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SUSTAINABLE FISHERIES MANAGEMENT PROJECT (SFMP)

Environmental Mitigation and Monitoring Annual Report



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THE
UNIVERSITY
OF RHODE ISLAND
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Cover photo: Mangrove nursery site at Sanwoma (Credit: Hen Mpoano)

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Resonance Global: <https://resonanceglobal.com/>
SNV: <http://www.snvworld.org/en/countries/ghana>

ACRONYMS

CEWEFIA	Central and Western Region Fishmongers Improvement Association
CBFM	Community Based Fisheries Management
CFR	Code of Federal Regulations
DAA	Development Action Association
EA	Environmental Assessment
ECO	Environmental Compliance Officer
EMMP	Environmental Mitigation and Monitoring Plan
FY	Fiscal Year
GoG	Government of Ghana
HM	Hen Mpoano
IEE	Initial Environmental Evaluation
IPs	Implementing Partners
M&E	Monitoring and Evaluation
SFMP	Sustainable Fisheries Management Project
SNV	Netherlands Development Organization
USAID	United States Agency for International Development

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OVERVIEW

USAID promotes environmentally sound design by requiring that all USAID funded activities undergo an environmental review. This is accomplished through an Initial Environmental Examination (IEE), an Environmental Assessment (EA) or a Request for a Categorical Exclusion, all in accordance with Title 22 of the Code of Federal Regulations Part 216, commonly known as 22 CFR 216 or "Reg 216."

During the FY 2015 of the USAID/Ghana Sustainable Fisheries Management Project (SFMP), an Environmental Monitoring and Mitigation Plan (EMMP) was prepared and approved by USAID. The EMMP complies with 22 CFR 216 and was prepared based on the revised USAID's Ghana Economic Growth Portfolio Initial Environmental Evaluation (IEE) which was already in place for the SFMP.

During the FY 2019 of the SFMP, all USAID environmental requirements laid down in the project Environmental Mitigation and Monitoring Plan (EMMP) were complied with to ensure no significant impact on the environment from activity implementation

REGULAR MONITORING AND INSPECTION

Monitoring protocols detailing out potential adverse impact with mitigation measures were developed for partners for activities with a negative determination with conditions, to track and monitor the progress of these activities.

Two major construction activities; the construction of the DAA fisheries training center and the rehabilitation of the CEWEFIA training center were completed in the following year. Some minor repairs and improvements were made to the facilities in FY 19 with no major environmental concerns. The general environmental conditions of these facilities were good. There was no standing water in and around the site.

SFMP supported the construction of improved fish smoker ovens (*Ahotor*) in previous years to improve their smoking activities and also reduce the health risk associated with the use of the traditional *Chokor* ovens. SFMP did not support any direct construction of ovens but trained artisans in construction where environmental considerations were covered as part of the training. There were 131 fish processors that were recently provided loans by MASCLOC, in part, to support acquisition of Ahotor ovens and women were advised to use only those artisans that have been trained and certified.

The Ankobra CBFM committee and Densu Oyster Pickers Association continued mangrove reforestation activities in previously identified degraded areas of each ecosystem. In the Densu, women harvesters undertook an oyster reef restoration by returning several boat loads of harvested shells to oyster growing sites in the estuary.

ENVIRONMENTAL MITIGATION AND MONITORING TABLE

Most activities that partners were implementing had no negative determination with conditions. Activities conducted in the FY 2019 period that had conditions and required monitoring and /or mitigation plans are included in the table below.

Table 1: Activities with negative determination with conditions

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/ method	How often		Date	Result	Follow-up
Activity 4.2 Integrated Community Fisheries Management and Resilience Plans for the Ankobra River Estuarine and Mangrove Ecosystem								
4.2.15 Mangrove Forest Restoration efforts within the CBFM plan area								
<p>Section 3.3 Fisheries Extension and Coastal Forests:</p> <ul style="list-style-type: none"> Identify appropriate reforestation techniques MUST be monitored to assure that promoted techniques are appropriate to the specific local context. Evaluation must be conducted with full attention to potential adverse impacts, Promoted species must be endorsed for use by the relevant governmental authority; Promoted/utilized biologic agents for soil fertility enhancement (if any) must be approved by the cognizant GoG entity and must be used/ promoted in conformity with the directives and restrictions attached to such approval. Use pesticides only in conformity with the provisions of a duly approved PERSUAP specifically designated as covering the activity in question. In the absence of such a PERSUAP, pesticide use is NOT permitted. Seed distribution (if any) and input provision must be consistent with the above requirements. 	HM, DAA	Review and screening of all documents, advocacy materials, and training curricula to ensure they are environmentally sound and follow the points outlined in the mitigation measures	Review and screening of materials	During mangrove establishment period	NA	Oct 2018 to Sept 2019	Additional planting in Densu and Ankobra estuaries followed past practices. During nursing of the mangrove seedlings, it was ensured that no chemicals (fertilizers & pesticides) were used. The species nursed were the dominant mangrove species of the area and the	The nursery establishment activity has been completed in the previous year, and some additional replanting carried out this year. Going forward, there will be monitoring of the replanted sites by the community

