and what their rights and obligations are.

“When I came back from the AFUR program, I spoke to our Acting Consumer Affairs Manager (A/CAM) about the various ways of reaching out to different consumers. I had realized through the workshop that consumer education was extremely important for a regulatory agency.”

**Mr. Silvester Hibajene
Technical Director
Energy Regulation Board
Zambia**

I gave the A/CAM the materials I came with from Accra and we talked about what should be done in Zambia.

**Mr. Silvester Hibajene
Technical Director
Energy Regulation Board
Zambia**

WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C.

Besides assisting the Ministry of Energy and Mines, we've been able to assist people, mainly students, who have come to Fundación Solar interested in wind energy information. We are also planning a wind energy course inside Fundación Solar to train the other members of the staff.

**Ms. Carolina Palma and Mr. Saul Santos
Project Engineer/Project Assistant
Fundacion Solar
Guatemala**

“We are also planning a wind energy course inside Fundación Solar to train the other members of the staff.”

**Ms. Carolina Palma and Mr. Saul Santos
Project Engineer/Project Assistant
Fundacion Solar
Guatemala**

Theme 2: Amending Development Policies, Five Year Programs, and Other Energy and Environment Sector Documents

Respondents to the survey described examples where policy changes were being made, policy documents improved, or internal policies enhanced as a result of their participation in EGAT IT activities. Several participants documented the launching of new initiatives as a direct result of their participation in the USAID-sponsored Invitational Travel activity. Several examples are highlighted below. These examples are from energy sector representatives from Kenya, Bangladesh, Peru, Ecuador, and Namibia.

World Bank/Africa Forum for Utility Regulation (AFUR) Meeting Dakar, Senegal

On September 11, 2001, ERB appointed a consultant to assist it in reviewing the Electricity Tariff Policy in Kenya. The Draft Final Report (DFR) was received in ERB on 10 December. The ERB decided that in keeping with its policy of functioning in a climate of transparency and accountability, the DFR would be examined by a stakeholder workshop on January 10, 2002. The Stakeholder Workshop was attended by 42 key Stakeholders, including government ministers, permanent secretaries, chairmen and board of directors of corporations, public and private power generators, the electric power supplier (transmission and distribution), public universities, research institutions, consumer organizations, the media and ERB directors, staff, and consultants. I was privileged to chair this Workshop. This was the highlight of my career in ERB.

The stakeholders made many suggestions to improve the DFR and these have now been incorporated in the Final Report. I am glad we made the decision to involve the stakeholders in the early stages of the Review process. This has had positive consequences. My interaction with the stakeholders indicates that they have gained confidence in the functioning of ERB. By adopting this transparent regulatory process, our stakeholders understand the reasons for ERB decisions even if they do not necessarily agree with them. This is very important for ERB.

Mr. Jeremia K. Murithi
Chairman
Electricity Regulatory Board
Kenya

"The ERB decided that in keeping with its policy of functioning in a climate of transparency and accountability, the DFR would be examined by a stakeholder workshop on January 10, 2002. The Stakeholder Workshop was attended by 42 key Stakeholders, including government ministers, permanent secretaries, chairmen and board of directors of corporations, public and private power generators, the electric power supplier (transmission and distribution), public universities, research institutions, consumer organizations, the media and ERB directors, staff, and consultants. I was privileged to chair this Workshop. This was the highlight of my career in ERB."

Mr. Jeremia K. Murithi
Chairman
Electricity Regulatory Board
Kenya

**Technical Workshop for the Project-Based Activities in the Clean Energy Sector,
Asuncion, Paraguay**

At the Ecuadorian Ministry of the Environment, I am in charge of carbon offset issues at the Climate Change Unit. Among other activities, we have arranged the institutional framework for enabling the participation of national stakeholders in the emerging carbon market.

Under the umbrella of the National Climate Committee, the Ministry of the Environment has established the National Authority for the CDM and has lead the recent establishment of a public-private National CDM Promotion Office (among other actions to define these institutional arrangements, a final national workshop was held with CSDA technical assistance and USAID funds). The knowledge I learned in the Paraguay workshop on energy CDM projects is part of the information and knowledge we

permanently share through different individual and collective capacity building activities of our Promotion Office (since I am in charge of the Executive Direction of this Office).

Mr. Marcos Xavier Castro Rodriguez
Industrial Engineer
Ministry of the Environment/CORDELIM
Ecuador

'The Ministry of the Environment has established the National Authority for the CDM and has lead the recent establishment of a public-private National CDM Promotion Office (among other actions to define these institutional arrangements, a final national workshop was held with CSDA technical assistance and USAID funds).'

Mr. Marcos Xavier Castro Rodriguez
Industrial Engineer
Ministry of the Environment/CORDELIM
Ecuador

WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C.

The various experiences of other countries in rural and renewable energy and the field visits were useful for preparing a guideline for "Equitable Utilization of RET by the Public Sector in Bangladesh".

"The various experiences of other countries in rural and renewable energy and the field visits were useful for preparing a guideline for "Equitable Utilization of RET by the Public Sector in Bangladesh". This document has made recommendations for promotion of RET in various sectors of the economy, and will be presented to the government for inclusion in the Sixth Five Year Plan."

Ms. Asma Huque
Director
Prokaushali Sangsad Ltd
Bangladesh

This document has made recommendations for promotion of RET in various sectors of the economy, and will be presented to the government for inclusion in the Sixth Five Year Plan.

Ms. Asma Huque
Director
Prokaushali Sangsad Ltd
Bangladesh

Technical Workshop for the Project-Based Activities in the Clean Energy Sector, Asuncion, Paraguay

Under the SENREM-USAID program, I proposed to the Ministry of Industry a project called "Demonstration Project for Retrofitting Boilers to Natural Gas", which has been approved. In the Terms of Reference I have included the Clean Development Mechanism (CDM) scheme for financing the retrofitting regarding the environmental and financing components of the retrofitting. With respect the original project of Camisea pipeline, burning natural gas will dramatically reduce the emissions with regards to the current fossil fuels we are using. For this proposal I made use of the knowledge about CDM gained at the Technical Workshop for the Project-Based Activities in the Clean Energy Sector.

"For this proposal I made use of the knowledge about CDM gained at the Technical Workshop for the Project-Based Activities in the Clean Energy Sector."

Mr. Manuel Humerto Luque Casanave
Clean Production Manager
National Environment Council of Peru
Peru

Mr. Manuel Humerto Luque Casanave
Clean Production Manager
National Environment Council of Peru
Peru

World Bank/Africa Forum for Utility Regulation (AFUR) Meeting,

Accra, Ghana

At the Accra AFUR meeting, issues related to the relationships between large utilities and their political influence were dealt with. Thus we were able to deal with this utility and I am happy that we have agreed that in the interest of reform of the sector, all stakeholders must accept their responsibilities. Above all that, all of us must embrace change, which the utility was finding it difficult to do. Some conditions have been amended and also the levy is now being paid, almost in full.

**Mr. Siseho Chibeya Simasiku
Chief Executive Officer
Electricity Control Board
Namibia**

'At the Accra AFUR meeting, issues related to the relationships between large utilities and their political influence were dealt with. Thus we were able to deal with this utility and I am happy that we have agreed that in the interest of reform of the sector, all stakeholders must accept their responsibilities. Above all that, all of us must embrace change.'

**Mr. Siseho Chibeya Simasiku
Chief Executive Officer
Electricity Control Board
Namibia**

Theme 3: Demonstrating Newly Acquired Knowledge Relative to Energy and Environment Policies, Practices, Procedures, and Technologies

Respondents clearly demonstrated that their existing knowledge on issues such as technology, best-practices, and policy development was augmented as a result of their participation in these events. In most cases, they indicated exactly how these skills have benefited both them and their countries in positive ways.

**World Bank/Africa Forum for Utility Regulation (AFUR) Meeting
Accra, Ghana**

Regarding involvement of wider consumer groups in regulatory decision-making, the workshop confirmed the prudence of involving stakeholders (both demand and supply side) in decision making for purposes of fostering a sense of ownership of the decisions on the part of the stakeholders. This is believed to facilitate ease of administration of the regulatory process. In this regard, ERB has since hosted two stakeholder workshops on tariff review. The first, which involved both consumers, supply side, development partners and government was to discuss a draft report on a study to Review the Electricity Tariff Policy in Kenya while the second was to discuss preliminary findings on a study to Review the Operation Costs and Capital Expenditure Projects for the Power Industry. The latter workshop only involved the supply side and government, and indeed prior to its commencement the relevant parties had participated in a briefing session during which the aims of the study were presented and support for purposes data and information collection was sought and obtained.

