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FINAL REPORT

USAID ENVIRONMENTAL MANAGEMENT AND REGULATIONS WORKSHOP

January 23-27, 2012
Ocho Rios, Jamaica

This publication was produced for review by the United States Agency for International Development. It was prepared by Sun Mountain International, under the Global Environmental Management Support (GEMS) Contract.

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The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

List of Acronyms

BEO – Bureau Environmental Officer
CE – Categorical Exclusion
COR – Contracting Officer’s Representative
DCHA – USAID Bureau of Democracy, Conflict and Humanitarian Assistance
EA – Environmental Assessment
EIA – Environmental Impact Assessment (NEPA)
EMPR – Environmental Mitigation Plan and Report
EPTR – Environmental Procedures Training Manual
ESR – Environmental Status Report
ESDM – Environmental Sound Design and Management
ETD – Environmental Threshold Decision
FFS – Farmer Field School
GIS – Geographic Information System
GUP – General Use Pesticides
IEE – Initial Environmental Examination
IPs – Implementing Partners
IPM – Integrated Pest Management
IPTT – Indicator Performance Tracking Table
LAC – USAID Bureau for Latin America and the Caribbean
M&E – Monitoring and Evaluation
MEO – Mission Environmental Officer
ND w/ cond. – Negative Determination with Conditions
NGO – Non-Governmental Organization
NRCS – National Resources Conservation Authority (NEPA)
PD – Positive Determination
PEA – Programmatic Environmental Assessment
PERSUAP – Pesticide Evaluation Report and Safer Use Action Plan
PVO – Private Voluntary Organization
REA – Rapid Environmental Assessment
REA – Regional Environmental Advisor
REG 216 – USAID Regulation 216
RFP – Request for Proposal
SMTN – Sun Mountain International
USAID – United States Agency for International Development

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Introduction

The USAID Environmental Management and Regulations Workshop Planning Team hereby presents the final report of the workshop carried out in Ocho Rios, Jamaica, the week of January 23-27th of 2012. This inter-institutional training initiative was financed by USAID Jamaica with the organization and facilitation by Sun Mountain International of the Global Environmental Management Strategy (GEMS) contract, in close collaboration with USAID Latin America and Caribbean Bureau and the USAID Caribbean Regional Office.

The core components of this report consist of a summary of the principle information exchanged during the five day workshop, the workshop agenda and participant contact information. The report presents key technical notes from each presentation, which focused on environmental analysis, USAID Environmental Regulation 216 compliance, and recommended environmental considerations to incorporate into current and future development programs. A series of sessions also addressed the development of mitigation measures, monitoring and evaluation strategies, risk management, global climate change, pest management, and the complementarities between USAID regulations and the national legislation of Jamaica.

Over fifty national and international development professionals as well as Jamaican government officials participated in the exchange of experiences and joint environmental analysis of case studies. The work carried out in both classroom and field-based small group sessions helped bring participants together and promote future collaboration possibilities. The real success of this capacity building initiative is measured not by the number of individuals trained, but rather the success of the participants in improving their own organization's internal environmental management processes, compliance measures, and increasing positive environmental impacts. The follow up actions identified during the workshop, and initial actions taken after the workshop, suggest novel and useful results will be generated from this workshop.

Like all Sun Mountain International training events since 2011, this capacity building initiative was planned and carried out considering carbon management strategies. The carbon footprint that could not be avoided was offset. Carbon credits were purchased to compensate for the emissions incurred by the training (materials, electricity, gasoline, jet fuel use, etc). Participants also assisted in reducing energy use, and recycling or reusing materials which would eventually become solid waste. One of the outputs from the workshop will be generation of best practice recommendations for office management.

The Workshop Planning Team and Sun Mountain International greatly appreciate the participation and support of all presenters and participants. We especially thank Suzanne Ebert, Malden Miller, and Joe Torres for sharing their extensive talents, experiences and significant help in the planning and implementation of the workshop. Our appreciation goes to all of the participating organizations including: ACDI VOCA, AIR, Competitiveness Company, Digicel Foundation, EHF, INMED, JCFA, JNBS, LIFE, Ministry of Agriculture and Fisheries, Ministry of Education, Ministry of Health, NEPA, ODPEM, OFDA, RADA, and SRC. Without the valuable contributions and efforts from everyone involved, this workshop and the outcomes achieved would not have been possible.

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Objectives, Expectations and Conceptual Flowchart

Workshop Objectives

This training initiative aims to support the USAID Jamaica Mission and partners to more effectively design, implement, monitor and evaluate environmentally sound practices, in order to achieve more sustainable and competitive development programs.

To achieve this general goal, the workshop is designed to:

- Strengthen the capacity of participating organizations to incorporate environmentally sound design and management (ESDM) practices into existing and upcoming development and relief program designs and budgets.
- Improve the ability of USAID staff and partner agencies to consistently apply and comply with USAID procedures, Regulation 216 and to generate high-quality environmental analysis.
- Enhance collaboration, networking, exchange of new strategies and technical solutions for development efforts between implementing partners and their local staff in the field, government ministries, and USAID personnel.

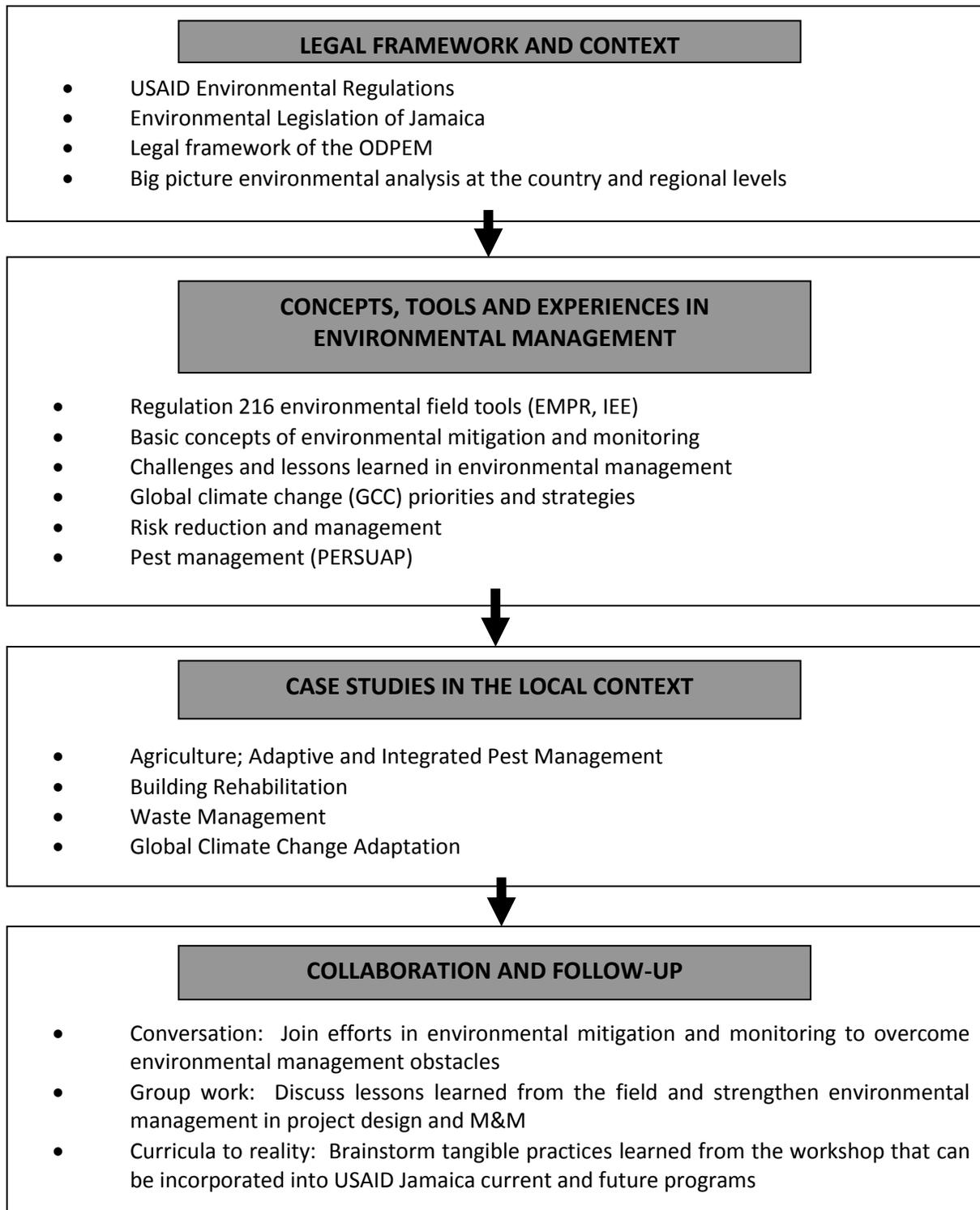
The workshop is based on case studies in the field and group work activities to achieve these objectives.

