FINAL REPORT

L'Atelier USAID/Haiti sur la Gestion et le Respect de l'Environnement

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LIST OF ACRONYMS

AOR – Agreement Officer's Representative
BEO – Bureau Environmental Officer
CE – Categorical Exclusion
COR – Contracting Officer's Representative
DCHA – USAID Bureau of Democracy, Conflict and Humanitarian Assistance
EA – Environmental Assessment
EMP – Environmental Monitoring Plan
EMPR – Environmental Mitigation Plan and Report
EMR – Environmental Mitigation Report
EPTR – Environmental Procedures Training Manual
ESR – Environmental Status Report
ESDM – Environmental Sound Design and Management
ETD – Environmental Threshold Decisions
GIS – Geographic Information System
IEE – Initial Environmental Examination
IPs – Implementing Partners
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
PD – Positive Determination
PEA – Programmatic Environmental Assessment
PERSUAP – Pesticide Evaluation Report and Safer Use Action Plan
REA (person) – Regional Environmental Advisor
REA (report) – Rapid Environmental Assessment
REG 216 – USAID Environmental Regulation 216
RFP – Request for Proposal
SMTN – Sun Mountain International
UEMPR – Umbrella Environmental Mitigation Plan and Report
USAID – United States Agency for International Development

AOR – Représentant de l'Agent de l'Accord
BEO – Agent Environnemental du Bureau
CE – Exclusion Catégorique
COR – Représentant de l'Agent de Négociation
DCHA – Bureau de l'USAID pour la Démocratie, le Conflit et l'Assistance Humanitaire
EA – Evaluation Environnementale
EMP – Plan de Surveillance Environnementale
EMPR – Plan et Rapport de Surveillance Environnementale
EMR – Rapport d'Atténuation Environnementale
EPTR – Manuel de Formation sur les Procédures Environnementales
ESR – Rapport sur la Situation Environnementale
ESDM – Gestion Pratique et Conceptuelle de l'Environnement
ETD – Seuils de Décision Environnementaux
GIS – Systèmes d'Information Géographique
IEE – Examen Environnemental Initial
IPs – Partenaires Opérationnels
IPTT – Table de Suivi des Indicateurs de Performance
LAC – USAID Bureau for Latin America and the Caribbean
M&E –Surveillance et Evaluation
MEO – Agent Environnemental de la Mission
ND w/ cond. –Détermination Négative avec Conditions
PD –Détermination Positive
PEA – Evaluation Environnementale Programmatique
PERSUAP – Rapports d'Evaluation des Pesticides et Plan d'Action pour un Usage Plus Sûr
REA (personne) – Conseiller Régional sur l'Environnement
REA (rapport) – Evaluation Rapide de l'Environnement
REG 216 –Régulation Environnementale 216 de l'USAID
RFP – Demande de Proposition
SMTN – Sun Mountain International
UEMPR – Plan et Rapport d'Atténuation Environnementale Umbrella/Programmatique
USAID – Agence des Etats-Unis pour le Développement International

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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 Montrouis, Haiti, the week of April 23 - 27th of 2012. This training initiative was financed by USAID/Haiti 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 and monitoring strategies, USAID global climate change initiative, pest management, future web-based environmental analysis reporting system and the development and implementation of Environmental Assessments.

Over seventy development professionals 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 post workshop, suggest novel and useful results will be generated from this workshop.

Like all Sun Mountain International coordinated 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.

The Workshop Planning Team and Sun Mountain International greatly appreciate the participation and support of all presenters and participants. We especially thank Mark Stoughton and The Cadmus Group 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 missions and organizations including: USAID/Haiti, USAID/Caribbean, USAID/LAC, ACDI VOCA, Batey Relief Alliance, CHF, CMMB, CRS, FHI, Health through Walls, HIFIVE, HRI/OTI, LMS, Mercy Corps, Ministry of Agriculture, MSH/SDSH, PADF/LEAD Project, PCPS, PSI, Université d'état d'Haïti, WINNER, World Concern, World Vision. Without the valuable contributions and efforts from everyone involved, this workshop and the outcomes achieved would not have been possible.

Scott Solberg
Director
Sun Mountain International

Kathleen Bennett
Haiti Workshop Coordinator
Sun Mountain International

WORKSHOP OBJECTIVES

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

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

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.

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

INTENT OF GEMS WORKSHOPS

The Global Environmental Management Support (GEMS) Consortium Workshops are viewed as an exchange of learning for every participant, facilitator and everyone in the training room. This is why the events are called workshops rather than courses. It is more than a one way learning tract. Channel learning lessons from each workshop back to the environmental officers in Washington.

1. CADRE ET CONTEXTE JURIDIQUE

- Régulations Environnementales de l'USAID
- Analyse d'ensemble de l'Environnement au Niveau National

2. CONCEPTS, OUTILS ET EXPERIENCES DANS LA GESTION DE L'ENVIRONNEMENT

- Concepts fondamentaux de l'Atténuation, la Surveillance et l'Evaluation Environnementale
- Guides et Outils EIA (EMPR, IEE)
- Obstacles et Leçons Apprises dans la Gestion de l'Environnement
- La Lutte contre les Ravageurs (PERSUAP)

3. ETUDES DE CAS DANS LE CONTEXTE LOCAL

- Agriculture; Gestion Adaptive et Intégrée contre les Ravageurs
- Infrastructure et Réhabilitation
- Gestion des Déchets
- Eau et Service Sanitaire

4. COLLABORATION ET SUIVI

- Conversation: Efforts communs dans la gestion de l'environnement et résoudre les obstacles liés à l'Atténuation et la Surveillance Environnementale
- Travail de groupe: Discuter des leçons apprises sur le terrain et renforcer les considérations environnementales dans la conception, la mise en œuvre et l'évaluation du projet
- Programme adapté à la réalité: Rechercher des pratiques concrètes apprises de l'atelier qui peuvent être incorporées dans les programmes actuels et futurs d'USAID Haïti

Organigramme Conceptuel

TECHNICAL SESSIONS

SESSION 1: OVERVIEW OF USAID ENVIRONMENTAL PROCESSES

TECHNICAL PRESENTATION AND DIALOG

PRESENTERS

Abdel Abellard, USAID/Haiti Deputy MEO
Victor Bullen, USAID/LAC BEO

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.
- Pesticides use (DDT) and negative impacts mentioned in "Silent Spring" alarmed American society, sparked environmental protection movement ex: 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 types of projects and particular regulations 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 the need for Reg 216 well, due to the urgency and importance of projects.
- The IEE (Initial Environmental Examination) looks at specific activities, reasons for doing them and potential impact. They are done at the mission level and prepared by COR's. Sent to MEO's, then on to the REA, and then on to BPO (who provides an environmental threshold decision). EA's done if a major impact is predicted.
- The EMPR (Environmental Mitigation Plan and Report) focuses on mitigation practices.
- Environmental mistakes made for many reasons ex: poor locations, improper designs, failure to consider effects, site specific considerations, and money not supplied for mitigation measures. 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
- Many references for best practices available online with USAID resources and local references.
- Being systematic includes proper documentation and analysis of adverse effects and alternatives and IEE's.
- Resources mentioned include USAID regional staff and online sources (USAID sites and others).

REFERENCE DOCUMENTS

- Session presentation on participant flash drive
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- USAID Regulation 216
  http://transition.usaid.gov/our_work/environment/compliance/regulations.html

SESSION 2: ENVIRONMENTAL PRIORITIES IN USAID/HAITI PROJECTS

PANEL DISCUSSION

PANEL REPRESENTATIVES

Cristina Olive, PCPS Office Chief
Jean Robert Estimé, WINNER Chief of Party

FACILITATOR

Scott Solberg, SMTN Director

OBJECTIVE

Understand the perspectives of the participating organizations on the importance of environmental considerations, regional priorities and synergetic efforts in the context of Haiti.

SUMMARY

Within this session, panelists discussed their perspective of environmental priorities in the context of socio-economic development in Haiti.

QUESTIONS FOR THE PANELISTS

1. What do you consider the most challenging environmental concerns for the general population of Haiti? For the most vulnerable populations?

2. What is the most useful role for international organizations who want to bring positive changes to the environmental short-fallings of Haiti?

3. How can the participating organizations work in a more synergistic, efficient manner to accomplish significant common goals in socio-economic development?

4. What are the most important lessons for your representative organization to learn during this training event? Other organizations across Haiti?

SESSION 3: THE INITIAL ENVIRONMENTAL EXAMINATION (IEE)

TECHNICAL PRESENTATION AND DIALOG

PRESENTERS

Rob Clausen, USAID/Haiti MEO

OBJECTIVE

Build comprehension of the concepts, procedures and environmental threshold decisions (ETD) for the Initial Environmental Examination (IEE). Understand the types of projects that require specific IEE Environmental Determinations and the roles and responsibilities within the IEE procedures.

KEY POINTS:

The Initial Environmental Examination (IEE) is a request for a project proposal and its 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.

- IEE's are prepared by mission personnel (CORs) but this does not mean developing partners are not to be involved in its development.
- Reg 216 Process: IEE prepared by mission -> approved by MEO, REA and BEO -> Environmental Threshold decision 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 for with proper staffing and planning, and disaster mitigation procedures already in place.
- Reg 216 Determinations/ Threshold Decisions
    - Exemptions.
    - Deferrals – occur in the case where not enough information is given. Not used often anymore, instead EMPRs are requested.
    - Categorical Exclusion (CE)
        - "Very Low Risk activities" include education, technical assistance, etc. Activities not involving actions on critical wildlife, habitats.
    - Negative Determination (ND) – not used often, usually only for purchasing materials.

- Negative Determination with conditions (NDwC) – 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.

**A list of example projects and their threshold decisions can be found in Regulation 216

- 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 USAID priority: organic > integrated pest management methods > chemical pesticides > RUPs.
    - Information available online on particular chemicals (US EPA website).
- Sub-Grants
    - Small-scale subprojects are usually given NDwC, 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 = EA 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.

