

Scenario:

You are a headquarters based-staff member responsible for supporting a \$20 million Food For Peace project in Orzania, a semi-arid country in Sub-Saharan Africa. Several of the communities your project is working with are along the same road, which becomes impassable every rainy season and several areas are washed out annually.

As part of your project, you will rehabilitate 80 kilometers of this road so the communities can access markets to sell the products your project is promoting. The road runs parallel to a river that is a source of drinking water for many people, as well as a source of water for washing clothes and fishing. The distance between the road and the river ranges from 10-50 meters.

Between the road and river there is some sparse vegetation and some agricultural areas. The other side of the road is primarily agricultural land with some houses as well. There are no forests or sensitive ecosystems near the site.

The environmental compliance specialist in your Washington DC office, working with your contacts in the field, has developed an Initial Environmental Examination (IEE) and Environmental Mitigation and Monitoring Plan (EMMP) following receipt of an Issues Letter indicating USAID/FFP's intent to award your organization the project. Project staff are beginning to be hired, including a full time, local environmental management specialist, who will report to the DCOP.

Once you receive approval from the Orzanian government and from USAID for your planned activity, the road rehabilitation work is expected to take three months.

Your assignment:

The Washington DC based environmental compliance specialist has provided you with an IEE and EMMP. Parts of the EMMP (addressing three specific activities within the road rehabilitation activity) are provided on the following two pages. Looking at these EMMP excerpts, and drawing on your experiences in project budgeting, project implementation, and environmental compliance, discuss within your table:

1. Who do you need to talk to in order to develop an environmental compliance budget?
2. What do you need to budget for (or 'what do you need to buy') to effectively implement this EMMP?
3. *(If time) How will you determine the 'price tag' for the environmental costs?*

Extracts from Road Rehabilitation EMMP¹:

Activity	Potential Impact	Mitigation Measure	Frequency	Method of Verification
1. Design for rehabilitated road.	1.1 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.	Prior to completion of design.	Review of design based on engineer's analysis.
		B. Ensure road is at least 30 meters from water bodies.	Review prior to completion of design.	-Review of design. -Visual inspection.
		C. Grade with 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 upgrades and rehabilitations are completed.	Following completion of each segment of road.	Visual inspection.
		E. Ensure community consultation.	At least three times during design process.	Review of community consultation event records.
2. Material sourcing.	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.	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.	Following construction.	Visual inspection.

¹ This EMMP is an extract and does not represent a comprehensive EMMP for road rehabilitation. For a comprehensive overview of environmental safeguards for road rehabilitation, see the following documents: Sector Environmental Guidelines: Rural Roads (2013), USAID (www.usaidgems.org/bestPractice.htm), and, Low-Volume Roads Engineering: Best Management Practice Field Guide (2003), USAID (http://pdf.usaid.gov/pdf_docs/PNADB595.pdf).

