



USAID
FROM THE AMERICAN PEOPLE



FINAL REPORT

USAID/LAC REGIONAL ENVIRONMENTAL MANAGEMENT AND REGULATIONS WORKSHOP

June 18-21, 2012
Cuenca, Ecuador

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

Contacts: Victor Bullen, USAID/LAC, vbullen@usaid.gov
Scott Solberg, Sun Mountain International, ssolberg@smtn.org

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

List of Acronyms

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
EIA – Environmental Impact Assessment
EMA – Environmental Management Agency
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 Decision
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
NGO – Non-Governmental Organization
PD – Positive Determination
PEA – Programmatic Environmental Assessment
PERSUAP – Pesticide Evaluation Report and Safer Use Action Plan
PVO – Private Voluntary Organization
REA – Regional Environmental Advisor
REA – Rapid Environmental Assessment
REG 216 – USAID Regulation 216
RFP – Request for Proposal
SAR – South America Region (of USAID)
SMTN – Sun Mountain International
USAID – United States Agency for International Development

Contents

List of Acronyms.....	1
Introduction	3
Objectives, Expectations and Conceptual Flowchart.....	4
Workshop Conceptual Flowchart	5
TECHNICAL SESSIONS	6
Session 1: Environmental Priorities in USAID Projects	6
Session 2. Overview of USAID Environmental Processes	8
Session 3. The Initial Environmental Examination (IEE).....	10
Session 4. The Environmental Mitigation Plan and Report (EMPR)	13
Session 6a. Environmental Mitigation and Monitoring	16
Session 6b: EMPR Primer exercise	18
Session 7: Future Online Reporting	19
Session 8: Environmental Assessments	21
Session 9. Pest Management PERSUAP Reports and Operational Field Guides.....	24
Session 10: Case Study Conclusions.....	28
Parking Lot Session and Curricula to Reality.....	34
ANNEXES.....	37
Workshop Agenda.....	37
Participant List	41
Workshop Photograph Collage	42
Carbon Free Workshop Certificate	43

Introduction

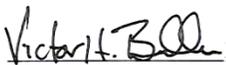
The USAID/LAC Regional Environmental Management and Regulations Workshop Planning Team hereby presents the final report of the workshop carried out in Cuenca, Ecuador, the week of June 18 - 21st of 2012. This intra-agency training initiative was financed by the USAID Latin America and the Caribbean (LAC) Bureau with the organization and facilitation by Sun Mountain International of the Global Environmental Management Strategy (GEMS) contract, in close collaboration with the USAID/Ecuador Mission.

The core components of this report consist of a summary of the principle information exchanged during the workshop, the workshop agenda and participant contact information. The report presents key technical notes from each presentation, which were focused on environmental analysis, USAID Environmental Regulation 216 compliance, and recommended environmental considerations to incorporate into current and future development programs. A series of sessions also addressed the development of mitigation measures, monitoring and evaluation strategies, pest management, environmental assessments, and web-based environmental compliance reporting.

USAID staff from the LAC region 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 the Agency's internal environmental management processes, compliance measures, and increasing positive environmental impacts. The follow up actions identified during the workshop, and initial actions taken after the workshop, suggest novel and useful results will be generated from this workshop.

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

The Workshop Planning Team and Sun Mountain International greatly appreciate the participation and support of all presenters and participants. We especially thank Joe Torres, Paul Schmidtke and Jason Girard, from the regional offices, and Paola Zavala and Karina Duran, from the Ecuador Mission office, for sharing their extensive talents, experiences and significant help in the planning and implementation of the workshop. Our appreciation goes to the three local development organizations, Proyecto FONAPA, Sagitta Consultores, EMMAICJ, who assisted with the coordination and facilitation of the field visits. Without the valuable contributions and efforts from everyone involved, this workshop and the outcomes achieved would not have been possible.



Victor Bullen
Bureau Environmental Officer
USAID/Latin America and Caribbean Bureau



Jason Girard
Regional Environmental Advisor
USAID/South America Region

Objectives, Expectations and Conceptual Flowchart

Workshop Objectives

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

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

- Strengthen the capacity of USAID/LAC staff to incorporate ESDM practices.
- Improve the ability to consistently apply and comply with USAID procedures, the Environmental Regulation 216 and generate high-quality Environmental Mitigation Plan and Reports (EMPRs).
- Enhance collaboration, networking and exchange of new strategies and technical solutions.

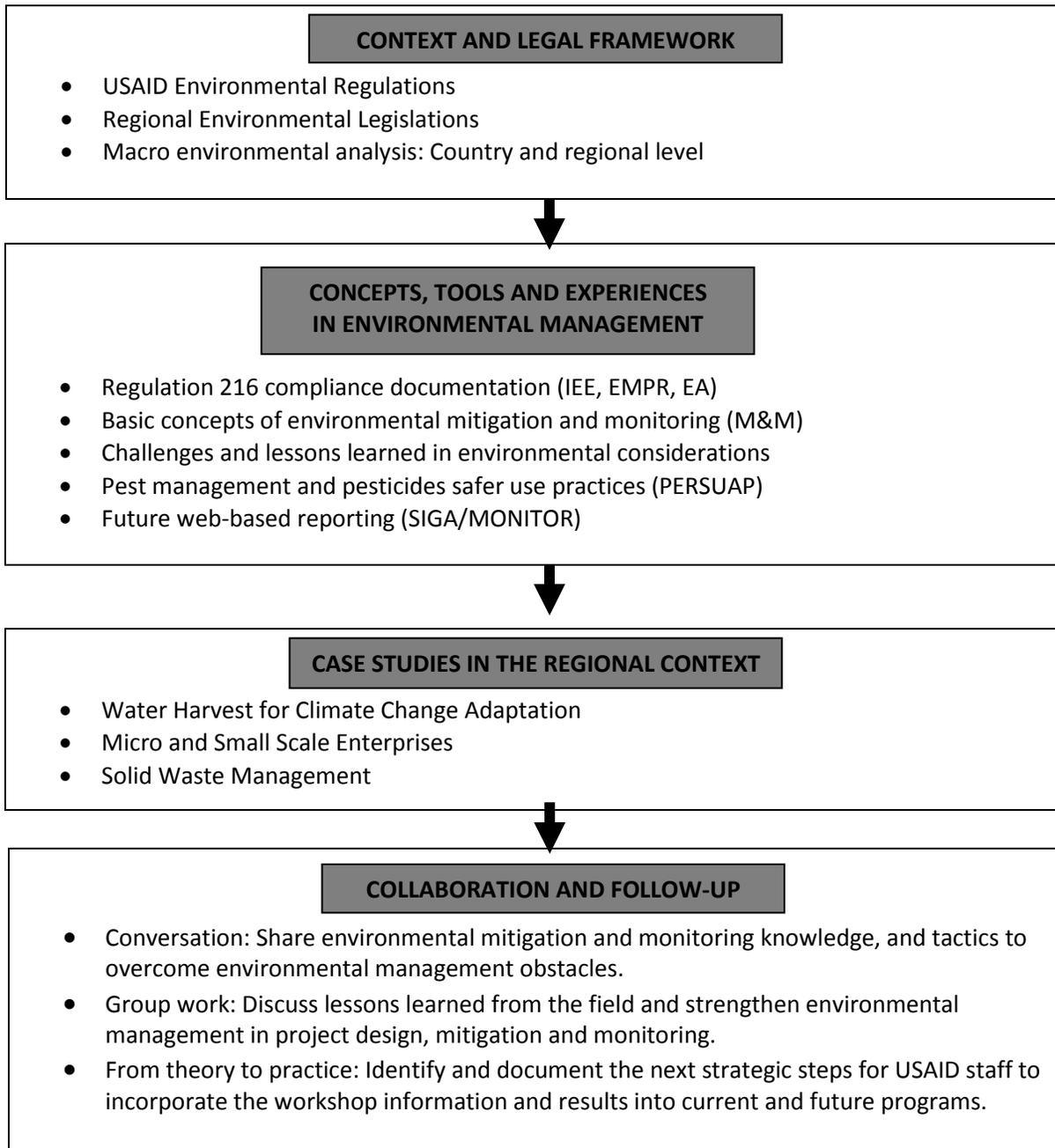
The workshop is based on case studies in the field and group work activities to achieve these objectives.

Participant Objectives and Expectations

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

- Understand environmental procedures and how to apply them.
- Clarify who does what, when.
- Learn more about the Regulation 216 procedures, in order to be more involved in partner program planning and design.
- Learn from the field staff, especially on how things are changing in environmental management and compliance.
- Discuss how to unify web-based environmental management systems and electronic databases for environmental compliance.
- Review of the general landscape of Regulation 216.
- Gain a general and better understanding of an EMPR.
- Analyze how the biodiversity code fits within Regulation 216.
- Improve ability to incorporate environmental best management practices into life-of-project activities.
- Gain knowledge on how to measure if mitigation measures are successful.
- Learn more about environmentally sound practices.

Workshop Conceptual Flowchart



TECHNICAL SESSIONS

Session 1: Environmental Priorities in USAID Projects

Panel representatives: Jason Girard, USAID/SAR REA; Joe Torres, USAID/Caribbean REA; Victor Bullen, USAID/LAC BEO.

Facilitator: Scott Solberg, SMTN Director.

Objective: Comprehend the perspective of all three regions of the Agency on the importance of environmental considerations, regional priorities, and synergetic efforts in the context of Latin America and the Caribbean.

Panel questions and answers:

1. What are the greatest challenges in good environmental analysis for USAID's implementing partners (IPs)? How do you think that USAID staff could facilitate the work of these partners and ensure that these shortcomings are adequately addressed?
 - Time management. USAID could provide more environmental direction to IPs. The USAID staff could explain the whole process of Regulation 216 and how the IP will be required to comply, including what should be included in the proposals and how to better manage their time.
 - USAID pushes to meet targets. This is not an excuse to exclude environmental considerations.
 - Good environmental analysis is a challenge. Efforts need to increase local partner participation, for which they are going to require local capacity building in environmental considerations and analysis. All projects will need to comply with the USAID environmental regulations.
 - Implementing partners do not know what is expected of them. Find a mechanism to allow the partner organizations to internalize environmental good practices and USAID compliance measures. Missions or regions could carry out a budgeting and regulation compliance training. Everyone needs to be on the same page.
 - Another big challenge is to know how to respond to unexpected environmental impacts. It is unclear how to handle budget item lines that were not anticipated. Also these situations can change the direction or objective of the USAID programs. Staff can help to determine which direction to take according to the budgets allotted.
 - In the USAID/Colombia mission, somebody is always responsible for the environmental compliance and they meet on a regular basis, at least every two months. They do field visits, which is an excellent opportunity to involve new partners in environmental considerations and compliance and have improved the monitoring of the project activities. Roles and responsibilities must be clear.

