

Annex I: USAID Environmental Compliance Basics

Title 22 of the Code of Federal Regulations, Part 216 (22 CFR 216)⁹, requires food assistance programs, as with other USAID supported development programs, to “ensure that the environmental consequences of [USAID] financed activities are identified and considered...and that appropriate environmental safeguards are adopted...” This regulation requires that all projects evaluate proposed activities to **identify and assess potential impacts**, as well as **develop measures to prevent, mitigate or compensate for them**, as appropriate. For more information on the USAID environmental compliance process, please refer to: <http://www.usaidgems.org/lop.htm>.

At the heart of the compliance process is the concept of *Environmentally Sound Design*, which consists of addressing environmental issues throughout the life of a project, from project design through close out. It requires identifying environmental risks and mitigating potential adverse environmental impacts. In this context, “environment” does not refer just to biophysical systems, such as the condition of wildlife habitats, but also to the environmental health of communities and individuals, such as the exposure to air and waterborne toxins. Mitigating potential adverse environmental impacts can be achieved through prevention, control, compensation, or remediation of the impacts.

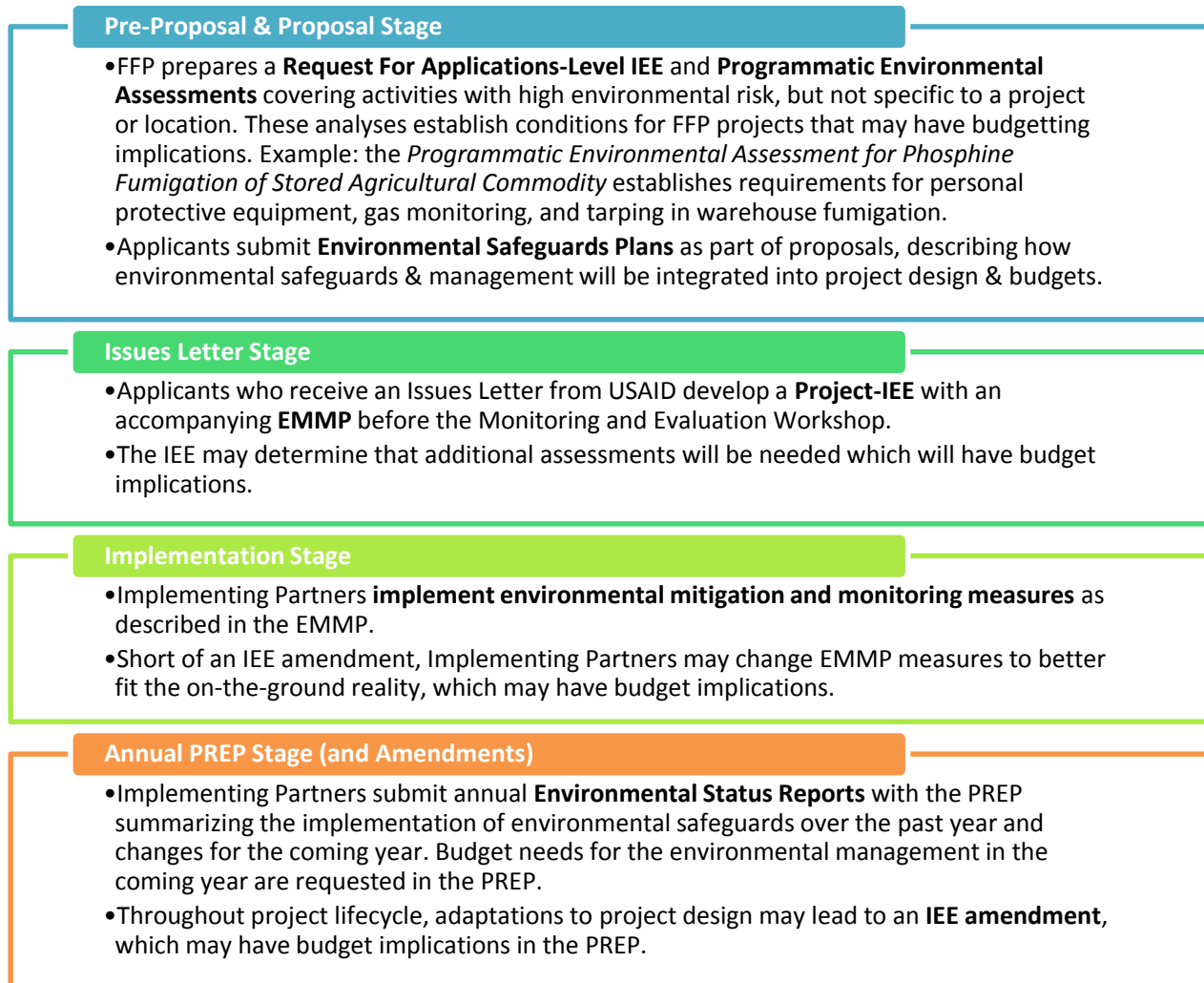
The environmental compliance process and the budgeting process should be well integrated. This Annex describes the environmental compliance process for FFP projects with emphasis on two of the key documents as relevant for environmental compliance budgeting.

AI.I Overview: Environmental Compliance Process for FFP Projects

A critical aspect for the success of identifying and mitigating potential adverse environmental impacts is the integration of the facets of the compliance process into the multiple stages of a typical project life cycle, i.e., from project design, through implementation and close out. Figure 3 describes environmental compliance activities throughout the life of a FFP project.

⁹ 22 CFR 216 is available in full from: http://www.usaid.gov/our_work/environment/compliance/reg216.pdf.

Figure 3. Integrating Environmental Compliance into FFP Life of Project



The Project-IEE (here after referred to as IEE) and EMMP are explained in more detail in the following sections because of their significance as tools for environmental compliance budgeting.