'ERB has since hosted two stakeholder workshops on tariff review. The first, which involved consumers, supply side, development partners and government, was held to discuss a draft report on a study to Review the Electricity Tariff Policy in Kenya. The second was to discuss preliminary findings on a study to Review the Operation Costs and Capital Expenditure Projects for the Power Industry. The latter workshop involved the supply side and government.'

**Mr. Kevin Kariuki
Chief Power Engineer/Consumer
Affairs Manager
Electricity Control Board
Kenya**

**Mr. Kevin Kariuki
Chief Power Engineer/Consumer
Affairs Manager
Electricity Control Board
Kenya**

**Clean Development Mechanism (CDM) Training Program,
Tegucigalpa, Honduras**

(We learned) other methodologies for the calculation of the green house gas emission which allowed us to compare the LEAP 2000 with the MARKAL MACRO and PROFORM, and we then ratified the use of this model (LEAP 2000). We also consolidated the institutional figure for the management of the CDM in El Salvador.

**Mr. Mauricio Fuentes Edgar Ayala
Economist
Ministry of Environment and Natural
Resources
El Salvador**

"(We learned) other methodologies for the calculation of the green house gas emission which allowed us to compare the LEAP 2000 with the MARKAL MACRO and PROFORM, and we then ratified the use of this model (LEAP 2000)."

**Mr. Mauricio Fuentes Edgar Ayala
Economist
Ministry of Environment and Natural
Resources
El Salvador**

**Technical Workshop for the Project-Based Activities in the Clean Energy Sector,
Asuncion, Paraguay**

At the workshop I received new and complementary insights and practical approaches to carbon management issues in energy projects, such as baselines, as well as monitoring. Due to my responsibilities at our CDM Promotion Office, I have to deal permanently with CDM project proposals at very different development stages. In those assessment activities, I implicitly apply knowledge gained at the referred workshop.

**Mr. Marcos Xavier Castro Rodriguez
Industrial Engineer
Ministry of the Environment/CORDELIM
Ecuador**

"Due to my responsibilities at our CDM Promotion Office, I have to deal permanently with CDM project proposals at very different development stages. In those assessment activities, I implicitly apply knowledge gained at the referred workshop."

**Mr. Marcos Xavier Castro Rodriguez
Industrial Engineer
Ministry of the Environment/CORDELIM
Ecuador**

**WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder,
Colorado; Canyon and Abilene, Texas; and Washington, D.C.**

The many technologies exhibited during the program provided useful ideas about products and feasibility of their implementation in future projects. For example, solar refrigeration, high efficiency wood stoves, low-head micro hydro equipment, low speed wind generators are some items that we plan to use for future projects when possible.

Ms. Asma Huque
Director
Prokaushali Sangsad Ltd
Bangladesh

Theme 4: Highlighting Human and Institutional Capacity Improvements

Specific incidents of tangible capacity improvement were related in many of the responses. These positive developments occurred both on an individual level, as well as on a larger, institutional level. In many cases participants were able to directly apply their recently acquired knowledge to effect large-scale improvements. The highlights under this theme have been taken from excerpts of respondents from Guatemala, Zambia, Kenya, and Namibia.

WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C.



Wind Workshop
In The Ministry of Energy and Mines

Through the workshop Introduction of Wind Energy we trained seven professionals from The Ministry of Energy and Mines and two wind equipment supplier managers. We have been giving support, mainly to Guatemalan students, who are interested in basic information on wind energy. Another important, positive aspect of our participation in WEATS is that we feel more confident about our capacities and we feel motivated to continue promoting wind energy.

Ms. Carolina

Palma and Mr. Saul Santos
Project Engineer/Project Assistant
Fundacion Solar
Guatemala

“Another important, positive aspect of our participation in WEATS is that we feel more confident about our capacities and we feel motivated to continue promoting wind energy.”

Ms. Carolina Palma and Mr. Saul Santos
Project Engineer/Project Assistant
Fundacion Solar
Guatemala

World Bank/Africa Forum for Utility

**Regulation (AFUR) Meeting
Accra, Ghana**

Within a few months after discussing with the A/CAM, the Consumer Affairs Section (comprised of merely two people) organized a thirteen week TV program on our national television for the Energy Regulation Board (ERB) to explain to the people our function, the various standards we had developed, how we conduct inspections of facilities, dealing with a utility, lodging and handling of complaints, etc. The last three of these programs were live and people phoned in. I participated in about 6 of the programs including the three live broadcasts. Many viewers called in and asked questions, especially with regard to the utility bills, power disconnections, bills left by previous tenants, etc. Each program lasted 45 minutes. All of the programs were recorded and we have videotapes of each one of them.

It was quite evident after that that more people now know the role of the ERB. There was an increase in the number of complaints we received. Even the utility began to organize a similar program in response so that they could explain what they were doing to improve customer focus and response. Indeed within a few weeks they organized some programs as well.

“Within a few months after discussing with the A/CAM, the Consumer Affairs Section (comprised of merely two people) organized a thirteen week TV program on our national television for the Energy Regulation Board (ERB) to explain to the people our function, the various standards we had developed, how we conduct inspections of facilities, dealing with a utility, lodging and handling of complaints, etc.”

**Mr. Silvester Hibajene
Technical Director
Energy Regulation Board
Zambia**

**Mr. Silvester Hibajene
Technical Director
Energy Regulation Board
Zambia**

**World Bank/Africa Forum for Utility Regulation (AFUR) Meeting,
Accra, Ghana**

As a result of the efforts to involve our stakeholders (consumers, supply side, and government) in the above undertakings, ERB is publicly acclaimed as an accountable, transparent, and fair regulator. The biggest impact from the activities is therefore enhancement of the public image of ERB, which is fundamental to the institution's credibility. In turn, credibility greatly facilitates the administration of the regulatory process.

Mr. Kevin Kariuki
Chief Power Engineer/Consumer
Affairs Manager
Electricity Control Board
Kenya

"The biggest impact from the activities is therefore enhancement of the public image of ERB, which is fundamental to the institution's credibility. In turn, credibility greatly facilitates the administration of the regulatory process."

Mr. Kevin Kariuki
Chief Power Engineer/Consumer
Affairs Manager
Electricity Control Board
Kenya

World Bank/Africa Forum for Utility Regulation (AFUR) Meeting
Accra, Ghana

A clash, especially between the regulator and politicians, was avoided. Instead, by applying the principles learned at the Accra meeting of AFUR, we were able to build into the licensing condition measures which took care of the interests of the regulator and reform. Northern Electricity was protected. They agreed to help the new group take over the business in the area. The conditions of the ECB were adhered to and the supply of electricity to the community has continued, uninterrupted. The relationship between the ECB and the new entity continues to improve.

Mr. Siseho Chibeya Simasiku
Chief Executive Officer
Electricity Control Board
Namibia

'A clash between the regulator and the politicians was avoided. We were able to build measures into the licensing condition which took care of the interests of the regulator and reform. The conditions continue to be adhered to and the relationship between the ECB and the new entity continue to improve.'

Mr. Siseho Chibeya Simasiku
Chief Executive Officer
Electricity Control Board
Namibia

B. RELATIONSHIP OF THE SURVEY RESULTS TO CLEAN ENERGY PRODUCTION AND USE OBJECTIVE

The EGAT IT program collaborates with other donor agencies at three levels: (i) technical assistance leveraging, (ii) capacity-building, and (iii) policy dialogue. EGAT has been working closely with all major donors, including the World Bank, to advance their energy sector development strategies. The central objective of the EGAT program is the promotion of clean energy production and use. These include the following:

- Increased Energy Efficiency
- Increased Use of Renewable Energy Resources
- Promotion of Clean Energy Programs
- Greater Private Sector Participation in Energy Development, Management and Operations
- Regulatory Reform and Regional Energy Cooperation

The survey results compiled as part of this exercise provide direct evidence that the events sponsored by the EGAT Bureau and the Clean Energy Team under the IT Task Order have resulted in well documented positive impacts that support the overall EGAT objectives.

Although personal interviews could not be accommodated under the confines of the surveying activity, it is reasonable to conclude from the responses that the individuals selected to participate in the activities were well matched with each program's objectives. That is to say, that the individuals were in positions of sufficient authority to take back to their home countries the knowledge acquired during the programs and to affect change within their own spheres of influence. It can also be deduced that for the more technical programs which often involved site visits, the exposure to the technologies increased both human capacity and, based on the quality of the participants, translated into institutional capacity enhancements.

Several examples illustrate the correlation between the themes of the results and the objectives of the EGAT Bureau best. These include the initiative taken by the Technical Director of the Energy Regulation Board of Zambia following his participation in the AFUR Workshops in Accra, Ghana. He facilitated the organization of a thirteen week TV program on Zambia's national television for the Energy Regulation Board (ERB) to perform outreach and communication to the general public in order to explain ERB's function, standards that it had developed, how inspections are performed, tips on dealing with a utility, etc. Clearly this demonstrates an initiative to promote successful regulatory reform by involving relevant stakeholders, a major component of the AFUR workshop.