REFERENCE DOCUMENTS

- Session presentation on participant flash drive
- IEE format
  http://transition.usaid.gov/our_work/humanitarian_assistance/ffp/fy10_iee.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- USAID Regulation 216
  http://transition.usaid.gov/our_work/environment/compliance/regulations.html

SESSION 4: THE ENVIRONMENTAL MITIGATION PLAN AND REPORT (EMPR)

TECHNICAL PRESENTATION AND DIALOG

FACILITATORS

Abdel Abellard, USAID/Haiti Deputy MEO
Joe Torres, USAID/Caribbean REA

OBJECTIVE

Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures and format.

KEY POINTS:

- The EMPR is an effective tool that has helped us manage the projects that are a Negative Determination with Conditions.
- After an Initial Environmental Examination (IEE) or a Request for Categorical proposes a "Determination" for an activity regarding its potential for environmental impact and the "Threshold Decision" by the Bureau Environmental Officer (BEO) finalizes the "Determination", the activity begins with Environmental Mitigation Plan and Report (EMPR), which "will avoid a significant effect on the environment" and describe the "means to mitigate adverse environmental impacts". Still, mitigation, monitoring and reporting continue through the life of the activity.
- The EMPR has 3 objectives:
    - Address areas of environmental impacts resulting from program implementation.
    - Develop a system to eliminate or mitigate negative environmental impacts, including socio-economic.
    - Strengthen community's awareness, preparedness and ability to protect and adapt to their natural resources.
- When is an EMPR required?
    - Activities with a Negative Determination with Conditions - The condition is filling out the EMPR.
    - The project has moderate environmental impacts than can be mitigated.
- Project with sub-grants component:
    - Subprojects often not defined when project proposed and the IEE written.
    - Simplified environmental analysis for small-scale activities, implemented through sub-grants or subprojects, under a larger project.
    - Often times when there is a sub grantee in the project it is very removed from the IEE which is why often times it doesn't even fit with the original.
- The IP will find the IEE and EMPR format attached to the RFP and/or Initial Agreements.
- If the IEE contains a ND with *conditions,* The Bureau Environmental Officer (BEO), Victor Bullen, grants *conditional* approval. It will need a draft EMPR completed by potential partners and submitted with

proposal. Through this, environmental considerations are incorporated into the project planning and design and it requires that costs for mitigations be included in the proposed budget.

- Once the contract award is made, the winning contractor revises their draft EMPR during the first month based on their work plan. It is this revised EMPR that then is approved by the COR, MEO and REA.
- EMPR Framework (5 Components):
    - Coversheet
    - Narrative- Background, Activity Description, Environmental Baseline, Evaluation of Impacts, and Mitigation Actions
    - Environmental Screening Form - Table 1
    - Identifying Potential Impacts and Associated Mitigation Measures - Table 2
    - Environmental Monitoring and Evaluation Tracking - Table 3
- To obtain baseline information for the narrative, talk to staff in the organization who know the project, and know the sites. Obtain project documents and information. Remember that direct observation is key. Go to the site(s)! (Look up publicly available satellite imagery before you go.) Utilize other local talent and knowledge such as communities, government, and counterparts. There are also other resources: go online, GIS, data bases, and remember good local information is key.
- The USAID LAC Environmental Guidelines are also a key resource to learn about potential impacts and how they arise. The guidelines cover 9 development sectors. Each section write-up identifies potential impacts & discusses how they arise. Impacts are matched to mitigation actions. The annotated bibliographies provide links to key additional resources.

REFERENCE DOCUMENTS

- Session presentation on participant flash drive
- EMPR format: hard copy in Field Guide
  http://transition.usaid.gov/gt/docs/emp_format.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- USAID Regulation 216
  http://transition.usaid.gov/our_work/environment/compliance/regulations.html

SESSION 5: TRANSECT WALK AND IMPACT IDENTIFICATION

FIELD VISIT

FACILITATORS

Scott Solberg, SMTN
Joane Bijou, SMTN

OBJECTIVE

Improve the understanding of and increase experience in field visit methodologies and identification of potential environmental impacts of project sub-activities.

SUMMARY

This session provided participants with an interactive learning experience through a mini-field visit around the hotel premises. During this visit, participants observed the grounds in order to practice evaluating an area and to develop an eye for identifying potential beneficial and adverse impacts. They also learned to discern cause-and-effect relationships between human activities and different aspects of the environment, including flora, fauna and socio-economic humanitarian issues. Through facilitator-led observation and discussion, participants are prepared for the more extensive field visits the following days.

REFERENCE DOCUMENTS

- EMPR format: hard copy in Field Guide
  http://transition.usaid.gov/gt/docs/emp_format.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html

SESSION 6A: INTRODUCTION TO ENVIRONMENTAL MITIGATION AND MONITORING

TECHNICAL PRESENTATION AND DIALOG

FACILITATORS

Scott Solberg, SMTN
Jean Baptiste Volcy, SMTN

SUMMARY

This session introduced participants to mitigation and monitoring concepts, an essential process in environmental management. Participants were informed on environmental indicators in addition to monitoring and evaluation systems.

The group observed and measured environmental conditions by using *environmental indicators*, which are signals of, or proxies for, environmental health and ecosystem function. Indicators can require complex equipment to measure (e.g. testing water for pesticide residues), but they can also be very simple; and often for small-scale activities, simple indicators are best. For example, groundwater levels can be measured in a shallow well using a rope and bucket. A key principle of monitoring is choosing the simplest indicator that meets your needs.

KEY POINTS:

- Environmental Mitigation: Measures designed to reduce or eliminate undesired environmental impacts of a proposed action. Mitigation is a key part of the environmental analysis process. It is essential in order to achieve an environmental friendly design.
- If a project is designed to perfection, will we need mitigation measures? In theory, for a project to be perfect all the mitigation measures should already be incorporated into the project planning, design and budget. However, there is never a case where they are all incorporated at the design state. There can be unexpected impacts that will need mitigation measures in the future.
- There are different places in a project life where you need to inject mitigation measures. The place where you will add this mitigation measures is important. Mitigation filters out greatest impacts at beginning of cycle if done properly and at the end, only small impacts remain to be mitigated.
- During planning focus on macro issues. You always want to start with the greatest impacts, in road construction for example, siting is a key issue during the planning phase.
- Different mitigation measures act in different ways to reduce adverse impacts:
    - Prevention and control: Prevent an impact by: changing technique; changing the site; specifying operating practices.
    - Compensation: Offset adverse impacts in one area with improvements elsewhere.
    - Remediation: Repair or restore the environment after damage is done.

- Mitigation in EMPRs contain:
    - What and Why: What are the significant impacts that need to be mitigated? What are the proposed mitigation measures?
    - Who: Who carries out mitigation measures? Who manages or verifies?
    - When: At what stage in the project cycle is each measure implemented? Why?
    - How: What is the budget? Who pays?
- The EMPR allows modifications in the strategy or mitigation measures, when the monitoring indicates an unforeseen problem or unexpected result.
- Adaptive management is important as there are many unforeseen problems.
- Monitoring is a systematic measurement of key environmental indicators over time, within a particular geographic area, in order to determine the effects of project implementation short term and long term. As well as a systematic evaluation of the implementation of mitigation measures.
- If something goes wrong, monitoring lets you know if you are actually achieving your goals. As well as if modifications should be done.
- Monitoring Process: Field monitoring should be carried out by more than one person, to receive the benefits of different perspectives of the group. Before going to the field, a clear monitoring methodology should be defined (key questions, indicators, etc.) Timing is also key; mitigation has to be completed in the appropriate amount of time, according to the standards.
- Monitoring is responding to a series of questions: Are we doing what we said we were going to do? How effective were our mitigation measures?
- Types of Indicators :
    - Support – Resources
    - Performance – Products produced
    - Effectiveness results – Immediate results
    - Impact– Long-term results
- Indicators have to be SMART
    - **S**pecific
    - **M**easurable
    - **A**chievable
    - **R**ealistic
    - **T**ime Limited
- In order to make mitigation and monitoring effective, it has to be realistic, focused, funded, considered on time and considered at an early stage.
- Mitigation and Monitoring are a critical part of environmentally sound design: Mitigation minimizes adverse environmental impacts and monitoring tells you if your mitigation measures are sufficient and effective.

REFERENCE DOCUMENTS

- Session presentation on participant flash drive
- EMPR format: hard copy in Field Guide
  http://transition.usaid.gov/gt/docs/emp_format.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- USAID Regulation 216 Frequently Asked Questions: Folder on USB Flash Drive

SESSION 6B: EMPR PRIMER EXERCISE

GROUP WORK

PRESENTERS

Scott Solberg, SMTN
Joane Bijou, SMTN
Fiona Littlejohn-Carrillo, SMTN

OBJECTIVES

Strengthen knowledge of environmental mitigation and monitoring and the selection and development of environmental indicators. Build and apply mitigation measures and indicator selection skills in a scenario-based small group exercise centered on the observations from the transect walk from Day 1.

SUMMARY

This session further introduced participants to mitigation and monitoring concepts, an essential process in environmental management. Participants were informed on environmental indicators in addition to monitoring and evaluation systems.

Participants observed and measured environmental conditions by using *environmental indicators*, which are signals of, or proxies for, environmental health and ecosystem function. Indicators can require complex equipment to measure (e.g. testing water for pesticide residues), but they can also be very simple - and often for small-scale activities, simple indicators are best. For example, groundwater levels can be measured in a shallow well using a rope and bucket. A key principle of monitoring is choosing the simplest indicator that meets your needs.

In the second half of this session, participants formed sub-groups to complete an *EMPR Primer Exercise.* This small-group paper exercise was created to strengthen the knowledge and practical application of indicator development and selection in a predetermined scenario, which is the hotel. Participant groups will complete a basic chart of identified environmental impacts, mitigation measures that could be used to diminish or eliminate the potential impact and indicators that would best serve to measure the success of the mitigation actions.

Each small group shared their results and findings in a time-limited, concise fashion.