AI.II The IEE: A Foundational Tool for Environmental Compliance Budgeting

The IEE is an environmental review required of all USAID projects in which environmental risks associated with project activities in particular project locations are assessed to determine levels of risk of negative environmental impacts. Findings of the IEE result in “conditions” that a project must meet in order to mitigate risks. The IEE may also determine that additional assessments are needed, such as:

- **Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP):** An amendment to the IEE for all projects that involve pesticides.¹⁰
- **Environmental Assessments:** More in-depth environmental reviews required for specific aspects of an overall intervention. Common activities in FFP programs requiring Environmental Assessments include road construction, large-scale irrigation, work in protected areas, etc.

The IEE also determines the types of risks and how to mitigate them, which will inform decisions about proper management and monitoring structures for a particular project.

AI.III The EMMP: The Action Plan for the IEE

As part of the IEE, Implementing Partners develop EMMPs, which serve as the “action plan” for addressing the IEE findings. A typical EMMP consists of a table that lists, per activity, potential impacts, mitigation measures, monitoring indicators, methods of verification, and monitoring frequency.¹¹ EMMPs may also include a column for mitigation measure costs. An example EMMP is shown in Table 1.

Table 1. Illustrative EMMP Table

Activity	Potential Impact	Mitigation Measure	Monitoring Indicator ¹²	Method of Verification	Monitoring Frequency
Landscaping, Planting Shrubs and Trees	Spread of invasive species	Select non-invasive, culturally acceptable species	Type of species used	Site photos, Visual inspection, Field reports	Once during planting
Potable Water Supply Improvements	Unsafe quality of drinking water (e.g., E.coli, Arsenic)	Follow water quality assurance plans & treat water	Water quality test results	Water quality tests, Field reports	Before water consumption and annually

The EMMP informs environmental compliance budgeting by identifying mitigation activities that will have an associated cost. Beyond the IEE, the EMMP should reflect the conditions established in any further environmental assessments, the Environmental Safeguards Plan from the proposal, and any Environmental Status Reports that have been submitted.

¹⁰ More information on PERSUAPs is available from:

http://www.usaidgems.org/Documents/complianceTopics/ST_Pesticides_Safer_UseCompliance_Cairo_10Oct2012.pdf.

¹¹ More information on EMMPs is available from:

<http://www.usaidgems.org/Workshops/MalawiMay2013Materials/Chapters/STEMMP.pdf>.

¹² There is inherent confusion between the terminology ‘indicator’ as used in standard USAID environmental compliance and in monitoring and evaluation systems. In official USAID policy, an indicator “measures a particular characteristic or dimension of strategy, program, project, or activity level results ... Performance indicators are the basis for observing progress and measuring actual results compared to expected results.” The term Monitoring Indicator in the EMMP could be more accurately described as a Mitigation Implementation Indicator, specific to the mitigation measure and reflecting whether the mitigation measure is implemented and effective. Further information on the relationship between environmental monitoring and monitoring and evaluation at USAID is available from: <http://www.fantaproject.org/sites/default/files/resources/Environmental%20Considerations.pdf> and additional guidance is forthcoming.

Annex II: Budgeting Basics

Each Implementing Partners has its own process for developing and adjusting budgets. This section describes the standard budgeting components for FFP projects, recognizing that there are many ways to produce these components. For additional information on USAID budgeting across the agency, please refer to the training at: <http://www.usaidallnet.gov/partner-learning/4/>.

AII.I FFP Budget Format Overview

Similar to other USAID project budgeting processes, FFP budgets are comprised of three main sections:

1. Detailed Budget tables for each year of the project
2. Comprehensive Budget table
3. Budget Narrative

In order to have consistency within budget formats for FFP projects, USAID developed a suggested budget format. A template for this format is [available online](#) with Detailed Budget sheets for each year of the project and an additional sheet that automatically aggregates the Detailed Budget into a Comprehensive Budget overview sheet. **For complete understanding of the information presented in this section, it is recommended that the reader opens this template to review in parallel to reading.** A partial screenshot of a Detailed Budget sheet from this template is shown in Figure 4.

Figure 4. Partial Screen Shot of the 2014 FFP Detailed Budget

Detailed Line Items					Program Element 2					
					to select program element from dropdown menu...					
					ITSH Funds			Cost Share		
Object Class Category	Qty	Unit (Days, Mos., Trips, Etc.)	Unit Amt (US\$)	Total	No. of Units	Notes no. of units	Amt (US\$)	No. of Units	Notes no. of units	
1. Salaries										
1.1 Field Staff										
1.1.1 Expatriates										
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
1.1.1 -SUBTOTAL: Expatriate Field Salaries					0		\$ -	0		\$
1.1.2 Local Staff										
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
				\$ -			\$ -			\$
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Source: FY 2014 Request for Applications Budget Template. A complete version can be downloaded from: <http://www.usaid.gov/documents/1866/fy-2014-rfa-budget-template#overlay-context=>.

Implementing Partners produce an accompanying Budget Narrative to describe the budget. Implementing Partners are also required to submit summary data from these sheets in the form of an Executive Summary Table, though this summary table is less relevant for environmental compliance budgeting and will not be discussed. FFP has an online portal, the [FFP Management Information System \(FFPMIS\)](#) where the budgets are uploaded.

As with any multi-year budgeting process, each section of the budget is first prepared during in the initial proposal and then further refined through discussions between the Implementing Partner and FFP. Annually, budgets are prepared for the coming year as part of the PREP process. For more information on PREPs, please refer to the training at the following link: http://www.fsnnetwork.org/sites/default/files/ffpmis_prep_training_201304.pdf.

The Detailed and Comprehensive Budgets and Narrative are further explained in the following sections, as relevant for environmental budgeting.