Another example involves the Clean Production Manager of the National Environment Council of Peru who included the Clean Development Mechanism (CDM), as learned during the CDM Training Program, in a Terms of Reference for retrofitting boilers to natural gas. This is an excellent example of applied knowledge for the promotion of clean energy production and use resulting from an Invitational Travel activity.

In terms of institutional capacity enhancements, we much enjoyed reading about the work performed by Fundación Solar of Guatemala following the participation of two of their principals in the WEATS Symposium. The participants assisted a group of engineers from the Ministry of Energy and Mines in Guatemala, in a training workshop about basic concepts of wind energy called "Introduction to Wind Energy" based on the knowledge gained at WEATS, and using the main bibliography of the book *Introduction to Wind*

Energy of Dr. Vaughn Nelson, Earl H. Gilmore, and Kenneth Starcher from the Alternative Energy Institute, West Texas A&M University.

Exhibit I provides the percentage of participant responses that displayed relevance to the four cross-cutting themes.

EXHIBIT I: PERCENTAGE OF RESPONSES THAT RELATE TO THE RESULTS THEMES	
<u>Theme 1:</u> Sharing of Knowledge With Colleagues	65%
<u>Theme 2:</u> Amending Development Policies, Five Year Programs, and Other Energy and Environment Sector Documents	35%
<u>Theme 3:</u> Demonstrating Newly Acquired Knowledge Relative to Energy and Environment Policies, Practices, Procedures, and Technologies	75%
<u>Theme 4:</u> Highlighting Human and Institutional Capacity Improvements	65%

Annex III includes full responses as provided by the participants from which excerpts were drawn for this report. Annex IV provides a listing of the EGAT Invitational Travel activities, in chronological order, for the period November 2000 - November 2001.

**ANNEX I:
COMPLETE LIST OF EGAT INVITATIONAL TRAVEL ATTENDEESS**

**ANNEX I:
COMPLETE LIST OF EGAT INVITATIONAL TRAVEL ATTENDEES**

1. WEATS - Wind Energy Symposium - Village Power Symposium 2000, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C, November 26 - 27, 2000

- 1. Mr. Bena Benon**
Energy Officer
Ministry of Energy
PO Box 23373
Kampala
Uganda
E-mail: b_benon@hotmail.com

- 2. Mr. Wafula Wilson**
Energy Officer
Ministry of Energy
PO Box 23373
Kampala
Uganda

- 3. Ms. Ana Carolina Palma Cajas ***
Project Engineer
Fundacion Solar
15 Av. 18-78, Zona 13
Guatemala City
Guatemala
E-mail: carolpalma@yahoo.com

- 4. Mr. Saul Santos ***
Project Assistant
Fundacion Solar
15 Av. 18-78, Zona 13
Guatemala City
Guatemala
E-mail: ss@intelnet.net.gt

- 5. Ms. Asma Huque ***

Director
Prokaushali Sangsad Ltd
Address House 4, Rd. 6
Block C Banani, Dhaka
Bangladesh
E-mail: hkhan@bd.drik.net

6. **Ms. Salma Khatun**
Scientific Officer
Prokaushali Sangsad Ltd
Address House 4, Rd. 6
Block C Banani, Dhaka
Bangladesh
E-mail: hkhan@bd.drik.net

**2. South African Power Pool (SAPP) - Train the Traders Course, Harare, Zimbabwe,
March 6 - 7, 2001**

7. **Mr. Sandro Manuel Ah Chiang**
Electrical Engineer
Government of Mozambique
1218 25th September Ave. 2nd Floor
Maputo
Mozambique
E-mail: sandro.chiang@edmdipla.lmoz.com
8. **Ms. Angela Beatriz Chade Dava**
Transmission System Planning Engineer
Government of Mozambique
368 Filipe Samuel Magaia Ave.
Maputo
Mozambique
9. **Mr. Modiri Badirwang**
Assistant Engineer
Government of Botswana
PO Box 48
Gaborone
Botswana
E-mail: badirwangm@bpc.bw

10. **Mr. Galeme Oageng**
Engineering Assistant

Government of Botswana
PO Box 48
Gaborone
Botswana

11. Mr. Nathaniel Maphathe
Head Engineer
Transmission Department
PO Box 423
Maseru, 100
Lesotho
E-mail: maphathe@lec.co.ls

12. Mr. Maurice Njobvu *
Systems Operations Engineer
Government of Zambia
PO Box 33304
Lusaka
Zambia

13. Mr. Walter Sibusiso Nxumalo
System Planner and Trader
Government of Swaziland
PO Box 258
Mbabane, H100
Swaziland
E-mail: nwalter@seb.co.sz

**3. South African Power Pool (SAPP) Regional Roundtable for Training Program
Development, Harare, Zimbabwe, March 5 - 6, 2001**

14. Ms. Rizia Buckas
Technical Secretary
Regional Electricity Regulatory Association (RERA)
6 Portea Place, N. Block
Sanoten, 2146
South Africa
E-mail: rizia@ner.org.za

15. Mr. Steve Dihwa *
SAPP Coordinator
Zimbabwe Electricity Supply Authority (ZESA)
Electricity Centre, 25 Samore Machel Ave.

Harare
Zimbabwe
E-mail: steve.dihwa@zesa.co.zw

16. Mr. John Kaimu
Director
Namibian Power Authority Board (NAMPOWER)
Windhoek
Namibia

17. Mr. U.G. Moodley *
Secretary General
SADC, HR Forum for Power Utilities
Private Bag X13
Halfway House
1685
South Africa
E-mail: moodleRU@eskom.co.za

18. Mr. Edward Rugoyi *
Transmission Services Manager, OSC Chairman
SAPP Operating Committee
847 Llymington Rd. Strathaven
Harare
Zimbabwe
E-mail: rugoyie@zesa.co.zw

4. Clean Development Mechanism (CDM) Training Program, Tegucigalpa, Honduras, March 20 - 25, 2001

19. Mr. Mauricio Fuentes Edgar Ayala *
Economist
Ministry of Environment and Natural Resources
Alameda Roosevelt Y 55 av. Norte, Edificio IPSFA
San Salvador
El Salvador
E-mail: ayalam@marn.gob.sv

20. Ms. Amarilis Pinzon
Economist
Ala Calle 112, Hato Pintado, Casa #6
Asuncion
Panama
E-mail: amarys@sinfo.net

**5. World Bank/African Forum for Utility Regulation (AFUR) Meeting, Accra, Ghana,
May 2 - 3, 2001**

- 21. Mr. Chico Manuel Goba**
Head of Electrical Department
National Directorate of Energy
Av. 25 De Se Embro, 128-3A, PO Box 1381
Maputo
Mozambique
- 22. Mr. McPetrie Newman Hanjahanja**
Director General
Electricity Council
PO Box 3038
Blantyre
Malawi
- 23. Mr. Silvester Hibajene ***
Technical Director
Energy Control Board
8th Floor Premium House, PO Box 37631
Lusaka
Zambia
E-mail: shibajene@erb.org.zm
- 24. Mr. Kevin N. Kariuki ***
Chief Power Engineer, Consumer Affairs Manager
Electricity Control Board
1st Floor, Integrity Center, Valley Road PO Box 42681
Nairobi
Kenya
E-mail: erb@africaonline.co.ke
- 25. Mr. Siseho Chibeya Simasiku ***
Chief Executive Officer
Electricity Control Board
PO Box 2923
Windhoek
Namibia
E-mail: ssimasiku@ecb.org.na

**6. Technical Workshop for the Project-Based Activities in the Clean Energy Sector,
Asuncion, Paraguay, May 23 - 24, 2001**

26. Mr. Manuel Luque Casanave *
Clean Production Manager
National Environment Council of Peru
Alguacile S 364, Urb. Las Gardenia Surco
Lima 33
Peru
E-mail: mluque@conam.gob.pe

27. Mr. Jorge Luis Campana de la Cueva
Luxemburgo N34-80 y Holanda
Pichincha
Ecuador
E-mail: oikos@uio.satnet.net

28. Mr. Marcos Xavier Castro Rodriguez *
Industrial Engineer
Aleman 128 y Arroyo Del Rio
Quito, Castilla 17-12-359
Ecuador
E-mail: mcastro@ambiente.gov.ec

