

SPRING/Ghana Environmental Mitigation and Monitoring Plan (EMMP)

2016



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The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project is a five-year USAID-funded Cooperative Agreement to strengthen global and country efforts to scale up high- impact nutrition practices and policies and improve maternal and child nutrition. The project is managed by JSI Research & Training Institute, Inc., with partners Helen Keller International, the Manoff Group, Save the Children, and the International Food Policy Research Institute.

DISCLAIMER

This participant guide is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement AID-OAA-A-11-00031 (SPRING), managed by JSI Research & Training Institute, Inc. (JSI). The contents are the responsibility of JSI, and do not necessarily reflect the views of USAID or the United States Government.

ACKNOWLEDGEMENTS

SPRING would like to thank John Nene-Osom Azu, Proven Ag Solutions, for his contributions to this document.

RECOMMENDED CITATION

SPRING. 2016. *SPRING/Ghana: Environmental Mitigation and Monitoring Plan (EMMP)*. Arlington, VA: Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project.

SPRING

JSI Research & Training Institute, Inc.
1616 Fort Myer Drive, 16th Floor
Arlington, VA 22209 USA
Phone: 703-528-7474
Fax: 703-528-7480
Email: info@spring-nutrition.org
Internet: www.spring-nutrition.org

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Acronyms

C-IYCF	community infant and young child feeding
EIA	Environmental Impact Assessment
EMMP	Environmental Mitigation and Monitoring Plan
EPA	Environmental Protection Agency
EPI	Environment Protection Inspector
FANRPAN	Food, Agriculture, and Natural Resources Policy Analysis Network
FASDEP II	Food and Agriculture Sector Development Policy
FFNS	farmer field and nutrition school
GIDA	Ghana Irrigation Development Authority
IEE	Initial Environmental Examination
IP	implementing partner
IR	Intermediate Result
LOP	life of project
METASIP	Medium Term Agriculture Sector Investment Plan
MOFA	Ministry of Food and Agriculture
NEP	National Environmental Policy
NGO	non-governmental organization
NIDMAP	National Irrigation Development Master Plan
OFSP	orange-fleshed sweet potatoes
QI	quality improvement
RCC	regional coordinating council
SADA	Savannah Accelerated Development Authority
SPRING	Strengthening Partnerships, Results, and Innovations in Nutrition Globally project
USAID	United States Agency for International Development
WASH	water, sanitation, and hygiene
WRC	Water Resources Commission
ZOI	zone of influence

1. Introduction

1.1 Background

Background

The Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) is a five-year integrated project and partnership effort under USAID's Feed the Future program being implemented in Ghana to provide technical support to USAID and its partners, international organizations, non-governmental organizations (NGOs) and implementing partners (IPs), to promote appropriate policies and programs that enhance country-led nutrition programs to reach vulnerable populations at scale, especially women, infants, and young children. SPRING's overarching vision is to reduce under-nutrition, focusing in particular on the prevention of stunting among children under two years of age in Ghana.

To meet its mandate, SPRING will provide technical assistance to accelerate action on nutrition policies, build the capacity of countries to design, implement and evaluate scalable nutrition programs; build the evidence base for multi-sectoral nutrition actions; promote effective delivery of a core package of high impact nutrition interventions, and document country-specific approaches to scale-up nutrition programs. These actions will be undertaken in partnership with a range of actors at the global, regional, and national levels. SPRING will strengthen, design, and implement quality country programs, and build on field experience and research activities to improve and expand the evidence base, methods, and global standards for nutrition programming. At the global level, SPRING's technical focus areas are social and behavioral change, preventing anemia, strengthening systems for nutrition, and linking agriculture and nutrition.

Purpose and Scope

By its regulation 22CFR216, USAID requires that the environmental consequences of all activities funded by the Agency are identified and considered in the design and implementation of those activities prior to final decisions to proceed, and that environmental safeguards are adopted to ensure that significant environmental harm is circumvented. Consequently, USAID has developed an Initial Environmental Examination (IEE) for Feed the Future in Ghana which provides the first review of reasonably foreseeable environmental effects of the program, as well as recommended Threshold Decisions for the expected interventions under the program. The IEE identified the potential environmental impacts and mitigation measures required to adequately reduce the potential damage to human health and the environment.