2. Looking forward to the next five years, what do you see being the most pressing regional priorities and how can USAID staff collaborate?
 - We've seen a lot of development in Latin American, and there is a lot of growth coming from the mining sector, which must be managed well. How do we work with our programs to make sure that those resources are well-utilized? How do we help governments and local communities better engage in climate change adaptation, biodiversity conservation and resource-based growth? Forest protection and

climate change mitigation have not been efficient. There is limited money for adaptation activities. How are priorities enforced?

- USAID has gone through a lot of change, increasingly working with local partners and other environmental compliance systems. One of the biggest issues is global climate change. However, loss or invasion of species (such as the Lion Fish in the Caribbean), or other Biodiversity concerns are also large issues. Missions and regions must be creative with earmarks, especially with biodiversity funds. Economic growth activities usually are not environmentally sustainable. USAID and the partners must refocus so that the region's needs are really addressed.
 - Suggestion: Sit down to discuss difficult issues and how to confront them. This is also a good opportunity to disseminate tools and resources.
 - The Amazon region covers over half of the SAR Region. How do we work with the biodiversity earmark funds? Biodiversity funds cannot be used where there is legal mining. How do we interpret and negotiate biodiversity to overcome the biodiversity earmark challenge? The indicators and objectives must be creative. Technical solutions are important but we need the political will to move forward.
 - Work with national policy and industries to help make them more sustainable. Example: Now is the time to get together with the Haitian gold mining industry to discuss how to appropriately incorporate social responsibility; to use a proactive approach.
 - Promote environmental analysis, assessments and capacity-building at the local level. Integrated approach: instead of doing two documents for USAID and the local government, talk with someone to ensure that all required components are incorporated into one technically-solid document. This would require collaboration with Ministries and maybe industries. Strengthen stakeholder collaboration and participatory, integrated approach methods.
 - Participation and consultation is a mandatory part of an environmental assessment. USAID always encourages the collaboration with local governments.
3. What do you find, among either USAID Implementing Partners or USAID staff, to be the most common misconception regarding USAID environmental compliance documentation? (To give you the opportunity to clear it up once and for all!)
- The activity manager is supportive but not responsible of doing the IEE documents. The best way to understand the analysis is for one to do it themselves. For the IEE process, everyone (A/CORs, Implementing Partners, etc.) should be involved in carrying out the analysis.
 - Documentation of monitoring, evaluations and results should be integrated into the activity's work plan. Documentation is necessary and must be internalized by the partner. Sometimes all the documentation is completed, but the partners don't understand the documents, or don't even know that they exist. Environmental analysis is not successful until it is integrated into the program.
 - It is really important for USAID and IP staff to be well trained in the application of environmental analysis. It is not just about the documents. What is more important is the process behind it, like a good research process and the incorporation of environmentally sound design and management (ESDM).
 - One misconception is that environmental compliance is finished when the program is delegated to someone. However, that is the beginning of the compliance process. Responsible parties have to go to the field, gather information and incorporate it into their evaluations and reporting.
 - The best way to clarify misconceptions is to hold a capacity building course to train the implementing partners and USAID staff. With frequent staff turnover, a lot of knowledge is lost. Therefore, it is important to arrange a good training with a quality follow up. This is a big challenge.

Session 2. Overview of USAID Environmental Processes

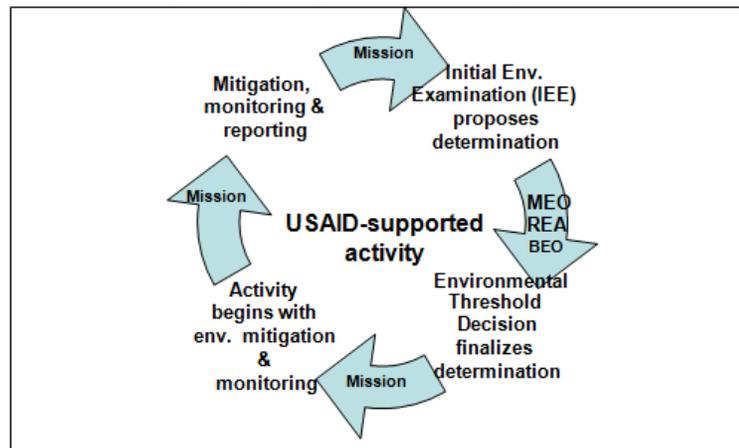
Presenter: Victor Bullen, USAID/LAC BEO.

Objective: Establish a basic knowledge of Environmental Sound Design and Management (ESDM) and the legal basis for USAID environmental processes, procedures, tools and resources.

Key points:

- **Main Objectives:**
 - Understand the background and history of USG environmental compliance and legislation
 - Learn how USAID Environmental Regulation 216 was created and why
 - Review the 3 components of Environmentally Sound Design and Management (ESDM)
 - Identify Resources
- **1960's:** Environmental movement takes off with the book "Silent Spring" by Rachel Carson. It focuses on pesticides, especially on DDT impact on birds. Another instance is the Ohio River catching fire and killing 20 people from steel factories.
- U.S. Congress responded by passing a number of laws: Clean Air - 1962, Water Pollution - 1965, NEPA (National Environmental Policy Act) signed by President Nixon – 1970, Pesticides – 1972, Endangered Species – 1973, Safe Drinking Water – 1975.
- Background NEPA: Federal agencies have to assess the potential environmental impacts of their actions. Founded the Council on Environmental Quality (CEQ) in the Office of the President.
- **1970's:** US Agency for International Development resisted the implementation of NEPA. In 1975, farmers were using the pesticide Malation in a USAID/Pakistan project, with no training. Resulted in death from intoxication and hundreds of people sickened. A Consortium of US NGOs sued USAID, forcing it to comply with NEPA.
- USAID developed NEPA compliance Environmental Procedures through 22 CFR 216; an established system of Bureau Environmental Officers (BEOs) to approve environmental compliance decisions, and an Agency Environmental Coordinator.
- Executive Order 12114 requires all federal agencies that work internationally to develop NEPA procedures.
- Foreign Assistance Act (FAA) sections 117, 118, 119 reinforced USAID's environmental procedures.
- USAID integrates Regulation 216 and FAA 117, 118, 199 into its Automated Directive System (ADS). Chapter 204 summarizes how Reg. 216 will be integrated into USAID's operations. Environmental reviews are required for all actions prior to obligations.
- All US government entities operating overseas have an environmental department. ADS has a chapter on environmental procedures Chapter 204. Official policy requires all USAID obligations.
- Environmental analysis is required in NEPA and other legislation. It optimizes economic and social development; good tool for integration, avoids future costs and setbacks, prevents foreign relations incidents and engenders public confidence in USAID.
- Environmental considerations are key to sustainability and these must be done legally through an environmental procedures integrated programming. There are many examples of when USAID had to redo actions because the necessary attention wasn't given to certain aspects.
- According to Reg. 216, all USAID-financed activities require an environmental review and approval prior to obligation of funds.
- Initial Environmental Examination (IEE): It is a key instrument for applying environmental impact identification procedures. It is the first step to document potential environmental impacts. Positive means it has potentially high significant environmental impacts.
- Regulation 216 Process: The IEE proposes a "Determination" for an activity regarding its potential for

environmental impact. The “Threshold Decision” by the Bureau Environmental Officer (BEO) finalizes the “Determination”. The activity begins with Environmental Mitigation & Monitoring Plan (EMPR), which “will avoid a significant effect on the environment” and describe the “means to mitigate adverse environmental impacts”. Mitigation, monitoring & reporting continue through the life of the activity.



- 3 Environmental components: Natural/Physical - water, soil, air; Biological - animals, plants, insects, forests, ecosystems; Social/Economic - people, livelihoods, culture, health, food security, recreation.
- The environmental procedures are tools to get to a project with environmentally sound design and management (ESDM). Environmental mistakes are most commonly made due to failures 1) to plan for the potential effects of increased scale in an activity, 2) designing for average conditions, or 3) ignoring economic-environmental linkages. Economic and environmental matters may be ignored in the process. Example: Improving the production of crops - it might cost more to investment in infrastructure and the activity may fail if environmental conditions are not considered.
- It is important to determine how to avoid mistakes and maximize environmental benefits to achieve Environmentally Sound Design & Management (ESDM). There are 3 basic components to achieve this.
 1. Be prevention-oriented – Look at the entire life of the project and anticipate to prevent. Prevention starts with design and choosing the activity to be implemented.
 - a. During the design of the activity, make decisions about site, technique and operating practices to minimize impacts.
 - b. Construction and implementation of the activity: Implement design decisions and build capacity for environmentally sound operation.
 - c. Operate: Implement and maintain proper operation and monitor the activity and its impacts.
 - d. Consider decommissioning of the activity. This must be planned for at the beginning of project planning and design.
 2. Apply best environmental and development practices – Develop a technical sound design, to build beneficiary capacity and stakeholder commitment, to design for the local social & policy context, and to adjust what we do as results come in.
 3. Be systematic – Take a systematic look at the possible adverse environmental impacts of an activity and reduce these impacts to the greatest extent possible. The best way to be systematic is to conduct an environmental analysis (IEE, EMPR, EA).

Session 3. The Initial Environmental Examination (IEE)

Presenters: Jason Girard, USAID/SAR REA.

Objective: Increase 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, with emphasis on baseline analysis and project activities.

Key points:

- Regulation 216 has a cyclical process. Conditions must be taken seriously.
- Reg 216 applies to all new or supplementary activities funded by USAID and/or any changes in existing activities which imply new components, new geographic areas, time extension, additional financing and environmental impacts not previously foreseen.
- The Reg 216 Flowchart describes three main “Determinations” for USAID Activities. During activity design, the IEE can recommend one or a combination of the following determinations:

Categorical Exclusion (CE): Very low risk activity. Activity has minimal to no environmental impacts and there are no required conditions. Examples of CE Projects:

- Education, technical assistance, or training;
- Capacity building that will not result in environmental impact;
- Controlled experimentation;
- Analyses, studies, academic, or research workshops or meetings; or
- Documentation and information transfers.

*Most of these activities are taken from 22 CFR 216 categorical exclusions.

Negative Determination with Conditions (NDwC): “Moderate Risk” Activity that has mitigatable minor environmental impacts, an Environmental Mitigation Plan and Report (EMPR) is required. Examples:

- Small-scale infrastructure or rehabilitation;
- Most agriculture activities, and use of fertilizers;
- Production and/or disposal of medical waste; or
- Field agricultural experimentation of more than 4 hectares (demo plots).