AII.II Detailed and Comprehensive Budgets

This section will describe the Detailed Budget format, which is developed for each year of a project and aggregated into a single Comprehensive Budget. The FFP **Detailed Budget** sheets are organized by type of expense (or “Object Class Categories”¹³, such as Salaries, Travel and Transport, and Program Supplies), which are further divided into sub-categories. Annex VI provides more detailed information on Object Class Categories and how each relates to environmental costs. Each row within an Object Class Category is known as a “Line Item.”

Each budget line item is then further categorized by type of project activity, known as “Program Element.”¹⁴ The **Program Elements** covering most FFP activities are shown in Table 2.

Table 2. Program Elements Covering Most FFP Activities

1. Agricultural Sector Capacity	8. Maternal and Child Health
2. Assistance and Recovery	9. Natural Resources and Biodiversity
3. Basic Education	10. Nutrition
4. Capacity Building, Preparedness, and Planning	11. Protection and Solutions
5. Civil Participation	12. Social Assistance
6. Family Planning and Reproductive Health	13. Strengthen Microenterprise Productivity
7. HIV/AIDs	14. Water Supply and Sanitation

¹³ Object Class Categories are more generally known throughout USAID as “Class Categories.”

¹⁴ The Program Elements listed in Table 2 are a subset of Program Elements established by the U.S. Department of State’s Office of Foreign Assistance. Projects may wish to draw on additional Program Elements from this list which can be found within the Standardized Program Structures and Definitions, available from: <http://www.state.gov/f/c24132.htm>

The line items are then sub-categorized by the FFP funding sources (or type of cash) in columns. Box 6 lists the funding sources that may be included, the most common being Section 202(e) Funds, ITSH funds, CDF, and Cost Share.

For example, under the Object Class Category of Salaries, there may be a line item for the Chief of Party. The total dollar value for this salary could be divided across each of the Program Elements, such as Agricultural Sector Capacity and HIV/AIDS, and then further identified as being funded by Section 202(e) funding. This process of categorizing each element of a budget (such as the individual salaries, office rent, road construction equipment, etc), is summarized in Figure 5.

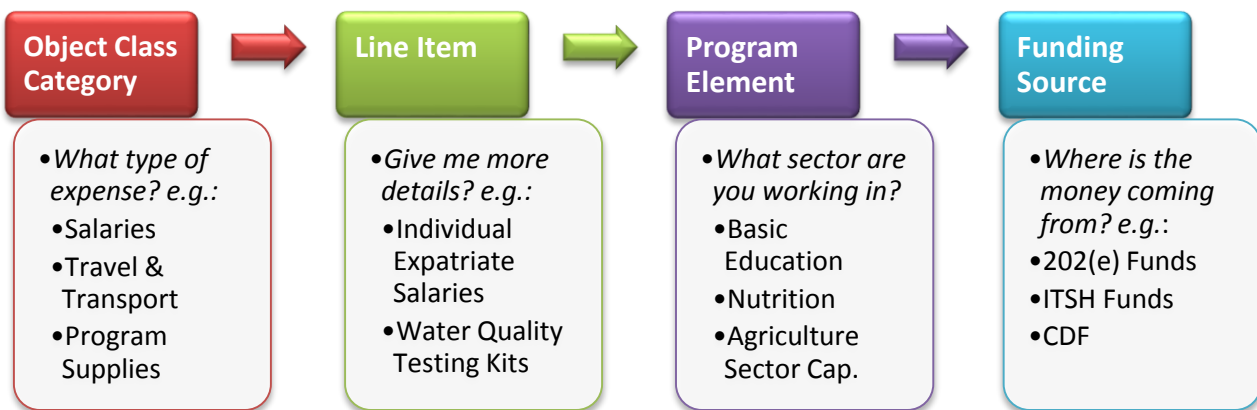
Box 6. Funding Sources for FFP Programs

Sources of funding for FFP programs are:

- **Monetization proceeds** from the sale of FFP commodities, usually allocated to program implementation and management costs. (The majority of environmental costs will be allocated here).
- **Section 202(e)** funds to be used primarily for technical assistance, such as for expatriate management staffing, and limited according to legislation.*
- **Internal Transportation, Shipping and Handling (ITSH)** funds for the inland transport, shipping and handling of FFP commodities.
- **Community Development Funds (CDF):** Development Assistance Funds from annual appropriations for the Foreign Assistance Act.
- **Cost Share** funds provided by the organization implementing the FFP project.
- **Other** funds, donor funds, or national government contributions, to be used to implement the program under the conditions attached to these funds.

*See the most current FFP Information Bulletin for allowable uses of 202(e) funds. May be used instead of ITSH in countries where ITSH is not permitted.

Figure 5. Categorizing Budget Elements



The **Comprehensive Budget** is a sheet in the template which is a summation of all five years of Detailed Budget information. This is automatically populated within the template as the Detailed Budget sheets are completed.

AII.III Budget Narratives

The Budget Narrative accompanies the Detailed and Comprehensive Budget and describes each cost, by line item, in sufficient detail to explain how the project funding will be spent. The Budget Narrative explains the rationale of the budget, including the purpose of each line item and how various line items differ. Where costs may be unexpected, the Budget Narrative should elaborate fully. This is key to the transparency of the budget. Writing a narrative with this level of detail ensures that the budget for environmental measures can be clearly identified and sufficiently detailed through the life of the project.

Annex III: Questions to Consider in Identifying Environmental Costs

When initially identifying materials and services needed for environmental compliance requirements in the project, a budget developer should review either the Environmental Safeguards Plan (at the proposal stage) or the project's IEE and EMMP (once developed) to identify activities with associated environmental compliance costs. The following questions are recommended to be used in this process. These questions are intended to help identify major costs, but are not on their own sufficient for identifying all costs.