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<p>Treated seed must be dyed and seed distribution must be accompanied by education regarding appropriate handling and non-edibility.</p> <ul style="list-style-type: none"> • Demonstration and extension activities may not use/promote genetically modified cultivars. Such support can only be undertaken in conformity with USAID’s biosafety procedures and requires an associated amendment to this IEE. • Integrate significant stakeholder consultation, including customary users of resources 						<p>preferred species by the community (<i>Rhizophora</i> and <i>Avicenia Sp</i>)</p> <p>DAA and DOPA undertook oyster reef restoration in the Densu, returning harvested shells to oyster growing areas.</p>	<p>associations and no further support forthcoming from the project for this activity.</p>	
Activity 4.5 Central and Western Region Fishing Community Livelihood Development Value Chain and Post-harvest Improvements								
Activity 4.5.14: Construction of DAA fisheries training center								
<p>IEE Section 3.5 Infrastructure: Agricultural plots and nurseries/6.1 rehabilitation or new facilities less than 1000M2</p> <p>1. During construction, IPs must ensure that contractors:</p> <ul style="list-style-type: none"> • Desist from extracting fill, sand or gravel from waterways or ecologically sensitive areas • Identify and implement any feasible measures to increase the probability that forest products like timber are procured from legal, well-managed sources. 	DAA	Completed review and screening form to ensure that the construction activity is environmentally sound and follow the points outlined in the mitigation measures in the IEE/EMMP	Environmental and monitoring forms for the construction of the DAA Fisheries Training Center	Monthly visits during construction work	NA	Oct 2018-April 2019	Minor repairs and improvements made to previously completed construction – new doors and roof leakage.	Activity completed successfully.

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<ul style="list-style-type: none"> • Minimize the use of heavy machines • Construction must be managed so that no standing water on the site persists more than 4 days; • Prevent dumping of hazardous materials. Burn waste materials that are not reusable/readily recyclable, do not contain heavy metals and are flammable • Concentrate noisiest types of work into as short a period as possible, and during least disruptive times of the day. Take measures to keep dust to a minimum • Bore hole to be dug for domestic use should be tested for arsenic, coliform, nitrates and nitrites. <p>2. No lead-based paint shall be used. When lead-free paint is used, it will be stored properly so as to avoid accidental spills or consumption by children; empty cans will be disposed of in an environmentally safe manner away from areas where contamination of water sources might occur; and the empty cans will be broken or punctured so that they cannot be reused as drinking or food containers.</p> <p>3. Waste handling equipment and infrastructure. USAID intervention must result in the facilities' possessing adequate provision for handling the wastes they may generate; including human wastes.</p> <p>4. In terms of safety and health risks;</p> <ul style="list-style-type: none"> • The contractor that will be responsible for the rehabilitation works will be required to have a Health & Safety Plan. • The contractor will train the construction staff on the Health & Safety Plan. 		Field reports of physical inspection during and after construction by the Env. Comp. Officer	Field Reports during construction					

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<ul style="list-style-type: none"> The contractor will be required to provide training on proper use of equipment. The contractor will provide personal safety equipment to all workers (i.e. hard hats, goggles, steel-toed boots, gloves, dust masks). The contractor will provide firefighting equipment/measures. The contractor will ensure proper storage of building materials. The contractor provides medical services (access to a first aid kit). Prevent access to site at all times by unauthorized persons 								
Activity 4.5.20: Rehabilitation of the CEWEFIA fisheries training center								
<p>IEE Section 3.5 Infrastructure: Agricultural plots and nurseries/6.1 rehabilitation or new facilities less than 1000M2</p> <ul style="list-style-type: none"> During construction, IPs must ensure that contractors: Desist from extracting fill, sand or gravel from waterways or ecologically sensitive areas Identify and implement any feasible measures to increase the probability that forest products like timber are procured from legal, well-managed sources. Minimize the use of heavy machines Construction must be managed so that no standing water on the site persists more than 4 days; Prevent dumping of hazardous materials. Burn waste materials that are not reusable/readily 	CEWEFIA	<p>Completed review and screening form to ensure that the construction activity is environmentally sound and follow the points outlined in the mitigation measures in the IEE/EMMP</p> <p>Field reports of physical inspection during and after construction by the Env. Comp. Officer</p>	<p>Environmental and monitoring forms for the construction of the CEWEFIA Fisheries Training Center</p> <p>Field Reports during and immediately following construction</p>	During construction activities	NA	Oct 2018 – April 2019	Some minor finishing work done on the final construction.	<p>Activity completed successfully</p> <p>Area around the building is sandy/mud and occasionally water puddles in some areas. Funds have been allocated in FY 20 to</p>