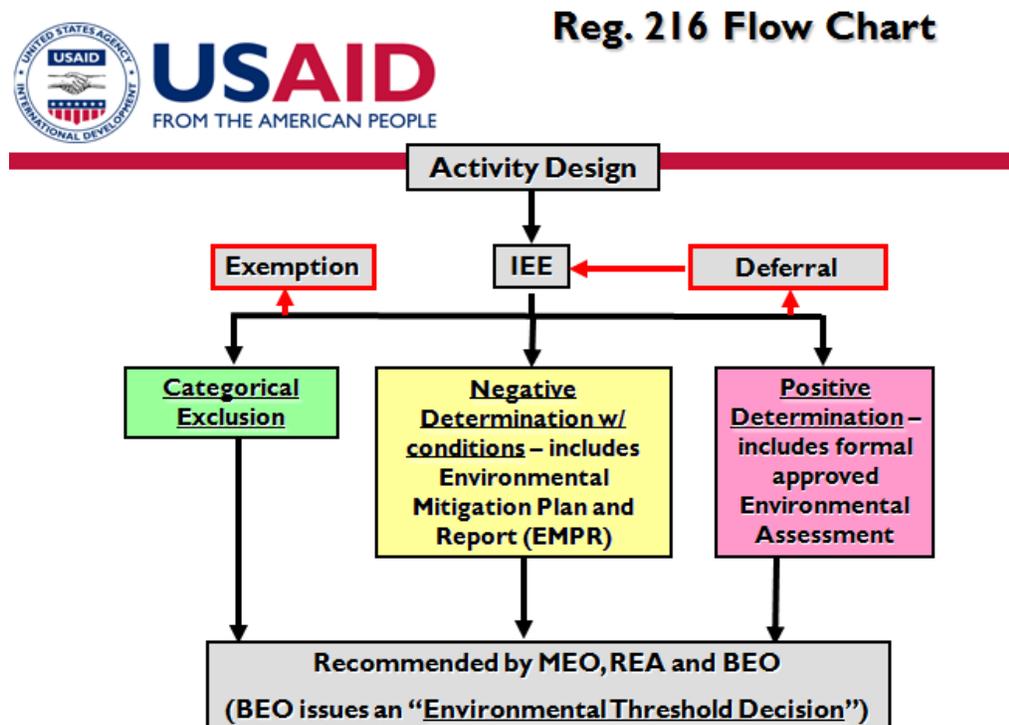
Positive Determination (PD): “High Risk Projects” - Activity has potential significant environmental impacts and a formal Environmental Assessment (EA) is required. Anything changing the layout of land is considered high risk. Examples:

- River basin/watershed development;
- Large-scale irrigation or water management projects, including dams (>100 ha);
- New land development;
- Large-scale agriculture (>100 ha);
- Timber harvesting (even low-impact);
- Drainage projects (significant change in land-use);
- Construction of new roads; or
- New sewage and potable water projects (>100 ha).

Exemptions: Officially declared by Administrator in the situation of immediate response for disasters.

Deferrals: Activities in too early of a stage to make a decision or there is missing information in the project design.

- At the Mission level, all three determinations are approved by the Mission Environmental Officer (MEO) and the Regional Environmental Advisor (REA) before being sent to the Bureau Environmental Officer, who issues a Threshold Decision for the activity. This is the formal USAID determination for the activity in question.



- Projects under 100 acres of agriculture production is a Negative Determination with Conditions, mandating an EMPR. Projects over 100 acres of agriculture production are Positive Determination, or high risk activities, and require an EA.
- The CTOs* and the respective USAID team or management unit are responsible for writing IEEs. The ultimately responsible is the COR and USAID technical team.
- Contractors, grantee or IQC are responsible for implementation and sometimes for writing IEEs.
- Everyone is responsible for implementation. Implementing partners have an important role, but many times there isn't an implementing partner and that is an issue.
- The Mission Environmental Officer (MEO) is not responsible for writing IEEs, but advises the process and approves documents.
- IEE conditions are often very general. They require IPs to identify issues of concern particular to a site and respond with appropriate, specific mitigation measures.
- USAID projects are required to comply with the American Discrimination Act (ADA). Example: Construction of dry latrines in rural Bolivia on an eco-tourism project did not consider ramps or other components for persons with disabilities.

Presentation of IEE document:

- One IEE can cover lots of projects or just one.
- All and only relevant information should be included in the IEE document. Must be enough information but not exhaustive.
- A baseline condition includes the “Location Affected” which is extremely important and must be based on the ecosystem in which one is working. An IEE Amendment would be required in the case that the project’s geographic area is changed.
- “Evaluation of potential impacts” details the project activities and any corresponding potential impacts?
- Amendments must always be completed for projects with new components, budget, etc.
- The IEE includes: standard template language, the EMPR format, the clearance page.
- Missions should have a mission order that facilitates MEO field trips to see and monitor the project activities.
- Guidance does change. It is critical to have a process that is flexible but also balanced.

Session 4. The Environmental Mitigation Plan and Report (EMPR)

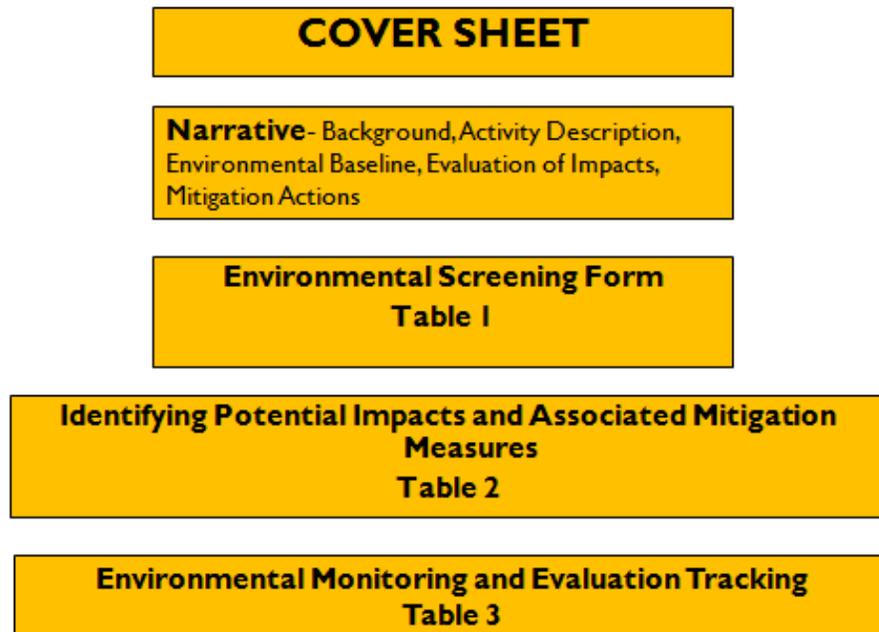
Presenter: Joe Torres, USAID/Caribbean REA.

Objective: Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures format, format and development with focus on narrative as well as mitigation and monitoring tables.

Key Points:

- The EMPR is part of the USAID Environmental Compliance Documentation
- The workshop from now on is going to be focused on the EMPR, which comes before the IEE (format) and sometimes after (in the case of NDWC).
- Objectives of an EMPR:
 1. Address areas of environmental impacts resulting from program implementation;
 2. Develop a system to eliminate or mitigate adverse environmental impacts (including socio-economic);
 3. Strengthen community's awareness, preparedness and ability to protect and adapt to their natural resources.
- An EMPR is required for activities with a Negative Determination with Conditions. An EMPR must be developed for every sub-grant, and projects with sub-grants component.
- Mitigation measures will need to be monitored through quality indicators. The EMPR process started in Haiti then moved to the Dominican Republic and now is in the entire Caribbean region.
- It is particularly important to strengthen and work with the community's awareness, and information included in the EMPR should be as specific as possible.
- EMPR form should be attached to the RFP or Initial Agreements, informing and ensuring that the potential contractors complete and submit a draft EMPR and environmental considerations are incorporated into the project planning and design. This also requires that costs for mitigation measures and ESDM be included in the proposed budget. The implementation of mitigation measures can cost a substantial amount and need to be considered up front.
- If the IEE results in a negative determination with conditions, The Bureau Environmental Officer (BEO), Victor Bullen, grants conditional approval so that the project can begin.
- 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/AOR, MEO and REA.
- The more specific the activity, the better. Describe the level of potential impact, and if it is low, the project can start implementation.
- The first step is screening: "Understand Proposed Activity in DETAIL" **Why** is the activity being proposed? **What** is being proposed? Contractors often just look at the overall activity such as "Constructing Latrines", but they don't list the steps/actions needed to implement this overall activity such as location of latrine, materials sourcing, etc. Sub-actions are important to know and include in the narrative and assessment so that the whole process of constructing a latrine is analyzed and necessary mitigation measures are identified.
- The EMPR should be revised every year, to update and review any changes, and results should be submitted annually.
- The implementing partners must collect the information from the sub-grants to integrate into the final report.

- EMPR Framework:



Narrative

- There are many different ways to obtain baseline information: Talk to the organizations, find out about past completed activities; talk to staff who know the project and the sites; talk to the communities; obtain project documents and information; go to the sites; utilize other local talent and knowledge; get reports from other donor organizations.
- The activity description and narrative is one of the most important components of an EMPR. It must be composed of concise paragraphs including: the existing condition/baseline description, evaluation of potential environmental impacts, and proposed environmental mitigation actions. Gender equity fits into this social-economic environmental analysis.

Environmental Screening Form: Table 1

- The USAID LAC Environmental Guidelines covers 9 development sectors. Each section write-up identifies potential impacts and discusses how they may arise. Impacts are matched to mitigation actions.
- In the Screening Form, there is a question on local planning permits, which is included to ensure that the implementing partners comply with the local regulations.
- Highlight that there are several questions regarding gender.
- The partner completing the EMPR can add additional questions to the Environmental Screening Form or modify them. However, none of the questions from the form should be removed.
- USAID has the responsibility to implement the most sustainable projects that it can.

Identification of Potential Impacts and Associated Mitigation Measures: Table 2

- One must know the step-by-step of activity implementation. The identification of potential impacts should begin in the planning and design phases. Each potential impact noted must have a corresponding mitigation measure, or “condition”. These measures should be approved with the community members.

Environmental Monitoring and Evaluation: Table 3

- Identify mitigation measures (Copy and paste the ones that are in table 2 to ensure that all are covered in both tables).

- Identify (specific) responsible parties for each mitigation measure. Such as a position within the implementing partner organization, project or sub-contractor.
- Identify an indicator that easily measures the success of the mitigation action. Did it happen? Was it implemented? Was it effective?
- The monitoring must be documented in the final report, compile the information and attach the completed Table 3 to the report.
- The form must exist in the native language of the host country, so that the implementers fully understand the plan and can manage it on the ground.