REFERENCE DOCUMENTS

- Session presentation on participant flash drive
- EMPR format: hard copy in Field Guide
  http://transition.usaid.gov/gt/docs/emp_format.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- USAID Regulation 216
  http://transition.usaid.gov/our_work/environment/compliance/regulations.html

FIELD VISITS AND CASE STUDY FINDINGS

WORKING GROUPS

GUIDES

Jean Baptiste Volcy, SMTN/CHF
Elizabeth Sipple, Mercy Corps
Gregory Sieh, OTI
Roosevelt de Cimus, WINNER

OBJECTIVE

To implement and strengthen the use of environmental analysis tools presented in the first day of the workshop through field visits and group work after (1) synthesizing field observations and (2) identifying possible mitigation measures for potential environmental impacts of case study projects, while developing an EMPR for the project in question.

CASE STUDY PROJECTS

A. Agriculture and pesticide use: WINNER Agricultural Input Stores
B. Watershed conservation and sustainable livelihoods: Mercy Corps Agro-forestry Project
C. Microenterprise, infrastructure and agriculture: CHF Letagogo Dairy Processing Plant
D. Small scale construction and public health: Partners in Health/OTI Hospital

A. AGRICULTURE AND PESTICIDE USE: **WINNER** AGRICULTURAL INPUT STORES

Project Description:

- WINNER is working with agricultural input stores with the objective to facilitate access of agricultural inputs and equipment to farmers in a sustainable and environmentally-mindful way.
- WINNER has begun work with 39 different agricultural input stores in an effort to increase their management capacity. All of these stores are owned by local organizations (i.e. primarily farmers' associations), and most have established management committees. Participants had the opportunity to see three of these stores.
- General conditions of these shops vary, and WINNER has identified many areas for improvement. Most shops are located around urban areas within the watershed, and some are located near schools and water points. Often, the shops are within private homes, many of which are rented. It is not uncommon that people live in other rooms within the same dwelling. Most structures appear stable, but some have roofs that are inadequately sealed to keep rain out and others have cracks in the walls. Many of the stores are lacking adequate shelving or pallets to keep products off the ground. As much as 60% of the seeds and

fertilizers are kept on the ground. Some shops also have expired products displayed, and shop workers are not always equipped with tools to safely handle toxic products. WINNER seeks to correct these conditions.

Activities:

- Design of training curriculum for shop managers on topics such as simple accounting, inventory management, administration of agricultural input stores, and consumer demand.
- Consultancy with managers on accounting processes and product handling safety.
- Development of technical support plans.
- Purchase of initial capital inputs such as seeds, pesticides, tools, and fertilizers through credit services.
- Assistance in network-forming between shop owners.
- Stores are responsible for sale of agricultural inputs, safe handling of inputs, storage, management of waste, and providing safe use and handling information to buyers

ENVIRONMENTAL MITIGATION PLAN AND REPORT, TABLES 2 & 3:

ACTIVITÉ	DESCRIPTION DE L'IMPACT	MESURES DE MITIGATION RECOMMANDÉES	COÛT DES MESURES DE MITIGATION
1.1 Semences	1.1 Altération de la composition chimique du sol et contamination de l'eau.	1.1 Utilisation modulée des semences importées	1.1 N/A
1.2 Pesticides	1.2 Perte de biodiversité/Apparition de nouvelles maladies	1.2.1 Promotion de la gestion intégrée des pestes (IPM)	1.2.1 $5,000
		1.2.2 Application de dosages appropriés	1.2.2 N/A
		1.2.3 Utilisation des pesticides approuvées par l'USAID	1.2.3 N/A
1.3 Outils	1.3 Érosion	1.3 Promouvoir des techniques culturales anti-érosives	1.3 $5,000
1.4 Engrais	1.4 Altération de la composition chimique du sol (Salinisation)	1.4 Utilisation de matières organiques/ Promotion du compostage	1.4 $10,000
1.5 Formation aux BIAs	1.5 Non respect des normes établies	1.5 Suivi des recommandations/ Recyclage	1.5 $3,000
2.1 Manipulation des Intrants	2.1) Contamination/ problèmes de santé	2.1.1 Rendre disponible les équipements de protection	2.1.1 $3,000
		2.1.2 Promouvoir l'utilisation des équipements de protection	2.1.2 $3,000
		2.1.3 Rendre disponible les kits de Premiers soins	2.1.3 $300
		2.1.4 Disponibilité d'un kit d'hygiène (eau)	2.1.4 $300
2.2 Stockage	2.2) Risque de perte, risque de contamination d'endroit, insalubrité	2.2.1 Cirage du parquet	2.2.1 $2,400
		2.2.2 Réaménagement des étagères par catégorie	2.2.2 $1,500
		2.2.3 Établir un plan de gestion des stocks	2.2.3 N/A
2.3 Gestion de déchets	2.3) Contamination, risque de maladies	2.3.1 Installation d'une poubelle	2.3.1 $150
		2.3.2 Sensibilisation sur la gestion des déchets	2.3.2 $150
		2.3.3 Établir et promouvoir un protocole d'élimination des déchets	2.3.3 N/A
2.4 Information aux acheteurs	2.4) Mauvaise utilisation, excès des produits chimique dans l'environnement	2.4.1 Formation des commis des boutiques sur la toxicité des produits	2.4.1 $150
		2.4.2 Affichage des posters sur les avantages comparatifs des différents produits	2.4.2 $3,000
		2.4.3 Distribution des pamphlets imagés sur l'utilisation des produits	2.4.3 $1,500

Mesure de Mitigation	Personne Responsable	Indicateurs	Méthodes	Fréquence
1.1 Utilisation modulée des semences importées	WINNER/REA	Quantité de semences importé utilisé	Visite des BIAs/Vérification de registre de vente	Mensuelle
1.2.1 Promotion de la gestion intégrée des pestes (IPM)	WINNER/Consultant	Nombre d'agriculteurs utilisant la méthode	Visite des champs	Trimestrielle
1.2.2 Application de dosages appropriés	WINNER/REA	Quantité pesticides utilisées par agriculteur	Enquête entrevue	Mensuelle
1.2.3 Utilisation des pesticides approuvées par l'USAID	BIAs	Absence de pesticides interdits dans les BIAs	Visite des BIAs/Contrôle des cahiers	Mensuelle
1.3 Promouvoir des techniques culturales anti-érosives	WINNER/REA	Nombre d'agriculteurs utilisant les méthodes	Visite de terrain/Observation directe	Trimestrielle
1.4 Utilisation de matières organiques/ Promotion du compostage	WINNER/REA	Nombre d'agriculteurs produisant de composte	Visite de terrain/Observation directe/entrevue	Semestrielle
1.5 Suivi des recommandations/ Recyclage	WINNER/REA	Nombre de séminaires Nombre de personnes formées	Contrôle de liste de participants	Semestrielle
2.1.1 Rendre disponible les équipements de protection	WINNER	Quantité d'équipement disponible	Visite des BIAs	Semestrielle
2.1.2 Promouvoir l'utilisation des équipements de protection	WINNER/REA	Nombre des rencontres	Contrôle des rapport de REA	Hebdomadaire
2.1.3 Rendre disponible les kits de Premiers soins	WINNER	Quantité de kits disponible	Visite des BIAs	Semestrielle
2.1.4 Disponibilité d'un kit d'hygiène (eau)	WINNER	Quantité de kits disponible	Visite des BIAs	Semestrielle
2.2.1 Cirage du parquet	BIAs	Parquet ciré	Visite des BIAs	Trimestrielle
2.2.2 Réaménagement des étagères par catégorie	BIAs	Produits classes par groupe	Visite des BIAs	Hebdomadaire
2.2.3 Établir un plan de gestion des stocks	WINNER/Consultant	Plans de gestion disponibles	Visite des BIAs	Mensuelle
2.3.1 Installation d'une poubelle	BIAs	Poubelles disponibles	Visite des BIAs	Hebdomadaire
2.3.2 Sensibilisation sur la gestion des déchets	WINNER	Déchets place dans les poubelles	Vérification des poubelles	Hebdomadaire
2.3.3 Établir et promouvoir un protocole d'élimination des déchets	WINNER	Protocoles établis Quantité de déchets élimines	Observation et Rapports	Mensuelle
2.4.1 Formation des commis des boutiques sur la toxicité des produits	WINNER	Nombre de commis des boutiques formes	Contrôle des rapports	Semestrielle
2.4.2 Affichage des posters sur les avantages comparatifs des différents produits	BIAs	Nombre de posters affiches	Visite des BIAs	Trimestrielle
2.4.3 Distribution des pamphlets imagés sur l'utilisation des produits	BIAs	Nombre de pamphlets distribues	Rapports de distribution	Trimestrielle

B. WATERSHED CONSERVATION AND SUSTAINABLE LIVELIHOODS: **MERCY CORPS** AGRO-FORESTRY PROJECT "VIE, TE U ENEJI"

Project Description:

- The Life, Land and Energy/Vie, Te and Eneji project is Phase One of a potential Ten-Phase 20-year approach to improve the livelihoods of 100,000 people in the Commune of Arcahaie by protecting micro-watersheds. The Project's approach aims to simultaneously break the reinforcing cycle of extreme poverty and reduce environmental degradation in rural Haiti by making environmental protection profitable. Mercy Corps recognizes that the development of Haiti will fail unless the inextricable links between agriculture, trees, water, markets, energy, effective governance and credit are considered together in holistic development plans; thus, the project aims to facilitate watershed rehabilitation and sustainable livelihoods by linking conservation to markets.
- This model of socioeconomically-driven watershed rehabilitation seeks to address the root causes for environment degradation across Commune Arcahaie, such as the unsustainable consumption of wood resources, especially for charcoal production, leading to widespread deforestation and thus increased vulnerability to natural hazards. Mercy Corps hopes that the project's strategy for alternative sustainable livelihoods, building local capacity and ecological restoration will become a showcase of how to link sustainable natural resource production and economic development as a means of alleviating poverty in Haiti.