This Environmental Mitigation and Monitoring Plan (EMMP) is prepared in fulfillment of regulation 22CFR216 which requires that where the IEE recommends Negative Determination with Conditions for any activity/intervention, the implementing agency should submit an EMMP detailing how anticipated environmental impacts can be addressed for USAID's approval. This EMMP is designed to present environmental mitigation measures specific to the IEE to integrate in the SPRING life of project (LOP) to safeguard that interventions do not adversely affect the environment and human health.

1.2 Methodology

Gathering information for the preparation of the EMMP was undertaken through literature review, field visits to selected sites in SPRING's operational areas, consultations with government and non-governmental agencies, interviews with project participants, and online research.

This EMMP focuses on relevant environmental policies in Ghana, the SPRING project objectives and outputs, and recommended environmental threshold determination and mitigation plan for specific project activities.

2. Environmental Policies, Procedures, and Institutional Framework

The various policies, procedures and institutional framework governing issues related to the environment are as follows:

USAID Environmental Compliance Procedures

According to Title 22, Code of Federal Regulations, Part 216.1 (b) of the USAID Environmental Compliance Procedures, it is USAID's policy in its assistance programs to:

- Ensure that environmental consequences of USAID-funded activities are identified and considered in the design and implementation of activities prior to final decisions to proceed;
- Assist countries in strengthening their environmental evaluation capabilities;
- Define limiting environmental factors that constrain development; and,
- Identify activities that can assist in sustaining or restoring the natural resource base.

The Constitution of the Republic of Ghana 1992

The Constitution of the Republic of Ghana 1992 requires that all citizens protect and safeguard the Republic of Ghana's natural environment and its territorial waters. It further makes provisions that protect the right to private and state properties, and sets principles under which citizens may be deprived of their property in the interest of the public.

National Environmental Policy (NEP), 1992, 2010

From the Environmental Monitoring and Mitigation Plan for USAID/Ghana's Sustainable Fisheries Management Project

"The first National Environmental Policy was adopted in 1992 to provide the broad framework for the implementation of the National Environmental Action Plan. The 1992 Policy identified a restructured lead agency (The Environmental Protection Agency, EPA) to drive the process towards sustainable development. It sought to ensure reconciliation between economic development and natural resource conservation, to make a high quality environment a key element supporting the country's economic and social development. In 2010, a new National Environmental Policy was developed to reflect challenges confronting environmental management as well as to effectively ensure enforcement. The new policy attempts to restructure and redirect the implementation strategy to achieve desired results," (2014).

EPA Act 1994 (Act 490)

The Environmental Protection Agency (EPA)

The EPA was established under the Environmental Protection Agency Act (Act 490 of 1994) as the leading public body responsible for the protection and improvement of the environment in Ghana. The act establishes the authority, responsibility, structure, and funding of the Environmental Protection Agency. It grants the EPA the powers to formulate environmental policies, issue environmental permits and pollution abatement notices, prescribe environmental standards and guidelines, as well as enforce compliance with such standards and guidelines. The Act further mandates the EPA to seek common solutions to global environmental problems.

It is responsible for enforcing environmental policy and legislation, prescribing standards and guidelines, inspecting and regulating businesses and responding to emergency incidents. It is responsible for issuing environmental permits and pollution abatement notices for controlling waste discharges, emissions, deposits or other sources of pollutants and issuing directives, procedures or warnings for the purpose of controlling noise (Irvine, De Jong & Armah, 2009, p.1)

Environmental Assessment Regulation 1999 (LI 1652) and Environmental Assessment (Amendment) Regulations, 2002 (LI 1703)

A principal enactment within the Environmental Protection Act (Act 490 of 1994) requires that an Environmental Impact Assessment (EIA) process be undertaken for developments that are likely to have significant impacts on the environment. It sets out procedures under which the EIA must be conducted and clearly defines the environmental permitting processes, (Avoka, 1999; Fobih, 2002).

From Osei Bonsu Dickson's "Ghana's Environmental Protection Act of 1994 (Act 490) and the Offshore Petroleum Industry - Marine Environmental Pothole Filling":

"The Environmental Protection Act, 1994 maps the mandate, functions, structure and funding of the EPA. The mandate of the EPA includes formulating environmental policy and making recommendations for the protection of the environment. The EPA is responsible for ensuring compliance with EIA procedures in the planning and implementation of development projects, including compliance with respect to existing projects. This requires that any project likely to have potentially adverse effects on the environment be subjected to an EIA.