1. Do you need further assessments?

- Will the project involve the use of pesticides?
→*Budget for development of a PERSUAP and subsequent capacity building around pesticides.*
- Will the project involve warehouse fumigation and how often?
→*Budget for development of a Fumigation Management Plan and proper fumigation equipment.*
- Will the project involve large scale road construction, irrigation, or work in biologically sensitive areas such as Ramsar¹⁵ wetlands?
→*Budget for development of an Environmental Assessment.*
- Will the project provide drinking water?
→*Budget for development of a Water Quality Assurance Plan and measures to implement it.*
- What are the local permitting requirements?
→*Budget for any additional costs of obtaining local permits.*

2. What staffing and training do you need?

- Considering project staffing and management structures,
 - Who will oversee overall project environmental compliance within the organization?
 - Who will conduct environmental monitoring across the range of sectors and how often?
 - Who will prepare reports on environmental activities for USAID?
 - Who will conduct trainings for environmental safeguards?
 - Who will build community capacity for environmental safeguards?
- Can the responsibilities identified in the preceding questions be covered by existing staff or are additional technical experts needed?
- Are trainings needed to build staff capacity? (consider both environmental staff and others)
- For responsibilities that can be covered by existing staff, what percentage of their time is needed for their environmental compliance responsibilities?
- Will the above responsibilities be undertaken by a consultant or a subcontractor?

Box 7 contains further information on the importance of dedicated environmental staffing.

¹⁵Ramsar Convention: <http://www.ramsar.org>.

Box 7. Dedicated Environmental Staffing

One critical line item for environmental budgeting is **dedicated environmental staffing**. Increasing evidence demonstrates that to comply with USAID environmental requirements and to do no harm to the local environment, there must be staff available to manage this aspect of the project, to implement environmental safeguards, to conduct trainings, do environmental monitoring, coordinate with other specialists such as climate change officers, etc. This may require positions that are full or part-time, expatriate or local, depending on the project.

Case Study: The FFP SALOHI Program in Madagascar

The SALOHI Consortium, a CRS lead-partnership with ADRA, CARE and Land O'Lakes, hired an Environmental Technical Specialist to ensure compliance with USAID environmental requirements. This specialist supported SALOHI Consortium to implement their EMMP, monitor and evaluate environmental impacts of project activities, and to report on EMMP implementation to FFP.

The Terms of Reference for the consultancy solicited an ecologist, agronomist, or sociologist/socio-economist with an excellent understanding of environmental sciences, as well as experience in monitoring and evaluation of development programs in developing countries. The specialist was expected to have experience in analysis of environmental impacts of similar activities as under FFP, such as rural road construction and rehabilitation, irrigation system installation, water and sanitation, and agricultural activities. In-country experience was considered a great advantage. Lastly, the specialist needed a strong grasp of USAID environmental regulations and programs in Madagascar.

Under SALOHI, the Environmental Technical Specialist, who was hired part-time, designed user-friendly environmental monitoring checklist tools and led annual workshops to review and evaluate environmental monitoring data and discuss needed changes in the environmental management system. This specialist worked, on average, 100 days per year and traveled to all of the project sites.

3. What field visits do you need?

- How often will staff have to go to the field to manage environmental compliance?
- How often will environmental monitoring field visits take place? How many sites will be visited?
- How often will in-country travel be needed as part of trainings?
- What vehicles and other travel costs will be needed considering the locations of your field sites?
- Are there security costs associated with travel?
- *Will the above visits be combined with visits for other purposes?*

4. Equipment and supplies?

- What equipment or supplies are needed for environmental mitigation? (e.g., water quality testing kits or lab costs, vegetation for erosion control, costs of commodity waste disposal, etc.)
- If project involves warehouse fumigation, does the project or the fumigation contractor have the right tarps, gas monitoring equipment, and personal protective equipment?¹⁶
- What environmental monitoring equipment/supplies are needed? (e.g., water quality test kits)
- What supplies are needed to conduct environmental trainings?
- Are there additional reporting or administrative costs?

¹⁶ Information on health and safety requirements for fumigation in FFP projects can be found at: <http://www.usaidgems.org/fumigationpea.htm>.

Annex IV: Checklist for Reviewing Project Budgets for Environmental Compliance

When reviewing a project budget for environmental compliance requirements, a budget reviewer should cross reference the Budget Narrative and Detailed Budget with the project environmental compliance documents to assess adequacy of the budget to cover environmental compliance costs. The following checklist is recommended to guide this review, although on its own may not be sufficient.

Question	Guidance Notes	Documents to Cross Check	Yes?	No?
Budget Narrative				
1. Does the budget narrative reflect the budget implications of management plan for environmental compliance? → Does the budget narrative reflect staffing for environmental management? → Does the budget narrative reflect plan for further environmental analyses?	<ul style="list-style-type: none"> A management plan will include the staffing, assessments, monitoring visits, etc. needed to assure implementation and monitoring of environmental mitigation measures. The Budget Narrative should be consistent with the environmental requirements established in environmental compliance documents, which may include further assessments, staffing, field visits, equipment and supplies, etc. (See Annex III) A budget narrative that does not describe any budgeting for environmental impact related issues will need to be amended. 	<ul style="list-style-type: none"> In proposal stage, Environmental Safeguards Plan Following M&E Workshop, Environmental Mitigation & Monitoring Plan At the PREP Stage, Environmental Status Report & Environmental Mitigation & Monitoring Plan 		
2. Does the budget narrative describe actions to comply with requirements for mitigating anticipated environmental impacts? → Following the first year, does the budget narrative describe changes from the previous year based on lessons learned and implementation realities?				
Detailed Budget				
3. Do the detailed budgets, including subcontractor budgets, reflect the information described in the budget narrative with regard to environmental compliance requirements? → Following the first year, do the detailed budgets reflect reasonable consistencies or variations from the previous year?	<ul style="list-style-type: none"> All FFP budgets will require a level of funding allocated to the implementation of environmental requirements, as all FFP projects have the potential for environmental impact that can be mitigated. 	<ul style="list-style-type: none"> Budget Narrative Previous year's budget Environmental Status Report 		

Annex V: Example of Developing a Budget for Environmental Compliance Requirements: Road Rehabilitation

This annex explains the four steps of environmental compliance budgeting for a hypothetical road rehabilitation activity, producing a FFP-formatted budget for the associated environmental costs. The four steps are:

Step 1: Identify materials and services needed to implement environmental requirements.