Participant Objectives and Expectations

Participants' expectations of the workshop were identified through a plenary exercise. The following needs and expectations were highlighted:

- To understand the requirements of Regulation 216 and its effective application.
- To describe Regulation 216 tools, such as the PERSUAP, and learn how to complete proper environmental analysis.
- To summarize compliance criteria for EMPRs and PERSUAPs.
- To apply theoretical knowledge to projects, especially agricultural projects.
- To learn more about Jamaica's environmental regulations and the roles of particular individuals in accordance with them.
- To improve preparation of and efficiency in EMPRs.
- To learn more about EMPRs and reduce dependence on Mission Environmental Officers.
- To better link environmental management with emergency response.
- To learn superior methods for monitoring field projects.
- To learn how environmental ability translates into financial sustainability.

Workshop Conceptual Flowchart



TECHNICAL SESSIONS

Session 1: Environmental Priorities in USAID Jamaica Projects

Panel representatives: Robert Wright, INMED; Velva Lawrence, LIFE; Diane Dormer, ACDI VOCA.

Facilitator: Malden Miller, USAID Jamaica MEO.

Objective: Comprehend the perspective of the participating organizations on the importance of environmental considerations, regional priorities, and synergetic efforts in the context of Jamaica.

Key points:

- The most challenging environmental concerns for the general and most vulnerable populations of Jamaica:
 - There is an ongoing degradation of the watershed, which negatively affects downstream communities.
 - Low income communities unsustainably exploit resources due to lack of opportunity.
 - Waste disposal; there is little infrastructure for waste management in rural communities.
 - Drought is a major concern for farmers, also watershed management and contamination of water resources.
 - Zoning and development planning. Squatter settlements exceed the capacity of an area and there is insufficient waste management.
 - Specific controls in terms of agriculture: pollution testing, erosion control, pesticide management.
 - Restrictions are needed on certain environmentally unfriendly activities. However, the issue lies in enforcement and preferential treatment by the government, eg: Blue Mountain Coffee is given certain advantages over smaller businesses.
 - Incorporating adaptive agriculture in order to prevent pesticides and chemicals entering water sources and environments.
 - Support the interest in organic production and establishing a name in the organic product market.
- The most useful role for international organizations to play in terms of bringing positive changes to the environmental short-fallings of Jamaica:
 - Enacting appropriate legislations and aligning with national priorities.
 - Proper communications with donor organizations.
 - Promoting environmental education for the youth of the country. Environmental education needs to be a part of early childhood education.
 - Information sharing between environmental organizations and the use of technology to disperse and utilize information.
 - More creative use of media, i.e. radio and television for those who cannot read or write.
 - Development of Organic Market; will translate into supporting livelihoods, increase general profits.

- Environmental management training for communities of all projects, utilizing culture (music and drama) and stressing the importance and link between economy, environment and social impact.
- All projects should have environmental monitoring and mitigations measures.
- How implementing partners can work in a more synergistic, efficient manner to accomplish more significant common goals in socio-economic development:
 - Commit to a better exchange of ideas with USAID and other organizations (better dissemination of information) and documentation of project implementation and best practices. Information and best practices gained by USAID may not be as widely dispersed as they should.
 - Regular meetings to share ideas and information between stakeholders as well as possible competitions between organizations (set up by USAID) to promote sharing information.
 - A link is needed between past exercises in countries and objectives accomplished by USAID. This information needs to be dispersed.
- Most important lessons for the represented organizations across Jamaica to learn during this training event:
 - An understanding of the regulations and how to measure results and comply.
 - The sharing of knowledge and successful practices.
 - Ensuring positive impacts of projects.

Summary:

- A greater effort needs to be made in order to properly disperse information between implementing partners, both past and present, and USAID.
- Public education in terms of environmental considerations is a very important factor, and should begin as early as possible.
- Environmental management practices need to be employed, as the negative effects of not applying them far outweigh the positives.

Session 2. Overview of USAID Environmental Processes

Presenter: Joe Torres, USAID Caribbean REA.

Objective: Establish a basic knowledge of the legal basis for USAID environmental processes, procedures, tools and resources.

Key points:

- Environment defined: includes physical, chemical, social, cultural, biotic and economic factors. Economic is an important factor although often pushed to the back burner.
- Pesticide use (DDT) and negative impacts mentioned in “Silent Spring” alarmed American society, sparked environmental protection movement, i.e.: Pesticide Act, National Environmental Policy Act.
- USAID resisted implementation, stating that work done by USAID was done outside of the US and that these policies did not apply to international groups. Refuted by the fact that federal monies are used and the use of it has to follow federal acts.
- Death of farmers (from spraying pesticide on themselves to cool off) resulted in lawsuits against USAID: forced compliance with NEPA.
- NEPA is a broad act, not specific to agency and how analyses are applied, or which categories each project falls under; this resulted in the construction of Regulation 216, which defines the compliance measures and particular procedures to be followed in carrying them out.
- System of environmental supervisors set up by USAID for each region. There is a chain of command that regulatory documents must go through and be approved by each level.
- People generally do not receive Regulation 216 requirements well, due to the urgency and importance of projects.
- The IEE (Initial Environmental Examination) looks at specific activities, reasons for doing them and level of potential environmental impact. They are done at the mission level and prepared by COR's. The document is then sent to MEOs, and on to the REA, and then on to BEO (who provides an environmental threshold decision). EAs are done if a major impact is predicted.
- The EMPR (Environmental Mitigation Plan and Report) focuses on mitigation practices.
- Environmental mistakes made for many reasons, e.g.: poor locations, improper designs, failure to consider potential effects, site specific considerations not taken, and mitigation measures not budgeted. Avoidance of this lies in Environmentally Sound Design and Management (EDSM).
- 3 basic rules for ESDM:
 - Be prevention oriented;
 - Best practices applied;
 - Be systematic throughout progression of project.
- USAID and local references for best practices available online.
- Being systematic includes proper analysis and documentation of potential adverse effects.
- Resources mentioned include USAID regional staff and online sources (see PowerPoint on participant flash drive).

Questions:

- Is it appropriate for COR to pass responsibility of producing IEEs to project implementers/partners?
 - It is appropriate to work WITH them as they have knowledge of specific activities and ground conditions and impacts. Such environmental documents are most reliable when working with someone that has specific expertise, e.g.: scientific background, these persons may be available through the contractor/developer.
- Isn't there a conflict of interest?
 - Possibly. However, the chain of command that has to approve the IEE works to check any inconsistencies.
- Is an IEE needed for organizations that have ISO 1400 certification?
 - Yes. Once activity is USAID funded, IEE and Reg 216 processes must be followed. ISO documents can be added as supplements to the IEE and other USAID required documents.

Key ideas obtained by participants:

- Appropriate planning avoids future problems.
- Priorities in Jamaica include sanitation and waste management, environmental education esp. at early childhood level. This will also educate parents as children take the knowledge home. Currently, environmental education is a part of early childhood school curriculums (started two years ago).
- Integrating culture to disseminate environmentally aware behaviors and thinking.
- Ensure maximum use of resources, best practice via the use of region-wide database. Teamwork approach has proven effective.
- Sustainability: an exit strategy must be planned from the initial stages of project, longevity and future effects of project must be considered.

Session 3. USAID Environmental Compliance Documentation: The Initial Environmental Examination (IEE) and the Environmental Mitigation Plan and Report (EMPR)

Presenters: Joe Torres, USAID Caribbean REA.

Objective: Build comprehension of the concepts, procedures and environmental threshold decisions (ETD) for the Initial Environmental Evaluation (IEE). Understand the types of projects that require specific IEE Environmental Determinations and the roles and responsibilities within the IEE procedures. Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures, format and development.