The EPA is responsible under section 2(f) of EPA Act 1994 for the issuance of environmental permits and pollution abatement notices for controlling waste discharges, emissions, deposits, or other sources of pollutants. They also issue notices in the form of directives, procedures, or warnings for the purpose of controlling noise in the environment. Under section 2(h) it is the EPA function "to prescribe standards and guidelines relating to air, water, land and other forms of environmental pollution including the discharge of wastes and the control of toxic substances." Under section 12 (1) "The Agency may by notice in writing require any person responsible for any undertaking which in the opinion of the Agency has or is likely to have adverse effect on the environment to submit to the Agency in respect of the undertaking an environmental impact assessment containing such information within such period as shall be specified in the notice". Also, under Section 15(1), The EPA working through Environment Protection Inspectors (EPIs), referred to in the Act as "Inspectors," have the power to enter and inspect at any reasonable time premises for the purpose of ensuring compliance with environmental law. These sweeping powers taken together imply that the EPA at least in theory can generally manage or control environmental risks resulting from E&P activities" (2011).

Ministry of Food and Agriculture

The Food, Agriculture, and Natural Resources Policy Analysis Network (FANRPAN)

"The Ministry of Food and Agriculture (MOFA) is the lead agency and focal point of the Government of Ghana, responsible for developing and executing policies and strategies for the agriculture sector within the context of a coordinated national socio-economic growth and development agenda. By means of a sector-wide approach, the Ministry's plans and programs are developed, coordinated, and implemented through policy and strategy frameworks. In this regard, MOFA facilitated the preparation of the Food and Agriculture Sector Development Policy (FASDEP II) and the Medium Term Agriculture Sector Investment Plan (METASIP 2010-15). MOFA's Mission is to promote sustainable agriculture and thriving agribusiness through research and

technology development, effective extension, and other support services to farmers, processors, and traders for improved livelihoods.”

Based on the role of agriculture in the national development framework, FASDEP II has the following as its objectives: Food security and emergency preparedness, improved growth in incomes, increased competitiveness and enhanced integration into domestic and international markets, sustainable management of land and environment, science and technology applied in food and agriculture development, and improved institutional coordination.”

The Ghana Irrigation Development Authority (GIDA) falls under this ministry. The “irrigation policy addresses the problems, constraints and opportunities, which cut across the whole irrigation sub-sector; and specifically for informal, formal and commercial irrigation (Lamprey, Nyamdi, & Minta, 2011, p. ii). It will be complemented with a strategic framework called National Irrigation Development Master Plan (NIDMAP) to specify how the strategies in this document will be implemented in order to put an area of 500,000ha under irrigation in the medium term.

Water Resources Commission (WRC) Act 522, 1996

From the Water Resources Commission:

“The Water Resources Commission (WRC) was established by an Act of Parliament (Act 522 of 1996) as the overall body responsible for water resources management in Ghana. WRC Act 522 of 1996 provides a comprehensive law to establish a separate water resources management institution in Ghana.

Water resources are now vested in the President for and on behalf of the people of Ghana-Article 12. There is no private ownership of water resources in Ghana. Water resources management is consistent with general natural resources management in Ghana and the 1992 Constitution (articles 268 and 269). The Act prohibits the use of water resources without prior authorization and grant of water use rights from the WRC.

Section 2 (2) of the Act provides the functions of the WRC, which includes:

- Propose integrated water resources management plans to guide the utilization, conservation, development, and improvement of water resources;
- Initiate, control and coordinate activities connected with the development and utilization of water resources;
- Grant water rights;
- Collect, collate, store, and disseminate data or information on water resources;
- Engage water sector agencies to undertake scientific investigations, experiments or research into water resources;
- Monitor and evaluate programs for the operation and maintenance of water resources;
- Advise the Government on any matter likely to have adverse effect on the water resources;
- Advise pollution control agencies in Ghana on matters concerning the management and control of pollution of water resources; and,
- Perform such other functions as are incidental to the foregoing,” (2016)

This Commission also “provides for the preparation of comprehensive plans for the regulation, utilization, conservation, development, and improvement of water resources and develops policy framework for water resources management in the country. This Act also grants rights to exploit water resources,” (Coastal Resources Center, 2014, p.19).