Step 2: Quantify environmental costs identified in Step 1.

Step 3: Translate environmental costs of Step 2 into standard FFP budget categories.¹⁷

Step 4: Integrate environmental costs into project budgets and narratives.

Road rehabilitation is a common component of FFP funded projects. Environmental risks associated with road rehabilitation include erosion, water pollution, changes in water availability, deforestation, ecosystem degradation, human health and safety impacts, and changes to the local culture and society. Adverse impacts can be avoided or minimized though by applying environmentally sound design, construction, operation and maintenance practices. This example does not address a comprehensive set of environmental risks for road rehabilitation, but rather focuses on three potential direct environmental impacts.¹⁸ It is of note that road rehabilitation may have potentially significant indirect impacts, such as increased deforestation and hunting, but this is not included as part of the example.

*“What is critical is that the process is **TRANSPARENT** to ensure that **ADEQUATE funds are budgeted and remain available over the life of the project for implementation and monitoring of the required environmental compliance measures**”*

An example EMMP for road rehabilitation is provided in Table 3 for the hypothetical first year of a project. As described in Section A1.III, EMMPs include columns for an activity, its potential environmental impact, mitigation measures, monitoring indicators, methods of verification, and monitoring frequency. In this example, there is only one activity (road rehabilitation) so no activity column is shown.

¹⁷ Note: It may be possible to combine Steps 3 and 4 into a single step, depending on the particular budgeting process. It is shown here as two separate steps for greatest clarity.

¹⁸ The list of potential environmental impacts in this table is not meant to be comprehensive for the environmental risks of road rehabilitation, but rather a subset of potential impacts for the purposes of illustrating the environmental compliance budgeting process. For a full description of environmental issues and best practices for road rehabilitation, please see USAID’s **Sector Environmental Guidelines: Rural Roads** (www.usaidgems.org/bestPractice.htm) and USAID’s **Low-Volume Roads Engineering: Best Management Practice Field Guide** (http://pdf.usaid.gov/pdf_docs/PNADB595.pdf).

Table 3. Excerpts of an Example EMMP for Road Rehabilitation

Potential Environmental Impact	Mitigation Measure	Monitoring Indicator ¹⁹	Monitoring Frequency	Method of Verification
1. Road location and design increase runoff and erosion, causing water pollution.	A. Conduct engineering study as part of activity design with engineering environmental impacts as part of it.	Presence of completed engineering study.	Prior to completion of design.	Review of design based on engineer’s analysis.
	B. Ensure road is sufficient distance from water bodies to limit contamination from runoff.	Road location plan shows road distance from water bodies as sufficient. Rehabilitated road location is in agreement with plans.	Review prior to completion of design and during and following construction.	-Review of design. -Visual inspection.
	C. Grade with in-slope, out-slope or cambered shape to improve drainage and prolong road life.	Grade of road shows in-slope, out-slope or cambered shape to improve drainage and prolong road life.	Review prior to completion of design and monitor daily throughout rehabilitation work.	-Review of design. -Visual inspection.
	D. Re-vegetate roadside slopes with soil-retaining vegetative cover (e.g., non-invasive bush species, vetiver, etc.) after	Roadside slopes are vegetated.	Following completion of each segment of road.	Visual inspection.

¹⁹ There is inherent confusion between the terminology ‘indicator’ as used in standard USAID environmental compliance procedures and in USAID monitoring and evaluation systems. In official USAID policy (ADS 200), indicator “measures a particular characteristic or dimension of strategy, program, project, or activity level results ... Performance indicators are the basis for observing progress and measuring actual results compared to expected results.” The term Monitoring Indicator in the EMMP could be more accurately described as a Mitigation Implementation Indicator, which is specific to the mitigation measure and reflects whether the mitigation measure is being done, being done correctly, and with the desired effect. Further information on the relationship between environmental monitoring and monitoring and evaluation at USAID is forthcoming.

	upgrades and rehabilitations are completed.			
	E. Ensure community consultation.	Presence of community consultation records.	At least three times during design process.	Review of community consultation event records.
2. Borrow pits damage the environment due to removal of soil and vegetation.	A. Select existing borrow pit sites to minimize damage to the environment. Ensure responsible site selection for new borrow pits, considering wetlands, undisturbed areas, etc. Where a borrow pit exploits new locations near wetlands or undisturbed areas, further environmental review may be needed.	Borrow pit planned location show sufficient distance from potentially sensitive areas. Borrow pit location is in agreement with plans.	Prior to selection and use of borrow pits.	-Review map of site location compared with land cover. -Visual verification that site matches plan.
	B. Backfill and restore borrow pits used for construction materials to prior-use state. This task may require heavy equipment and re-vegetation.	Borrow pits restored to prior-use state.	Following construction.	Visual inspection.
3. Improperly controlled or managed equipment can lead to oil or chemical leakage that may pollute soil or water.	A. Develop and implement an equipment maintenance plan.	Presence of equipment maintenance plan.	-Prior to equipment use and as planned throughout projects.	-Review of maintenance plan and records. -Visual inspection.
	B. Train equipment operators and maintenance personnel on proper vehicle use and maintenance, including speed limits and safe use.	Trainings conducted.	-Prior to equipment use.	-Review of training records.
	C. Develop a spill management plan, and train workers on the plan.	Presence of spill management plan. Trainings conducted.	-Prior to the equipment procurement.	-Review of plan. -Review of training records.