Key points:

- The Initial Environmental Examination (IEE) is a part of the request for proposals (RFP) and a part of the project implementation. The project manager must agree with the Mission Environmental Officer on environmental issues and on the viability of the plan. The environmental conditions are laid out in the project details. If the two do not agree with the environmental objectives of the project, the plan is sent back for revision. Once an agreement is reached, this document serves as a contract. The process is finalized when the contractor or partner presents its report or EMPR work plan for program monitoring and evaluation.
- IEEs are prepared by mission personnel (CORs) but this does not mean developing partners are not to be involved in developing it.
- EMPRs are prepared by the implementing partner assisted by the Mission staff.
- Reg 216 Process: IEE prepared by mission -> approved by MEO, REA and BEO -> Environmental Threshold Decision (ETD) made -> Mission approves initiation of activity, which begins with mitigation and monitoring.
- Reg 216 states that IEE must be done before funding is given.

Notes on IEE preparation:

- Activities must be clearly defined in IEE. General outlines usually get sent back for clarification.
- IEEs should be prepared with proper staff and planning, and risk mitigation procedures already in place.
- Types of Reg 216 Determinations/ ETDs:
 - Exemptions.
 - Deferrals – occur in the case where not enough information is given. Not used often anymore, instead EMPR's are requested.
 - Categorical Exclusion (CE).
 - “Very Low Risk activities” include education, technical assistance, etc. Activities not involving actions on critical wildlife, habitats.
 - Example in Jamaica: funding for communication, normally categorized under “low risk activities”, was to be used to build a radio tower. However the construction of the radio tower fell under another category and is not a categorical exclusion.
 - List of CE activities on page 10 of handbook.
 - Negative Determination (ND) – not used often, usually only for purchasing materials.
 - Negative Determination with conditions (ND w/c) – no major impacts, minor impacts may need to be addressed.

- Moderate risk activities – small scale infrastructure, quantity imports of fertilizers, cumulative effects need to be considered, agricultural experiments of more than 4 hectares.
 - Positive Determination (PD) – Significant impacts, EA required.
 - High risk projects – leveling land, drainage projects, construction of new roads, large scale sewage projects.
 - Cumulative impacts may be major.
 - List of PD examples on page 12 of handbook.
- Amendments need to be done on IEEs if changes are made such as:
 - The amount of money needed,
 - An extension in the timeline of the project or,
 - New components of the project.
- Projects involving Chemical Pesticide Use:
 - Almost automatically a PD or ND with Conditions – an EA/PERSUAP must be done and plan to minimize the use of pesticides included.
 - RUPs (Restricted Use Pesticides) result in PD. They are not approved often and alternatives should be considered.
 - USAID promotes organic farming far above chemical pesticide use. In order of preference: Organic>Integrated Pest Management Methods>Chemical Pesticides> RUPs.
 - Information available online on particular chemicals (US EPA website).

Sub-Grants:

- Small scale sub projects are usually given ND with conditions, where conditions include the carrying out of a Simplified Environmental Assessment.
 - Subproject review starts with understanding the project, details must be known,
 - Followed by Screening which will judge the risk level of the projects,
 - Low Risk = environmental analysis complete, begin implementation.
 - Moderate or Unknown Risk = Conduct a Preliminary Assessment and Complete EMPR.
 - High Risk = Begin full EA.
 - Funds must be allocated in case EAs are required.

EMPR:

- The Environmental Mitigation Plan and Report (EMPR) is a comprehensive document that allows for an analysis of the potential environmental impacts of medium and large scale projects. Its role is to analyze activities, programs and projects to identify areas in which environmental impact may occur. Based on the EMPR results, activities can be supported, modified or eliminated. Within this detailed report, it is required to include the location of the project to which, along with the permission of the Ministry of Environment, will facilitate the analysis process.
- Objectives:
 - Involve the community, make sure they are aware, prepared, and able to adapt.
 - Look at environmental impacts of implementation.
 - Develop mitigation or elimination system for negative impacts.
- Format:
 1. Cover Sheet.
 2. Narrative.

- Expectations of project.
 - Activity description including specific actions that will take place throughout the project.
 - Environmental Baseline: existing conditions “on the ground” of the site. Surrounding environmental and social factors. Concise.
 - Evaluation of potential environmental impact of activities – a summary of data obtained from the tables to follow. Should include direct and indirect impacts and possible cumulative impacts. Link with environmental baseline.
 - Mitigation Actions – summary of table 2.
 - Gender – A short paragraph describing the situation regarding gender.
 - Photographs and maps can add positively to the narrative.
3. Environmental Screening Form (Table 1).
 - Required only for large projects. It does not apply to smaller-scale projects. All projects require an environmental review and prior approval in order to receive USAID funds.
 - Best if filled out by an integrated team consisting of implementing partners, and sub-grant implementers.
 - Each activity within the project, each sub grant, needs to be considered.
 - If many of the answers in table 1 are “No” then the project is likely to be given Categorical Exclusion.
 - In the recommended action table, if options D or E are selected, major review of the project should be done before submission to USAID.
 4. Identification of Mitigation Plan (Table 2).
 - Each step of an activity must be outlined and impacts and mitigations highlighted. Without these details true impacts and mitigations will not be apparent.
 5. Environmental Monitoring and Evaluation Tracking (Table 3).
 - Details of mitigation measures.
 - Specifics must be given, i.e.; the name of person working with MOA vs. just “MOA”.
 - Indicators need to be outlined to show that mitigation procedures are taking place, i.e.; Mitigation = irrigation system set up, Indicator = irrigation pipes installed and irrigation taking place.
 - Monitoring methods and frequency need to be specified. Site visits? Weekly Reports?
 - Specific costs of implementation and monitoring of mitigation must be included. Lack of this shows incomplete planning. EAs and PERSUAPs may be expensive.
- Everything up to “Estimated Costs” in table 3 is the EMP, the plan. The end of table 3 is the R, the Report Section. This documents the results of the mitigation, monitoring and effectiveness.
 - Without proper documentation of monitoring and effectiveness of mitigation, projects may be shut down. The Report section needs to be filled out and kept to be submitted with regular reports to USAID.

- Purposes of Monitoring:
 - Implementation,
 - Effectiveness,
 - Validation.

Questions:

- IEE and changes to project? If expansion of budget is needed, is this subjective or is it any additional monies at all?
 - It is somewhat subjective as small amounts may not require adjusting the IEE, but larger amounts will require adjustment of the IEE (e.g. in the case of funds required for an EA to be done that was not previously accounted for). The decision of whether or not the IEE needs to be adjusted due to more funds needed lies with the COR.
- All projects require IEEs. All IEEs and EAs go to BEO. EMPRs stop at the regional officers.

Session 4. Transect Walk

Facilitators: Scott Solberg, SMTN; Malory Hendrickson, SMTN.

Objective: Improve the understanding of and experience in field visit methodologies and identification of potential environmental impacts.

Participants' observations of environmental impacts around hotel premises:

- Construction of hotel was done on wetland area, impacting water runoff.
 - Mitigations :
 - Wetlands were replaced to other location;
 - A drainage system was put in place and is monitored monthly.
- The electricity consumption of the hotel was a concern. Positive observations were made regarding energy conservation including:
 - Use of a master switch for electricity in rooms;
 - The air conditioning turns off when patio door is opened;
 - No use of keycard slots.
- Recycling of large container plastics and cans is carried out by the hotel. Waste management, especially reducing use and recycling, could be drastically improved.
- A large quantity of food is disposed of each day. How is this done?
 - Compost system is in place. Time of exercise did not allow further research.

Conclusions:

- Some degree of environmental management and mitigation was done during the development of the hotel.
- A more detailed analysis would be required to determine the impacts and mitigations of the hotel's development and operation.
- Determining the possible upstream and downstream impacts and setting up mitigation measures is an important in any development planning.

Session 5: Introduction to Environmental Mitigation and Monitoring

Presenters: Scott Solberg, SMTN; Malory Hendrickson, SMTN.

Objective: Strengthen knowledge of environmental mitigation and monitoring, and the selection/development of environmental indicators.

Key points:

- Mitigation is the implementation of designed measures to reduce the undesirable environmental impacts of a project. This is considered the key aspect within the environmental analysis process and becomes essential for the achievement of an environmentally sound project.
- The process of mitigation should start from the planning stages of the project, filtering out impacts from the beginning to the end of the entire project process.
- Various types of mitigation actions:
 - Prevent and control, i.e.; proper site selection, technique selection, best practice.
 - Compensate.
 - Remediate.
- Indicators work to measure the effectiveness of mitigation.
 - SMART indicators: Specific, Measurable, Achievable, Realistic, Time Limited.
 - **LAC Guidelines** very helpful in terms of types of projects, possible impacts, mitigation measures and indicators.
 - Types of indicators:
 - Support – Resources, i.e.; funds designated towards sewage treatment.
 - Performance – what products are produced?
 - Effectiveness results – immediate results, i.e.; reduction of measured contaminants.
 - Impact-Long term results, i.e.; reduction in health issues resulting from water purification techniques.
 - All mitigation procedures and indicators need to be budgeted for and specifics (who is in charge, how frequently it is monitored) highlighted in project plan.
- Monitoring needs to be done by more than one person for best effectiveness.
 - What are the indicators?
 - What is the purpose of each indicator?
 - How and when will they be measured? How will info be analyzed?
 - Who?
 - With what resources?
- In summary, monitoring indicates whether mitigation measures are completed and effective. Mitigation minimizes and avoids adverse environmental impacts.