**7. World Bank/African Forum for Utility Regulation (AFUR) Meeting, Dakar, Senegal,
November 27 - 29, 2001**

29. Mr. Francis Gbeddy
Chief Program Officer
Energy Commission, PMB Ministries Post Office
1st Floor Integrity Center, Valley Road PO Box 42681-00100
Accra
Ghana
E-mail: fgbeddy@hotmail.com

30. Mr. Marco Carlos Miguel

Lawyer
Direccao Nacional de Energia
Av. 25 de Setembro 1218 S Andar
Maputo
Mozambique
E-mail: macmbalele@hotmail.com

31. Dr. Xolani Mkhwanazi

Chief Executive Officer
National Electricity Regulator
PO Box 785080
Sandton
South Africa

32. Mr. Jeremia K. Murithi *

Chairman
Electricity Regulatory Board
Integrity Center, Valley Road
Nairobi
Kenya
E-mail: erb@africaonline.co.ke

33. Mr. Lawrence Shantebe

Manager, Research Economic & Financial Analysis
Energy Regulatory Board
8th Floor Premium House PO Box 37631
Lusaka
Zambia
E-mail: Ischiinda@erb.org.zm

RESULTS OF THE FOLLOWING ACTIVITIES ARE NOT INCLUDED IN THIS REPORT:

- 1. Local Government Participation in Climate Change Course, Bucharest, Romania, February 12 - 16, 2001**
- 2. United States Energy Association (USEA) Study Tour, Washington, DC; Philadelphia, Pennsylvania; Springfield, Massachusetts; and New York, New York, April 28 - May 8, 2001**

**ANNEX II:
SAMPLE SURVEY DOCUMENTS**

**ANNEX II:
SAMPLE SURVEY DOCUMENTS**

Sample Survey: EGAT Invitational Travel Activities:

Mr. Jeremia K. Murithi
Chairman
Electricity Regulatory Board
Integrity Center, Valley Road
Nairobi
Kenya

E-mail: erb@africaonline.co.ke

Subject: Request for Short Answers to Three Questions and A Photograph (if available)

Dear Mr. Murithi:

We need your help. You were hand picked either by your government, a community representative, or the United States Agency for International Development (USAID) to attend the African Forum for Utility Regulation meeting from November 27 - 29, 2001, in Dakar, Senegal. This program was organized by the World Bank, and your sponsorship was funded by the USAID through the "Invitational Travel Program". USAID provided the funding and is now seeking information from you about the impact that your participation in this program has had on you, your community, and on managing relationships with service providers in Kenya. At the time you attended the program you served as Chairman to the Electricity Regulatory Board and therefore had the opportunity to make a direct contribution in Kenya. USAID has asked us to reach out to you to find out how and where your learning from the program has benefited you personally and your community generally.

Specifically, we are looking for 'great' real life examples, whether small or large, that were accomplished in Kenya either as a direct result of what you learned during your program or indirectly through knowledge you shared with others. We are not sending you a survey form with yes and no questions. Rather, we want to know from you how, why, and where your participation in the program has been of value. Because we realize your time is extremely valuable we would like to thank you in advance for taking the time to think about the attached three (3) short answer questions. We are asking that you respond to these three questions with a short paragraph answer by July 22, 2002. You may respond by email directly to lvarrick@coreintl.com, via fax, or mail (see below for details).

We are requesting this information from all participants that have participated in the USAID Invitational Travel Program (200 persons over the last 18 months). Your input, and

particularly your success stories, are important not only to the planning of future programs but also to the other people from over 47 countries that have attended events sponsored through the Invitational Travel Program. With USAID assistance, we will be selecting ten real life examples to post on the CORE International website. If available, we would also ask you to send a recent photograph electronically (.gif or other image file) which shows you in your current work environment, during an activity of the WEATS program, or relays the message of your success story.

To make this an effective tool for sharing information, knowledge, and genuine real life examples, we are hoping to receive responses from all of the 200 participants. As a gesture of CORE's appreciation for your efforts, we will provide a small gift from CORE International's president, Mr. Vinod K. Shrivastava, to those ten individuals whom USAID decides provide the most interesting (small or large) real life examples of the benefits of the knowledge he/she gained and applied, as well as the results and impacts that were achieved.

Please provide your responses by email (preferred), fax, or mail, as shown below:

Email: lvarrick@coreintl.com
Fax: USA (202) 362-9101
Mail: CORE International, Inc.
5101 Wisconsin Avenue, NW, Suite 305
Washington, D.C. 20016
Tel: 202-362-9100
Attn: Lois Varrick, Corporate Vice President

Your answers to the questions will:

- Provide a general idea to CORE and USAID as to whether or not the program's content had a lasting benefit.
- Document, through real life examples, whether or not you gained something from the program that you were then able to apply in Kenya, which has had a positive impact on you, your organization, and your community.

CORE staff will be happy to assist you in any way when you are preparing your response. Please do not hesitate to contact us if we can be of any help or assistance.

SHORT ANSWER QUESTIONS FOR DOCUMENTING SUCCESS STORIES AND IMPACTS

- 1. Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Kenya, or other countries.**
- 2. Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the AFUR Meeting.**
- 3. What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?**

Your Current Contact Information:

Name: Jeremia K. Murithi
Title: Chairman
Organization: Electricity Regulatory Board
Program: AFUR Workshop - World Bank
Date Prepared:

Updated Contact Information (if different from above):

Address:

Email:

Phone:

Fax:

We would greatly appreciate receiving this information by July 22, 2002. Email is preferred but fax and mail are also welcome. On behalf of the United States Agency for International Development we would like to again thank you for your time in preparing your response. We will advise you as to which of the success stories results in the gift from CORE. We hope it will be yours!

Kind regards,

Lois A. Varrick
Corporate Vice President
CORE International, Inc.
5101 Wisconsin Avenue, NW, Suite 305
Washington, D.C. 20016
Tel: 202-362-9100
Fax: 202-362-9101
Email: lvarrick@coreintl.com
www.coreintl.com

**ANNEX III:
FULL RESPONSES OF THE PARTICIPANTS**

**ANNEX III:
FULL RESPONSES OF THE PARTICIPANTS**

1. WEATS - Wind Energy Symposium - Village Power Symposium 2000

LOCATION(S):

Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C

DATES:

November 26 - 27, 2000

SYNOPSIS:

This symposium focused on wind energy as part of a program of renewable and alternative energy applications

PARTICIPANT SURVEY RESPONSES:

Name: Ms. Asma Huque

Title: Director

Organization: Prokaushali Sangsad Ltd

Country: Bangladesh

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Bangladesh, or other countries.

Attending the WEATS - Wind Energy Symposium - Village Power Symposium 2000, was a very rewarding experiencing for me. Even though it was somewhat apparent that application of wind energy in Bangladesh would not be cost effective at this moment because of lack of wind resources and present high cost of the technology, my exposure to the wind technology was useful. I am now better equipped to contribute in appraisal and design of RET projects, e.g., with hybrid systems, grid interfacing etc. As an example of sharing knowledge learned, recently I participated in a Project Planning Workshop on Promotion of Renewable Energies in Selected Rural Areas in Bangladesh (Feb 9-11, 2002) where such inputs on various RET options were needed. The workshop was organized by GTZ office in Dhaka, in preparation for developing a Technical Co-operation project for the Government of Bangladesh. The knowledge gained will also help me in usefully participating in other such efforts.

"I am now better equipped to contribute in appraisal and design of RET projects, e.g., with hybrid systems, grid interfacing, etc."

**Ms. Asma
Huque,
Bangladesh**

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the WEATS - Wind Energy Symposium - Village Power Symposium 2000.

There were many areas of benefit for me in attending the 2 symposiums. A specific example is a session on PV training at the Village Power 2000. Information and ideas from this was directly useful during developing the Solar Home System Project Preparation that our company carried out for the World Bank. Recommendations were made on quality and type of training required for the project. We used and disseminated information from the CD on Quality Program for Photovoltaics collected after the symposium.

The various experiences of other countries in rural and renewable energy and the field visits were useful for preparing a guideline for "Equitable Utilization of RET by the Public Sector in Bangladesh". This document has made recommendations for promotion of RET in various sectors of the economy, and will be presented to the government for inclusion in the Sixth Five Year Plan.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in the previous questions?

The main impact on our organization, which is a consulting engineering firm, has been the transfer of technology and expansion of knowledge base. Continuous sharing and updating of information is required for realistic project design and their effective implementation. We have made many new contacts with people and organizations around the world, working with RET. The many technologies exhibited during the program provided useful ideas about products and feasibility of their implementation in future projects. For example, solar refrigeration, high efficiency wood stoves, low-head micro hydro equipment, low speed wind generators are some items that we plan to use for future projects when possible.