National Water Policy

The National Water Policy provides a framework for the development of Ghana's water resources to "achieve sustainable development, management, and use of Ghana's water resources to improve health and livelihoods, [and] reduce vulnerability while assuring good governance for present and future generations," (Ministry of Water, Works and Public Housing, 2007, p. 19)

The Local Government Act 1993, Act 462

The Local Government Act 1993, Act 462 empowers the Metropolitan/Municipal/District Assemblies "to be responsible for the development, improvement and maintenance of human settlements and environment at the district and local levels," (Coastal Resources Center, 2014, p. 20). It establishes planning departments to be responsible for the planning and development of their districts.

The new local government system is made up of a regional coordinating council (RCC) and a four-tier metropolitan and three-tier municipal/DAS structure.

Section 10(3) of Act 462 lists the functions as follows:

"a) be responsible for the overall development of the district and shall ensure the preparation and submission through the regional coordinating council for approval of the development plan to the commission and budget to minister of finance for the district b) formulate and execute plans, programs and strategies for the effective mobilization of the resources necessary for the overall development of the district c) promote and support productive activity and social development in the district and remove any obstacles to initiative and development d) initiate programs for the development of basic infrastructure and provide municipal works and services in the district e) be responsible for the development, improvement and management of human settlements and the environment in the district f) in cooperation with appropriate national and local security agencies, be responsible for the maintenance of security and public safety in the district g) ensure ready access to the courts and public tribunals in the district for the promotion of justice h) initiate, sponsor or carry out such studies as may be necessary for the discharge of any of the functions conferred by this Law or any other enactment i) perform such other functions as may be provided under any other enactment" ("A Guide to District Assemblies in Ghana," pp. 34-35).

The New Labor Act 2003, Act 651

The New Labor Act 2003 (Act 651) assigns responsibilities to employers and employees on issues of workplace safety. Section 118(1) of the Act stipulates that it is the duty of an employer to ensure that every worker employed works under satisfactory, safe and healthy conditions. Part XV of the Labor Act titled – Occupational Health, Safety and Environment provides provisions which deal with general health and safety conditions and exposure to imminent hazards. It is the employer who is to report occupational accidents and diseases within specific measures. ("Occupational Health and Safety Policy and Guidelines for the Health Sector," pp. 4-5)

National Land Policy

National Land Policy document, approved by Government in 1999, seeks to address some of the fundamental problems associated with land management in the country, including lax regulation, land encroachments, multiple sales, unplanned development, and unclear property boundaries. A weak land administration system allows for unsustainable mining practices and conflicts in ownership and use, (Amoako-Nuama, 1999) "The National Land policy aims to increase local involvement and tenure for land ownership, in part by creating a "decision-making framework that takes on board all identifiable stakeholders" (Amoako-Nuama, 1999, p.3).

"It seeks to protect a variety of habitat types, and states that all lands declared as forest reserves, strict game reserves, national parks, wildlife reserves, and similar land categories are fully protected for ecosystem maintenance and biodiversity conservation" (Coastal Resources Center, 2014).

Savannah Accelerated Development Authority (SADA)

From the Resettlement Policy Framework for the Ghana Commercial Agriculture Project

"The Savannah Accelerated Development Authority (SADA) is to coordinate the Sustainable Development Initiative for the Northern Savanna. Following severe flooding in the north in 2007, 2008, and 2009, the NDI strategy was approved by Parliament in December 2009 as a comprehensive strategy for closing the development gap with the rest of the country whilst increasing resilience to climatic extremes. SADA is overseen by a Board with a small secretariat, and have a strategy, policy and coordination mandate within the savannah ecological zone, including the three northern regions and areas of Brong-Ahafo Region. An Act establishing the Authority, its mandate and working arrangements with other MDAs [Ministry Departments and Agencies] will be elucidated in an Act expected to be passed by Parliament before Project Approval," (2013).

Pesticides Control and Management Act 1996 (Act 528)

The Act makes the EPA of Ghana the lead agency responsible for a comprehensive pesticides regulatory program, giving the EPA sole authority and responsibility to register all pesticides imported, manufactured, distributed, advertised, sold or used in Ghana (Coastal Resources Center 2014). The Act does not only regulate pesticides usage but insecticides, weedicides, and other related chemicals in Ghana.