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<p>recyclable, do not contain heavy metals and are flammable</p> <ul style="list-style-type: none"> • Concentrate noisiest types of work into as short a period as possible, and during least disruptive times of the day. Take measures to keep dust to a minimum • Bore hole to be dug for domestic use should be tested for arsenic, coliform, nitrates and nitrites. • No lead-based paint shall be used. When lead-free paint is used, it will be stored properly so as to avoid accidental spills or consumption by children; empty cans will be disposed of in an environmentally safe manner away from areas where contamination of water sources might occur; and the empty cans will be broken or punctured so that they cannot be reused as drinking or food containers. • Waste handling equipment and infrastructure. USAID intervention must result in the facilities' possessing adequate provision for handling the wastes they may generate; including human wastes. • In terms of safety and health risks; • The contractor that will be responsible for the rehabilitation works will be required to have a Health & Safety Plan. • The contractor will train the construction staff on the Health & Safety Plan. • The contractor will be required to provide training on proper use of equipment. • The contractor will provide personal safety equipment to all workers (i.e. hard hats, goggles, steel-toed boots, gloves, dust masks). • The contractor will provide firefighting 							provide pavers/gravel around the perimeter to reduce potential puddling of water.	

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<p>equipment/measures.</p> <ul style="list-style-type: none"> The contractor will ensure proper storage of building materials. The contractor provides medical services (access to a first aid kit). <p>Prevent access to site at all times by unauthorized persons</p>								
Activity 4.5.6: Fisheries value chain improvements and livelihoods								
<p>IEE Section 3.5 Infrastructure: Agricultural plots and nurseries/6.1 rehabilitation or new facilities less than 1000M2.</p> <p>1. Site Selection</p> <ul style="list-style-type: none"> Average slope of less than 5% and is not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area. The site is not within 30m of a permanent or seasonal stream or water body <p>2. Construction</p> <ul style="list-style-type: none"> IPs must desist from extracting fill, sand or gravel from waterways or ecologically sensitive areas IPs must identify and implement any feasible measures to increase the probability that forest products like timber are procured from legal, well-managed sources. Construction must be managed so that no standing water on the site more than 4 days; <p>3. Refurbishments of drying shed and the training on use and maintenance of the smoking ovens</p>	Resonance	Field reports during and after construction by the Environmental Compliance Officer.	Regular field visits during construction period	During construction activities	NA	Oct 2018 – Sept 2019	No direct support provided for stove construction in FY 19. All previous construction completed in the previous year.	N/A

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/method	How often		Date	Result	Follow-up
<ul style="list-style-type: none"> IP shall create awareness among users on the environmental damage of unsustainable use of grown woodlots <p>4. Safety and health</p> <ul style="list-style-type: none"> The contractor will: <ul style="list-style-type: none"> - Be required to have a Health and Safety Plan. - Be required to train the construction staff on the Health and Safety Plan. - Provide training on proper use of equipment. - Provide personal safety equipment to all workers (i.e. hard hats, goggles, steel-toed boots, gloves, dust masks). - Provide firefighting equipment/measures. <p>Provide medical services (access to a first aid kit).</p>								
<p>IEE Section 3.5 Infrastructure: Agricultural plots and nurseries/6.1 rehabilitation or new facilities less than 1000M2.</p> <p>5. Site Selection</p> <ul style="list-style-type: none"> Average slope of less than 5% and is not heavily forested, in an otherwise undisturbed local ecosystem, or in a protected area. The site is not within 30m of a permanent or seasonal stream or water body <p>6. Construction</p> <ul style="list-style-type: none"> IPs must desist from extracting fill, sand or gravel from waterways or ecologically sensitive areas IPs must identify and implement any feasible measures to increase the probability that forest products like timber are procured from legal, well-managed sources. Construction must be managed so that no standing water on the site more than 4 days; 	CEWEFIA	Field reports during and after construction by the Environmental Compliance Officer.	Regular field visits during construction period	During construction activities	NA	Oct 2018 – Sept 2019	10 Hct. Woodlot developed by CEWEFIA was handed over to beneficiaries. Certificate of registration provided to youth group. Additional final training provided on sustainable management of woodlot plantation	No additional follow-up planned as the woodlot fully turned over to beneficiaries.

Mitigation Measure	Responsible Party	Monitoring Scheme			Estimated cost	Monitoring Log		
		Indicators	Data source/ method	How often		Date	Result	Follow-up
<p>7. Refurbishments of drying shed and the training on use and maintenance of the smoking ovens</p> <ul style="list-style-type: none"> IP shall create awareness among users on the environmental damage of unsustainable use of grown woodlots <p>8. Safety and health</p> <ul style="list-style-type: none"> The contractor will: <ul style="list-style-type: none"> - Be required to have a Health and Safety Plan. - Be required to train the construction staff on the Health and Safety Plan. - Provide training on proper use of equipment. - Provide personal safety equipment to all workers (i.e. hard hats, goggles, steel-toed boots, gloves, dust masks). - Provide firefighting equipment/measures. <p>Provide medical services (access to a first aid kit).</p>								