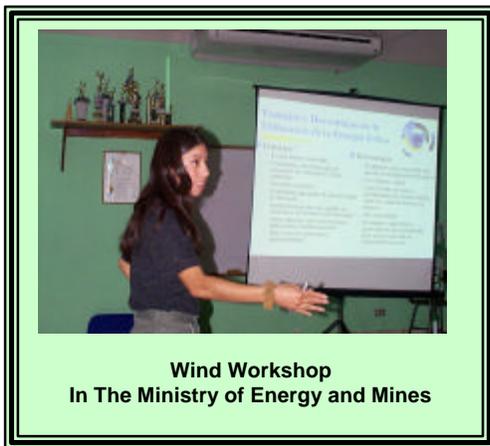
During the symposium we renewed our contact with a German company who manufactures Charge controllers for PV systems, with whom we had lost contact. Since our meeting at the Village Power 2000, we started discussions with the company and have now been given license to assemble the controllers in Bangladesh. The best part is the controllers are being assembled by a cooperative of rural women located in a remote coastal island in the south of Bangladesh, for use in the World Bank's Solar Home System project, and in their own SHS activities. The role of our company, Prokaushali Sangsad Ltd., is technical assistance in overall project implementation, training and supervision of production, and support in international communication.

WEATS - Wind Energy Symposium - Village Power Symposium 2000

Name: Ms. Carolina Palma/Mr. Saul Santos
Title: Project Engineer/Project Assistant
Organization: Fundacion Solar
Country: Guatemala

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Guatemala, or other countries

From July 31 to August 1st of 2001, as part of the renewable energy team of Fundación Solar, I assisted a group of engineers of The Ministry of Energy and Mines in Guatemala, in a training workshop about basic concepts of wind energy called “**Introduction to Wind Energy**”. This workshop was given as a strategy to share the knowledge gained at



**Wind Workshop
In The Ministry of Energy and Mines**

WEATS, and using as principal bibliography the book *Introduction to Wind Energy* of Dr. Vaughn Nelson, Earl H. Gilmore, and Kenneth Starcher from the Alternative Energy Institute, West Texas A&M University. As part of the content it was included wind energy applications in small and large scale. It was also presented actual situation of wind power in Guatemala. The objective of Fundación Solar in these kinds of workshops is to support the Guatemalan local capacity in renewable energy, to promote its use, as an alternative to supply rural and urban energy needs. This workshop was done with the collaboration of Robert Foster from the Southwest

Technology Development Institute, New Mexico State University, and a local wind energy distributor.

Besides assisting the Ministry of Energy and Mines, we've been capable to assist people, mainly students, who have come to Fundación Solar interested in wind energy information. We are also planning a wind energy course inside Fundación Solar to train the other members of the staff.

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the WEATS Village Symposium 2000.

Since, in Guatemala, there is not much utilization of wind energy, we have not had the opportunity yet to



**Visit to a Wind Energy Communication
System Near Guatemala City**

apply the knowledge gained at WEATS in a real wind energy application. But in Fundación Solar, we have the will to assist in the wind mapping project of The Ministry and Energy Mines, and we are planning to develop a Wind Energy Application Pilot project.

In June of 2002, Carolina Palma participated in the Windpower conferences. The knowledge gained at WEATS helped to understand in a better way what there was given. She also applied to present in this event with an abstract about the Wind Energy in Guatemala, with the assistance of the SWTDI, NMSU, and other Guatemalan engineer. But it wasn't possible.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in the previous questions?

"Another important, positive aspect of our participation in WEATS is that we feel more confident about our capacities and we feel motivated to continue promoting wind energy"

Ms. Carolina Palma & Mr. Saul Santos, Guatemala

Through the workshop Introduction of Wind Energy we trained seven professionals from The Ministry of Energy and Mines and two wind equipment suppliers' managers. We have been giving support, mainly to Guatemalan students, who are interested in basic information on wind energy. Another important, positive aspect of our participation in WEATS is that we feel more confident about our capacities and we feel motivated to continue promoting wind energy.

2. South African Power Pool (SAPP) - Train the Traders Course

LOCATION(S):

Harare, Zimbabwe

DATES:

March 6 - 7, 2001

SYNOPSIS:

The purpose of this course was to "train the traders" from various Southern African countries in the operation of short-term energy markets.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Maurice Njobvu
Title: Systems Operations Engineer
Organization: Government of Zambia
Country: Zambia

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Zambia, or other countries.

Upon my arrival home from Harare, I prepared and presented a 14-slide presentation on STEM to 6 members of the System Operations Department who are based in the ZESCO National Control Room. The contents of the presentation were:

1. Background

- bilateral trading
- interconnections leading to formation SAPP
- introduction to STEM
-

2. Objective of STEM

- transformation from co-operative to competitive pool
- introduction to SPOT market

3. Management

- SAPP Co-ordination Centre
- Location
- Members of staff and their job titles
- Contact addresses of CC

4. Trading rules

- Types of contracts
- Trading time line
- Offer form

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the SAPP Train the Traders program.

ZESCO has not participated actively on the STEM. I have had to modify the short-term bilateral schedules on the correspondence between ZESCO and the Co-ordination Center. The customary bilateral contracts are:

- Sales/withdraw from ZESCO to ESKOM
- Banking from ESKOM to ZESCO

Short, bilateral trading has been undertaken and included in the schedule as follows:

- Sales from ESKOM to ZESCO
- Sales from SNEL to ZESCO

With the failure of my electronic mail, trading information was being sent via facsimile. The personnel in the control room have been handling the sending of documents.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

The personnel handling trade schedules are aware that there are time limits for sending the documents. Therefore they have given priority to the STEM documents when faxing power trading information which is dispatched to them at the same time.

We have endeavored to live by the scheduled bilateral agreements, even in instances where our generation capacity may increase due to restoration of a generator. The increased generation capacity is usually scheduled after exhausting the existing schedules. Bilateral trading volumes for ZESCO are very high and usually our capacity has been low due to machine outages. The increase in schedules due to generator restoration will meet the agreed volume.

Requirement to meet bilateral schedules have been filtering to the generating stations. They have been advised that unless there is a failure, machine outages have impact on the bilateral trading which, in turn, affect the STEM.

3. South African Power Pool (SAPP) Regional Roundtable for Training Program Development

LOCATION(S):
Harare, Zimbabwe
DATES:
March 5 - 6, 2001

SYNOPSIS:

At the SAPP Regional Roundtable for Training Program Development, the discussions centered on the development of electricity policy, as well as legal and regulatory reform, and trade issues.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Stephen Dihwa
Title: System Planning Manager (ZESA Representative in SAPP Planning Sub-Committee)
Organization: Zimbabwe Electricity Supply Authority (ZESA)
Country: Zimbabwe

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Zimbabwe, or other countries.

When I returned home, I had discussions with individuals in my business unit in the Zimbabwe Electricity Supply Authority (ZESA) on the issues that were covered. I also shared the information with fellow members of the SAPP Planning Sub-Committee.



Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the SAPP Regional Roundtable for Training Program Development.

"The positive impact was that the process involved was shortened and possible resources for training could be easily identified."

Mr. Stephen Dihwa, Zimbabwe

I applied the knowledge to the process of developing a training program for engineers in my business unit and this was expanded to provide input into the development of a training program for the SAPP planning

engineers.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

The positive impact was that the process involved was shortened and possible resources for training could be easily identified.

South African Power Pool (SAPP) Regional Roundtable for Training Program Development

Name: Mr. U. G. Moodley
Title: Secretary General
Organization: SADC, HR Forum for Power Utilities
Country: South Africa

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in South Africa, or other countries.

This meeting was more of an information sharing exercise, and I must be honest in saying that nothing specific came out of it. I did, however, make use of this opportunity to share with the team what we are busy with, and other representatives did the same.

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the SAPP Regional Roundtable for Training Program Development.

Taking into consideration the above, I cannot recall specific incidents where this meeting helped with our activities. I am not aware of any follow up meetings or interventions that took place as a result of our meeting.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

The meeting did have an impact on networking and information sharing, and, in all fairness, this was the primary focus of this session.

South African Power Pool (SAPP) Regional Roundtable for Training Program Development

Name: Mr. Edward Rugoyi
Title: Transmission Services Manager, OSC Chairman SA
Organization: SAPP Operating Committee
Country: Zimbabwe

General Response:

The Meeting we had with USAID in Harare at the SAPP Co-ordination Center was aimed at identifying the Training Needs for the region in the Electricity Sector. The input given by participants at this meeting was meant to assist the development of a training program suitable for SAPP member utilities. It was noted that there are skills already in the region within some utilities which need to be shared and coordinated. Training facilities are also available in some member countries.