Step 1: Identify materials and services needed to implement environmental requirements.

Completing Step 1 requires asking the question, *what materials and services are needed to achieve these requirements that have a cost? or, what do we need to buy?* The questions of [Annex II](#) are helpful in identifying these costs. Considering the mitigation measures shown in the EMMP of Table 3, the following materials and services of Table 4 can be identified:

Table 4. Materials and Services Needed to Implement Environmental Requirements

Potential Environmental Impact	Materials and Services Needed for EMMP Implementation (Environmental Costs)
1. Road location and design increase runoff and erosion, causing water pollution.	-Engineering expertise and roads engineering study. -Environmental expertise for environmental design (design review and overseeing implementation). -Site visits for monitoring. -Vegetation for revegetation activities. -Environmental assessment.
2. Borrow pits damage the environment due to removal of soil and vegetation.	-Time and staffing for environmental considerations of borrow pit selection. -Further environmental review of selected site. -Equipment for backfill and restoration. -Vegetation for revegetation activities. -Monitoring site visits.
3. Improperly controlled or managed equipment can lead to oil or chemical leakage that may pollute soil or water.	-Staffing for developing and overseeing the implementation of a vehicle maintenance plan and spill management plan. -Trainings for relevant staff in equipment operation and maintenance.

As shown in Table 4, the environmental requirements of the EMMP in Table 3 have a range of staffing, materials, travel, and trainings needs with associated budget implications. These will be referred to as “Environmental Costs.” Some measures to address different potential impacts have overlapping environmental costs. Also note:

- Depending on the project location and surrounding area, **additional analyses** may be needed such as an Environmental Assessment.
- There are specific **staffing** needs for both implementing and monitoring the mitigation measures. For example, an engineer will be needed for an engineering analysis. To review the design and oversee implementation, engineers with potentially different expertise will be needed. To monitor the implementation of measures, a certain number of site visits by project staff will be needed.
- For this example, the stage of the project cycle is not specified, but it is worth noting that depending on the **stage of the project** that the budget is being developed during, there will be more or less information on the scale and time associated with these needs.

Beyond what is shown in Table 4 for these specific mitigation measures, there are **overarching costs** that should also be considered include:

- Overall management of environmental compliance.
- Reporting on environmental compliance implementation and monitoring results to USAID.
- General environmental compliance trainings.
- Complying with national laws, including obtaining permits.

See the discussion in Section 2 for more information about overarching costs.

Step 2: Quantify environmental costs associated with materials and services identified in Step 1.

Once the materials and services needed for the environmental requirements are determined in Step 1 (i.e., the last column of Table 4 along with the overarching costs included in the bulleted list in the text following the table), dollar values must be assigned to them in Step 2. Completing this step requires some amount of assumptions and estimations and some amount of on-the-ground data. An illustrative table quantifying *some* of the costs from Step 1 are shown in Table 5. Step 2 requires getting information from a wide range of staff, including from the field, from various project activity areas, with knowledge about environmental compliance, and with knowledge about project budgets. Aspects of the project design and environmental requirements may be adjusted throughout these conversations as part of the iterative environmental budgeting process.

Table 5. Quantifying Environmental Costs

Potential Environmental Impact	Environmental Costs	Unit Costs	Unit	Year 1	Year 2	Year 3	Year 4	Year 5
1. Road location and design increase runoff and erosion, causing water pollution.	Civil and environmental engineering expertise.	\$4000	Months	4	1	0	0	0
	Roads engineering study. ²⁰	\$20000	Studies	1	0	0	0	0
	Environmental expertise for environmental design (design review and overseeing implementation).	\$1000	Month	12	4	4	4	4
	Site visits for monitoring.	\$800	Visits	12	12	2	2	2
	Vegetation for revegetation activities.	\$10	Seedlings	0	1000	0	0	0
	Environmental assessment.	\$12000	Studies	1	0	0	0	0
2. Borrow pits damage the environment due to removal of soil and vegetation.	Time and staffing for environmental considerations of borrow pit selection.	\$1000	Months	2	2	0	0	0
	Further environmental review of selected site.	\$12000	Assessments	0	0	0	0	0
	Equipment for backfill and restoration.	<i>Already considered in construction contracts, cannot be isolated</i>						
	Vegetation for revegetation activities.	\$10	Seedlings	0	400	0	0	0
	Monitoring site visits.	\$800	Visit	4	4	2	0	0
4. Improperly controlled or managed equipment can lead to oil or chemical leakage that may pollute soil or water.	Staffing for developing and overseeing the implementation of a vehicle maintenance plan and spill management plan.	<i>Included in Full Time Environmental Management Coordinator scope of work.</i>						
	Trainings for relevant staff in equipment operation and maintenance.	\$2000	Training	1	2	0	0	0

²⁰ A Roads Engineering Study should be well coordinated with, but distinct from, an Environmental Assessment, focusing on the engineering parameters.