Session 6a. Environmental Mitigation and Monitoring

Presenter: Paul Schmidtke, USAID/ECAM REA.

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

Key points:

- Session Objectives:
 1. Provide a conceptual basis for environmental mitigation and monitoring;
 2. Recognize what an environmental indicator is and what information it provides;
 3. Discuss several simple strategies to incorporate environmental monitoring into projects.
- Mitigation measures are 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.
- Complete the environmental analysis process before applying project indicators and implementing monitoring plans.
- Keep part of the environmental analysis process, it is essential for environmental sound design.
- Example of rural road in design and mitigation process: What kind of materials should be used for ESDM, or to mitigate impacts? Example in implementation process: How can we ensure erosion control for structures and drainage systems? Maybe speed limits or schedules are needed.
- Each one of the mitigation measures are divided in three points:
 1. Prevention & control - Change technique, change site, specify operating practices.
 2. Compensation - Offset adverse impacts in one area with improvements elsewhere. Replace what we has been used/negatively affected.
 3. Remediation - Repair or restore the environment after damage is done. Restore back to the original condition or better.
- Mitigation Example: Rural road project
 - Potential Impact I: the route crosses through the habitat of a threatened bird species.
 - Mitigation: Re-locate the route to avoid interrupting the habitat; minimize sound and other alterations during their mating season.
 - Additional considerations: What types of mitigation measures can be applied to avoid drainage problems? What can be done now to address the issue? How can water be removed/redirected from the edge of the road? Could a retaining wall or additional vegetation be used? What is the best road surface?
- Mitigation measures are considered in the EMPR process. The tool allows us to plan the application of mitigation measures to address the impacts identified. When the EMPR is developed, the following need to be noted: potential impacts; measures to be applied; when each measure is implemented; responsible to carry out mitigation measures; responsible to manage or verify; responsible for payment (especially when there are multiple donors).
- When the project monitoring indicates an unforeseen problem or unexpected result during the project implementation, the EMPR allows for modifications in the project strategy.
- USAID doesn't really have a plan to improve access roads. Project beneficiaries will continue to use the road out of necessity, even if it is a safety or security issue. This should be incorporated and considered in the EMPR and environmental analysis process.
- If beneficiaries are selected to carry out the mitigation measures, training will most likely need to be carried out. New technology is often required, as well as designing mitigation measures and engineering tasks.

Behavior change should be contemplated too. It is important that the community takes ownership of the project.

- Environmental 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. It is a systematic evaluation of the implementation of mitigation measures.
- The monitoring process should be completed by more than one person to receive the benefits of different perspectives. Define a common methodology for measuring the indicators and making the best decisions.
- Why should we monitor projects? Are we achieving what we said we were going to achieve? Did we apply the erosion control, did the beneficiaries receive the proper training, and how effective were these measures? Was it completed on time, according to the standard? If not, why not? Were the budgets correctly estimated? How can we improve this activity to diminish undesired impacts and increase positive impacts?
- Indicators provide facts - Did we do what we said we were going to do? They should be as simple as necessary to give us the exact information that we need.
- Types of indicators
 - Support/Resources: Did we earmark enough resources (financial and other) to the project?
 - Performance/Products Produced: Did we do what we said we were going to do?
 - Effectiveness results/Immediate results: Did we reach the expected results in a timely manner?
 - Impact/Long-term results: If we don't have a baseline we could make a lot of mistakes.
- SMART indicators. Indicators should be:
 - Specific
 - Measurable
 - Achievable
 - Realistic
 - Time-limited
- Mitigation and monitoring must be:
 - Realistic and achievable within the timeframe
 - Focused: define what adverse impact is to be reduced
 - Funded: well budgeted
 - Time considerate: prevention and control is better than compensation. Preventive mitigation is usually cheapest and most effective
 - Considered early: Program monitoring and mitigation budgets at the design stage, at the beginning of the process. Good gender analysis is required to improve mitigation and general design.
- Remember mitigation minimizes adverse environmental impacts and monitoring measures if the mitigation actions were/are sufficient & effective.

Session 6b: EMPR Primer exercise

Facilitator: Malory Hendrickson, SMTN.

Objective: Improve and apply mitigation measures and indicator selection skills in a scenario-based small group exercise centered on the impacts identified during the Virtual Field Trip.

The large group was divided into 5 sub-groups to analyze the context presented in the Virtual Field Visit and apply mitigation measures and indicators to the impacts that were identified. Each sub-group selected an activity to analyze. Those that were analyzed include:

1. Improvement of water access and drainage for productive land.
2. Soil preparation.
3. Coffee production.
4. Road rehabilitation.
5. Agriculture.

Resulting Recommendations for Field Work:

- Complete thorough analysis before developing mitigation measures.
- Select specific indicators, avoiding any conditional words.
- Check with Mission Environmental Officer (MEO) and Regional Environmental Advisor (REA) for ideas and quality control.
- Utilize existing information and resources, such as the LAC Environmental Guidelines.
- Incorporate proper community involvement.
- Consider organic production.
- Complete training and monitoring in a more time-effective, efficient manner.
- Identify team members with related expertise for good decision making.
- Think outside of the box.

Session 7: Future Online Reporting

Presenters: Daniel Lopez, USAID/Colombia MEO; Paola Zavala, USAID/Ecuador MEO.

Objective: Receive a preview of what is being developed for future electronic environmental reporting in the LAC Region. Obtain feedback from USAID Regional Staff on their preferences and recommendations for the future web-based platform for environmental compliance.

Key points:

SIGA II – Ecuador

- Environmental Management System SIGA (Sistema de Información y Gestión Ambiental) now in Ecuador, that began in Colombia.
- SIGA is a system that puts environmental documents online, virtually documenting the entire Reg. 216 process.
- Environmental Review Forms (FRA) as a review process for implementing partners, not for environmental specialists.
- The SIGA user goes through the system section by section to consider themes such as strengthening local capacities and considering all environmental regulations that must be followed. The system has passed through USAID Washington security.
- A pesticides section has been uploaded into the system. Other features such as indicators, activities, and locations to allow more detailed, comprehensive reporting. It is continuously being improved.
- The system runs according to the validated project information that is uploaded.
- There is a centralized system for all USAID projects.
- SIGA Ecuador is based on the Mission projects. All IEEs have been uploaded, which facilitates when reports need to be completed.
- There are users with different rolls.
- Indicators related to specific projects can also be found on the system.
- Activities and “fichas de revisión ambiental” or FRA monitor project and activity locations. Review form linked to an activity to analyze the area, resources, what are the geographic and topographical environmental impacts, etc. The system generates the action needed to be done according to the mitigation plan.
- All information needed for a final report can be saved to the system.
- The system includes all information about current and future projects, and a calendar.

MONITOR – Colombia

- Web-based platform for environmental information and monitoring developed by and for USAID/Colombia.
- The MONITOR system responds to the needs of the Mission. The Mission wanted to change the perception of the partners. They had spent too much time reviewing documents, so more emphasis was put into on-the-ground monitoring.
- All parties related to Mission projects can participate in the environmental monitoring system.
- MONITOR replaces SIGA, and it is a response to the environmental compliance Regulation 216 requirements, including PEAs and PERSUAPs.
- Implementing partners (COP, DCOP, ME, EE, Field Extensions, etc.) have access to the system.
- MONITOR suggests environmental decisions according to the classification of the activity.
- For activities that require further environmental review (NDwC), MONITOR automatically generates the draft environmental mitigation and management plan and facilitates monitoring report submission.
- The Environmental Module receives information on the programs and projects to calculate and report

periodically Performance Monitoring Plan indicators to the Mission. It stores the information on the PMP indicators, reporting (QR, PPR, Annual Report), including predefined reports and reports that allow response to questions. It also generates custom reports.

- The program keeps track of the indicators to be reported, keeps all the information like a library of all the reports to be prepared and provides reliable answers.
- The GIS module is not finalized yet. It gives standard definitions for geo referenced data collection, references activities and beneficiaries, generates maps with secondary data and activity progress data, municipal level data, standard and customized maps.
- The system has an Online Resource Library that centralizes storage of documents allowing the simple and advanced search for documents, such as LAC Environmental Guidelines, PERSUAP, best practices guidelines, tools, training materials, SIGA library and more.
- All users can log in to view and download documents. www.monitor.net.co
- The system is very useful when designing projects, programs and activities. We have an environmental module that registers the activity.
- Sections:
 - Structural elements
 - Generation of the Environmental Management Plan
 - Environmental Management Plan Follow up

Questions and Answers:

- In the survey phase, it is imperative to make a contract of the people involved. Language of the country should be used in the contracts.
- The system is currently in English and Spanish, and there are efforts to put it in French also.
- USAID is trying to start developing new versions and new mechanisms that should come out around 6 months later.
- Meanwhile, USAID environmental staff should begin considering how to transition from their current systems to another web-based system.
- The survey phase will be critical to find the best monitoring program.
- List of Mitigation measures, they should be able to add more or remove.
- We could also develop the IEE process online in a similar way that we do the environmental revisions in SIGA.
- We do have a system for the annual reports. Some reports are in English and some translation work is yet to be done.
- There is a temporary username and password available for both systems that all Missions can use to get familiar with the systems. The current limitation that they are based in Colombia and Ecuador.
- We want to develop a MONITOR-type system that could work for any geographic area.

Session 8: Environmental Assessments

Presenter: Victor Bullen, USAID/LAC BEO.

Objective: Receive a briefing on the requirements and procedures of Environmental Assessments (EAs), including the Programmatic (PEA) and Rapid (REA) Environmental Assessments.

Key points:

- Objectives:
 - Identify when a full Environmental Assessment (EA) is required.
 - Define the different kinds of EAs under USAID Reg 216.
 - Review the steps of preparing an EA.
 - Detail the necessary EA components.
- EA is necessary when there is a positive determination in a specific activity.
- The Environmental Assessment in Reg. 216 is a detailed study of foreseeable significant effects, both beneficial and adverse, of a proposed action on the environment.
- The Environmental Impact Statements (EIS) is similar to an EA, but with potential impacts on the US or global environment. This type of environmental analysis is typically not carried out by USAID.
- Reminder: Positive determination is when an IEE's preliminary assessment indicates that significant adverse impacts are possible, or when an EMPR's screening indicates an activity as high risk. Large scale projects usually have foreseeable significant impacts, are given a positive determination and therefore require an EA.
- A Full EA cycle:
 - Scope.
 - Public involvement.
 - Evaluate baseline situation.
 - Identify and analyze alternatives.
 - Identify and characterize potential impacts of proposed activity and each alternative.
 - Develop mitigation and monitoring plan.
 - Document final EA report.
- Actions that normally have a significant effect on the environment and require an EA automatically:
 - 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.
- There are 3 types of USAID EAs:
 1. Environmental Assessment (EA) used to assess the environmental effects of a specific project or action.
Example: To assess a single dam or irrigation project or to assess impacts of a gas or oil pipeline.
 2. Programmatic Environmental Assessment (PEA) used to assess the environmental effects of a class of

similar actions.