The areas that required external assistance were in the Electricity Sector Reforms and the setting up of Competitive Electricity Markets. Financing of the training both from outside the region and within was noted as one of the major drawbacks where SAPP could benefit from assistance. To date, the major benefit received was exposure to mature Power Pools and partnerships with other organizations in the Power Sector, such as the USEA.

"To date the major benefit received was exposure to mature Power Pools and partnership with other organizations in the Power Sector, such as the USEA"

**Mr. Edward Rugoyi,
Zimbabwe**

Turning to your questions, I would like to advise that I do not see where they are applicable to the Meeting we attended in Harare.

The major assistance received through the USAID to SAPP to date is outlined below:

- (a) Establishment of the SAPP Coordination Center in Harare;
- (b) Skills transfer through the addition of an experienced Manager to train locals in the running of the Coordination Center; and
- (c) The establishment of a partnership with USEA, which has resulted in study tours.

The above has culminated in the successful development of a Competitive Surplus Short Term Energy Market. I cannot link the above achievements to the Harare Training Development meeting. I would rather say the Meeting was to complement the above.

Given the above, I therefore cannot answer your questions directly as they do not have direct relevance to the Training development meeting held in Harare. They appear to be generic questions, which are not quite applicable in this case.

4. Clean Development Mechanism (CDM) Training Program

LOCATION(S):

Tegucigalpa, Honduras

DATES:

March 15 - 25, 2001

SYNOPSIS:

The program aimed to train professionals from the region in the use of the Clean Development Mechanism (CDM) in promoting global climate policy.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Mauricio Fuentes Edgar Ayala
Title: Economist
Organization: Ministry of Environment and Natural Resources
Country: El Salvador

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in El Salvador, or other countries.

I shared the methodologies (PROFORM and MARKAL MACRO) for the calculation of the green house gases emission reduction with a private university with the objective to compare these methodologies with others being studied at the university (LEAP 2000)

"I had the opportunity to share with the previous Minister, Ana María Majano, information on the different institutional figures for the implementation of the CDM in Honduras, Nicaragua, Panamá, and Mexico."

Mr. Mauricio Fuentes Edgar Ayala, El Salvador

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the CDM Training program.

I had the opportunity to share with the previous Minister, Ana María Majano, information on the different institutional figures for the implementation of the CDM in Honduras, Nicaragua, Panamá, and Mexico, and we compare these figures with our institutional configuration and we clarified and ratified the role of the Salvadorian CDM office.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

- a) Learning other methodologies for the calculation of the green house gas emission allows us to compare the LEAP 2000 with the MARKAL MACRO and PROFORM, and ratified the use of this model

- b) We consolidated the institutional figure for the management of the CDM in El Salvador

5. World Bank/African Forum for Utility Regulation (AFUR) Meeting

LOCATION(S):

Accra, Ghana

DATES:

May 2 - 3, 2001

SYNOPSIS:

The forum, sponsored by the World Bank, sought to encourage senior level utility officials in the region to promote consumer awareness of the regulatory process and encourage transparency.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Silvester Hibajene
Title: Technical Director
Organization: Energy Regulation Board
Country: Zambia

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Zambia, or other countries.

When I came back from the AFUR program, I spoke to our Acting Consumer Affairs Manager (A/CAM) about the various ways of reaching out to different consumers. I had realized through the workshop that consumer education was extremely important for a regulatory agency. People have to know why you exist as an agency, what you do, and what their rights and obligations are. I gave the A/CAM the materials I came with from Accra and we talked about what should be done in Zambia.

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the AFUR program.

Within a few months after discussing with the A/CAM, the Consumer Affairs Section (comprised of merely two people) organized a thirteen week TV program on our national television for the Energy Regulation Board (ERB) to explain to the people our function, the various standards we had developed, how we conduct inspections of facilities, dealing with a utility, lodging and handling of complaints, etc. The last three of these programs were live and people phoned in. I participated in about 6 of the programs including the three live broadcasts. Many viewers called in and asked questions, especially with regard to the utility bills, power disconnections, bills left by previous tenants, etc. Each program lasted 45 minutes. All of the programs were recorded and we have videotapes of each one of them.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

It was quite evident after that that more people now know the role of the ERB. There was an increase in the number of complaints we received. Even the utility began to organize a similar program in response so that they could explain what they were doing to improve customer focus and response. Indeed within a few weeks they organized some programs as well.

World Bank/African Forum for Utility Regulation (AFUR) Meeting

Name: Mr. Kevin Kariuki
Title: Chief Power Engineer/Consumer Affairs Manager
Organization: Electricity Control Board
Country: Kenya

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Kenya, or other countries.

The theme for the Second Meeting for the African Forum for Utility Regulation held in Ghana from May 2 -3, 2001 was related to approaches for engaging consumers in regulation the regulatory process. Topics covered included fostering consumer awareness, dealing with consumer complaints, involving consumers in regulatory decisions, and designing regulatory institutions to meet associated challenges.

"Participating at the 2nd AFUR meeting offered me an opportunity to share with fellow regulatory professionals and commissioners my experiences with a stakeholder Board and how concerns about conflict of interest are addressed during decision-making."

Mr. Kevin Kariuki, Kenya

The decision-making mechanism at Kenya's ERB, the Board, is comprised of stakeholders representing various interests. Among these are large manufacturers, workers, employers,

and the government. In essence, therefore, the participation of consumers in regulatory decisions is assured at the highest level, although such a decision making structure has critics due to perceived conflict of interest.

Participating at the 2nd AFUR meeting offered me an opportunity to share with fellow regulatory professionals and commissioners my own experiences with a stakeholder Board and how concerns about conflict of interest are addressed during decision-making. In terms of gains from the workshop these principally pertain to handling of complaint handling and involvement of consumer groups in decision making.

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the AFUR program.

With regard to complaint handling, sharing experiences with regulatory professionals and commissioners from other agencies reinforced the notion that the regulatory agencies should only handle complaints after it is evident that the parties (customer and supplier) have genuinely exhausted the available complaint handling procedures stipulated by their terms of agreement. At ERB where I am responsible for consumer affairs, I have consistently practiced this approach to the mutual satisfaction of both the consumers and suppliers, and to date only two cases have required a hearing by the Board.

Regarding involvement of wider consumer groups in regulatory decision-making, the workshop confirmed the prudence of involving stakeholders (both demand and supply side) in decision making for purposes of fostering a sense of ownership of the decisions on the part of the stakeholders. This is believed to facilitate ease of administration of the regulatory process. In this regard, ERB has since hosted two stakeholder workshops on tariff review. The first, which involved both consumers, supply side, development partners, and government was to discuss a draft report on a study to Review the Electricity Tariff Policy in Kenya while the second was to discuss preliminary findings on a study to Review the Operation Costs and Capital Expenditure Projects for the Power Industry. The latter workshop only involved the supply side and government, and indeed prior to its commencement the relevant parties had participated in a briefing session during which the aims of the study were presented and support for purposes data and information collection was sought and obtained.

Further workshops are planned to discuss:

- The Draft Rules and Regulations which are in the process of being created;
- The findings of an on-going study to Assess the Environmental, Health and Safety Performance of the Power Industry in Kenya; and
- The tariffs resulting from study to Review the Electricity Tariff Policy in Kenya.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

As a result of the efforts to involve our stakeholders (consumers, supply side, and government) in the above undertakings, ERB is publicly acclaimed as an accountable, transparent, and fair regulator. The biggest impact from the activities is therefore enhancement of the public image of ERB, which is fundamental to the institution's credibility. In turn, credibility greatly facilitates the administration of the regulatory process.

World Bank/African Forum for Utility Regulation (AFUR) Meeting

Name: Mr. Siseho Chibeya Simasiku
Title: Chief Executive Officer
Organization: Electricity Control Board
Country: Namibia

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Namibia, or other countries.

The Electricity Control Board (ECB) has been in existence since July 12, 2000. In terms of the Electricity Act, 2000, all players in the electricity supply industry (ESI) had to be licensed within one year of the existence of the ECB. By July 11, 2001 more than 98% of all our existing undertakings had been licensed. After the licensing process had been completed, there were many issues that arose because of the ECB demanding the implementation of and compliance with the conditions of the licenses.

Our ESI was (in fact it still is) an integrated monopoly with one huge player who has had total control of the whole value chain. How to handle this customer, who had over time amassed political influence and contact, was now the main problem. Several shortcomings were identified by the customer, in the conditions and, in fact, even in the law on the levy on industry intended to meet the costs of the ECB. The result of the latter case was that the ECB could not meet its goals due to shortfalls in our budget. As for the licensing conditions, the customer declared some conditions as not able to be implemented.