Session 6. Overview of Jamaica Environmental Legislation from the National Environment and Planning Agency (NEPA): Comparing Compliance Procedures

Panel representatives: Joe Torres, USAID Caribbean REA; Malden Miller, USAID Jamaica MEO; Mrs. Andrea Bennett, Standards Officer, NEPA; Marie Chambers, Legal Officer, NEPA.

Objective: Gain a familiarization with Jamaica's socio-environmental context and recent environmental initiatives. Achieve an applicable understanding of the local environmental law and requirements, including environmental processes and permits. Develop more clarity on the similarities and differences of USAID and the MoE, in regards to environmental management and compliance.

Key points:

- Are there any Jamaican Legislations that aide in environmental considerations when it comes to development, restricting action that will result in negative consequences? Where is the priority?
 - NEPA - Jamaica has a Wildlife Protection Act and National Resources Conservation Authority (NRCA) Act that allows only certain activities to be carried out pending approval, granted that they do not have major adverse environmental effects.
 - NEPA - Jamaica has a general problem with enforcing these acts. Basis for tourism sector is Jamaica's natural resources. However, a major emphasis is not placed on natural resources within the financial sector.
 - USAID - A larger landscape approach is needed in terms of development, i.e.; building hotels on the beach degrading the coastline. Watershed management is critical, especially in areas of development.
- When environmental plans are made, how does NEPA follow up to ensure mitigation measures are carried out?
 - Once plans are approved, monitoring teams are set up (there are currently 26 enforcement officers island-wide as well as members of other agencies) and monthly or weekly reports are required. Once an outside environmental organization was hired for monitoring.
- How do NEPA and other such organizations envision managing political considerations, development and environmental matters, for instance the Palisadoes situation?
 - NEPA - Palisadoes project did not require permits for the road itself, but only approvals, which it received, as well as other permits. NEPA is currently working on permit system whereby permits are needed for such projects (in this case, the actual road construction).
 - NEPA - Work is being done to expand permit system to include environmental and economic impacts as well as development factors, and reviewing the categories of development. Currently the system allows for activities that existed before 1997 to not require a permit. Environmental analysis is discretionary and the need for them in order to get a permit is based on the judgment of NEPA/NRCA on the scale and impact of the project. Site Visit and screening sheet used to decide whether or not environmental analysis is required.

- USAID - USAID regulations generally do not associate specific quantities (eg 10 km) in regards to development as the impacts may change depending on the existing conditions of the area. EMPR does account for any national permits that re needed.
- USAID - US regulations do not supersede local laws.
- Does environmental management have any weight in the decision of giving permits?
 - NEPA - Any sort of development anywhere in Jamaica requires development permits. Other associated permits may account for environmental considerations.
- Any plan to review and update the NRCA?
 - NEPA - The Act is a guideline that allows regulations specifying environmental management. Regulations are currently being developed. There are plans to establish zones within protected areas that require specific approvals as well as permits under the Permits and Licensing System.
 - NEPA – the purpose of NEPA is to merge environmental regulations with planning regulations using the NRCA act.
- After the recommendation that a particular development should not go through, can the Minister overrule it?
 - NEPA - The decision of whether or not to grant a permit lies with the NRCA. If not granted, the applicant can appeal to the Minister and it can then be approved. Jamaica has had this ruling as the laws have been taken from the Commonwealth system. The matter is currently being discussed.
 - USAID – believes the merging of multiple agencies into one (NEPA) was primarily done to speed up the development process, rather than to properly account for Integrated Coastal Zone Management.
- What is the NRCA?
 - NEPA - Natural Resources Conservation Authority, falls under the Ministry in charge of environmental management which is currently under the Ministry of Water, Land, Environment and Climate Change.
- What kind of support can NEPA provide to the organizations present in terms of proper environmental planning?
 - NEPA - A development assistance center has been developed which allows organizations to present their projects and ensure requirements are met and planning moves smoothly. NEPA has many departments including Planning Policy Research Division and others that continuously go out and assess the current environmental conditions. The information gained from these departments is there to aid developing projects.
 - NEPA also has a useful resource in its Water Quality Monitoring Dept.
- Will the NRCA mandate be improved to include Climate Change?
 - NEPA - It currently accounts for Climate Change and is carrying out Climate Change projects as well as collaborating with other organizations.
- Where can I get information on the development assistance organization?
 - NEPA - Link to development assistance program can be found on the NEPA website.

- How many employees does NEPA have and where does funding come from?
 - NEPA currently has 200 employees, and funding from the government through Ministry of Finance.
 - Majority of funds are from Ministry of Finance, some monies obtained from NRCA (which generates money from the licensing and permits system). Work is currently being done to allow NEPA to provide its own income.
- Is the lack of enforcement personnel due to lack of funds?
 - NEPA - Yes. Outside funded projects are also used to aid in capacity building.
 - USAID - Comment on NGO sector: Ministry leans on the side of development instead of environmental management, and decisions reached by NGO boards are often overruled by the Minister.
- What plans are being put in place to have those in charge of economic policy merging with environmental policy in terms of Climate Change?
 - NEPA - Jamaica has developed "Vision 2013" which works towards linking sustainable development with environmental management. NEPA has been active in following Vision 2013 strategies and plans, working to have the actions of vision 2013 reported to and tracked by NEPA.
 - USAID - Progress has been made over the years. Ministers are aware of carbon credits, which speak to an increase in awareness within the Ministry.
- Is there a lot of public input in the planning processes in Jamaica?
 - NEPA - There is a public opinion process; however the public interest is not major until implementation stages.
 - NEPA - Public does not show interest until they are directly affected, after development has already begun, despite many previous attempts at dispersing knowledge. There is currently a zoning system in particular areas where only certain types of development are allowed, and the public was found to not participate in the implementation despite efforts made to include them.
 - When EIA's are prepared, they are made available to the public and thirty days given to voice concerns. However, mention is made of experience with activities taking place without major efforts at publicizing the EIA process.
- Participant comment - Notices are seen in Newspapers, but not on the news and radio as much, which is needed for the Jamaican public. Efforts must appeal to the culture of the country.
 - USAID - This is a worldwide problem, and a lot of resources are needed to really get the word out at a national level.
 - NEPA - Some communities in Jamaica actually turned back NEPA officials, some areas are dangerous and officers, although trying to spread the information, have to be cognizant of the dangers.

Session 7: Field Visits and Case Studies

Guides: Dean Passard, ACDI VOCA; Robert Wright, INMED; Leonard Jackson, Ministry of Education; Clifton Wilson, ACDI VOCA.

Facilitator: Malory Hendrickson, SMTN.

Objective: Build basic familiarity with respective case study projects and advance preparation for field visits. Review the current EMPR for the project to be visited, analyzing the five components and documenting what one will need to observe in the field.

Case study projects are:

- Agriculture – Scotch Bonnet Pepper Farm.
- Adaptive Agriculture – Aquaponics.
- Refurbishment – Brown’s Town High.
- Agriculture – Orange River 4-H.

Session components:

- 7a. Familiarization of Project Background and Field Tools.
- 7b. Field Visits: Experiential Practice Using the EMPR.
- 7c. Elaboration of Presentation on Field Visit Findings.
- 7d. Case Study Conclusions.

Agriculture – Scotch Bonnet Pepper Farm Group

Key notes:

- Expected output of Project: strengthen capacity of farmers groups; Training of farmers and extension officers.
- Site Description: Located on the North Coast, approx. 100 m from coastland, dry clay loam soil, area previously zoned for agriculture, nearby river.
- Major Activities:
 - Production and marketing of crops,
 - In-field training method used,
 - Marketing – farmers introduced to buyers and marketers,
 - Two parties meet and make their own deals.
- Environmental Baseline:
 - Area already zoned for agriculture,
 - The Jamaican Yellow Boa, though known to be in area, was not observed during site visit,
 - Area is vulnerable to hurricanes and tropical storms due to close proximity to the sea,
 - Area not dependent on rainfall has access to regular irrigation (river nearby via National Irrigation Commission).
- Screening Form:
 - Use of chemicals and irrigation.
 - Summarized that decision would be ND with conditions and EMPR required.
- EMPR:
 - Site has a natural barrier from high growing trees, reduced negative effects of hurricane weather.