From the Pesticides Control and Management Act, 1996 (Act no. 528):

"This Act provides for the registration of pesticides and the licensing of pesticides dealers and related matters. No person shall import, export, manufacture, distribute, advertise, sell or use any pesticide in Ghana unless the pesticide has been registered with the Environmental Protection Agency (sect. 1). Section 2 allows for the manufacture of pesticides for exportation if certain requirements are met. The Agency shall classify the pesticides for which an application for registration has been made. Pesticides classified as "restricted", "suspended", or "banned" are subject to the Prior Informed Consent Procedure defined in section 41 of this Act (sect. 4). No person shall import, export, manufacture, distribute, advertise or sell any pesticide except in accordance with a license issued under this Act. Conditions for license may be prescribed, from time to time, by the Agency (sect. 17). Section 21 lays down certain rules with respect to use of pesticides and the harvest and sale of foodstuffs on which pesticides have been used. The powers and functions conferred upon the Agency under this Act shall be exercised by the Environmental Protection Agency Board (sect. 29). Section 30 provides for the establishment of a Pesticides Technical Committee" (1996, reprinted 2004).

National Action Plan to Combat Drought and Desertification

In the National Action Plan to Combat Drought and Desertification, Professor Kassim Kasanga

"This NAP [National Action Plan] is intended to highlight the nation's efforts at achieving sustainable development and re-emphasize the support Ghana requires to fully participate in anti-desertification efforts. The preparation of this document [the National Action Plan to Combat Drought and Desertification] has undoubtedly contributed to the creation of awareness about the dangers of desertification in the country. It is hoped that if the necessary resources are mobilized for the implementation of the programs and activities

identified in this document, then the nation would be strengthened and empowered to pursue sustainable development pathways. The implementation of these programs will ensure good agricultural practices, food security, poverty alleviation and sustainable exploitation of our natural resources and ultimately lead to the achievement of the goals of the Convention on Drought and Desertification" (2003, p. iii).

Biosafety Act, 2011

"An act to regulate biotechnology and to provide for related matters. The requirements of this act are in addition to, and not in derogation of, the requirements imposed by any other enactment. This act does not apply to genetically modified organisms that are pharmaceuticals for human use, and which are the subject of any other enactment," (The Parliament of the Republic of Ghana, 2011, p.3).

Fisheries (Amendment) Act, 2014

"An act to amend the Fisheries Act, 2002 (Act 625) to give effect to international conservation and management obligations, to empower the Minister to make regulations to combat illegal, unreported and unregulated fishing in accordance with the international obligations of the Republic and to provide for related matters," (The Parliament of the Republic of Ghana, 2014, p.2).

3. Program Objectives and Outputs

The SPRING program has five objectives with specific Intermediate Results (IRs) as shown below:

Objective 1: Improved Delivery of High Impact Nutrition Services

IR 1.1: Reduced stockouts of key nutrition commodities and supplies

IR 1.2: Reduced training gaps among key nutrition activity providers

IR 1.3: Improved quality of high impact nutrition services

IR 1.4: Introduction of home-based fortification using multiple micronutrient powders

Objective 2: Increased Community Demand for and Use of Quality Nutrition-Related Services across Sectors (Practices and Services)

IR 2.1: Improved knowledge, attitudes, and skills regarding priority nutrition interventions

IR 2.1.2: Interpersonal Communication

IR 2.1.3: District-based First 1,000 Days mass media campaign

IR 2.1.4: School health and nutrition

IR2.2: Strengthened community-based platforms for nutrition-related strategies

Objective 3: Improve Enabling Environment for Delivery of High-Impact Nutrition Practices and Services

IR3.1: Improved coverage of key water, sanitation, and hygiene (WASH)-related equipment and infrastructure

IR3.2: Improved cross-sector coordination and action at district level

IR3.3: Leveraged participation, learning, and sharing among zone of influence (ZOI) stakeholders

Objective 4: Increase Use of Nutrition-Sensitive Agriculture Practices

IR4.1: Reduced exposure to, and consumption of, aflatoxin

IR4.2: Expanded LEAP cash transfer activities to eligible pregnant and lactating mothers