Example: Dams, irrigation projects and related water resource development. Sustainable forest management plans.

3. Rapid Environmental Assessment (REA) used to assess, define and prioritize potential environmental impacts in disaster situations such as earthquake, flood, tsunami, or land slide.

- **Step 1:** The Scoping Statement identifies significant environmental effects or issues and allows the Team carrying out the EA to focus on what is important in a particular activity. It determines significant issues the EA will address.
- Scoping Statement:
 - Scope the significance of issues to be analyzed.
 - Notes issues that do not need to be addressed.
 - Provides a schedule and format of the EA, as well as expertise needed.
 - Proposed methodology.
 - Public involvement plan.
- Employ a participatory process for the Scoping; interact with host country institutions, stakeholders, beneficiaries, other donors. Good environmental analysis requires public consultation during Scoping.
- **Step 2:** The scoping statement must be submitted to and reviewed and approved by the Bureau Environmental Officer (BEO). Consult with the REA and BEO before the start of the Scoping process. The scoping statement may be circulated by the BEO for comment to other Federal Agencies.
- **Step 3:** Terms of Reference (no BEO approval required). The TOR is based on the results and delineations from the scoping statement and could be done by a partner or in-house, but is usually done by external contractors.
- **Step 4:** Assemble a team based on the TOR. Frequently requires contracting with one or more experts, or an EA consulting firm.
- Contents of the EA sections
 1. Summary: Major conclusions, areas of controversy, issues still to be resolved.
 2. Purpose: Describes the development need or objective that the proposed action intends to address.
 3. Affected Environment: Succinctly describes the environment of the area(s) to be affected. Descriptions should be no longer than is necessary to understand the effects of the alternatives. Note that different alternatives may affect different geographic areas or aspects of the environment. The description must cover all alternatives.
 4. Comparison of Alternatives: This section must compare a no action activity, the proposed action, and at least one alternative, which could be the recommended action. Explain why certain alternatives were not considered. These are all compared and analyzed against one another.
 5. Environmental Consequences: This section looks at the environmental impacts of each alternative, including proposed, no action and preferred. When assessing impacts, too much information is as bad as too little information. Provide the most detailed analysis for the more significant impacts. Summarize or reference for lesser impacts.
 6. List of Preparers - Names and qualifications of the EA Team members.
 7. Annexes - Can be useful in organizing the EA so that only the most critical information for decision-making is in the body of the EA.
- It is highly recommended to include a monitoring and mitigation plan along with the alternative action to the proposed action, all derived from the public involvement process.
- The EA documentation does not need to follow this exact formatting.
- The large majority of host countries now have EA policies and procedures which must be considered in the EA analysis. Most projects that require an EA under Reg. 216 will also require a full EA under host country procedures. Collaboration with local Governments can facilitate the environmental analysis process for the Implementing Partners and USAID staff.

- The implications with coordinating with host country procedures are that USAID projects must satisfy BOTH, Reg. 216 and host country procedures. Ideally, one EA document is created to satisfy both procedures. This requires discussions in the scoping process with the host country EA regulatory agency.
- Reg. 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.
- A compliance document should be developed to fulfill requirements for both the donor and for the host country. The same document can be translated to the host-country language and English. There is no need to have two separate documents other than the translation.
- There are point systems that help identify the preferred alternatives.
- It takes considerable time and effort to develop effective mitigation and monitoring plans for the impacts identified. Since these measures cannot be recommended until the impacts are known, and implementation work plans cannot be prepared until the M&M measures have been selected, time is often insufficient at the end of the EA exercise to develop effective M&M work plans. EA Teams should plan report writing accordingly to ensure more time for mitigation and monitoring plans. However, almost inevitably, M&M work plan development does not receive enough attention. As a result, an unfortunate common feature of many EAs is that they lack well-prepared work plans for implementing mitigation measures.

Session 9. Pest Management PERSUAP Reports and Operational Field Guides

Presenter: Daniel Lopez, USAID/Colombia MEO; Joe Torres, USAID/Caribbean REA.

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

Key Notes:

- Objectives:
 - USAID requirements regarding the use or promotion of pesticides.
 - Overview the PERSUAP format and contents.
 - Review field examples.
 - Open discussion with question and answer session.
- Pesticides are biological, chemical or physical agents used to kill unwanted plants, animals, or disease agents.
- Integrated Pest Management (IPM) is 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.
- It is USAID policy to apply the principles of integrated pest management (IPM) to every activity that involves or influences pesticide procurement or use.
- Properly implemented, the regulations should assure that the principles of IPM are realized in practice. In IPM, the use of pesticide is as a “last resort.”
- Pesticides are considered easier to use, are often perceived to be a more “modern” and a “sure quick fix” which they often are not. Pesticides when used indiscriminately and without the integration of low toxicity controls can reduce populations of natural enemies which over time can serve to increase pest populations as resistances are built up. This is particularly an issue when highly toxic, broad spectrum pesticides are overly used.
- In many situations where pesticides cannot be afforded, there is a “window of opportunity” to introduce simple IPM techniques. Also, the incentive to introduce IPM increases where export markets are targeted, with increasingly strict international standards in the commodity system (Eurepgap, supermarkets, ISO 14001), especially the need to avoid pesticide residues.
- To select IPM pest control options, Favor the “least toxic” controls (GUPs – General Use Pesticides); the more selective the control the fewer non-target impacts; safe for the farmer and his family, Safe for the consumer; Safe for the ecosystem.
- USAID’s regulations state “Pesticide procurement or use” is part of a proposed activity, then additional environmental analysis is required.
- Pesticide procurement includes direct purchase of pesticides; payment in kind, donations, provision of free samples and other forms of subsidies; provision of credit to borrowers could be procurement; guarantee of credit to banks or other credit providers.
- Pesticide use includes sale; handling, transport, storage; mixing, loading, application; disposal; provision of fuel to transport pesticides; technical assistance in pesticide management, including training.
- The regulations also usually apply to export-oriented projects involving commodities that require pesticides, even if USAID is not using or procuring directly. This is a type of indirect procurement/use.
- Participants should be encouraged to take into account, in their countries, existing Codes of Conduct, EurepGAP certification processes, environmental quality, health and safety standards, and the like, which strive towards the same or similar objectives in the sound use of pesticides, worker safety, and the like, as

do Reg 216's pesticide procedures.

- It is important to make an evaluation of the whole context, conditions and weather.
- When a pesticide is used, has to be focused on a specific area in order not to damage other crops.
- Fertilizers are not subject to USAID's Pesticide Procedures. There are best practices on the use of fertilizers.
- The pesticide procedures do not apply to use of systematic fertilizers or use of organic fertilizers. Still, the EMPR can specify and identify good fertilizer use and soil fertility practices. For best management practices, refer to LAC Guidelines chapter 8.
- Fertilizers are frequently lumped together with pesticides under the generic heading of "agro- or agrichemicals." From an environmental compliance perspective (22 CFR 216), as well as from a field-level implementation point of view, this is inappropriate, because it implies that fertilizers require the same level of scrutiny reserved for pesticides. Whereas pesticides are subject to clearly defined environmental review procedures, and an approval process to promote safer use and integrated pest management, such procedures do not apply to fertilizers (procurement procedures do apply to quantity bulk purchase).
- As with any technology, it is recommended that fertilizers be thoughtfully employed according to best practice, promoting integrated soil fertility management, within the context of the prevailing biophysical and socio-economic conditions, as well as the desired outcomes.
- If any IEE identifies that there is going to be an agricultural activity, it is necessary to have a PERSUAP, a document divided in two major parts:
 - PER - Pesticide Evaluation Report that responds to the pesticide procedure requirements.
 - SUAP - Safer Use Action Plan that identifies actions and actors for mitigation and monitoring including compliance with host country and private procedures (e.g., High Value Crop Codes of Conduct, EurepGAP, ISO 14001, Sanitary and Phytosanitary standards)
- While preparing the PERSUAP, if you find that the pesticide use may present a significant hazard to human health or the environment, you can look at alternative pesticides that might be less harmful.
- For the PERSUAP, talk to people in the field, talk to buyers; find out what pesticides are being recommended and used and which are preferable. Substitute less toxic ones and analyze those in the PERSUAP.
- For USAID, biological pesticides are treated the same way as chemical controls and their use must be analyzed in a PERSUAP.
- Additional analysis – The Pesticide Evaluation Report (PER) includes 12 factors that must be described:
 - 1) US EPA registration status of the recommended pesticides for approval;
 - 2) Basis for selection of the pesticide;
 - 3) Extent to which the proposed pesticide use is part of an IPM plan;
 - 4) Pesticide availability and it's method(s) of application;
 - 5) Any toxic hazards;
 - 6) Effectiveness of the requested pesticide for the proposed use;
 - 7) Compatibility of the pesticide with the local ecosystems;
 - 8) Environmental conditions under which the pesticide is to be used;
 - 9) Availability and effectiveness of other pesticides or non-toxic controls (*other alternatives?*);
 - 10) Host country's ability to regulate the requested pesticide(s);
 - 11) Provisions made for training of users and applicators;
 - 12) Provision made for monitoring the use and effectiveness of the pesticide.
- The mission recommends which pesticides to be used to the BEO.
- The core of every pesticide analysis must address (explain or assess) these same 12 factors of the Pesticide Procedures, with the addition to the first of the expectation that the host countries' own registration status be reflected in the PERSUAP.
- "Same use" is defined to include the use of substantially similar formulation in a comparable use pattern. The term use pattern includes target pest, crop of animal treated, application site and application technique, rate and frequency. Pesticides in this category will not ordinarily be subject to further analysis; however, the

decision to undertake such analysis is made on a case-by-case basis.