The results shown in Table 5 are just one example of how the environmental costs of Table 4 may be quantified. There are *various levels of detail* for which these costs can be shown, depending on the stage of the project cycle, the extent of project design that has taken place, the available on-the-ground information, etc. It is up to the discretion of the environmental compliance budgeting team to get to the level of detail necessary to achieve a sufficiently accurate budget estimate. The objective is to ensure an adequate and transparent break down analysis of the environmental compliance costs for the road rehabilitation activity. A couple of key points emerging from this Step in this example are:

- In order to achieve transparency for adequate environmental compliance budgeting, it may not be necessary to quantify every environmental cost. There will be some costs that are too integrated. In this example, the environmental cost of Equipment for Backfill and Restoration to mitigate Potential Environmental Impact 2, is listed as “already considered in the construction contract, cannot be isolated.” Separating this cost from the rest of the construction contract would not be a meaningful exercise and pointing to where it is included elsewhere maintains the efficacy of the exercise. There is not one right answer of when to do this, but it is important that the process be systematic.
- In this step, it becomes clear that certain costs will later be combined, condensed, or integrated with other line items in the final budget (Step 4). For example, monitoring visits and community consultations are listed for multiple activities, but the same monitoring visit or community consultation may cover multiple mitigation measures. Similarly, vegetation is listed in multiple places; while the vegetation purchased for one activity cannot later be used in another, vegetation covering multiple activities can be condensed into a single line item. This process will be completed in Step 4.

Step 3: Translate environmental costs of Step 2 into standard FFP budget categories.²¹

Each of the costs of Step 2 (Table 5) must now be translated into the standard FFP budget categories of Program Element, Object Class Category, line item (either as its own line item or integrated into another), and funding source (see Annex II for more information on FFP budgets). This translation for the road rehabilitation example is provided in Table 6, using the results of Step 2’s environmental cost quantification.

Table 6. Translation of Environmental Costs into Standard FFP Budget Categories

Potential Environmental Impact	Environmental Costs	Standard FFP Budget Categories			
		Object Class Category ²²	Line Items	Program Element ²³	Funding Source ²⁴
1. Road location and design increase runoff and erosion, causing water pollution.	Civil and environmental engineering expertise.	-Salaries -Fringe Benefits	-Staff Engineer	Agricultural Sector Capacity	202 (e)
	Road engineering study.	-Subcontracts	-Engineering Subcontract	Agricultural Sector Capacity	202 (e)
	Environmental expertise for environmental design (design review and overseeing implementation).	-Salaries -Fringe Benefits	-Environmental Management Coordinator	Agricultural Sector Capacity	202 (e)
	Site visits for monitoring.	-Travel and Transport -Salaries -Fringe Benefits -Equipment >\$5,000	-Driver -Per Diem -Project Vehicle -Vehicle Use	Agricultural Sector Capacity	202 (e)
	Vegetation for revegetation activities.	-Other Direct Costs	-Seedlings	Agricultural Sector Capacity	202 (e)
	Environmental Assessment.	-Subcontracts	-Environmental Assessment Subcontract	Agricultural Sector Capacity	202 (e)

²¹ Note: It may be possible to combine Steps 3 and 4 into a single step, depending on the particular budgeting process. This toolkit presents two separate steps for greatest clarity.

²² A list of Object Class Categories is included in Annex V.

²³ A list of Program Elements is included in Table 2. As this example is for a single projects activity (road rehabilitation), only one Program Element (Agricultural Sector Capacity) is shown. Step 3 for a whole project would reflect all Program Elements in the project.

²⁴ A list of Funding Sources is included in Box 6.

2. Borrow pits damage the environment due to removal of soil and vegetation.	Time and staffing for environmental considerations of borrow pit selection.	-Salaries -Fringe Benefits	-Individual staff (e.g., Staff Engineer, Environmental Management Coordinator, etc.)	Agricultural Sector Capacity	202 (e)
	Further environmental review of selected site.	-Subcontracts	-Environmental Review Subcontract	Agricultural Sector Capacity	202 (e)
	Equipment for backfill and restoration.	-Sub-Award	-Equipment Rental	Agricultural Sector Capacity	202 (e)
	Vegetation for revegetation activities.	-Other Direct Costs	-Seedlings	Agricultural Sector Capacity	202 (e)
	Monitoring site visit.	-Salaries -Fringe Benefits -Travel and Transport -Program Supplies	-Individual staff (e.g., Staff Engineer, Environmental Management Coordinator, etc.) -Driver -Project Vehicle -Per Diem	Agricultural Sector Capacity	202 (e)
3. Improperly controlled or managed equipment can lead to oil or chemical leakage that may pollute soil or water.	Staffing for developing and overseeing the implementation of a vehicle maintenance plan and spill management plan.	-Salaries -Fringe Benefits	-Individual staff	Agricultural Sector Capacity	202 (e)
	Trainings for relevant staff in equipment operation and maintenance.	-Sub-Award	-Training sub-award	Agricultural Sector Capacity	202 (e)

The example provided here illustrates how the information from Steps 1 and 2 are translated into FFP standard budget categories in Step 3. Different projects may identify the same environmental cost (e.g., engineering expertise) as an environmental cost, but then categorize it differently because of the particular project structures. In this example, engineering expertise falls under the Subcontracts Object Class Category. In other projects though, this expertise may come from project staff and therefore would be budgeted in the Object Class Categories of Salaries, Fringe Benefits, etc. Similarly, specific studies, such as the Environmental Assessment or Engineering Study shown in this example, may be produced internally and categorized under Salaries and Other Direct Costs, or contracted out through Sub-Awards or Subcontracts. When costs are categorized as Subawards or Sub-Contracts, they are further detailed in the detailed budget for those particular Awards or Contracts.

Step 4: Integrate environmental costs into actual project budgets and narratives.

In this step, the environmental costs from Step 3 (Table 6) are integrated into the detailed project budget (see Figure 4), comprehensive project budget, and budget narrative.