Key Activities:

- Development of agro-forestry systems on 300 acres.
- Construction of agricultural plots with stone lines and hedges.
- Growth of 60,000 fruit and forest seedlings.
- Establishment a collaborative partnership avec les Organisations Communautaires de Base (OCB), principalement le CODEP (Coordination des Organisations pour le Developpement Environnemental de Petit Bois (CODEP).
- Introduction of clean energy technology within local communities.

Environmental Impacts:

Plots and Improved Nurseries

- Risk of contamination by pesticide use.
- Risk of formation of breccia due to inadequate handling of level A in some structures.
- Risk of disease introduction through the use of untreated seeds from other localities.

Energy

- Risk of erosion and landslide exploitation of a non-controlled sites of clay and pulling out weeds (if zeb) that protect the soil against erosion.
- Risk of loss of soil fertility through the use of waste from horse, donkey for the manufacture of gas cooker and oven Tibwa.
- Risk of deforestation is the use of wood in ovens for baking bread

ENVIRONMENTAL MITIGATION PLAN AND REPORT, TABLES 2 & 3:

ACTIVITÉ	DESCRIPTION DE L'IMPACT	MESURES DE MITIGATION RECOMMANDÉES	COÛT DES MESURES DE MITIGATION
Amenagement de parcelles agricoles avec cordons de pierres et haies vives	Risque de contamination par l'utilisation de pesticides	Mise en application du PERSUAP	
	Risque de formation des breches due a la manipulation inadequate du niveau A dans certaines structures	Amelioration de la technicite	
	Risque d'introduction de maladies par l'utilisation de semences non traitees venant d'autres localites	Utilisation des semences de bonne qualite	
Introduction de technologie pour l'utilisation de l'energie propre	Risque d'erosion et d'eboulement du a l'exploitation non controlee des sites d'argile et arrachage des herbes (zeb si) qui protégent le sol sur pente contre l'erosion	Mise en place d'un Comite de gestion des sites d'argile identifies	
	Risque de diminution de la fertilite du sol par l'utilisation de dechets de cheval, d'ane pour la fabrication de rechaud Tibwa	Sensibilisation de la communaute sur l'importance des dechets des animaux Experimentation et utilisation d'autres sous produits locaux	
	Risque de deforestation du l'utilisation des bois dans les fours pour la fabrication de pain	Production de bois de chauffage pour commercialisation	

MESURE DE MITIGATION	PERSONNE RESPONSABLE	INDICATEURS	MÉTHODES	FRÉQUENCE
Mise en application du PERSUAP	Mercy Corps	Nbre de responsables formes Nbre de pepinieristes formes Nbre de personnes qui ont mis en application les recommandations du PERSUAP	Rapport d'activites des responsables de formation Observation lors des visites de terrain	A chaque installation et/ou reparation d'une pepiniere Mensuelle
Amelioration de la technicite	Techniciens agricoles de Mercy Corps	Nbre de beneficiaires formes % de parcelles correctement etablies	Rapport d'activites des responsables de formation Observation lors des visites de terrain	Deux fois l'an Hebdoma-daire
Utilisation des semences de bonne qualite	CODEP (OCB)	% de plantules saines au niveau des pepinieres	Observation lors des visites de terrain	Hebdomadaire
Mise en place d'un Comite de gestion des sites d'argile identifies	CODEP	Un Comite de gestion mis en place Evidence d'extraction de l'argile dans les sites recommandes	Proces verbaux des reunions du Comite Observation lors des visites de terrain	Mensuelle Mensuelle
Sensibilisation de la communaute sur l'importance	Mercy Corps	Nbre de participants aux seances de sensibilisation	Liste des participants	Mensuelle

des dechets animaux	CODEP			
Experimentation et utilisation d'autres sous produits locaux	Mercy Corps CODEP	Nbre d'especes experimentees Nbre d'especes adaptees	Rapport des Techniciens Observation Lors des visites de terrain	Semestrielle Trimestrielle
Production de bois de chauffage pour commercialisation	CODEP	Nbre d'ha de lots boises destines au chauffage, etablis	Mesure des superficies plantees	Semestrielle
Mise en liaison des boulangers et des proprietaires des lots boises, destines au chauffage	CODEP	Nbre de partenariats etablis	Accord signe	Annuelle

Conclusions et Récommendations:

- Le Projet ne necessite pas une evaluation environne-mentale. Il presente un faible risque d'effets environnementaux negatifs; cependant, des mesures de mitigation seront necessaires. Cet EMPR permet d'attenuer les risques identifies.
- Un suivi rapproche devra etre effectue afin de s'assurer de l'application adequate des mesures de mitigation.

C. MICROENTERPRISE, INFRASTRUCTURE AND AGRICULTURE: **CHF** LETAGOGO DAIRY PROCESSING PLANT

Project Description:

- This CHF project looks to contribute to the development and strengthening of farmer's organizations and to ameliorate the quality of the living conditions of the farmers and their families by facilitating income growth. The direct beneficiaries of the project are both male and female farmers, and in an indirect way, the whole population benefits from the project, fostering strong ties within the community and from the community to the project as well.

- The construction of the Veterimed Dairy Processing Plant, where "Lèt Agogo" milk is produced, was completed by CHF and USAID/KATA in 2010. Farmers bring their milk by the gallon to the plant where the milk is then sterilized, ingredients are added (e.g. salt, sugar, and vanilla), the milk is bottled, and then the bottle is re-sterilized, labeled, and distributed. Milk can be purchased by the case or individual bottle for 20 HTG.

- The plant currently employees 8 people. The plant utilizes several environmentally sound practices in production; used bottles can be returned to the plant, re-sterilized, and re-used. Additionally, the plant is powered by solar panels.

Key Activities:

- Establishment of an organizational structure for the management of the dairy, including trainings given on micro-enterprise water use, machinery use and maintenance, and waste management and on dairy production manufacturing and waste processing and disposal.
- Trainings for livestock breeders on improved grazing/pasture management techniques, livestock water management, fodder production, and immunization of animals.
- Construction of a dairy in Bois Neuf, including design and site selection of buildings, sourcing of construction materials, and excavation and site clearing/leveling.
- Operation and maintenance of constructed buildings and facilities.

Environmental Impacts:

- Possibility of contamination of the water table.
- Method of storage does not conform to international standards.
- Possibility of contamination of well water.
- Misapplication of the training received by participants and inappropriate choice of the beneficiaries of the training.
- Possibility of environmental contamination by the mismanagement of their material after use.
- Lack of collaboration in the collection of information during investigations.
- Possibility of conflict created by the development and growth of the dairy.

ENVIRONMENTAL MITIGATION PLAN AND REPORT, TABLES 2 & 3:

ACTIVITÉ	DESCRIPTION DE L'IMPACT	MESURES DE MITIGATION RECOMMANDÉES	COÛT DES MESURES DE MITIGATION
Composante 1: Infrastructures			
Construction de la laiterie (systèmes de drenage et d'égouts)	* possibilité de contamination de la nappe phréatique * mode de stockage non conforme aux standards internationaux	* construction d'une fosse sceptique pour les toilettes et de faire la décharge quand c'est nécessaire * réhabiliter le système existant de traitement des eaux usées * répartition d'un espace spécifique de produits par catégorie	US$ 2200 pour une fosse de 8m3 Us $ 500.00 US $ 500.00
Forage de Puits	* possibilité de contamination de l'eau de puits	traitement de l'eau de puits en installant un hypochlorateur	US $ 600.00
Composante 2: Agriculture			
Formation des éleveurs : Etablissement des parcelles fourragères	* mauvaise application de la formation par les participants sur le terrain	* suivi régulier et accompagnement des éleveurs	US $ 1000.00
Formation des éleveurs : Campagne de vaccination et de déparasitage externe	possibilité de contamination de l'environnement par la mauvaise gestion des matériels après leur usage	acquisition d'un incinérateur pour faciliter l'élimination des déchets	US 3000.00
Composante 3: Socioéconomique			
Réalisation d'une enquete socioéconomique auprès des éleveurs	Donnees collectees non fiables	campagne de sensibilisation continue afin d'encourager la population à donner sa collaboration	US$ 1000.00
Mise en place d'une structure organisationnelle	* possibilité de conflit créé par le développement et la croissancce de la laiterie	* formation continue en gestion d'entreprise, gestion de conflit * structure solide de gestion	US $ 3000.00

MESURE DE MITIGATION	PERSONNE RESPONSABLE	INDICATEURS	MÉTHODES	FRÉQUENCE
Construction d'une fosse septique pour les toilettes ; faire la décharge quand c'est nécessaire	Le comite	Assurer que l'eau du puits n'est pas contaminee; les residus de la fosse septique sont decharges a une zone de decharge identifie par la commune	Visite periodique et analyse de l'eau	1 fois chaque mois (decharge)
Réhabiliter le système existant de traitement des eaux usées	Le comite	Le tuyau de drainage est repare et il n'y a pas de fuite d'eau dans le système	Observation visuelle	1 fois par mois
Construction d'une chambre de stockage de produits chimiques	Le comite	Voir les produits chimiques stockes dans une piece differente du matereiel de production	Constater que la chambre est construite	1 fois apres la construction et periodiquement
Traitement de l'eau de puits en installant un	le comite	L'eau doit etre propre apres analyse	Analyse de l'eau	1 fois par mois

hypochlorateur				
Suivi régulier sur la manière dont les eleveurs utilisent les pesticides	Le comite	Pas de residus laisses sur les parcelles ni non plus de seringues. S'assurer que les planteurs ont adopte des pratiques d'IPM dans leurs parcelles	Visite de terrain avec les agriculteur	1 fois chaque 2 semaines
Révision des critères de selection pour pouvoir dépister les éleveurs ayant le pré-requis exigé	Le comite	Les planteurs qui ont recu la formation et ont pu augmenter leur production de lait et leur revenus a partir de la formation recue.	Feuilles de presence aux formations et interviews avec les planteurs	1 fois apres chaque session de formation
Acquisition d'un incinérateur pour faciliter l'élimination des déchets	Direction de la laiterie	1 incinerateur fonctionnel	Achat/ Demande en don	1 fois
Campagne de sensibilisation continue afin d'encourager la population à donner sa collaboration	Direction de la laiterie	90% de la population sont sensibilisees	Focus groupe/Porte a porte	Tout au long du projet
Formation continue en gestion d'entreprise, gestion de conflit	Direction de la laiterie	Application d''úne bonne gestion par le personnel	Focus groupe/ Porte a porte	Tout au long du projet
Structure solide de gestion	Direction de la laiterie/et conseil d'administratio n	La Direction et le conseil d'administration font preuve de structure de gestion	Focus groupe/ Porte a porte	Tout au long du projet

Conclusions et Récommendations:

- Construction d'une fosse septique pour les toilettes.
- Affectation d'une aire de stockage specifique aux produits chimiques.
- Traitement de l'eau de puits.
- Suivi regulier et assistance technique des eleveurs.
- Acquisition d'un incinerateur pour faciliter l'elimination des dechets.
- Formation continue des beneficiaires en matiere de gestion d'entreprise et de conflit.
- Campagne de sensibilisation continue afin d'encourager la population a donner sa collaboration.
- Sensibilisation pour une meilleure appropriation du projet par la communaute.
- Avoir un espace plus propre.
- Entretien du batiment.
- Meilleure gestion des dechets generes par les activites du projet (capsules, etiquettes).
- Deconseiller vivement la brulure des dechets en plein air.