- Under US law, US EPA “registers” particular pesticides to particular uses.
- When the proposed pesticide is NOT approved for a similar use by US EPA, Reg. 216 requires a full Environmental Assessment.
- When the proposed pesticide is approved for a similar use by US EPA, but the proposed use is restricted by US EPA on the basis of USER HAZARD, Reg. 216 requires that the IEE also contain a user hazard evaluation.
- Pesticides restricted by or not approved by US EPA are considered high-risk.
- The pesticide portion of the IEE must evaluate both how effectively the pesticide kills the target pest, and what impacts it could have on non-target organisms and ecosystems.
- Non-chemical control methods include:
 - 1) Biological control.
 - 2) Manipulation of the environment.
 - 3) Induced sexual sterility.
 - 4) Physical control and repellants.
 - 5) Attractants and traps.
 - 6) Genetic manipulation of pest populations.
- An active ingredient can be dangerous, so the formulation and what it is promoted for should be reviewed. Requires the same review processes and approvals as an IEE.
- What is the basis for a selection of a certain pesticide? How does a pesticide fit into the pesticide management plan? Integrated pest management per crop. What are the traditional controls for those pests? Are there other methods when organic methods do not work.
- How is it going to be applied, different methods?
- Description of how a pesticide might impact on animals or humans. Is it a general use, restricted use?
- How effective would the pesticide be?
- Compatibility of the pesticide with the ecosystems.
- Alternative methods for controlling pests.
- What type of protection will they be using at the application?
- An adequate pesticide Safer Use Action Plan should at minimum do the following:
 - Monitoring plan and reporting.
 - Training, development and distribution of appropriate information, education and communication.
 - Establish pesticide quality standards and control procedures.
 - Require good packaging and clear and adequate labeling.
 - Define and assure safe use practices.
 - Define appropriate methods of pesticide handling, storage, transport, use and disposal.
 - Assure accessibility of protective clothing and equipment needed.
 - Discussion of proper handling, use, and disposal of pesticides.
 - Identify Roles and Responsibilities.
 - Disposal provisions for used pesticide containers.
- To the extent possible, the action plan should strengthen and support the host country programs, be they national or local. But at minimum the action plan must take into account the legal and/or policy requirements established by host country authorities. This includes assuring that the pesticides used are registered in that country for the intended use, and that all other applicable requirements, such as those pertaining to labeling and packaging, are followed. USAID should also identify and collaborate with local resistance management plans.
- “Roles and Responsibilities” - Public Sector: coordination, regulatory oversight and management, defining environmental responsibilities, and others; Commercial Private Sector; Non-profit private sector, PVOs, NGOs.
- The PERSUAP requires the project to consider and address a number of mitigation and monitoring measures

proactively.

- The PERSUAP should: Ensure accurate information on an annual basis (EPA registration and use); Provision of pesticide training and protective equipment; Monitoring of pesticide use and application techniques; Methods for cleaning and disposal of pesticide containers, and; Methods of pest control within an IPM and weed management program, organized by crop.
- Mitigation exposure minimization opportunities exist before, during and after pesticide use. Prior to use, consider transport, packaging and storage practices; during use, choice of formulation and equipment, use of buffer zones. After use, waiting periods, clean/bathing, storage & disposal practices. All options require training and monitoring.
Example “prior to use”: purchase of pesticides from market together as a family and carrying them back home together.
- Additional recommendations and best practices:
 - Minimize exposure risks.
 - Minimize product toxicity.
 - Use personal protective equipment (PPE), as required by the pesticide label.
 - Enforce Restricted Entry Intervals (REI**) and Pre-Harvest Intervals (PHI**) as specified by EPA registration eligibility decision and label.
 - Follow technical assistance, application rates and dosages from the labels.
- REI (restricted entry intervals), are the periods of time post spraying (typically 4-48 hours as listed on the label) when people must remain outside the treated area. If workers must enter a treated area before the end of the REI, than proper PPE (as required in the label) must be worn.
- PHI (pre-harvest intervals), are minimum periods of time prior to harvest (0 days to several weeks as listed on the label) that a given pesticide can be applied.
- US pesticide labels are legal documents containing language, regulated by the EPA on product use and safety.
- It should be noted that in USAID host countries not all pesticides and their labels are well regulated and often contain incomplete use and safety information or instructions that are not in an appropriate local language.
- Exports of oranges from Brazil were sent back because they found residues of prohibitive pesticides. Organic production methods reduce crop costs and risks.
- A lot of countries have a nation-wide PERSUAP, which should be obtained before going forward with a project. All contractors must be trained in PERSUAP material.
- Look at the actual crop and talk to the farmer to evaluate if everything is properly managed. Ensure proper pesticide use through capacity building.
- Farmers that do not use chemical inputs do not need approval.
- There are bio-pesticides that do need approval because they are pesticides. It is important that and analysis is always carried out, even if it doesn't need approval. It can be an informal analysis.
- Make sure that we are supporting that activity and doing a good analysis of what is needed and work with the producers to make sure that the production is efficient throughout the project.

Session 10: Case Study Conclusions

Objective: Articulate field visit findings, analysis and EMPR development. Consolidate recommendations on best practice EMPR development in the LAC region.

Reservoirs Group:

- Brief Project Description: Rain water harvesting in the rural, agricultural community of Guaranda. The community is mainly agriculture. \$90,000 from USAID to fund the lining for the reservoir. Reservoirs will provide irrigation for herbs to create horchata tea. Small scale irrigation is still not in distribution.
- Social aspects: High migration to Quito or USA. The majority of the cooperative members are women. There is no fencing around the reservoir and the dogs came to drink out of it (one of the small issues noted).
- The EMPR was developed based on the reservoir construction.
- Our field team's conclusion is that we would've done an EA.
- A larger reservoir is under construction, which is esteemed to provide irrigation to 22 families from the community. One of the walls collapsed due to a leaking issue. There is a lot of bare soil and major cracking occurring.
- The key issues are erosion, flooding threats and geologic changes. There is an existing canal that is coming into the reservoir without any grass or actual walls, and they are planning on excavating more canals.
- Biggest concerns: site selection and water management.
- The site selection for the construction of the reservoirs was not verified. There was also no water capacity analysis completed.
- Water quantity could lead to social disputes between families in the community. Since a precipitation and runoff analysis was not carried out, there may be too much or too little water. As of recent, the geographic area gets too much water during the rainy season and extremely little during the dry season.
- They are working with the community, putting in place "water committees" and hydrological studies to figure out how much water will be needed for irrigation. The community does have water meters and it is suggested that they try to do some sort of system for metering, as well as a training and maintenance plan.
- Mitigation measures recommended: Reforestation, formation of water cooperatives with training and maintenance plans, identify somebody in the implementing partners that could be the responsible party. Confirm and ensure land-use tenure for all plots related to the reservoir construction site prior to beginning construction.

Questions and comments:

- How is a distinction made between high or low risk?
Regulation 216 lists activities that are classified as Positive Determination. IEE guidelines also help to determine the level of risk. LAC Environmental Guidelines state that a Positive Determination is appropriate for anything over a hundred hectares.
- How important is to go out to the field?
This project is funded by several organizations in addition to USAID. USAID did not fund the construction of the reservoirs, but USAID staff should still go to the field to review all aspects of the project. In this instance, they gave different information in documents than what was identified in the field. This project brings up a number of issues from Regulation 216. EMPR form needs to be completed and implemented. Activity manager should be versed on the EMPR. For smaller scale projects, we have to make sure if the project will indeed comply with the review guidelines. Other guidelines normally don't have the in-depth level of detail. Environmental reviews need to be carried out by those responsible for the project.
- How to determine a Negative Determination without environmental concerns.
Regulation 216 outlines specific types of projects that are Categorical Exclusion or Negative Determination. The EMPR is the tool to assist with NDwC projects. If there are significant impacts, an EA must be carried

out. If it is not a real important risk, an EMPR is enough to catch unforeseen impacts.

- The EA outlines project alternatives. If the EMPR is applied to the proposed action, the organization can more easily determine the issues of concern and propose mitigation actions, which can then in turn become the alternatives for the EA.
- Consideration of cumulative impacts. This project consists of several small scale reservoirs. USAID is responsible for one minor activity that directly and indirectly relates to many more. A small-scale project can be analyzed through completing an EA.
- What should USAID do if they are not the major donors
We might want to do an analysis indicating the best sites for small scale farms reservoirs.
The local reality also has to be considered. There are some communities that don't have water for their crops and the government should help constructing the reservoirs.

Paja Toquilla Group:

- Brief project description: Association Canari is a cooperative of 16 female weavers founded 20 years ago (1991) The co-op was part of a USAID project (2007-2009) to strengthen the production chain, improve product quality and competitiveness. The fiber *Carludovica palmate*, used for the hats is transported from coastal zones to Cuenca. The Co-op weaves hats, buys semi-finished hats from other associations and finishes the products for market.
- Existing conditions: The group uses chemicals to dye the hats that are not properly stored. They are located close to the kitchen, the wastewater is not filtered, there were odors and poor ventilation observed. The machines are noisy and gas-fueled. The Co-op has not completed a market feasibility study or prepared a strategy. The procured ergonomic chairs are not being used, which results in incorrect work posture. There are not any future weavers being trained.
- Positive actions: Gloves and masks/respirator are used; floor is sunken to control spills.
- Potential adverse impacts: Chemical side – Health and safety of the women workers from improperly stored chemicals and from chemical fumes; Environmental pollution from chemical wastewater. The noise from the machines could be damaging to the weavers. Socio-economic – Very weak sustainability (no future weavers since most young people are not willing to continue with this tradition, poor marketing, low income, competition with Chinese paper hats); Poor posture leading to producer health problems. They lost market in England because most of the orders are done by internet. Competition with the Chinese hats is a major issue.
- **EMPR Table 2**

Activity	Description of Impact	Recommended Mitigation Measures
Chemical processing: Dyeing and bleaching fibers and hats	Worker health & safety from improperly stored chemicals (near kitchen), from chemical fumes and handling wastewater Chemical wastewater disposal can cause pollution in water table or rivers	<ul style="list-style-type: none"> • Construct new kitchen in separate room or in co-op office/retail building • Build and label storage shelves in lower building to store all chemicals • Improve ventilation with fans or exhaust vents • Modify tank for drainage • Train weavers in chemical use and hazards • Research separation of chemicals from wastewater to clean the water for disposal
Hat Processing: Use of processing machine	Income decreased and sustainability of the association in jeopardy due to lack of marketing	Revise or develop a marketing and business plan to include: <ul style="list-style-type: none"> • Cost analysis of inputs, labor, sales

		<ul style="list-style-type: none"> • Branding of products • Certification or fair trade options • Promotion through brochures, local tourist market, etc.
--	--	--

▪ **EMPR Table 3**

Mitigation Measure	Responsible Party(s)	Indicators	Method of Monitoring	Frequency of Monitoring	Cost of Monitoring measures
Construct new kitchen in separate room or in co-op office or retail building	Assoc. president and members	Chemicals not stored near kitchen (Y/N)	Site Visit	Once at outset and quarterly thereafter	Moving kitchen: \$100 Building new kitchen: \$1000
Build and label storage shelves in lower building to store all chemicals	Assoc. president and members	Chemicals are labeled and stored on shelves (Y/N)	Site Visit	Once at outset and quarterly thereafter	\$100
Train weavers in chemical use & hazards	Envmt. specialist for the project	No weavers harmed by chemicals; 100% of weavers trained; signs posted	Assoc. reports and training log	Quarterly; After each training	\$1000
Improve ventilation with fans or vents	STTA Engineer and Weaver Supervisor	No fumes present; vents and fans installed	Visual inspection & air quality msrd	After construction & weekly	\$400 (eng) \$200 (fans)
Modify soaking tank for drainage	As above	Water drains into tub; women no longer using buckets	Site Visit	As above	\$50
Research on separation of chemicals from water to clean the water for disposal	Project's Envmtl. Specialist and STTA	Report completed with recommended solution	Review report	Once after report completed	\$300

- There were contradictions in the field visit. Some practices are documented but not being carried out. Activities are different sites and the signs are not properly placed.
- Pollution of water because of the bad system of waste management. Consider proper biodigester.
- The machinery is too noisy. Employees require proper training for the working within the workshop.
- There is not a marketing strategy. Numbers that were given in the field visit do not reflect a real cost analysis. Employees are not earning as much as was stated although it seemed like they did. Identified

options: certifications, branding, promotion, an analysis of marketing strategy.