Table 7. Integration of Environmental Costs into Detailed Project Budget

<i>Funding Sources for Fiscal Year 1</i>					
Detailed Line Items			Agricultural Sector Capacity		
Object Class Category	Unit	Unit Amt (US\$)	Section 202(e) Funds		Program Element subtotal
			No. of Units	Amt (US\$)	
1. Salaries					
1.1 Field Staff					
<i>1.1.1 Expatriates</i>					
Staff Engineer	Months	\$4,000	4	\$16,000	\$16,000
<i>1.1.2 Local Staff</i>					
Environmental Management Coordinator	Months	\$1,000	12	\$12,000	\$12,000
Driver	Months	\$800	12	\$9,600	\$9,600
2. Fringe Benefits					
Staff Engineer		30%	4	\$4,800	\$4,800
Environmental Management Coordinator		20%	12	\$2,400	\$2,400
Driver		20%	12	\$1,728	\$1,728
4. Travel and Transport					
4.6 In-Country Ground Travel					
Vehicle Use	Km	0.25	1200	\$300	\$300
4.7 In-Country Per Diem					
Expatriate Staff	Days	\$60	12	\$720	\$720
Local Staff	Days	\$40	96	\$3,840	\$3,840

6. Program Supplies					
Seedlings	Seedlings	\$10	0	\$-	\$-
10. Sub-Awards					
Environmental Trainings	Trainings	\$2,000	1	\$2,000	\$2,000
11. Sub-contracts					
Roads Engineering Study	Studies	\$20,000	1	\$20,000	\$20,000
Environmental Assessment of Road Rehabilitation	Studies	\$12,000	1	\$12,000	\$12,000
Additional Environmental Reviews	Studies.	\$12,000	0	\$-	\$-
Road Construction Work and Equipment Rental	Contract	\$400,000	1	\$400,000	\$400,000
13. Equipment > \$5,000					
Project Vehicle	Vehicle	\$12,000	1	\$12,000	\$12,000
TOTAL PROGRAM				\$501,616	\$ 501,616

**This table shows only 202 (e) funds because the example covers a narrow scope of activity. For a real project budget, all funding sources for the project would be shown.*

The information in the table consolidates all of the information from the previous steps. This is the table that will be submitted from the Implementing Partner to FFP and which will be used for project budget decisions. Since much of the information from earlier steps is hidden in this last table, it is important to capture critical information in the budget narrative.

For example, Step 3 showed several sub-activities with Staff Engineer requirements which are combined into a single line item in Step 4. This engineer may be hired for 100% LOE for the project but only 33% LOE is needed for the environmental requirements. Merging the budget line item for the different responsibilities of this Staff Engineer risks that the 33% percent of the engineer's time that is intended for design and oversight to ensure environmental issues are addressed for road rehabilitation may "get lost" in the final Detailed Budget and consequently will not remain available when it is time for implementation. For this reason, it is necessary that this division of responsibilities be clearly identified in the Budget Narrative for this line item, as in the example below:

Staff Engineer – Road rehabilitation

One Staff Engineer ... This position will be responsible for design and oversight to ensure environmental issues are addressed for road rehabilitation (1/3 time LOE) and general management and oversight of road rehabilitation unrelated to environmental issues (2/3 time LOE) at an annual salary of \$48,000 USD for FY 1 and FY 4. Salary based on the Implementing Partner's standard expatriate staff compensation rates. Fringe and overseas allowances have been budgeted separately.

Annex VI: Object Class Categories & Environmental Costs

As discussed in Section All.II Detailed and Comprehensive Budget, Object Class Categories are one of the ways that budget items (and therefore environmental compliance costs) are categorized in Detailed Budgets. The standard Object Class Categories for FFP budgets are listed here with further explanation and examples of environmental costs that would fall within them.

Table 8. FFP Object Class Categories* & Environmental Costs

Object Class Category	Definition	Example Environmental Costs
1. Salaries	Salaries (compensation) for full or part-time expatriate, local field, and headquarters staff.	Staff time required for implementation and monitoring of environmental safeguards, e.g., an Environmental Management Officer, staff who prepare environmental compliance documents, time for environmental monitoring visits or to lead environmental trainings, etc.
2. Fringe Benefits	A set percentage applied to the staff salaries to cover employment benefits, such as retirement, insurance, etc.	See 'Salaries'
3. Non-Employee Labor	Consultants or others hired who are not staff.	Time required for implementation and monitoring of environmental safeguards, e.g., for preparation of environmental compliance documents, for environmental monitoring visits or to lead environmental trainings, etc.
4. Travel and Transport	International, regional, and in-country air travel and per-diem; transport of goods.	Expenses to bring staff to the field for development of compliance documents, training, environmental monitoring, etc. Cost to move materials to implement an environmental mitigation measure, such as fencing to protect a potable water source.
5. Overseas Allowances	Housing, dependent education, rest and relief, danger pay, etc.	See 'Salaries.'
6. Program Supplies	Materials used in the office, used for trainings when purchased at one time for occasional use, for construction, warehouses, or for project delivery (e.g., disposable testing kits, bandages, clothes).	Supplies or commodities procured to implement mitigation measures, e.g., water testing kits, culverts, fencing, seedlings, containers for medical sharps, etc.
7. Other Direct Costs	Any costs not detailed above, except indirect costs ("NICRA"), which are included for the overall program budget	Development, printing, and dissemination of educational or awareness materials such as posters, videos, radio broadcasts, etc. Legal fees around local environmental permitting.

8. Staff Training	Costs of conducting or attending trainings.	Training costs for staff in safe fumigation, fuel efficient cooking, environmental compliance, safer use of pesticides, etc.
9. Sub-Awards	Grants to other entities.	Program sub-awardee expenses for implementing environmental mitigation measures, trainings, community incentive awards, etc.
10. Sub-Contracts	Contracts to other entities.	Contracts for carrying out Environmental Assessments (e.g., for roads or irrigation), developing PERSUAPs, conducting ground water analyses, conducting trainings, etc.
11. Equipment over \$5000	Non-expendable equipment and materials.	Vehicles to be used for environmental monitoring field visits.

*Note that this table does not include the following Object Class Categories because of their lack of explicit relevance for environmental compliance budgeting decisions: USAID Branding & Marketing, Indirect Costs, and OMB Circular A-133 Audits.