D. SMALL SCALE CONSTRUCTION AND PUBLIC HEALTH: **OTI** HOSPITAL

Project Description:

- The goal of USAID/OTI's efforts in Haiti post-earthquake was to reinforce stability and lay the foundation for longer term development as well as to support the Government of Haiti to govern effectively. In response to this objective, Chemonics selected a local firm to provide design and construction services for the rehabilitation of Hospital Saint-Nicolas (HSN) in the city of Saint-Marc.

- HSN is the only public hospital in the city of Saint-Marc and is managed by Partners in Health/Zanmi Lasante. It served as the main referral medical facility following the January 12th, 2010, earthquake and continues to serve a large number of patients. The hospital sees a total of 350 deliveries of new born children per month, 200 medical consultation per day, and 25 dental patients per day. The physical capacity of the hospital is currently insufficient given the recent increase of clientele due to illnesses related to the earthquake and cholera; upgrading the facility to meet demand has become necessary to improve the healthcare services for the local population.

Key Activities:

- Rehabilitation of the existing drainage canal in front of the Maternity Building.
- Rehabilitation of the Odontology (Dentistry) Building, including its roof and walls.
- Demolition and reconstruction of the guardhouse.
- Rehabilitation and construction of holding areas: fabrication and installation of 34 metal benches and 8 waste baskets throughout the facilities, fabrication and installation of 4 free-standing metallic fame structure waiting areas, construction of concrete pathways and slabs to be used as waiting areas.
- Rehabilitation of the water pumping area and associated plumbing system.
- Additional miscellaneous improvements to the existing landscaping on site.

Environmental Impacts:

- Pollution par l'émission de poussière.
- Risque de contamination des réservoirs de stockage par les eaux de ruissellement.
- Nuisance sonore.
- Agravation de l'état du site de décharge.
- Risque d'accidents.
- Possibilité d'érosion du à l'extraction des matériaux au niveau des rivières.
- Santé et sécurité des ouvriers sur le chantier.

ENVIRONMENTAL MITIGATION PLAN AND REPORT, TABLES 2 & 3

ACTIVITÉ	DESCRIPTION DE L'IMPACT	MESURES DE MITIGATION RECOMMANDÉES	COÛT DES MESURES DE MITIGATION
• Réhabilitation de l'Odontologie	• Pas d' isolation du chantier du reste de l'hôpital (risque d'accidents etc…) • Pas de femmes sur le chantier • Évacuation des débris se fait sur un site de décharge approuvé par la municipalité, cependant le site n'est pas approprié et aggravation de la situation • Centre de traitement de cholera a proximité (15m), risque de transmission	• Clôturer l'aire d'intervention (structure légère, tape) •Recrutement de femmes sur le chantier •Tri des déchets(déchets organiques dans Biodigester,déchets plastiques recycles et déchets médicaux incinérés) clôture du site de décharge en cyclofence, distancer le site de la route ntle •Contrôle de la circulation entre l'enceinte de l'hôpital et le CTC, bac a chlore a l'entrée des deux centres.	
• Réhabilitation du canal de drainage	• le canal collecte toutes sortes d'eau usées de l'hôpital et l' évacuation des eaux se fait dans le caniveau à ciel ouvert, vecteur évident de propagation de maladies. • Malades allongés en attente à proximité	• Séparation des eaux des eaux pluviales. Drainage des eaux usées dans des tuyaux en PVC vers un fosse sceptique. Canal utilise seulement pour le drainage des eaux pluviales. • Construction d'aires d'attente et agrandissement de la maternité et de la salle d'urgence.	
• Réhabilitation l'aire de pompage d'eau	• Proximité au CTC • Contact du réservoir avec les eaux de surface d'ou possibilité de contamination par le cholera et autres maladies • Aire non protégée, non assainie, non securis ée, possibilité d'empoisonnement, risque d'accident • Eau non traitée • Mauvaise méthode d'approvisionnement	•Contrôle de la circulation entre l'enceinte de l'hôpital et le CTC • Assainissement de l'aire de pompage • Sécurisation de l'aire de pompage en contrôlant l'accès et en renforcer la barrière de securité • Installation d'un système de traitement d'eau	
• Démolition et reconstruction de la guérite	• Le bruit et la poussière importunent les malades et le voisinage • Pas de sensibilisation (malades et riverains) • Pas de panneaux de signalisation	•Arrosage du site pour éviter l'émission de poussiere, activité à exécuter à des heures moins fréquentées • Informer les malades et les riverains de la mise en oeuvre du chantier et de l'importance des travaux • Installation de panneaux de signalisation	

Mesure de Mitigation	Personne Responsable	Indicateurs	Méthodes	Fréquence
Clôturer l'aire d'intervention (structure légère, tape)	Ingénieur resident de la firme d'exécution; Admistrateur de HSN; Le maire; Représentant du ministère de l'environement	Existence de la clôture.	Visite régulière et rapport de supervision	Hebdomadaire
Recrutement de femmes sur le chantier	Ingénieur resident de la firme d'exécution; Admistrateur de HSN; Le maire; Représentant du ministère de l'environement	Présence de femmes	Visite régulière et rapport de supervision	Hebdomadaire
Tri des déchets (déchets organiques dans Biodigester,déchets plastiques recyclés et déchets médicaux incinerés) cloture du site de décharge en cyclofence, distancer le site de la route ntle	Ingénieur resident de la firme d'exécution; Admistrateur de HSN; Le maire; Représentant du ministère de l'environement	Construction du Biodigester, mise en place et identification des poubelles Mise en place du cyclofence et recul du site de décharge	Visite régulière et rapport de supervision	Hebdomadaire
Contrôle de la circulation entre l'enceinte de l'hopital et le CTC, bac à chlore à l'entrée des deux centres	Ingénieur resident de la firme d'exécution; Admistrateur de HSN; Le maire; Représentant du ministère de l'environement	Renforcement de la barrière et mise en place du bac à chlore	Visite régulière et rapport de supervision	Hebdomadaire
Séparation des eaux des eaux pluviales. Drainage des eaux usées dans des tuyaux en PVC vers un fosse sceptique. Canal utilisé seulement pour le drainage des eaux pluviales.	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Mise en place des tuyaux de drainage, et construction de la fosse septique	Visite régulière et rapport de supervision	Hébdomadaire
Construction d'aires d'attente et agrandissement de la maternité.	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Nombre d'aires d'attente construites; Nombre de lits ajoutés	Visite régulière et rapport de supervision	Hébdomadaire
Contrôle de la circulation entre l'enceinte de l'hôpital et le CTC	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Remplacement de la tuyauterie, pavage du parquet	Visite régulière et rapport de supervision	Hébdomadaire
Assainissement de l'aire de pompage	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Remplacement de la tuyauterie, pavage du parquet	Visite régulière et rapport de supervision	Hébdomadaire
Sécurisation de l'aire de pompage en contrôlant l'accès et en renforcer la barrière de sécurité	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Renforcement de la barrière d'accès	Visite régulière et rapport de supervision	Hébdomadaire
Installation d'un système de traitement d'eau	Ingénieur resident de la firme d'exécution; Admistrateur de HSN	Mise en place du système de traitement	Visite régulière et rapport de supervision	Hébdomadaire
Arrosage du site pour éviter l'émission de poussière, activité à exécuter à des heures moins fréquentées	Ingénieur résident de firme d'exécution, Admistrateur de HSN	Présence d'un camion citerne sur le site	Visite régulière et rapport de supervision	Hébdomadaire
Informer les malades et les riverains de la mise en oeuvre du	Ingénieur résident de firme d'exécution, Admistrateur de	Rénion s, vulgarisation (poster)	Procès verbal des réunion	Hébdomadaire

chantier et de l'importance des travaux	HSN			
Installation de panneaux de signalisation	Ingénieur résident de firme d'exécution, Admistrateur de HSN	Nombre de panneaux mise en place		Hébdomadaire

Conclusions et Récommendations:

De ce qui précède il parait évident qu'il y a une mauvaise planification du chantier par la firme exécutante. Il semblerait aussi qu'il n'y a pas eu une bonne coordination entre les différents acteurs du projet (HSN, ENACO, HRI, Autorités locales), alors que plusieurs impacts négatifs auraient pu être évités si cela avait pris en compte. De ce fait, nous recommendons qu'avant la mise en oeuvre de tout projet que les points suivants soient pris en compte pour attenuer certains impacts:

- Arrosage.
- Assainissement de l'aire de pompage.
- exécution des travaux d'assemblage à l'exterieur du site.
- concerter avec la mairie pour des pistes de solutions (cyclone fence, distancer le site de la route ntle).
- limiter l'extraction et trouver d'autres sites de provenance plus adéquats, mis en place de kits de soins et d'équipements de travail.
- Sensibilisation des riverains et bénéficiaires sur l'importance et l'impact des travaux.
- Bonne planification entre les différents acteurs intervenants dans le projet.
- Signalisation et panneaux indicateurs sur le site sont obligatoires.
- Mise en place de mesures de santé et sécurité sur le chantier.