Recommendations:

- Improve marketing and sales.
- Ensure safe working conditions.
- Analyze environmental impacts and implementation of EMPR recommendations at project design and outset.
- Develop partnerships for future funding to scale up production.
- Improve the ventilation system; proposition of ventilation funds.
- Modify the drainage system of the tank, so that the water is not contaminated. Management of the polluted water.
- Move the kitchen or construct a new one so that chemicals are safely stored.
- Train of the weavers in chemical use and hazards. Employees are working in all different activities. Find somebody specialist on the chemicals to analyze how to manage them.

Conclusions:

- Product quality is high
- Marketing is very weak and unsustainable
- Production process needs improvement on environmental impacts and worker health/safety

Comments:

- We really have to analyze environmental impacts for the entire process of the project, and value chain resulting in the final product. The palm fibers are grown on the coast and transported to Cuenca, so the analysis must begin from the most basic raw material to the final sale and marketing.
- Another social aspect is the amount of time it takes to weave a hat and that they only earn 2 or 3 dollars for each, which is very little. They should consider diversifying the designs to overcome the large competition.

Solid Waste Management Group:

- Brief project description: Municipal waste company formed by 3 Municipalities working together (Giron, Santa Isabel and Nabon). They manage an average of 18 tons of waste per day and +15 tons of organic matter per week. Their environmental certification license is provisional and pending although they have been working for 4 years already; functioning since 2008. The initiative is 100% funded by municipalities and there is currently no tariff associated with service. It is located in a very dry environment which helps to process the solid waste management. There are 40 employees managing the mixed waste.
- USAID was contemplating support to a similar, new project.
- Eight potential impacts of the project have been selected:
 - Construction of waste handling facilities - No adequate infrastructure.
 - Handling of hazardous material (medical waste).
 - Use of pesticides for vector control. Rats have been prevalent.
 - Generation of airborne gases. It is unknown what kind or the volume of gases being produced.
 - Risk of explosion.
 - Creation of objectionable odors.
 - Increase of vector populations (rats and flies).
 - Compromised sustainability due to lack of funding.
- There is a limited amount of people working to classify the mixed trash, which is mostly done manually.

- **EMPR Table 2**

Activity	Description of Impact	Recommended Mitigation Measures
Dumping waste in landfill cells	Explosion of gas coming out of the landfill	Monthly gas analysis for composition and quantity.
Composting	Increase proliferation of disease carrying vector	Use of biological agents to speed up decomposition (boccachi). Use of mosquito-rat traps.

- **EMPR Table 3**

Mitigation Measure	Responsible Party(s)	Indicators	Method of Monitoring	Frequency of Monitoring	Cost of Monitoring measures
Gas analysis for composition and quantity	Landfill operator	Volume of gases produced	Lab analysis	Monthly	\$100
Use of biological agents to speed up decomposition (boccachi)	Compost coordinator	Time of composing decreased	Sampling	Monthly	\$50
Use of mosquito-rat traps	Compost coordinator	Number of vectors per trap	Trap observation	Bi-monthly	\$200

- Composting process is very efficient.
- They have a nursery and use compost in reforestation efforts.

Conclusions and Recommendations:

- This project would require an Environmental Assessment due to high risks: biogas, disease vectors, hazardous waste, leachate management.
- There is concern about the long-term sustainability of the project due to the lack of community buy-in.
- A greater willingness to pay for services is needed.
- Greater need for sorting of waste prior to collection.
- Need for technical assistance.
- Support social media efforts to encourage increased engagement.
- They need technical assistance and a guideline to improve this project as it is complex.
- They have a drainage tank and leachate collection and treatment process.
- Gas capture could be used for combustion.
- It is questionable how hazardous waste is managed. There is medical waste delivered once per week from hospitals.
- There are a lot of good ideas but not enough financial flow to improve the project in terms of collection.
- Compost itself is really dry.
- 16 families in the area living with the rats.
- Selling plastic bottles, glass, paper, aluminum, etc.
- It needs to be contemplated how to use the compost to have benefits and profit.

Comments:

- Community participation is crucial when completing the EMPRs. This project would demand an EA.

Parking Lot Session and Curricula to Reality

Objective: Address unresolved questions or issues and summarize information presented throughout the training.

- USAID's strategy for Greening Mission Operations
- Carbon neutral event
- Tour through the participant flash drive

Key notes:

- Participants received an introduction and tour of the LAC Environmental Guidelines produced in 2003.
- Through the GEMS contract the USAID Bureaus are reviewing the guidelines to make them more accessible and easier to use and understand.

Greening Mission Operations: A video presentation by Dennis Durban, BEO of the Management Office

- Task: Sustainability - Reduce energy use in our programs.
- Carried out a Bolivia Clean Operations Energy audit in 2008, reviewing themes such as water, lightning, and energy. The audit is in Spanish with an English summary. The following is a summary from the findings:
 - Water usage - 7835 liters/day are currently used, 5630 liters from bathroom use
 - Implementation:
 - New efficient faucets are being installed in the mission's kitchenette paid for with mission funds.
 - Installing sprinkler system with timers to water garden to replace manual irrigation with hose.
 - High pressure hoses have been installed to wash cars at motor pool.
 - Savings of \$2500/year.

Lighting

Recommendations:

- Turn off all lights during lunch hour and days end.
- Reduce the number of bulbs by 25% in all offices.
- Install motion detectors in bathrooms for lighting.
- Reduce number of bulbs in cafeteria by 30%.
- Only keep lobby lights on during work day.

Project Benefits

- Reduction of 62,600 kW/year.
- Reduce CO² emissions by 29 tons/year.
- Savings of \$5,000/year.

Kitchen

Recommendations:

- Substitute electric and diesel powered appliances and equipment with natural gas.

Benefits

- Stove being replaced with natural gas (\$6,000).
- Reduce CO² emissions by 8 tons/year.
- Save \$5,000/year.
- Investment for conversion is \$20,000 which would be recuperated in 4 years.

Solid Waste Separation

Recommendations:

- Evaluate using dual sided printing.
- Used paper on one side only can be used for subsequent draft documents.
- Place recycling bins for plastics and paper on each floor. Batteries should be taken to existing

local recycling company FUNDARE.

- Educate and direct employees to print on both sides of paper and utilize used paper for drafts.

Implementation:

- Recycling program has begun. Standardized containers have been ordered.
- Electronic waste is sent to technical schools for learning.
- Printing both sides of paper. Utilizing thinner fonts. Utilizing refillable toner cartridge.
- Cost savings \$10,000/yr.
- Composting organic waste for use in facility garden area.

- One of the main problems in Bolivia is energy use.
- Energy Audit can include staff residencies.
 - Bolivia energy audit detailed analysis of one employee residence.
 - Older houses with inefficient energy usage are dropped from the housing pool.
 - All employees' utility bills were tabulated and distributed throughout the mission.
- Energy Services Company (ESCO) performs an energy audit at existing facilities, provides conservation recommendations, and implements recommendations.
- ESCO is reimbursed for investment through utility savings incurred by the federal agency over time. ESPC can be up to 10 years.
- USAID has submitted a survey to missions who own facilities to acquire utility background information and gauge interest in participating in the program.

USAID Sustainability Efforts:

- Green Purchasing Plan (GPP) – Environmentally friendly materials should be purchased for workshops
 - 95% of contract actions have environmentally preferable requirements on purchases and services.
 - Applicable to all purchases made domestically even if final destination is a mission location.
 - GPP finalized in 2012. GPP training to follow.
- Bike Subsidy Policy Green Purchasing Plan – Bike to work
 - Up to \$20 a month for expenses associated with bike commuting when the bike commute represents a substantial portion of the commute (>50%).
 - Employees cannot receive a bike subsidy and normal transportation subsidy in the same month.
 - Employees can switch to transit subsidy for poor weather months and back to the bike subsidy.
- Climate Change Adaptation - Operations are building, agricultural projects
 - Assesses vulnerabilities of USAID operations and program activities due to climate change.
 - Consider climate change activities in project planning and Regulation 216 documents.
 - Implications of climate change to infrastructure, agriculture, and natural resource management programs.
- GHG Inventory - Report on gas emissions
 - Report on USAID carbon emissions from air travel, ground travel, wastewater treatment, and employee commuting.
 - Air travel is USAID's largest contributor to GHG emissions.
 - FY2011, air emissions were calculated at 7670 metric tons of carbon emissions. Equivalent to annual emissions of 1,504 passenger vehicles and annual energy usage of 664 homes.

Questions and comments:

- What can MEOs do to reduce gas emission and carry out an energy audit, both in the embassy and in the Mission's projects?
The first thing to look at is the state department's own program and energy-efficient methods. Collaborate. El Salvador is part of a Green Energy Group – Permission policy. If an embassy green team exists, get on it.

- Are there plans for a carbon offsetting program in reforestation?
An EA was completed in which they looked at the environmental programs.

Ecotourism Project (video *Jungle Fish*):

- A lodge has been constructed by a community in Guyana, to support a fly fishing ecotourism project.
- The project, that has just started is training additional guides. They have one hotel that is totally booked.
- The video was produced by private companies. USAID is trying to raise awareness and promote funding for these communities.
- This ecotourism concept can be easily replicated to improve tourism in other select communities.
- The ecotourism project is for sport fishing from the indigenous communities. The communities are not charged for permits. All the tourists take home is a picture. The sport fishermen tourists pay a good amount resulting in a good income for the community members.
- How many tourists should be allowed to participate since they are dealing with a rare species?
They work closely with a professional PhD biologist who monitors.
- They are also trying to raise money selling the video.