- Major ground cover seen prevents erosion.
- Manual weed management: no chemicals used.
- Potential Impacts:
 - Agrochemical contamination of nearby water sources.
 - Human and animal contamination from chemicals.
- Mitigation Measures:
 - PERSUAP done, MAJIC is responsible party and COR will assist.
 - Use of less harsh chemicals.
 - Charcoal pit implemented for chemical disposal.
 - Charcoal pit set up to avoid splashes entering crop area and unwanted access to drum.
 - Warning signs to alert persons of pesticide areas.
 - Introduce IPM and GUP protocols.
 - Spraying only when absolutely necessary.
 - Ensure implementing partners have sufficient permits to access water and irrigation system.
 - Provide guidance to minimize water loss.
 - Assess Drip Irrigation System – minimize use and avoid possible erosion and surface runoff.
 - Manage fertilizer program, utilizing only exact quantities of nutrients needed: soil analysis done.
 - Irrigation system (piping) on surface allows for easy repair.
- Indicators:
 - PERSUAP approved, review of pesticides by crop.
 - Number of irrigation systems assessed.
- Monitoring:
 - On the spot visits to mitigate lack of forthcoming information.
 - Regular visits to each farm.
- Recommendations:
 - Economic cost-benefit analysis needed to determine feasibility of project.
 - Socio-economic factors should be included in EMPR checklist.
- Notes:
 - MAJIC has helped each person involved (office and field staff) to improve their knowledge base, field visit allowed for appreciation of the job being done.
 - Specific monitoring persons (name and position) need to be highlighted to ensure the monitoring is completed. Generalizing on identification of responsible parties (saying just MAJIC) may result in no monitoring.
 - IEE attached to project proposal may require an EMPR, meaning a draft EMPR may need to be prepared from as early as proposal stages. This draft would include costs of final EMPR, mainly to allow the cost of the EMPR to be included in the principle project budget.

Adaptive Agriculture – Aquaponics Group

Key notes:

- The selected site was a high school with a sugarcane plantation area nearby, along with other agriculture processes.
- Listed key development challenges in Jamaica, i.e.; lack of knowledge and opportunities.
- Objective: Pursue projects while being more adaptive to climate change and environmental management.
- General project development:
 - A partly underground fishpond is set up, with water being pumped through a closed system. Within the system the water supports crops, i.e.; lettuce.
- Environmental baseline was considered with the following aspects looked at:
 - Climate change.
 - Surface water and fish habitat.
 - Coral reefs depleted.
 - Land use.
- Potential environmental impacts:
 - Site selection and preparation: System needs to be placed somewhere that will not be vulnerable to hurricane and flooding; negative effects include loss of fish and introduction of these fish into the natural ecosystem.
 - Drainage considered.
 - Possible problems:
 - Students being attracted to the fish and being vulnerable to infections from pond water;
 - Mitigated by possible elevation and covering up the fish pond. Also building the pond in a shaded area to reduce bacteria buildup.
 - Prevent water contamination by employing a circulation system.
 - Looked at possible hazards of power source for pump.
 - Mitigate by using electrical pipes that run underground and prevent exposure of electricity to children.
 - Gender analysis: the activity seemed to attract more girls than boys. May have been particular to this school, and is not to be used as a general rule.
- Conclusions:
 - The project is high maintenance and involved participants need to be aware of both the risks and the benefits.
 - This was a small scale demonstration of the project; on a larger scale there will be more factors to consider.
 - Global climate change was taken into consideration for this project, despite not being supported by Global Climate Change funding, which is something appreciated by USAID.
 - Income earning project; many possible positive impacts, i.e.; a regular “Fish Fry” being held by the school.

Refurbishment- Brown's Town High Group

Key notes:

- The group established that there is a “don't care” perspective in some persons in terms of environmental management.
- Objectives:
 - Mitigating existing and future environmental impacts.
 - Identifying existing constraints and moving forward.
- Mitigation and promoting environmental awareness is key.
- Looked at water damage from Tropical Storm Nicole.
- Identified capacity of school, location, and other purposes of school.
- Two particular activities chosen:
 - Removal of damaged roof sheeting.
 - Mitigate by recycling excess and used material.
 - Installation of a rain gutter system and downpipes.
 - Mitigate by setting up drainage plan using existing drainage system, and monitor it monthly.
- Estimated the overall cost (US \$600).
- Lessons learned:
 - Information gathered by talking to many persons involved in the school.
 - Students may be involved in the renovations (gender equitable).
 - Community outreach/participatory action – appeal to teachers in order to disperse information in a familiar way, i.e.; in a classroom setting. Also including a broader range of participants allows for more perspectives.
 - An informal setting is also help, everyone is more relaxed.
 - Proxy indicators need to be considered.
- Question from group:
 - Can changes be made to the EMPR table?
- Comments:
 - Joe Torres - Study was well done. The EMPR is a document that is updated all the time and new conditions can always be added.
 - Each submitted report has to be approved, including any revisions made to EMPRs. There is usually a fast turnover for this process.
 - The presentation did not exactly follow the EMPR format but it did have a lot of relevant information which makes it easily reviewed.

Agriculture- Orange River 4-H Group

Key notes:

- Described site: 2 acres, gently sloping, production of cocoa protects land from erosion and also acts as training area for students. Field was recently resuscitated.
- Main impacts:
 - Erosion runoff.
 - Use of rodenticide and herbicide.
 - Black pod disease.
- Mitigation measures:
 - Maintain head drains and cross drains.
 - Replace chemical pesticides with organic pest management practices, such as homemade formulas. (Use of zinc on coconut trees; placing zinc on tree prevents rat from gripping the tree to get to the top.) Also, field sanitization prevents nesting areas being created by rats.
 - Black pod disease – pruning recommended as there is currently no fungicide to combat it. Good pruning practices and sunlight allowance is recommended as black pod results from excess moisture. Also frequent harvesting should prevent the spread of the disease.
- Monitoring:
 - Maintain drains; carried out by site managers and MEOs.
 - Indicators: Agro Ecosystem Analysis should be done.
 - Site visits twice per year.
 - Budget approximately USD \$100.
- Lessons learned:
 - Field maintenance is important.
 - Non-toxic methods to eliminate pests (rat stations on field and in tree trap) should be prioritized over toxic methods.
 - Harvest regularly.
 - Field sanitization.
 - Frequent Agro Ecosystem Analysis.
 - Husks of cocoa are useful for pollination.
 - Mandatory pruning and removal of parasitic plants recommended.
- Cocoa climate change response:
 - Positive impacts:
 - O2 production.
 - Carbon usage.
 - Increases adaptive capacity of nearby community.
 - Shorter plants have better yields and also more positive impacts in terms of carbon usage.
- The group recommends Negative Determination with conditions.

Session 8: Recommended Best Practice for EMPR Development and Application/Monitoring and Evaluation

Panel representatives: Malden Miller, USAID Jamaica MEO; Joe Torres, USAID Caribbean REA; Malory Hendrickson, SMTN.

Objective: Improve understanding of the EMPR procedures and technical content.

Key points:

- Importance of EMPRs.
 - EMPRs improve projects as an end result. The EMPR process requires community involvement, which always enhances the quality of projects.
 - Partners tend to not fill out cover page properly (including financial data, objective, COR). Activities should be documented accurately when using EMPRs (no embellishments). EMPR components are all directly related.
 - The monitoring aspect throughout the project is very important, and therefore so is the availability of human resources to do so. Often projects are completed without proper monitoring and left floundering. A system needs to be in place to ensure monitoring is done and indicators can be realized. This is very important in terms EMPR reporting accuracy. Involving the community in the monitoring process may be beneficial.
- Can USAID assist implementing partners in order to enhance community involvement?
 - Although the tables are complex, the narratives are relatively straightforward. A verbal approach to the community may be best, where community members are orally asked their opinions on activities and impacts and existing conditions and purpose and need of the project and cumulative effects. Tables can be intimidating and seem highly technical. Their presentation to community member is not advised, unless the particular members were of a higher education level.
 - A mini-workshop with the community to enable them to better understand what is needed from them in terms of monitoring may prove beneficial.
 - Capacity building of participants at current workshop is to be spread throughout respective organizations. The Farmer Field School (FFS) method is mentioned, it is a successful way of learning by doing. The implementing partner has the responsibility to get the information out to the community.
 - In working with illiteracy, the FFS process allows for a hands-on approach and was found to be effective. Discovery and experiential learning are types of learning that tend to stay with the “student”. Facilitators are trained in how to BE a facilitator instead of lecturing.
 - In terms of the cost required to implement FFS, a large turnover of information is expected. Information is diffused to farmers outside of the FFS. FFS gives the adult farmers, the immediate purposes and objectives of doing particular activities, resulting in positive attitudes and readiness to learn.