SESSION 7: ENVIRONMENTAL ASSESSMENT DEVELOPMENT AND IMPLEMENTATION

TECHNICAL PRESENTATION AND DIALOG

PRESENTERS

Rob Clausen, USAID/Haiti MEO
Victor Bullen, USAID/LAC BEO

OBJECTIVE

Improve understanding of the procedures for EA development and implementation.

SUMMARY

This session introduced the basic concepts of the Environmental Assessment (EA) development and implementation and how this environmental documentation tool fits within the USAID environmental regulations and environmental management in general. The principle features of preparing an EA and evaluating environmental impacts were introduced and described in detail: 1) the purpose and summary of an EA, 2) finding alternatives including the proposed action, 3) affected environment, 4) environmental consequences, and 5) the list of preparers.

KEY POINTS:

- An EA is a detailed study of the reasonably foreseeable significant effects, both positive and adverse, of a proposed action on the environment of a foreign country or countries. An EIS is similar to EA, but with potential impacts on the US or global environment. This is typically not done at USAID.
- An EA is needed when an IEE's preliminary assessment indicates that significant adverse impacts are possible (positive determination) or when EMPR's screening indicates an activity is high risk (it is still recommend to do a preliminary assessment).
- Some typical "Positive Determination" include:
    - River basin development
    - Large (>100 ha) irrigation or water management projects (including dams)
    - Agriculture land leveling
    - Drainage projects
    - Large scale agricultural mechanization
    - New land development
    - Resettlement projects
    - Construction of new roads
    - Power plants, industrial plants
    - Sewage and potable water projects

  - Forest harvesting
  - Construction of buildings over 1000sq m
- There are 3 types of USAID EAs:
  - Environmental Assessment (EA) – Used to assess the environmental effects of a specific project or action.
  - Programmatic Environmental Assessment (PEA) – Used to assess the environmental effects of a class of similar actions.
  - Rapid Environmental Assessment (REA) – Used to assess, define and prioritize potential environmental impacts in disaster situations.
- There are several steps in preparing an EA.
- The Scoping Statement is the first step, which determines the significant issues the EA will address. This includes but is not limited to: what is intended to be done, what is the desired future condition that should be addressed, who are beneficiaries, what is the schedule and format of EA and expertise needed, what is the affected area that will be studied. This is not a scope of work for environmental assessment. Rather it is a pre-EA document to state the scoping.
- The BEO will review the Scoping Statement followed by the development of the Terms of Reference and the consultant assembling a team based on the TOR.
- Regulation 216 requires that the EA contains the following sections:
  - Summary with major conclusions, areas of controversy and issues that remain to be resolved.
  - Purpose that describes the development need or objective that the proposed action is intended to address.
  - Affected environment that succinctly describes the environment and area(s) to be affected. Details the soils, type of environment, sensitive areas, etc. Longer does not mean better. Include only the necessary information. This information can be gathered from secondary resources or may require additional on-the-ground research, which could take awhile.
  - Environmental consequences of the proposed action, no action, and any other alternative actions discussed in the EA.
  - Comparison of alternatives and presents the proposed action and the alternative actions that were also considered.
  - List of preparers with names and qualifications.
  - Annexes.
- Note that when assessing impacts, too much information is as bad as not enough. Provide the most detailed analysis for the more significant impacts and summarize or reference for lesser impacts**.**
- Regulation 216 does not have language that emphasizes the importance of a detailed mitigation and monitoring plan. However, Mitigation and Monitoring Plans are essential to making the EA effective. Remember, Mitigation and Monitoring plans assign responsibilities and establish schedules and reporting requirements.

- The mitigation measures outlined in an EA are directly linked to the alternative activities that have to be undertaken to reduce undesired impacts.
- 95% of the projects funded by USAID do not normally require an environmental evaluation, but the case of Haiti is exceptional because USAID funds projects in Haiti on a large scale.
- It is very important to work together with the local community (population and local authority) for the preparation of the environmental assessment.

Session questions and comments:

Question: Most of the documents prepared for or by USAID are in English, while most of the Haitian workers have a limited knowledge of English. What can USAID do to resolve this problem?

Answer: It's a USAID requirement that all documents are in English, but USAID recognizes the importance of the use of the local and official languages of each country in which it operates, to facilitate the use of these documents by the local workers.

REFERENCE DOCUMENTS

- EMPR format: hard copy in Field Guide
  http://transition.usaid.gov/gt/docs/emp_format.pdf
- LAC Environmental Guidelines
  http://transition.usaid.gov/locations/latin_america_caribbean/environment/docs/epiq/epiq.html
- EMPR for each of the four case studies: hard copy in respective Field Guide
- USAID Regulation 216: Folder on USB Flash Drive
  - USAID Contract Language
  - USAID Environmental Procedures
  - Frequently Asked Questions
  - EMPR Format and Guidance
  - Regulation 216 Flowchart
  - Regulation 216 Complete Version

SESSION 8: FUTURE ENVIRONMENTAL ANALYSIS REPORTING SYSTEMS

TECHNICAL PRESENTATION AND DIALOG

PRESENTERS

Abdel Abellard, USAID/Haiti Deputy MEO
Victor Bullen, USAID/LAC BEO

SUMMARY

In this session participants had a preview of current developments in electronic systems for environmental reporting in the LAC region. They were presented with two systems that have begun implementation in Colombia and Ecuador to improve upon the current paper-monitoring and -reporting systems. After the presentation participants were given the opportunity to discuss and focus on the underlying strengths and weakness of an electronic monitoring system.

KEY QUESTIONS

- A web-based environmental compliance system will replace the EMPR paper system.
- Preview electronic environmental reporting systems have been developed in the LAC Region. MONITOR is one of them and was piloted about a year ago in the Colombia Mission, after a precursor trial system called SIGA (Sistema de Información de Gestión Ambiental).
- This initiative will allow paperless performance reporting and monitoring.
- Will be used by CORs/AORs/MEO/DMEOs and Program Officers.
- MONITOR also suggests environmental decisions according to the ETD of the activity.
- For all activities that require Environmental Review, from receiving a Negative Determination with Conditions, it will automatically generate the draft Environmental Management Plan and facilitate monitoring tasks.
- Through the system, a user can easily look at any of the agency´s priorities, look at particular geographic areas (includes GIS mapping system) or specific thematic sectors.
- Navigation scheme of the MONITOR System shown on session presentation. Includes: environmental, monitoring and additional modules.
- Next steps within the region: develop a tri-lingual system (English, Spanish and French) that will be accessible and utilized across the region. Implementing partner-driven and partner-friendly.
- USAID has a draft SOW already written and will be improving it and beginning the final draft.

SESSION 9: PEST MANAGEMENT PERSUAP REPORTS AND OPERATIONAL FIELD GUIDES

TECHNICAL PRESENTATION AND DIALOG

PRESENTER

Rob Clausen, USAID/Haiti MEO

SUMMARY

This session provided an introduction to the basic concepts and the methodology of the Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP). Other pesticide topics such as use of chemicals, the strengths of agro-extension services in Haiti, and worker health and safety, were also touched upon.

KEY POINTS:

- Pesticides are biological chemical or physical agents used to kill unwanted plants, animals or disease agents
- Pesticides derived from natural sources (like Pyrethrum) are still pesticides. USEPA has fact sheets for "Biopesticides".
- Use of pesticides typically include: In-field crop protection, spraying for mosquito and other disease vector control, dosing of lakes, ponds & lagoons to control disease vectors, household insect and structural pest control, stored product protection (seeds, food aid crops, etc.), insecticide treated bed nets, treatment of export crops, fumigation of timber, outbreak pest control – locusts, rodents, etc, livestock tick control-dipping, spraying, pouring and other uses.
- A PERSUAP will be needed if "pesticide procurement or use" is part of a proposed activity. Procurement includes: Direct purchase of pesticides; Payment in kind, donations, provision of free samples and other forms of subsidies; Provision of credit to borrowers; Guarantee of credit to banks or other credit providers.
- Use includes: sale; handling, transport storage; mixing, loading, application; disposal, provision of fuel to transport pesticides, Technical assistance in pesticide management, including training.
- Fertilizers are often lumped with pesticides under the generic heading of "agrochemicals" but the Pesticide Procedures do *not* apply to: Use of synthetic or organic fertilizers. Still, the EMPR can specify and identify good fertilizer use and soil fertility practices.
- USAID Pesticide Procedures, 216.3(b), apply the principles of Integrated Pest Management (IPM) to every activity that involves or influences pesticide purchase or use.
- IPM: an ecologically-based pest management approach which prioritizes: The health of crops and their ecological system; monitoring, degrees of intervention, reduced risk and low toxicity controls such as biological and botanical controls; actions required when pests reach economically-damaging levels.
- IPM favors least toxic controls which are typically culture techniques for example intercropping with plants that repel insects, crop rotation. Promotes Safety for farmers and their families, is safe for the ecosystem, reduces the use of pesticides and saves the farmer money in costs of production. The more selective the control the fewer non-target impacts.
- PERSUAP: the terminology was developed by the Africa Bureau. PERSUAP is triggered by an IEE determination and has two major parts that meet 216.3(b) Pesticide Procedures:
    - PER (Pesticide Evaluation Report): Response to the Pesticide Procedures requirements

- SUAP (Safer Use Action Plan): Identifies actions and actors for mitigation & monitoring, including compliance with host country and private procedures.