Next Steps to bring Curricula to Reality:

- Ensure that somebody goes out to the field to review unexpected impacts.
- Be sure to document in the EMPR Table 3 if recommendations are helping or not.
- Be careful what one is taking credit for.
- It is best to look at one's own programs and begin carbon offsetting and energy-efficient practices there.
- Look at one's own mission and include commercial airlines flights in the company audits.
- The Mission should be more involved in green practices. The Mission and embassy can work together to achieve expected results.
- More time should be devoted to EAs, EMPRs and other environmental analysis. We should also be learning from experiences from other missions.
- Hold training courses to continue capacity building.
- Invite participants to bring study cases or good examples to learn from.

ANNEXES

Workshop Agenda

USAID/LAC REGIONAL ENVIRONMENTAL MANAGEMENT AND REGULATIONS WORKSHOP

Cuenca, Ecuador
June 18-21, 2012

Training Objectives:

1. Strengthen the capacity of USAID staff to incorporate environmentally sound design and management (ESDM) practices into existing and upcoming development and relief program planning and budgets.
2. Improve the ability of USAID staff 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 USAID/LAC Missions 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. Cover special topic sessions, such as Pesticide Management, EAs and future environmental analysis reporting systems.
- Day 3. Carry out project field visits and compile results into the EMPR format.
- Day 4. Present case study conclusions, address any unresolved issues and develop ideas on how to operationalize lessons learned from the workshop.
- Thursday - Friday LAC GCC technical meeting led by Christine Pendzich and LAC Regional Environmental Issues led by Victor Bullen and the new LAC/RSD team leader
- Saturday BEO and REAs Internal Working Sessions

Day/ Time	Module	Objective/Content Summary	Presenter/Facilitator
Sunday 19:00	Welcome Dinner		
Day 1 Monday	Overview of environmental analysis and USAID environmental processes and procedures.		
8:00-8:30	Participant Registration		
8:30-8:50	Welcome and Opening Statements	Highlight the value of workshop content and expected results.	Victor Bullen, USAID/LAC BEO Andrew M. Herscowitz, USAID/Ecuador Mission Director
8:50-9:30	Workshop Objectives, Logistics and Participant Introductions	Articulate workshop plans, objectives, goals, and participants' introductions and expectations. Review the agenda and logistics.	Malory Hendrickson, SMTN Scott Solberg, SMTN
9:30- 10:30	Session I: Environmental Priorities in USAID Projects <i>Panel discussion</i>	Comprehend the perspective of all three regions of the Agency on the importance of environmental considerations, regional priorities, and synergetic efforts in the context of Latin America and the Caribbean.	<i>Panelists:</i> Joe Torres, USAID/Caribbean REA Jason Girard, USAID/SAR REA Victor Bullen, USAID/LAC BEO
10:30- 10:50	"Environmental Considerations: Toward a Sustainable Future" <i>Video and discussion</i>	Achieve a shared understanding of common risks to project sustainability implementation when environmental considerations are not incorporated into project design.	Daniel Calderon, SMTN

10:50-11:10	Coffee Break		
11:10-12:00	Session 2: Overview of USAID Environmental Processes <i>Technical presentation and dialog</i>	Establish a basic knowledge of Environmental Sound Design and Management (ESDM) and the legal basis for USAID environmental processes, procedures, tools and resources.	Victor Bullen, USAID/LAC BEO
12:00-12:45	Session 3a: The Initial Environmental Examination (IEE) <i>Technical presentation and dialog</i>	Increase 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, with emphasis on baseline analysis and project activities.	Jason Girard, USAID/SAR REA
12:45-13:30	Session 3b: Environmental Impacts and Categorization <i>Practical exercise</i>	Strengthen ability to classify intensity of environmental impacts and determination of environmental threshold decisions (ETD).	Malory Hendrickson, SMTN
13:30-14:30	Lunch		
14:30-15:00	Field Visit Instructions and Site Descriptions	Review environmental data collection and analysis methods, present case study overviews and divide participants into groups according to their thematic interests. Distribute field guides.	Daniel Calderon, SMTN
15:00-15:45	Session 4: The Environmental Mitigation Plan and Report (EMPR) <i>Technical presentation and dialog</i>	Build knowledge on the Environmental Mitigation Plan and Report (EMPR) procedures, format and development with focus on narrative as well as mitigation and monitoring tables.	Joe Torres, USAID/Caribbean REA
15:45-16:15	Session 5a: Virtual Field visit <i>Field visit</i>	Examine a project through a Virtual Field Visit in order to gain skills in field visit methodologies, baseline situations, and identification of potential environmental impacts of project sub-activities.	Scott Solberg, SMTN
16:15-17:20 (Coffee break included)	Session 5b: Baseline Exercise <i>Group work</i>	Strengthen knowledge of baseline analysis, environmental impact identification, and development of mitigation measures based on Virtual Field Trip project activities.	Malory Hendrickson, SMTN
17:20-17:30	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Daniel Calderon, SMTN
Day 2 Tuesday	Practice the development of the EMPR and prepare for its practical application in the field.		
8:30-9:15	Session 6a: Environmental Mitigation and Monitoring <i>Technical presentation and dialog</i>	Strengthen knowledge of environmental mitigation and monitoring, and the selection/development of environmental indicators.	Paul Schmidtke, USAID/ECAM REA
9:15-10:15	Session 6b: EMPR Primer Exercise <i>Group work</i>	Improve and apply mitigation measures and indicator selection skills in a scenario-based small group exercise centered on the impacts identified during Virtual Field Trip.	Malory Hendrickson, SMTN
10:15-10:35	Coffee Break		
10:35-11:35	Session 7: Future Online Reporting Systems <i>Technical presentation and dialog</i>	Receive a preview of what is being developed for future electronic environmental reporting in the LAC Region. Obtain feedback from USAID Regional Staff on their preferences and recommendations for the future web-based platform for environmental compliance.	Daniel López, USAID/Colombia MEO Paola Zavala, USAID/Ecuador REA

11:35 - 12:00	Group Dynamic		
12:00-12:45	Session 8: Environmental Assessments <i>Technical presentation and dialog</i>	Receive a briefing on the requirements and procedures of Environmental Assessments (EAs), including the Programmatic (PEA) and Rapid (REA) Environmental Assessments.	Victor Bullen, USAID/LAC BEO
12:45-13:45	Lunch		
13:45-14:45	Session 9: Pest Management PERSUAP Reports and Operational Field Guides <i>Technical presentation and dialog</i>	Become familiar with the PERSUAP format, technical content and procedures. Increase awareness of best practice on pesticide use and integrated pest management methods.	Joe Torres, USAID/Caribbean REA Daniel Lopez, USAID/Colombia MEO
14:45-15:30	Session 10a: Case Study Briefings <i>Small groups</i>	Build basic familiarity with respective case study projects and baseline information, and advance preparation for field visits.	<i>Guides:</i> Carlos Cabrera, Proyecto FONAPA Eduardo Borrero, Sagitta Consultores Pedro Encalada, EMMAICJ
15:30-15:50	Coffee Break		
15:50-17:00	Session 10b: Working Group Preparation: Familiarization of Field Tools <i>Working groups</i>	Review the EMPR format in context of the case study project, analyzing the five components and documenting what one will need to observe in the field. Familiarization with the relevant chapters of the LAC Environmental Guidelines.	Daniel Calderon, SMTN Malory Hendrickson, SMTN Scott Solberg, SMTN
17:00-17:10	Wrap-up Session	Review and summarize key points from the information presented throughout the day. Address or make note of unresolved questions or issues.	Daniel Calderon, SMTN
Day 3 Wednesday	Carry out project field visits and compile results into the EMPR format.		
8:00-13:00 (lunch in the field)	Session 10c: Experiential Practice Using the EMPR <i>Field visits</i> 1. Water Harvest for Climate Change Adaptation 2. Micro and Small Scale Enterprises 3. Solid Waste Management	Build and apply the core Environmental Analysis skills briefed in day 1 and day 2 via a field visit and follow-up group work to (1) synthesize field observations, and (2) identify possible mitigation measures for issues of concern, with reference to the LAC Environmental Guidelines.	<i>Guides:</i> Carlos Cabrera, Proyecto FONAPA Eduardo Borrero, Sagitta Consultores Pedro Encalada, EMMAICJ
14:00-17:00 (includes coffee break)	Session 10d: Development of the EMPR and Elaboration of Group Presentation <i>Working groups</i>	Advance discussions and compilation of field visit results into an EMPR format (including narrative and all 3 EMPR tables) and a group presentation using Power Point Template. Conclude with suggestions for improving the environmental field tools.	<i>Working groups and guides</i>
Day 4 Thursday	Present case study conclusions and special topic sessions, such as Pesticide Management and future environmental analysis reporting systems. Address any unresolved issues and identify practical actions that can be incorporated into future planning.		
8:30-10:30	Session 10e: Case Study Conclusions <i>Group presentations in plenary</i>	Articulate field visit findings, analysis, and EMPR development. Consolidate recommendations on best practice EMPR development in the LAC region.	<i>Working groups and guides</i>
10:30-10:50	Coffee break		

USAID/LAC Regional Environmental Management and Regulations Workshop		Cuenca, Ecuador June 18-21, 2012	
10:50 – 11:30	Parking Lot Session	Address unresolved questions or issues and summarize information presented throughout the training. <ul style="list-style-type: none"> • USAID’s Strategy for Greening Mission Operations • Base Camp introduction • Carbon neutral event • Tour through the participant flash drive 	Malory Hendrickson, SMTN Dennis Durbin, USAID/Management Office BEO
11:30- 12:30	Session II: Bringing Curricula to Reality <i>Working groups and plenary discussion</i>	Identify lessons learned and practical actions that can be operationalized in future planning.	Scott Solberg, SMTN
12:30- 13:00	Closing Ceremony	Conclude workshop and distribute diplomas.	Victor Bullen, USAID/LAC BEO
13:00- 14:00	Lunch		
Thursday 14:00 - Friday	LAC GCC technical meeting led by Christine Pendzich and LAC Regional Environmental Issues led by Victor Bullen and the new LAC/RSD team leader.		
Saturday	Environmental Officers Internal Working Sessions.		

Carbon Free Workshop Certificate



Carbonfund.org
REDUCE WHAT YOU CAN OFFSET WHAT YOU CAN'T™

carbon offset certificate

presented to

Sun Mountain International

for reducing

29.82 Tonnes of CO2 Emissions

Global warming is real and we all need to be part of the solution. This donation to the Carbonfund.org Foundation is helping fight global warming today by supporting carbon reduction projects worldwide, including renewable energy, methane destruction, energy efficiency and forestry. Thank you.

Jul 13, 2012
date



Eric Carlson
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.