At the Accra AFUR meeting, issues related to the relationships between large utilities and their political influence were dealt with. Thus we were able to deal with this utility and I am happy that we have agreed that in the interest of reform of the sector, all stakeholders must accept their responsibilities. Above all that, all of us must embrace change, which the utility was finding it difficult to do. Some conditions have been amended and also the levy is now being paid, almost in full.

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the AFUR program.

More than five years ago, the Ministry of Mines and Energy (MME), after putting up electric infrastructure for rural electrification worth more than N\$150m, concluded there was a need to put up a structure that would take care of the infrastructure described above. The

"By applying the principles learned at the Accra meeting of AFUR, we were able to build into the licensing agreements such conditions which took care of the interests of the regulator and reform."

**Mr. Siseho Chibeya Simasiku,
Namibia**

public tendering system failed to come out with an existing entity, but one contractor in the ESI proposed that they would form a company that would take care of the infrastructure. This company was to be known as Northern Electricity. Northern Electricity thrived and became a success story.

As part of reform, Cabinet passed a resolution allowing for the creation of regional electricity distributors (REDs). The utility mentioned above had earlier created a distribution subsidiary in anticipation for such action. This company was to replace the mother company in all distribution activities. That is, the mother company was to concentrate on generation and transmission. Side by side with this, the mother company was to participate in the first RED and, by virtue of their omnipresence in the whole country, would participate in all other REDs to be created. The Ministry of Regional and Local Government and Housing (MRLGH) which had, until recently, been distributing and supplying power on behalf of some local and regional authorities and had been holding the assets on behalf of these entities said it would not renew the agreement with Northern Electricity. Northern Electricity had entered into a five-year agreement to supply the local and regional authorities mentioned above. Instead the MRLGH, the utility, and the local and regional authorities decided to form a RED that excluded Northern Electricity.

Although the resolution of this crisis, which had an element that brought in the assets, was not to the satisfaction of the ECB, the utility, politicians, and the regulator were brought together. A clash, especially between the regulator and politicians, was avoided. Instead, by applying the principles learned at the Accra meeting of AFUR, we were able to build into the licensing conditions measures which took care of the interests of the regulator and reform.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

Northern Electricity was protected. They agreed to help the new group take over the business in the area. The conditions of the ECB were adhered to and the supply of electricity to the community has continued, uninterrupted. The relationship between the ECB and the new entity continues to improve.

6. Technical Workshop for the Project-Based Activities in the Clean Energy Sector

LOCATION(S):

Asuncion, Paraguay

DATES:

May 23 - 24, 2001

SYNOPSIS:

The workshop focused on existing project-based activities in the clean energy sector and sought to provide information on best practices and practical approaches to relevant issues (i.e. carbon management) and other key components, such as project monitoring.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Manuel Humerto Luque Casanave
Title: Clean Production Manager
Organization: National Environment Council of Peru
Country: Peru

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Peru, or other countries.

My participation in the Technical Workshop for the Project-Based Activities in the Clean Energy Sector carried out in Paraguay on May 24, 2001, has had great value to the current project I am managing which is called "Clean Production in the Industrial Sector of Peru".

First of all, it was useful to share experiences on clean production programs with the lecturers and participants from other countries at the Technical Workshop. These experiences, together with my own evaluation of the Peruvian industry, helped me to identify the industrial sub-sectors with major environmental problems in the country. This task was done on November 2001 in coordination with the Ministry of Industry in Peru, under a cooperative agreement between this ministry and the National Environmental Council of Peru, where I serve as Clean Production Manager.

"These experiences (at the workshop) together with my own evaluation of the Peruvian industry, helped me to identify the industrial sub-sectors with major environmental problems in the country."

Mr. Manuel Humerto Luque Casanave, Peru

I want to remark that this project is the first serious effort for improving the sustainability of Peruvian industry. This project is financed by the SENREM Program of USAID-Peru.

We have started this year with the tannery sub-sector and, at present, we are developing a Demonstration Project in three tanneries, each one located in a different city. Most tanneries in Peru are classified as small and medium size industries, with heavy environmental problems, mainly due to the contaminated effluents sending to the sewage. They are required to improve their processes and to implement better industrial practices, as well. We have designed the Demonstration Project with three stages: diagnosis, implementation, and diffusion.

We have recently finished the diagnosis reporting the clean production opportunities with a benefit/cost analysis and payback periods for the implementations recommended. The economic savings are mainly due to effluent reuse after filtering and treatment; this also creates savings in chemical products such as chromium salts. The environmental goals are also important with regards to the reduction in the volume of effluent and in the concentration of solid contents sent to the sewage.

For the implementation stage, the clean production recommendations were:

- 1) A mechanical salt separator installed at the receiving area of salt cure hides and skins;
- 2) The reuse of the solution at the unhairing process in a close cycle implementing two stainless steel screens installed in tandem at the open channels receiving the effluent from the drum (botal), an underground reservoir and a centrifugal pump feeding back the clean solution to the drum, thus obtaining savings in water, Sodium, Sulfur and lime, allowing to reduce the effluent sending to the sewage with high loads on BOD, Suspended Solids, Alkalinity and Sulfide also recovering the solids trap at the screens for selling as a raw material for soil nutrient. In this Demonstration Project, at the end of the effluent circuit before leaving to the POTW, the effluent leaving the unhairing process after a certain number of recycling cycles will carry out an oxidation process in an underground reservoir with $SO_4 Mn$ and an electromechanical agitator, thereby avoiding the generation of the dangerous hydrogen sulfide (SH_2)
- 3) The reuse of the Chromium solution leaving the Tan Drum implementing two stainless steel screens installed in tandem at the open channels receiving the effluent from the drum (botal), an underground reservoir and a centrifugal pump feeding back the clean solution to the drum, thus obtaining savings in water and Chromium Sulfate, which allows for a reduction in the effluent sent to the sewage with high loads on Trivalent and Hexavalent Chromium. To optimize the process monitoring at the tan process, the tannery will also receive a portable digital PHmeter (a portable digital temperature sensor).
- 4) One totalizer flowmeter will be implemented at the inlet of the drum in the pipe before diverting to the individual pipes conducting the solution to the drums for measuring the amount of solution to be load. It will be implemented two instruments one for the unhairing process and the other for the tan process.

- 5) At the end of the effluent circuit derived from the recycling processes mentioned above, the effluents will be mixed (effluent from unhairing process after oxidation). The mixing will be done in an underground reservoir.
- 6) Here, a metering pump will dose the Ferric Chloride ($Cl_3 Fe$) for flocculating the remaining suspended solids before leaving the affluent to the sewage. A portable pump will be implemented for periodically pump the sludge accumulated at the underground reservoirs to drums for drying before pumping to an appropriated vehicle for sending to a specific industrial landfill.

Overall benefits were:

- 1) Improve the procedures for each process, improve the supervision and controlling the chemicals and operating parameters.
- 2) Training workers on-site in clean production practices, thus reducing the contamination, saving operating costs, and caring the workers health.

The implementations recommended are of two types; ones of good practices and others of small investments, having in account that we are leading with small and medium size industries.

At the *diffusion* stage we will develop workshops in the cities where the three tanneries participating on the Demonstration Project are located. This will involve meeting representative of tanneries to promote the replication of the good practices identified. We will also mention, at this stage, the financial scheme developed for implementing the recommendations.

For financing these implementations, we are also starting the implementation of a 50% guaranteed fund provided from a local bank in Peru. The loans are based on a DCA-USAID scheme. In the future, a Clean Production Center that I helped implement in Peru last year will grant the technical approval for the applicants for loans.

We are glad that this Demonstration Project will continue to improve the competitiveness of our tanneries. Leather and shoes are among the products that Peru will export to the U.S. markets under the recently approved (by U.S. Senate) Andean Trade Preference Act (ATPA).

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the Technical Workshop for the Project-Based Activities in the Clean Energy Sector.

Under the SENREM-USAID program, I proposed to the Ministry of Industry a project called "Demonstration Project for Retrofitting Boilers to Natural Gas", which has been approved. In the Terms of Reference I have included the Clean Development Mechanism (CDM)

scheme for financing the retrofitting regarding the environmental and financing of the retrofitting. With respect the original project of Camisea pipeline, burning natural gas will dramatically reduce the emissions with regards to the current fossil fuels we are using. For this proposal I made use of the knowledge about CDM gained at the Technical Workshop for the Project-Based Activities in the Clean Energy Sector.

I am also the coordinator of a study called "Feasibility of Using Biofuels in Peru". The project has been considered an integral project. I am also recommending the Clean Development Mechanism (CDM) scheme for improving the income-yield capacity of the project which comprises the substitution of coca crops in the forest of Peru with sugar cane, which is oriented towards producing ethanol, which will be blended on 10% of volume with gasoline to improve the octane number and reduce the toxic emission by oxygenating the gasoline. The study is also sizing the capacity of the ethanol plant according to different scenarios, which consider the local and the export market. The initial market will be guaranteed after implementing economic instruments and environmental regulations to encourage the petroleum refineries to buy ethanol for the economic and environmental advantages.