- The Pesticide Evaluation Report (PER) includes 12 factors that must be described:
    - US EPA registration status. Must be for the same or similar use.
    - Basis for selection of the pesticide. Often times looking at costs availability and toxicity.
    - Extent to which the proposed pesticide use is part of an IPM plan. Needs a crop by crop IPM plan. It has to be crop specific. For health activities it would be for vectors.
    - Pesticide availability and it´s method(s) of application.
    - Toxic hazards.
    - Effectiveness of the requested pesticide for the proposed use.
    - Compatibility of the pesticide with the local ecosystems.
    - Environmental conditions under which the pesticide is to be used.
    - Availability and effectiveness of other pesticides or non-toxic controls.
    - Host country ability to regulate the requested pesticide.
    - Provisions made for training of users and applicators.
    - Provision made for monitoring the use and effectiveness of the pesticide. Pests may become resistant to a pesticide which is why monitoring is key.

- SUAP -Safe Use Action Plan
    - Monitoring plan and reporting.
    - Training and development and distribution of appropriate information education and communication, this is a huge challenge as not always the labels have the same language as the one spoken in host county, establish pesticide quality standards and control procedures, what happens when pesticides become obsolete? This has to be part of the monitoring plan.

- The PERSUAP requires you to consider and address a number of mitigation and monitoring measures proactively.
- Provides opportunities to minimize exposure are along the process; before, during and after.
- Suggests additional recommendations and best practices: Minimize exposure risks, minimize product toxicity, use personal protective equipment (PPE) as required by pesticide label.
- Enforces restricted entry level intervals REI and pre harvest intervals PHI as specified by the EPA.
- Provides dosage rates, the label is a legal document that has to be followed.
- Opportunities to minimize exposure exist before, during and after pesticide use: Consider transport, packaging and storage practices; choice of formulation and equipment, use of buffer zones, waiting periods, clean/bathing, storage and disposal practices.
- US pesticide labels are legal documents containing language, regulated by the EPA on product use and safety.

Resources:

- Pesticide Action Network Database. EPA Pesticide Registration Status Database. The bio-pesticide part is particularly useful. Find USAID PERSUAPs in USAID data base. PERSUAP preparation guidance at the ENCAP Africa website.
- Consult with MEO or REA about what pesticide studies may have been done before.

REFERENCE DOCUMENTS

- PERSUAP presentation on participant flash drive
- PERSUAP reports: Folder on participant flash drive

SESSION 10: GLOBAL CLIMATE CHANGE INITIATIVE: MITIGATION, ADAPTATION AND IMPLICATIONS FOR DEVELOPMENT PROGRAMS IN HAITI

TECHNICAL PRESENTATION AND DIALOG

PRESENTER

Myrlene Chrysostome, USAID/EGAD

SUMMARY

This session introduced the USAID pillars and their priorities in the area of Global Climate Change (GCC). Both the National Environment and Planning Agency (NEPA) and USAID presented on current initiatives and measures taken to reduce vulnerability and improve adaptation to the effects of climate change.

KEY POINTS:

- Global Climate Change and Biodiversity are two main priorities in the environmental budget.
- Climate Change is happening, and is creating greater variability in climate schemes, more extreme climates, change in frequency and the extremity of climate has different impacts in the environment. It has affected water resources, forestry, agriculture, ecosystems, costal systems, public health and more.
- The United States Government has made Global Climate Change a priority. It is one of USAID's top three priorities along with Feed the Future and Global Health.
- USAID's Strategy: Incorporate climate change considerations into development projects to provide climate benefits while meeting development objectives.
- Overall Goal: Assist countries to develop in ways that reduce emissions while building resilience to climate change impacts.
- Global Climate Change in USAID is divided into 3 pillars:
    - Clean energy, adaptation, sustainable landscapes.
- USAID wants to address climate change by reducing GHG emissions through mitigation strategies like clean energy and sustainable landscapes. For climate change impacts adaptation strategies will reduce vulnerability to climate change impacts and reduce losses.

<u>Adaptation</u>

- In Central America USAID is mainly addressing adaptation. Water scarcity, excessive water, etc.
- Three categories to define adaptation work,
    - <u>Science and analysis for decision making:</u> Investments in scientific capacity, and collect climate information and predictions.

- Governance fro climate resilience: Investments in capacity to use climate information and analysis in decision making Effective governmental coordination and response. Improved public communication, education and participation.
- Implementation of adaptation solutions: Support for adaptation strategies and areas like water, agriculture, disaster risk management, infrastructure, health, natural resource management.

Clean Energy

- Reduce the production of GHG with renewable energy.
- Supporting renewable energy deployment.
- End-use (demand side) energy efficiency programs.
- Financing for end-use energy efficiency and/or renewable energy technologies.
- Supporting development of more energy efficient machinery, incentives to invest.

Sustainable Landscapes

- Preserve forests through Reduced Emissions from Deforestation and Forest Degradation (REDD+). Forest restoration, rehabilitation, sustainable management and enhancement of forest carbon stocks.
- Forests, wetlands, grasslands, and agricultural lands store huge amounts of carbon.
- Landscapes are considered to be carbon "sinks" or "sources".
- Through deforestation the planet is reducing every year carbon stocks. The amount that can be saved can be sold in the carbon market. The companies that produce GHG can offset their emissions by protecting the forest. There is still not a Cap and Trade System properly in place internationally. USAID still continues to promote these markets.
- USAID focus is to continue supporting entities that are doing forest protection and management.
- Climate Change is a cross cutting issue that needs to be addressed in every sector. It is not a specific program. It is USAID policy to add Climate Change as a cross cutting issue. Climate change affects all development sectors. Climate change needs to be "mainstreamed" or integrated in the design and implementation of all USAID programs.
- Climate change represents a potentially significant constraining factor that needs to be considered in project design, long term sustainability, and impact assessment.
    - Example of actions in small scale projects: Reduce GHG emissions, Reduce climate vulnerability in the local area, increase sequestration.

REFERENCE DOCUMENTS

- GCC presentation on participant flash drive
- Global Climate Change Reports and Studies: Folder on participant flash drive

SESSION 12: BRINGING CURRICULA TO REALITY

PLENARY DISCUSSION

FACILITATOR

Scott Solberg, SMTN

SUMMARY

On the final day of the workshop, this session was a space for an open discussion on how participants can and will operationalize what was learned in the workshop. During the time presented, all participants, presenters and facilitators discussed lessons learned throughout the week, came up with tangible practices that can be incorporated into current and future development programs, and motivate the group on best practices that can be improved across Haiti and the Caribbean region.

FURTHER GREENING THE TRAINING INITIATIVES

- Use of local fruits during breaks, instead of cookies, sweets and other things. Three primary reasons: nutritional aspect - more vitamins and less calories; economic aspect - valorization of local products; Environmental aspect – less waste (plastics) to process, besides the energy used in production.
- Use reusable bottles for beverages; like the one provided.
- Water usage signage in the guest rooms encourages participants to not waste water while bathing, brushing teeth, etc.
- Each participant should be encouraged not to waste food**.**

PARKING LOT SESSION

Question: What are possible sanctions when local authorities do not respect environmental considerations?

Answer: If activities are being blocked, there may be sanctions. If a project is being blocked, it's best to contact the donor organizations to make them aware of the complications with the local authorities.

Question: What are the appropriate measures to take if a garbage dump recognized by the municipality is improper and causes adverse impacts on the environment? In addition to the existing problems, what if the project has to use this garbage dump for its medical or non-organic waste?

Answer: There are two options. First, it is necessary to contact the municipality to inform them that there are environmental concerns at the site, that waste should not be disposed of there or that the location should be changed. To mitigate this problem, one can continue using the site while looking for an appropriate location to take garbage in the near future. It is advisable to conduct an environmental assessment before starting the project.

Question: Is it really necessary to do an environmental analysis (EMPR) for BIA?
Answer: Yes, it is necessary, because the sale of agricultural inputs can have environmental impacts.

Question: Which sanctions can one take against the agro supply stores that sell pesticides that are not recommended by USAID?
Answer: If the project is still ongoing, all technical and financial assistance can be stopped. If the life cycle of the project is already over, USAID can take no sanctions, but it can make an observation and write down the organization supporting such agro supply stores. If they apply for new USAID funding, they won't receive it.

FINAL OBSERVATIONS AND COMMENTS:

- During the transect walk on day one of the workshop, it was very difficult for the participants to identify the indicators. There was a bad understanding of the use of environmental indicators.
- Groups recommended general mitigation measures. They need to be more specific in providing environmental considerations to the project they work in.
- The cost column should never appear in the table 2 of the EMPR. It should only appear in the table 3 to control and manage the mitigation measures (cost to implement the measures and frequency).
- In agro-supply stores, there should be no sales or consumption of food.
- Indicators should be quantitative and qualitative. The environmental analysis needs to take place before initiation, during the life cycle of the project and after the end of the cycle of the project.
- For each facility financed by USAID, there needs to be a distance of at least 30 meters between the wells and the septic tanks. If this is not the case, USAID recommends that a new construction is rebuilt so that this regulation is respected.