- Are there any situations where the EMPR will have to factor for future ground conditions (as opposed to existing ground conditions)?
 - By looking at the surrounding environment, an effort is made to consider the future possible implications. The goal is that these future conditions are considered by the questions asked on the EMPR.
 - Attempts are made to look at past, proposed, and future activities (5 – 8 year time frame).
- How often are reports expected, following up from EMPs?
 - Reports were originally set up to be submitted annually, but more frequent submission is appreciated. It should be done whenever any report is submitted to USAID as per the agreement contract, attached to the main report. At least annually.
- With GCC as the Mission priority, most strategies are futuristic. How would these be addressed?
 - Adaptation methods for future factors (sewage outfall in an area) would tend to be more along the lines of mitigation. Specific examples can be addressed but a general response to possible futuristic issues would not be feasible as there are various factors for each potential situation.
- With respect to the Screening Form (Table 1) it does not necessarily pick up on all factors. Can the form be upgraded to include factors that may have not been relevant when the form was originally constructed?
 - The forms are flexible. Information that is not required or factors not mentioned in the present Screening Form can definitely prove relevant. These notes should be given to Mission officials so that when a review of the form is done, these factors can be looked at and considered to improve the forms. Information should go to the COR and MEO.
- If unforeseen impacts arise, and an insufficient cost is attached to the mitigation, what are the steps to be taken?
 - An interdisciplinary team should be able to minimize unforeseen impacts during the process of prior design, proper surveys and studies. In the case of unforeseen impacts that are unavoidable, the implementing partners have to work with the COR in an attempt to get additional funding for these extra mitigations. History suggests that the likelihood of getting this additional funding is little and the usual answer to this problem is to take funding from other activities within the project (redistribute the use of the funds).
 - Other sources of funding may have to be looked into. Most budgets are allotted given the availability of funds.
 - Communication with other implementing partners and USAID should also help minimize unforeseen impacts as well as provide advice on what needs to be done and how funds can be re-allotted.

Session 9. Legislation and Foreseen Environmental Impacts from the Office of Disaster Preparedness and Emergency Management (ODPEM)

Presenter: Michelle Edwards, Senior Director of Mitigation, Planning and Research Division, ODPEM.

Objective: Improve the ability of participants to incorporate disaster risk reduction programming strategies into their development designs.

Key points:

- Jamaica vulnerable to both natural and technological hazards: Earthquakes, hurricanes, tsunamis, drought, fires.
- What is Disaster Risk Management?
 - It is a concept that tries to lessen the impact of hazards, accepting that some hazards are unavoidable.
 - Management includes pre- and post-disaster conditions.
 - Looks at prevention, mitigation, preparedness, response, recovery, and rehabilitation.
 - Involves government and community based organizations.
 - In Jamaica, attempts are made to reduce the impact and to respond to the impact.
- In Jamaica, various acts and policies are in place to support Disaster Risk Management.
- ODPEM, established by the Disaster Management Act, provides its main objectives and goals.
- National Disaster Plan designed in 1993, revised in 1997, and is again currently under review.
- Various plans designed to relate to particular disasters.
- Disaster Risk Management operates at three levels, with subcommittees within each:
 - National Level;
 - Executive Level (Permanent Secretaries and heads of critical agencies);
 - National Disaster Agency.
- National Partners are also involved, such as UWI and UTECH.
- ODPEM is the office responsible for monitoring and communicates with all agencies in terms of their responses and mitigations to disasters.
- Measures are currently in place to deal with specific disaster situations, as well as specific mitigations to prevent damage.
- ODPEM has a database with information as far back as 1866 on disasters that Jamaica has experienced.
- Tools used in Hazard Assessment.
 - GIS system mapping;
 - Mitigation planning;
 - Preparedness;
 - Damage assessments;
 - Vulnerability assessments;
 - Participatory GIS at the community level;
 - Emergency operations;

- HVA (Hazard and Vulnerability Assessment) involves review of historical records and database imagery as well as integrated information from many fields;
- Hazard maps are produced as the result of Hazard Vulnerability and Risk assessments.
 - Maps showing this information are available at the Parish Council.
 - Social Vulnerability Maps are also prepared.

Questions:

- Heavy rainfall appears to be coming through Fern Gully. Are there any possible measures being considered?
 - Fern gully was possibly a river area, which would account for high quantities of water flowing through. Assessments done have calculated flow levels through Fern Gully and have allowed for Disaster Management plans to be made.
 - The flooding issue is one of many issues that may result in the Fern Gully area no longer being used as a mobile path, but reprioritized as a park, due to the possible hazards.
- How would the vulnerability of the Golden Spring area be classified?
 - Many factors have to be looked at to determine the status of a particular area, including its hazard history, geology, and sociology.
- The use of schools as shelters creates a problem in that persons may still be using the school as a shelter when school has returned to normal activities. Is anything being done about this?
 - Emergency type housing areas are being reviewed. Alternatives are available in materials from ODPEM, i.e.; strong plastic sheeting to serve as temporary roof covers.

Session 10: Global Climate Change Initiative: Mitigation, Adaptation, and Implications for Development Programs in Jamaica

Presenters: Joe Torres, USAID Caribbean REA; Anthony McKenzie, NEPA Manager of Strategic Planning and Policy; Malden Miller, USAID Jamaica MEO.

Objective: Acquaint participants with the USAID Global Climate Change Strategy, Jamaica's recent vulnerability assessment, and their integration into development programs in the region.

Key points:

- The effects of GCC are being seen in many fields including disaster and environmental management.
- It is one of the USAID's top three administrative priorities.
- Objectives:
 - To assist countries to develop in ways that reduce emissions while building resilience to Climate Change Impacts under the following categories:
 - Clean energy;
 - Adaptation;
 - Sustainable landscapes.
- Complimentary approaches include:
 - Mitigation strategies;
 - Reducing vulnerability and overall losses;
 - Minimizing risks.
- GCC has been identified as an environmental limiting factor that has to be considered when designing projects, which ties it to Regulation 216.
- Strategies used in environmental analysis are also applicable to determining the effects of GCC:
 - Environmental Baselines and changes to that baseline;
 - Mitigation measures;
 - Best Practices.
- GCC is an environmental, governance, and economical issue.
 - It has effects on all development aspects, i.e.; the power to change curricula in schools.
- CC information needs to be mainstreamed.
- As mentioned before, though funded activities may not be under the GCC umbrella, an effort should be consider and incorporate GCC factors.
- All activities in Jamaica should have climate vulnerability analysis.
- Adaptation basics :
 - Coping with water changes, i.e.; floods, sea level rise via improved drainages;
 - Coping with extreme weather conditions.
- Three main categories of Adaptations:
 - Science and analysis for decision making;
 - Governance for climate resilience;

- Implementation of adaption solutions.
- Clean energy examples (projects that would fall under this heading):
 - Supporting renewable energy deployment;
 - Financing for end use energy;
 - Programs to disseminate solar water heaters.
- Sustainable Landscapes.
 - Accounts for the amount of carbon being produced and used and working towards an overall reduction in carbon usage and forest degradation.
- Main point:
 - All USAID projects should attempt to account for GCC impacts and mitigations.

Vulnerability Assessment in Jamaica:

- Of 26 watersheds, 4 are classified as highly degraded, 6 classified as degraded.
- The impact of hurricanes over the last 10 years severely impacted watersheds.
- It is important to strive to enhance the natural ecosystem.
- Reality - over the past 4 years, more than 40 Ha of coastal wetland has been removed for development.
- One of the requirements of receiving CC funding is to conduct a Vulnerability Assessment.
- Vulnerability Assessments are done with the aid of experts from Global Climate Change teams in the US.
- A Vulnerability Assessment workshop was held involving many sectors. It reviewed increased temperatures, decreased rainfall, sea level rises among other topics.
- Two sectors were selected as the most vulnerable: Tourism and Agriculture.
- A new Ministry has been formed with Climate Change as one of its main priorities.
- USAID Jamaica currently has CC adaptation funding and attempts are being made to integrate GCC adaptation strategies into development initiatives.
- Clean Energy funding is also foreseen in the near future.

