Objective

- Understand the importance of mitigation and monitoring
Mitigation and Monitoring

- Reg. 216 doesn’t have a requirement for including a detailed Mitigation and Monitoring Plan specifically for EAs. BEO requires such a Plan.

- Nevertheless, Mitigation and Monitoring Plans are essential to ensure that the EA implementation is effective.

- Remember, Mitigation and Monitoring Plans assign responsibilities, include indicators for mitigation effectiveness, and establish timelines for reporting requirements.
Mitigation

- Each action alternative description must include a list of mitigations, if needed
  - These are designed to reduce or prevent negative environmental impacts

- Forms of mitigation
  - Minimize impact during the implementation
  - Rehabilitation post-implementation
  - Compensatory mitigation
Mitigation & Monitoring

- Mitigation measures need to be identified and included in the Proposed Action during describing the actions if there are follow up actions needed (e.g. replace seedlings that have not survived), and/or to minimize anticipated potential impacts.

- Mitigation measures need to be identified and included in the Alternative Action during Alternative actions description to minimize impacts per issues and/or during Impact analysis to minimize impacts of the Alternative actions.

- Mitigation measures identified in the Alternative section and/or Effects Section need to be compiled into a Mitigation and Monitoring Report.

- Table 3 of the EMMP should be used as the EA’s Mitigation and Monitoring Plan/Report.
Mitigation Measures—Food for Thought

- Need to address the effectiveness of mitigation measures (Table 3)- Indicators for mitigation measure effectiveness must be included in the Mitigation & Monitoring Plan.
- Need to ensure maintenance of mitigation measures
- Ensure that there is adequate funding and other resources to implement mitigation measures
- Ensure that the technology is within the scope of the communities or support is available to implement and provide follow up for maintenance.
- Ensure that mitigation is properly implemented (e.g. live barriers for soil conservation are spaced based on slope and soil type) so it is effective
Mitigation - Seepage
Monitoring CFR 216.3(7) (ii)

- Measurement of any changes in environmental quality, positive or negative, during implementation
- Requires baseline data
- Monitoring is the responsibility of the Implementing Partners with spot checks by AOR/COR, MEO, and REA as per the IEE
- Table 3, which should be used for the EA Mitigation and Monitoring Plan should be used to monitor the implementation and effectiveness of mitigation measures.
- The actions of the selected alternative also need to be documented in a separate table/sheet so that these actions could also be monitored for implementation and effectiveness. Ideally the selected actions and mitigations would be included in Table 3
Benefits of Monitoring

- Helps to determine if we are meeting the project objectives
- Can reduce implementation costs
- Validates and improves project planning and implementation
- Improves credibility with the public
- Ensures regulatory compliance
Types of Monitoring

- **Implementation monitoring:** did we do what we said we were going to do?
- **Effectiveness monitoring:** did it work?

- Make sure implementation problems are corrected in a timely manner to protect resources if monitoring shows adverse conditions on the ground (if mitigation is functioning properly) or if mitigation was not implemented.
# Annex D: Environmental Mitigation and Monitoring Plan by Value

## CHAIN COFFEE VALUE CHAIN

<table>
<thead>
<tr>
<th>#</th>
<th>Description of Mitigation Measure (Coffee)</th>
<th>Responsible Party for Implementing and monitoring mitigation measures</th>
<th>Monitoring Methods</th>
<th>Frequency</th>
<th>Estimated Cost of implementing mitigation measures and monitoring</th>
<th>Dates Monitored</th>
<th>Problems Encountered</th>
<th>Mitigation Effectiveness</th>
<th>Recommended Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Update all pesticide and IPM training and technical assistance to adhere to the findings of the January 2015 Programmatic PERSUAP for LAC (LAC-3EE-15-05)</td>
<td>ANACAFE, FEDECOCAGUA, AGEXPORT Technicians</td>
<td>Training manuals/plans updated</td>
<td>Checklist review</td>
<td>One time per set of training manuals/materials</td>
<td>Hourly cost of staff person to review and update materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Annual training in safe use and handling of agrochemicals, including the use of PPE, and Integrated Pest Management, per the January 2015 Programmatic PERSUAP for LAC (LAC-3EE-15-05)</td>
<td>ANACAFE, FEDECOCAGUA, AGEXPORT Technicians</td>
<td># of producers trained implementing PERSUAP practices</td>
<td>Quarterly reports</td>
<td>$2,020.00 per org.</td>
<td>Technical reports of Practices implemented in the field (checklist)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Record Keeping

- Analyze your monitoring data (don’t just collect it)
- Compile it into a report per the contract
- Implementing partners and AORs will submit results to MEO and REA, and will keep monitoring reports in project files
Revisions CFR 216.3a(9)

- Environmental Assessments will be amended if there are major changes in the project or if significant new information becomes available related to the environmental impact of the project.
- There are special requirements for pesticide procedures per CFR 216.3b.
- There may also be special requirements for individual countries.