ANNEXES

FINAL WORKSHOP AGENDA

USAID ENVIRONMENTAL MANAGEMENT AND REGULATIONS WORKSHOP

Montrouis, Haiti

April 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/Content Summary	Presenter/Facilitator
Sunday	Welcome Dinner		
Day 1 Monday	Overview of environmental analysis and USAID environmental processes and procedures.		
8:00-9:00	Participant Arrival and Registration (Light snack and coffee will provided upon arrival)		
10:00-10:10	**Welcome and Opening Statements**	Highlight the value of workshop content and results.	Cristina Olive, PCPS Office Chief
10:10-10:20	**Opening Words from USAID/Haiti**		Rob Clausen, USAID/Haiti MEO
10:20-10:50	**Workshop Objectives, Logistics and Participant Introductions**	Articulate workshop plans, objectives, goals, and participants' introductions and expectations. Review the agenda and logistics.	Rob Clausen, USAID/Haiti MEO Fiona Littlejohn Carrillo, SMTN
10:50-11:20	**"Environmental Considerations: Toward a Sustainable Future"** *Video and discussion*	Achieve a common understanding of "environment" and the importance of environmental considerations in development programming.	Fiona Littlejohn Carrillo, SMTN
11:20-11:35	Coffee break		
11:35-12:30	**Session 1**: Overview of USAID Environmental	Establish a basic knowledge of the legal basis for USAID environmental processes,	Abdel Abellard, USAID/Haiti Deputy MEO

	Processes *Technical presentation and dialog*	procedures, tools and resources.	Victor Bullen, USAID/LAC BEO
12:30-13:30	**Session 3:** The Initial Environmental Evaluation (IEE) *Technical presentation and practical exercise*	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.	Rob Clausen, USAID/Haiti MEO
13:30-14:30	Lunch		
14:30-15:00	**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.	*Facilitator:* Fiona Littlejohn Carrillo, SMTN Project Facilitators
15:00-15:15	**Session 5**: Transect Walk and Impact Identification Introduction	Introduce the methodology of the transect walk	*Facilitator:* Fiona Littlejohn Carrillo, SMTN Joane Bijou, SMTN
15:15-16:15 (coffee break included)	**Session 4**: The Environmental Mitigation Plan and Report (EMPR) *Technical presentation and dialog*	Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures, format and development.	Abdel Abellard, USAID/Haiti Deputy MEO Joe Torres, USAID/Caribbean REA
16:15-18:30	**Session 5**: Transect Walk and Impact Identification *Field visit*	Improve the understanding of and experience in field visit methodologies and identification of potential environmental impacts of project sub-activities.	*Facilitator:* Fiona Littlejohn Carrillo, SMTN Joane Bijou, SMTN
18:30-18:40	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Fiona Littlejohn-Carrillo, SMTN
19:00	Dinner		
Day 2 Tuesday	Practice the development of the EMPR tool and prepare for its practical application in the field.		
9:30-10:30	**Session 6a**: Introduction to Environmental Mitigation and Monitoring *Technical presentation and dialog*	Strengthen knowledge of environmental mitigation and monitoring, and the selection/development of environmental indicators.	Fiona Littlejohn-Carrillo, SMTN Scott Solberg, SMTN
10:30-11:30	**Session 6b:** EMPR Primer Exercise *Group work*	Build and apply mitigation measures and indicator selection skills in a scenario-based small group exercise centered on the observations from the transect walk from day one.	Joane Bijou, SMTN Fiona Littlejohn-Carrillo, SMTN
11:30-11:45	Coffee break		

11:45-1:00	**Field Visit Ia:** Case Study Briefings and Familiarization of Field Tools *Working groups*	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.	*Guides*: Jean Baptiste Volcy, SMTN (CHF) Elizabeth Sipple, Mercy Corps Gregory Sieh, OTI Roosevelt De Cimus, WINNER
1:00-16:30 (packed lunch included)	**Field Visit Ib**: Field Visits - Experiential Practice Using the EMPR Baseline Information and Table 1 *Field visit*	Build and apply the core Environmental Analysis skills briefed in day 1 via a field visit and follow-up group work to (1) gather baseline information, and (2) identify potential environmental impacts by completing the EMPR Table 1.	*Guides*: Jean Baptiste Volcy, SMTN (CHF) Elizabeth Sipple, Mercy Corps Gregory Sieh, OTI Roosevelt De Cimus, WINNER
16:30-18:00 (coffee break incuded)	**Field Visit Ic**: Development of Baseline and EMPR Table 1 *Working groups*	Complete documentation of baseline information and the Table 1 of the EMPR.	
19:00	Dinner		
Day 3 Wednesday	Carry out project field visits and compile results into the EMPR format.		
9:00-10:30	**Field Visit 2a**: Preparation for Field Visit II *Plenary and small group work*	Prepare groups for second field visit and review objectives to be completed in the field	Facilitator: Abdel Abellard, USAID/Haiti Deputy MEO Scott Solberg, SMTN
10:30-14:00	**Field Visit 2b:** Field Visits - Experiential Practice Using the EMPR Table 2 and 3 *Field visits*	Build and apply the core Environmental Analysis skills briefed in day 1 and day 2 via a second field visit and follow-up group work to (1) synthesize field observations, and (2) identify possible mitigation measures, indicators and a monitoring plan for issues of concern, with reference to the LAC Environmental Guidelines.	*Guides*: Jean Baptiste Volcy, SMTN (CHF) Elizabeth Sipple, Mercy Corps Gregory Sieh, OTI Roosevelt De Cimus, WINNER
14:00-15:00	Lunch		
15:00-17:00	**Field Visit 2c**: Elaboration of EMPR Table 2 and 3 from Field Visit Findings *Working groups*	Advance discussions and compilation of field visit results into the EMPR format, particularly focusing on Table 2 and 3.	*Guides*: Jean Baptiste Volcy, SMTN (CHF) Elizabeth Sipple, Mercy Corps Gregory Sieh, OTI Roosevelt De Cimus, WINNER
17:00-17:20	Coffee Break		
17:20-18:30	**Field Visit 2d:** Implementation of	Finalize analysis of field visit results and completion of the EMPR Tables 1-3 and the	

	Environmental Mitigation Plan and Report *Working groups*	Narrative Component. Develop presentation including complete EMPR process of 3 sub-activities.	
19:00	Dinner		
Day 4 Thursday	Present case study conclusions and special topic sessions, such as Pesticide Management and future environmental analysis reporting.		
9:00-12:00	**Field Visit 2e**: Case Study Conclusions *Group presentations in plenary*	Articulate field visit findings, analysis, and EMPR development.	*Working groups and guides*
12:00-12:15	Coffee break		
12:15-12:45	**Session 7**: Environmental Assessment Development and Implementation *Technical presentation and dialog*	Improve understanding of the procedures for EA development and implementation.	Rob Clausen, USAID/Haiti MEO Victor Bullen, USAID/LAC BEO
12:45-13:30	**Session 8:** Future Environmental Analysis Reporting Systems *Technical presentation and dialog*	Receive a preview of what is being developed for future electronic environmental reporting in the LAC Region.	Abdel Abellard, USAID/Haiti Deputy MEO Victor Bullen, USAID/LAC BEO
13:30-14:30	Lunch		
14:30-15:30	LAC Guidelines Review and Jeopardy *Group Dynamic*	Deepen familiarity with environmental resources and guidelines; Quiz knowledge attained during week's technical sessions.	Facilitator: Fiona Littlejohn-Carrillo, SMTN
15:30-16:30	**Session 9**: Pest Management PERSUAP Reports and Operational Field Guides *Technical presentation and dialog*	Become familiar with the PERSUAP format, technical content and procedures. Increase awareness of best practice on pesticide use and integrated pest management methods.	Rob Clausen, USAID/Haiti MEO
16:30-16:45	Coffee Break		
16:45-17:45	**Session 10:** Global Climate Change Initiative *Technical presentation and dialog*	Share an overview of USAID's Global Climate Change (GCC) strategy including mitigation, adaptation, and implications for development programs for Haiti.	Myrlene Chrysostome, USAID/EGAD
17:45-18:00	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Fiona Littlejohn-Carrillo, SMTN Kate Bennett, SMTN
19:00	Dinner		
Day 5 Friday	Address any unresolved issues and identify practical actions that can be incorporated into future planning.		

8:30-9:30	**Parking Lot Session**	Address unresolved questions or issues and summarize information presented throughout the training. • Base Camp introduction • Carbon neutral event • Tour through participant USB	Fiona Littlejohn-Carrillo, SMTN Kate Bennett, SMTN
9:30-11:00	Presentation of Certificates	Conclude workshop and distribute diplomas.	Steve Olive, USAID/Haiti Deputy Mission Director Victor Bullen, USAID/LAC BEO Joe Torres, USAID/Caribbean REA Rob Clausen, USAID/Haiti MEO
9:30-11:00	**Session 11**: Bringing Curricula to Reality *Plenary discussion*	Identify lessons learned and practical actions that can be operationalized in future planning.	Scott Solberg, SMTN

Resource Specialists to support workshop material:

Victor Bullen, USAID/LAC BEO

Joe Torres, USAID/Caribbean REA

WORKSHOP EVALUATIONS

Participants were requested to complete an honest and frank evaluation at the end of each day and an additional, overall evaluation on Friday. Through these evaluations, the participants rated the overall quality of the five day training and each individual workshop session on a scale of 1 to 5, 5 being the most favorable. This documentation also allowed workshop participants to suggest improvements that could be incorporated in future workshops.

In general, participants expressed an increased knowledge and determination to incorporate environmental considerations and USAID regulations into development projects. They felt motivated and excited to share the environmental regulations information with their colleagues. Although participants were content with the facilitation and technical level of the event, they would have liked more attention given to the PERSUAP and pesticides, and environmental monitoring.

Participants would have appreciated more guidance from the facilitators during the field visits and would have liked more time in the field. They also voiced a need for better orientation to the exercises and group work. There were comments thanking the facilitators for good presentations and appropriate field visits. One colleague expressed that they feel better prepared for confronting situations with environmental considerations in project implementation after the training.

Overall, participants were satisfied with the capacity building initiative and the knowledge and experience gained. During the workshop, the group started a virtual community on BaseCamp. Through this electronic venue, participants and facilitators have had the opportunity to share ideas and resources related to the themes covered in the workshop.

The matrix below shows the average score on different components of the workshop.

General Assessment of the Workshop	**Total**
Quality of the technical content of the presentations	4.35
Overall facilitation of the workshop	4.25
Level of satisfaction with the organization of the workshop	4.00
Level of satisfaction with the hotel, room and meals	4.05
Quality and appropriateness of the selected field visits	4.30

WORKSHOP PHOTOGRAPHS

CARBON-FREE EVENT CERTIFICATE

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Sep 11, 2012
date

Eric M. Carlson
President

The Carbonfund.org Foundation is a 501(c)(3) nonprofit carbon reduction and climate solutions organization empowering individuals and businesses to help end global warming.