Objective 5: Enhance Policy Environment for Delivery of State-of-the-Art Nutrition Interventions

4. Recommended Threshold Determinants for Expected Interventions

Table 2: Recommended Threshold Determinations for Expected interventions as per the IEE

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
Objective 1: Improved Delivery of High-Impact Nutrition Services	
IR 1.1 Reduced stockouts of key nutrition commodities and supplies	
1.1.1 Collaborate with DELIVER, UNICEF, and the GHS to assess current supply chain constraints and develop recommendations for eliminating bottlenecks in the Northern and Upper East regions.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
1.1.2 In coordination with DELIVER and UNICEF, conduct a rapid facility assessment in priority project districts to identify remaining equipment and supply needs, and to procure equipment and supplies as needed to ensure capacity to perform.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
1.1.3 If deemed necessary, support GHS in establishing or strengthening an SMS based emergency stockout request and response system for each district, and refining routine nutrition supply chain systems at both district and CHPS level.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment such as construction of facilities, etc.
1.1.4 If deemed necessary, collaborate with DELIVER and UNICEF to support commodity management training at both the CHPS and district level.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment such as construction of facilities, etc.
1.1.5 Investigate IFA procurement and product options to address perceived poor quality.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
1.1.6 In collaboration with GHS and UNICEF, conduct semi-annual facility assessments to monitor progress in supply availability, and identify and accommodate any shortfalls. Where possible, this work will be aligned with supportive supervision visits.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
IR1.2: Reduced training gaps among key nutrition activity providers	
1.2.1 Assess current coverage of trained providers (C-IYCF), and develop a schedule with UNICEF and GHS to ensure full coverage (i.e. achievement of defined competency criteria) within PY 1.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
1.2.2 If requested by GHS, SPRING will top-up CMAM trainings where required and where they are not accommodated in existing UNICEF/GHS plans.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.2.3 Support C-IYCF and F-IYCF cascade training and development of support groups, where agreed upon with UNICEF and GHS.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.2.4 Develop a "continuing education" course in C-IYCF for front-line providers and convene trainings for "champions" annually to further their learning. These trainings will provide a platform for introducing any new education training modules.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance or training programs, except to the extent such programs include activities directly affecting the environment.
1.2.5 In collaboration with UNICEF and GHS, develop a system to monitor staff rotation within prioritized districts, identify newly rotated staff requiring training in C-IYCF, and support periodic catch-up trainings for these personnel.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.2.6 In collaboration with UNICEF and GHS, establish competency criteria regarding minimum trained staff allocations at each facility level, and minimum performance standards for each trained staff. Deploy a monitoring and follow-up system.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
1.2.7 Refresh anemia training materials in collaboration with GHS and UN agencies, and develop regional pools of master trainers.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.2.8 Conduct cascade training in anemia treatment and prevention within health facilities and CHPS in target districts.	Categorical exclusion recommended pursuant to 22 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
IR 1.3: Improved quality of high impact nutrition services	
1.3.1 Agree with GHS on the technical support visit approach, and develop and/or adapt training and tools for supportive supervision and coaching (targeting SPRING, NGO partners, and GHS).	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
1.3.2 Train key GHS staff at sub-district, district, and regional levels on monitoring/supervision tools and skills	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.3.3 Train NGO-partner based coaches to provide ongoing support to community-	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
based C-IYCF support group facilitators	consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.3.4 Ensure a minimum of four TSVs to each CHPs annually, and ensure targeted ongoing coaching for support group facilitators through NGO partners	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.3.5 Collaborate with the GHS Institutional Care Division and others from national to sub-district levels to ensure a nutrition continuum of care is adequately accommodated in QI processes	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(xiv) for studies, projects, or programs intended to develop the capability of recipient countries to engage in development planning, except to the extent designed to result in activities directly affecting the environment (such as construction of facilities, etc.).
1.3.6 Provide technical support to established QI coaches and QI teams to take on nutrition-related QI projects	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.3.7 Establish and manage a QI small grants program to accommodate needs of specific nutrition QI projects	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
1.3.8 Establish and maintain nutrition and market surveillance systems to support feeding recommendations for moderately malnourished children and women.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops and meetings
IR 1.4. Introduce home-based fortification using multiple micronutrient powders	