Questions:

- Is there progress with respect to the CARICOM perspective in garnering an interest in climate change and obtaining funding from international organizations?
 - Yes, a regional climate change strategy and framework are in the planning stages.
 - Islands in the Eastern Caribbean have been provided with information re: GCC funding in the hopes that pilot projects are developed and shared with other countries.
- With respect to GCC funding, what guidance is there for an entity that wants to access this funding from USAID?
 - The same process applies as with other projects, for GCC information in particular there are websites and linked organizations, e.g.; EDAC (Evidence-based Design Accreditation and Certification) provides information on how to develop GCC information into development projects. A lot of case studies are available online.
 - Coastal resource management and agriculture sectors in Jamaica are applying for funds from the adaptation fund (US\$10 million for work to be done in Negril).

- Jamaica will receive funds for adaption, other countries with higher carbon outputs are more targeted for the other categories (clean energy and sustainable landscaping).
- IDB and World Bank are also funding GCC themed projects in Jamaica.
- What efforts are being made in terms of making the Jamaican populace aware of GCC?
 - Early environmental education projects in and outside of schools.
 - Employing the use of youth clubs and 4H clubs to disseminate the information.
 - These are done in an attempt to have the information reach the parents through the children, and ensuring that the emerging generations appreciate environmental management and GCC as major factors.

Session 11: Pest Management, PERSUAP Reports and Operational Field Guides

Presenter: Hugh Ho-Young, Senior Inspector, Pesticide Control Authority, Ministry of Health; Francine Webb Lawrence, Asst. Plant Health & Food Safety Officer, Rural Agriculture Development Authority.

Objective: Become familiar with the PERSUAP format, technical content and procedures. Increase awareness of best practice on pesticide use and integrated pest management methods.

Key points:

- The Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) evaluates pesticide usage and designs action plans for its safer use.
- Major components of PERSUAP:
 - Pesticide evaluation report analysis;
 - Safe Use Action Plan;
 - Application of Chemical;
 - Guidelines for Integrated Pest Management;
 - Use of Chemicals.
- Basis for approved chemical selection:
 - Toxicity;
 - Suitability to crop;
 - Recommendations of chemical;
 - Compliance with local recommendations.
- The Pesticide Control Authority (PCA) falls under the Ministry of Health.
 - In charge of regulating and managing Jamaica's pesticide use.
 - Under the PCA act, the PCA has the power to confiscate, shut down and/or prevent the operation of illegal chemicals.
 - The PCA has inspectors which work regularly in an ongoing basis.
 - Pesticide trainings are continuously carried out.
 - The staff has set targets for farmer training sessions carried out each month.
- Toxicity:
 - Toxicity level of pesticides range from Class 1 to Class 4 with Class 4 being the least toxic.
 - The majority of Class 1 chemicals are being phased out. The majority of those allowed are Class 3 and 4.
- Strengths of the Rural Agriculture Development Authority (RADA):
 - Strong technical team.
 - Extension office in each parish.
 - Staff has increased from 60 extension officers to 98 under Minister Tufton with the Ministry of Health.
 - Officers completed 60 hours of training that year.
 - RADA has autonomy.

- An emergency response team.
- Marketing capabilities are prioritized.
- RADA Pesticide Surveillance.
 - Factors of chemical use focused on during monitoring:
 - Effectiveness of chemicals;
 - Frequency of use;
 - Storage of chemical;
 - Reason for use;
 - Accidental poisoning;
 - Environmental contamination.
- Safe Use Action Plan.
 - The use of chemicals is encouraged only as a last resort.
 - All registered chemicals are EPA approved.
 - The register of approved pesticides is made available at extension offices and online.
 - A compilation of approved pesticides is given to farmers and extension officers.
 - Critical aspects of pest infestation are captured in a standard template.
 - No cases of pesticide resistance confirmed during research into the effectiveness of approved chemicals.
 - Emphasis was placed on non-chemical control methods.
 - Safety procedures in terms of gears were also communicated to farmers.
- Application of chemicals.
 - Training in safety procedures done for farmers and extension officers.
- Formal and informal training sessions in safe use regularly conducted; pre- and post-testing done.
- Challenges:
 - High pest pressure throughout the year (encouraged by high hurricane occurrence).
 - Climate changes – higher temperatures and shifting of weather patterns, more prolonged droughts.
 - Limited varieties of resistant crops.
 - The costs of protective equipment were a problem for farmers.
 - Safe storage on farm.
 - Resistance of farmers to only use approved chemicals.

Questions:

- Would you recommend annual testing to determine how chemicals affect workers on farms?
 - A problem of cost prevents a positive response; details would have to be worked out.
 - Some industries have biannual testing as a policy. Problems include workers not being given the results of the testing.
- What is the maximum residue limit?
 - It is the least amount of chemical permitted on product that will be effective and cause no harm to the applicators.
- Is there any work being done on a pest population survey throughout the country?

- The National Plant Health Committee plans to carry out a survey.
- Farmers are advised to report problems with increasing pest populations early and any resistance to approved pest managements.
- With respect to introducing and testing new chemicals, what is the process in terms of timeline and paperwork?
 - An MSCS for the chemical is required, as well as the label of the chemical and protocol of testing, submitted with a form requiring allowance for testing.
 - Timeline: looked at during monthly board meetings. Answers should be available within six weeks of the board meetings.
- Caribbean wide FAO project for disposal of obsolete pesticide materials. Although Jamaica has submitted their inventory, they are still receiving notice of containers at specific sites. Aside from this process farmers, are encouraged to follow label directions for storage and disposal.

Session 12: Bringing Curricula to Reality

Facilitator: Scott Solberg, SMTN.

Objective: Identify lessons learned and practical actions that can be operationalized in future.

Priority actions and key notes:

- Create a mailing list to keep participants informed and in touch. This has been done through the use of virtual information share network, Base Camp.
- Community should be involved for every project.
- Make linkages with a broad range of groups and push communication flow.
- Employ very specific documentation of communication attempts.
- Communication should be relationship/individual based, using internal dynamics to transfer information.
- Baseline information is a crucial factor.
- Create a database of participants identifying the projects with which each participant is associated.
- Use of the USAID website that provides a database of IEE's and is an excellent resource for assistance in producing an IEE.
- Increase monitoring and evaluation components of projects.
- The EMPR form used in this workshop is particular to this region (Latin America and Caribbean). The South America Region is using a computerized system (SIGA or MONITOR), allowing the information from EMPR's to be entered into a database.
- EMPRs need to be more detailed for particular projects, so that it can be seen that the project has been evaluated in detail and the answers that are known to be approvable are not "cut and pasted" into the form.
- Case studies are also a valuable resource and should be shared and researched.
- Projects done by the participants should be documented well so that they can also become case studies and shared with the region.
- Incorporate Regulation 216 processes and procedures into workshops at all levels; programmatic, communal, administration, etc.

ANNEXES

Agenda

USAID ENVIRONMENTAL MANAGEMENT AND REGULATIONS WORKSHOP

Ocho Rios, Jamaica

January 23-27, 2012

Training Objectives:

1. Strengthen the capacity of participating organizations to incorporate environmentally sound design and management (ESDM) practices into existing and upcoming development and relief program designs and budgets.
2. Improve the ability of USAID staff and partner agencies to consistently apply and comply with USAID procedures, Regulation 216 and to generate high-quality environmental analysis.
3. Enhance collaboration, networking, exchange of new strategies and technical solutions for development efforts between implementing partners and their local staff in the field, government ministries, and USAID personnel.

Key Activities:

- Day 1. Overview of environmental analysis and USAID environmental processes and procedures.
 Day 2. Practice the development of the EMPR tool and prepare for its practical application in the field.
 Day 3. Carry out project field visits and compile results into the EMPR format.
 Day 4. Present case study conclusions and special topic sessions, such as DRR, Pesticide Management, and GCC.
 Day 5. Address any unresolved issues and develop ideas on how to operationalize lessons learned from the workshop.