We should present the final report of this study to the government of Peru at the middle of August and we are glad that the conclusions of the study will also contribute to finding new income-producing crops which will act as alternatives to the coca.

I have participated in clean energy and clean production seminars as a lecturer, noting the advantages of incorporating good practices, clean energies, and CDM schemes as well in the project evaluation.

I am also a part time professor on the Department of Energy at the Universidad Nacional de Ingenieria of Lima, Peru. My lectures, after attending the Technical Workshop for the Project-Based Activities in the Clean Energy Sector, included the CDM as a tool that can be used for adding value to projects. I am currently proposing this to the students and to the national and international congress (renewable energy projects, hybrid systems, and energy efficient projects for the industry).

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

I believe that attending the Technical Workshop has led me to incorporate and promote, within my organization and my university, new schemes which add value to clean production projects. In both positions, as a clean development manager and as a professor at the university, I am providing leadership and I am sharing the knowledge acquired to create awareness in the industrial sector and amongst consultants and students of the economic and environmental benefits of the clean energy and clean production.

The people involved in the projects I am developing are incorporating the clean production concepts and modern economic instruments in projects as a result of the knowledge shared in the Technical Workshop. I published an article called “Rentabilidad del Medio Ambiente” on June 6, 2002 on the opinion page at the main newspaper of Peru, “El Comercio” (<http://www.elcomerciope.com.pe>) which mentioned the opportunity for my country to use the CDM and debt swap as tools for financing projects of national interest.

Technical Workshop for the Project-Based Activities in the Clean Energy Sector

Name: Mr. Marcos Xavier Castro Rodriguez
Title: Industrial Engineer
Organization: Ministry of the Environment / CORDELIM
Country: Ecuador

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Ecuador, or other countries.

At the Ecuadorian Ministry of the Environment, I am in charge of carbon offset issues at the Climate Change Unit. Among other activities, we have arranged the institutional framework for enabling the participation of national stakeholders in the emerging carbon market. Under the umbrella of the National Climate Committee, the Ministry of the Environment has established the National Authority for the CDM and has lead the recent establishment of a public-private National CDM Promotion Office (among other actions to define these institutional arrangements, a final national workshop was held with CSDA technical assistance and USAID funds). The knowledge I learned in the Paraguay workshop on energy CDM projects is part of the information and knowledge we permanently share through different individual and collective capacity building activities of our Promotion Office (since I am in charge of the Executive Direction of this Office).

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the Technical Workshop for the Project-Based Activities in the Clean Energy Sector.

"At the workshop I received new and complementary insights and practical approaches to carbon management issues in energy projects, such as baselines as well as monitoring."

Mr. Marcos Xavier Castro Rodriguez, Ecuador

At the workshop I received new and complementary insights and practical approaches to carbon management issues in energy projects, such as baselines, as well as monitoring. Due to my responsibilities at our CDM Promotion Office, I have to deal permanently with CDM project proposals at very different development stages. In those assessment activities, I implicitly apply knowledge gained at the referred workshop.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

Through the (slow) process of the establishment and initial operation of both of our CDM related entities (CDM National Authority and CDM Promotion Office), awareness on climate change mitigation and carbon trade opportunities have risen. The integration of carbon management as a strategic, but still critical, environmental management tool has

been identified and understood by many leaders/representatives of different sectors of Ecuadorian society, and some consistent carbon offset project initiatives are being developed by different national stakeholders. However, there is still a lot of work to be done, until we manage to successfully implement a strategic portfolio of sustainable development projects which integrate carbon certification and commerce.

7. World Bank/African Forum for Utility Regulation (AFUR) Meeting

LOCATION(S):

Dakar, Senegal

DATES:

November 27 - 29, 2001

SYNOPSIS:

This AFUR program focused on training representatives from regional regulatory agencies to manage relationships with their service providers.

PARTICIPANT SURVEY RESPONSES:

Name: Mr. Jeremia K. Murithi
Title: Chairman
Organization: Electricity Regulatory Board
Country: Kenya

Please describe any examples of how you were able to share knowledge learned in the program with other individuals in Kenya, or other countries.

The theme of the AFUR Workshop was "Managing the Relationship with Service Providers". When I returned to Kenya, I briefed the Electricity Regulatory Board (ERB) Directors and the concerned staff on the knowledge learned in the program. At the time, the confidence of the Service Providers in the functioning of ERB appeared to be low due to a prevailing secretive culture. I emphasized to ERB the importance of conducting its affairs in a transparent and accountable manner vis-à-vis its stakeholders. The electricity regulatory process in Kenya is now transparent and accountable because ERB involves its key Stakeholders (i.e the Consumers, the Suppliers and the Government) in all its major programs.

"When I returned to Kenya, I briefed the Electricity Regulatory Board (ERB) Directors and the concerned staff on the knowledge learned in the program. At the time, the confidence of the Service Providers in the functioning of ERB appeared to be low due to the prevailing secretive culture. I emphasized to ERB the importance of conducting its affairs in a transparent and accountable manner vis-à-vis its stakeholders."

Mr. Jeremia K. Murithi, Kenya

Describe one or more specific incidents in which you were able to apply and/or utilize knowledge gained through your participation in the AFUR Meeting.

On September 11, 2001, ERB appointed a consultant to assist it in reviewing the Electricity Tariff Policy in Kenya. The Draft Final Report (DFR) was received in ERB on 10 December. The ERB decided that in keeping with its policy of functioning in a climate of transparency and accountability, the DFR would be examined by a stakeholder workshop on January 10, 2002. The Stakeholder Workshop, was attended by 42 key Stakeholders, including government ministers, permanent secretaries, chairmen and board of directors of corporations, public and private power generators, the electric power supplier (transmission and distribution), public universities, research institutions, consumer organizations, the media and ERB directors, staff, and consultants. I was privileged to chair this Workshop. This was the highlight of my career in ERB. The stakeholders made many suggestions to improve the DFR and these have now been incorporated in the Final Report. I am glad we made the decision to involve the stakeholders in the early stages of the Review process. This has had positive consequences. My interaction with the stakeholders indicates that they have gained confidence in the functioning of ERB. By adopting this transparent regulatory process, our stakeholders understand the reasons for ERB decisions even if they do not necessarily agree with them. This is very important for ERB.

What was the positive impact and result that occurred in your organization, community, (etc.) from the incidents you described in item number 1 and item number 2?

There were several positive impacts arising from the incidents described in 1 and 2 above:

- (a) The stakeholders gained confidence in the functioning of ERB as an independent regulatory agency. ERB now has a good working relationships with its stakeholders;
- (b) The negative media coverage, which was prevalent in 2001, ceased after the stakeholders Workshop;
- (c) The ERB Staff morale received a boost. They now feel that they are working for an agency that is making important contributions to national development;
- (d) The Chairman and directors of ERB are now able to concentrate on the real work of ERB (i.e. the regulation of the electricity industry in Kenya), instead of spending time fending off angry stakeholders and the media vultures on allegations, innuendoes and outright falsehoods perpetrated against ERB due to the previous secretive culture.

**ANNEX IV:
LIST OF EGAT INVITATIONAL TRAVEL ACTIVITIES
(IN CHRONOLOGICAL ORDER)**

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1. ***WEATS - Wind Energy Symposium - Village Power Symposium 2000***, Boulder, Colorado; Canyon and Abilene, Texas; and Washington, D.C, November 26 - 27, 2000
2. ***Local Government Participation in Climate Change Course***, Bucharest, Romania, February 12 - 16, 2001
3. ***South African Power Pool (SAPP) - Train the Traders Course***, Harare, Zimbabwe, March 6 - 7, 2001
4. ***South African Power Pool (SAPP) Regional Roundtable for Training Program Development***, Harare, Zimbabwe, March 5 - 6, 2001
5. ***Clean Development Mechanism (CDM) Training Program***, Tegucigalpa, Honduras, March 20 - 25, 2001
6. ***United States Energy Association (USEA) Study Tour***, Washington, DC; Philadelphia, Pennsylvania; Springfield, Massachusetts; and New York, New York, April 28 - May 8, 2001
7. ***World Bank/African Forum for Utility Regulation (AFUR) Meeting***, Accra, Ghana, May 2 - 3, 2001
8. ***Technical Workshop for the Project-Based Activities in the Clean Energy Sector***, Asuncion, Paraguay, May 23 - 24, 2001
9. ***World Bank/African Forum for Utility Regulation (AFUR) Meeting***, Dakar, Senegal, November 27 - 29, 2001