Day/Time	Module	Objective	Presenter/Facilitator
Day I Monday	Overview of environmental analysis and USAID environmental processes and procedures.		
11:00-12:00	Participant Arrival and Registration		
12:00-13:00	Lunch		
13:00-13:10	Welcome and Opening Statements	Highlight the value of workshop content and expected results.	Malden Miller, USAID Jamaica MEO
13:10-13:30	Words from USAID Jamaica Deputy Mission Director		Sean Osner, USAID Jamaica Deputy Mission Director
13:30-14:00	Workshop Objectives, Agenda, Logistics, Participant Introductions & Expectations	Articulate workshop plans, goals, and participants' expectations.	Scott Solberg, SMTN
14:00-15:00	Session I: Environmental Priorities in USAID Jamaica Projects <i>Panel discussion</i>	Establish a basic knowledge of the legal basis for USAID environmental processes, procedures, tools and resources.	<i>Panelists:</i> Robert Wright, INMED Veva Lawrence, LIFE Diane Dormer, ACDI VOCA

15:00-15:30	Coffee break in conference room		
15:30-16:00	“Environmental Considerations: Toward a Sustainable Future” <i>Video and discussion</i>	Present an introductory video on the importance of environmental considerations in development programming.	Suzanne Ebert, USAID Jamaica Deputy MEO Malory Hendrickson, SMTN
16:00-17:00	Session 2: Overview of USAID Environmental Processes <i>Technical presentation and dialog</i>	Provide background information and legal basis for USAID environmental processes, procedures, tools and resources.	Joe Torres, USAID Caribbean REA Scott Solberg, SMTN
17:00-17:10	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Malory Hendrickson, SMTN Scott Solberg, SMTN
Day 2 Tuesday	Practice the development of the EMPR tool and prepare for its practical application in the field.		
8:00-8:30	Field Visit Site Selection	Gain a general awareness of the case study projects that will be visited in the field on day 3. Divide participants into groups according to their thematic interests. Distribute field guides.	<i>Facilitator:</i> Scott Solberg, SMTN
8:30-9:30	Session 3: USAID Environmental Compliance Documentation: the Initial Environmental Examination (IEE) and the Environmental Mitigation Plan and Report (EMPR) <i>Technical presentation and dialog</i>	Build comprehension of the concepts, procedures and environmental threshold decisions (ETD) for the Initial Environmental Evaluation (IEE). Understand the types of projects that require specific IEE Environmental Determinations and the roles and responsibilities within the IEE procedures. Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures, format and development.	Joe Torres, USAID Caribbean REA Malden Miller, USAID Jamaica MEO
9:30-11:00	Session 4: Transect Walk <i>Field visit</i>	Improve the understanding of and experience in field visit methodologies and identification of potential environmental impacts.	<i>Facilitators:</i> Scott Solberg, SMTN Malory Hendrickson, SMTN
11:00-11:30	Extended coffee break		
11:30-12:30	Session 5: Introduction to Environmental Mitigation and Monitoring <i>Technical presentation and dialog</i>	Strengthen knowledge of environmental mitigation and monitoring, and the selection/development of environmental indicators.	Scott Solberg, SMTN Malory Hendrickson, SMTN

12:30-14:00	<p>Session 6a: Overview of Jamaica Environmental Legislation from the National Environment and Planning Agency (NEPA) <i>Technical presentation and dialog</i></p> <p>Session 6b: Comparing Compliance Procedures <i>Panel discussion</i></p>	<p>Gain a familiarization with Jamaica's socio-environmental context and recent environmental initiatives. Achieve an applicable understanding of the local environmental law and requirements, including environmental processes and permits.</p> <p>Develop more clarity on the similarities and differences of USAID and the MoE, in regards to environmental management and compliance.</p>	<p>Andrea Bennett, Standards Officer, NEPA</p> <p>Marie Chambers, Legal Officer, NEPA</p> <p>Joe Torres, USAID Caribbean REA</p> <p>Malden Miller, USAID Jamaica MEO</p>
14:00-15:00	Lunch		
15:00-16:45	<p>Session 7a: Case Study Briefings and Working Group Preparation: Familiarization of Project Background and Field Tools <i>Working groups</i></p>	<p>Build basic familiarity with respective case study projects and advance preparation for field visits. Review the current EMPR for the project to be visited, analyzing the five components and documenting what one will need to observe in the field.</p>	<p><i>Facilitator:</i> Malory Hendrickson, SMTN</p> <p><i>Guides:</i> Dean Passard, ACDI VOCA Robert Wright, INMED Leonard Jackson, Ministry of Education Clifton Wilson, ACDI VOCA</p>
16:45-17:00	Wrap-up Session	<p>Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.</p>	<p>Zahra Ennis, SMTN</p> <p>Scott Solberg, SMTN</p>
Day 3 Wednesday	Carry out project field visits and compile results into the EMPR format.		
8:00-13:00	<p>Session 7b: Field Visits: Experiential Practice Using the EMPR <i>Field visits</i></p> <p>Technical Areas:</p> <ol style="list-style-type: none"> 1. Agriculture – Scotch Bonnet Pepper Farm 2. Adaptive Agriculture – Aquaponics 3. Refurbishment – Brown's Town High 4. Agriculture – Orange River 4-H 	<p>Groups of 10-12 participants travel to the field site to collect information and carry out environmental evaluations in the field; Focus on EMPR tables (M&E indicators, responsible parties, frequency, reporting).</p>	<p><i>Guides:</i> Dean Passard, ACDI VOCA</p> <p>Robert Wright, INMED</p> <p>Leonard Jackson, Ministry of Education</p> <p>Clifton Wilson, ACDI VOCA</p>
13:00-14:00	Lunch		

14:00-16:45	Session 7c: Elaboration of Presentation on Field Visit Findings <i>Working groups</i>	Advance discussions and compilation of field visit results into an EMPR format and a group presentation. Conclude with suggestions for improving environmental field tools.	<i>Guides:</i> Dean Passard, ACDI VOCA Robert Wright, INMED Leonard Jackson, Ministry of Education Clifton Wilson, ACDI VOCA
16:45-17:00	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Malory Hendrickson, SMTN Scott Solberg, SMTN
Day 4 Thursday	Present case study conclusions and special topic sessions, such as DRR, Pesticide Management, and GCC.		
8:00-10:30	Session 7d: Case Study Conclusions <i>Group presentations in plenary</i>	Articulate field visit findings, analysis, and EMPR development.	<i>Working groups and guides</i>
10:30-11:00	Coffee break		
11:00-12:00	Session 8: Recommended Best Practice for EMPR Development and Application/Monitoring and Evaluation <i>Panel discussion</i>	Improve understanding of the EMPR procedures and technical content.	Malden Miller, USAID Jamaica MEO Scott Solberg, SMTN
12:00-13:00	Lunch		
13:00-14:00	Session 9: Legislation and Foreseen Environmental Impacts from the Office of Disaster Preparedness and Emergency Management (ODPEM) <i>Technical presentation and dialog</i>	Improve the ability of participants to incorporate disaster risk reduction programming strategies into their development designs.	Michelle Edwards, Senior Director of Mitigation, Planning and Research Division, ODPEM
14:00-15:30	Session 10: Global Climate Change Initiative: Mitigation, Adaptation, and Implications for Development Programs in Jamaica <i>Technical presentation and dialog</i>	Acquaint participants with the USAID Global Climate Change Strategy, Jamaica's recent vulnerability assessment, and their integration into development programs in the region.	Joe Torres, USAID Caribbean REA Anthony McKenzie, NEPA Manager of Strategic Planning and Policy Malden Miller, USAID Jamaica MEO
15:30-16:00	Coffee break		

16:00-17:00	Session 11: Pest Management PERSUAP Reports and Operational Field Guides <i>Technical presentation and dialog</i>	Become familiar with the PERSUAP format, technical content and procedures. Increase awareness of best practice on pesticide use and integrated pest management methods.	Hugh Ho-Young, Senior Inspector, PCA, Ministry of Health Francine Webb Lawrence, Asst. Plant Health & Food Safety Officer, RADA
16:45-17:00	Wrap-up session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Zahra Ennis, SMTN Scott Solberg, SMTN
Day 5 Friday	Address any unresolved issues and develop ideas on how to operationalize lessons learned from the workshop.		
8:00 – 9:00	Parking Lot Session	Address unresolved questions or issues and summarize information presented throughout the training. <ul style="list-style-type: none"> • Base Camp introduction • Carbon neutral event 	Malory Hendrickson, SMTN Scott Solberg, SMTN
9:00 – 10:00	Session 12: Bringing Curricula to Reality <i>Plenary discussion</i>	Identify lessons learned and practical actions that can be operationalized in future planning.	<i>Facilitator:</i> Scott Solberg, SMTN
10:00 – 10:30	Closing ceremony	Conclude workshop and distribute diplomas	Joe Torres, USAID Caribbean REA

Workshop Photograph Collage