1.4.1 Engage in national-level discussions regarding future directions for MNP roll-out, and ensure project approach is aligned with national strategy over time.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
1.4.2 In collaboration with GHS and the MNP task force, develop a MNP implementation plan, technical specifications, and packaging specifications. Seek approval from appropriate authorities.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i), for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.).
1.4.3 Collaborate with DELIVER and GHS to procure and ensure timely delivery of MNPs from the national level through the CHPS compound level. Possibly deliver through other vendors.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
1.4.4 Develop training modules and job aids associated with MNP roll-out.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
	programs include activities directly affecting the environment.
1.4.5 Train GHS staff at regional, district, and facility/CHPS levels in standard operating procedures for the distribution and management of MNPs.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
Objective 2: Increased Community Demand for and Use of Quality Nutrition-Related Services Across Sectors (Practices and Services)	
IR 2.1: Improved knowledge, attitudes, and skills regarding priority nutrition interventions	
2.1.1 Develop a SPRING multi-sector communication strategy.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.1a Conduct desk review of existing messaging and materials at national and subnational levels, and draft a landscape analysis focused on northern Ghana including GAIN's FES and Optifood exercises to inform seasonal, market-led programming.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
2.1.1b Conduct targeted/rapid formative research to fill any knowledge gaps on key behavior and concepts (collaboration among all SPRING technical components).	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
2.1.1c Develop an overarching communication cross-sector strategy and detailed communication work plan for the SPRING project.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.2 Interpersonal Communication	
2.1.2a Develop and/or adapt training modules to improve counseling or other IPC communication efforts related to SPRING activities such as: C-IYCF, IFA distribution for women and adolescent girls, WASH and aflatoxin reduction measures, and other priority areas identified in the communication strategy.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.2b. Develop and test job-aides, both print and video, for priority areas identified in the communication strategy.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.2c Develop and test materials for clients/program participants that facilitate the practice of nutrition-promoting behaviors.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
	natural or physical environment.
2.1.2d Print/upload electronically and disseminate job-aids, and SBCC materials.	Categorical exclusion recommended pursuant to 22 CFR 22 216.2 (c)(2)(v) for document and information transfers.
2.1.2e Support training in prioritized IPC-related topics not covered in the C-IYCF roll-out described under IR 1.2, including potential trainings associated with other sectors.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.1.2f Strengthen the system (possibly through WhatsApp) and ensure provision of IPC-related supervision and coaching, as alluded to under IR 1.2.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.1.1a Develop, test, and air a short video/documentary with discussion guide on stunting in northern Ghana, focused on the causes, consequences of, and a call to action.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.3 District-based First 1,000 Days mass media campaign	
2.1.3b Establish qualified vendors for SBCC: graphics, scriptwriters, and health/social media experts.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.1.3c Develop (with community members) videos of their success with nutrition-related activities to be shown to communities to illustrate what can be achieved.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.3d Build capacity of district-contracted drama groups over time to produce compelling dramas and discussion guides on WASH, and other related nutrition topics. The best will be filmed for broader dissemination.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.1.3e. Develop radio programs, to support the First 1,000 Days programming, and then disseminate in a timely, efficient manner.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.3f. Build capacity of local radio stations to contribute to region-wide programs.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
2.1.3h. Develop and air centralized project messages over SMS and radio.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies, and materials) that do not have an effect on the natural or physical environment.
2.1.4 School health and nutrition	
2.1.4a. Develop messaging and materials regarding iron for adolescent girls and deworming where appropriate.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.1.4b. Develop and implement operational research for the IFA for adolescent girls.	Categorical exclusion recommended pursuant to 22 CFR 22 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
2.1.4c. Implement research based on agreed protocols.	Categorical exclusion recommended pursuant to 22 CFR 22 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
IR2.2: Strengthened community-based platforms for nutrition-related strategies	
2.2.1 Identify active community-based organizations, and where appropriate, link them to capacity-building grants.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.2.2 Undertake RFP for LNGOs for the community QI approach and develop a skill base.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.2.3 Undertake 1,000 Day QI in target districts.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.2.4 Review QI approach and adapt it for rollout.	Categorical exclusion recommended pursuant to 22 CFR 22 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
2.2.5 Work with SPRING's messaging partner to build capacity of CBOs to communicate key messages related to nutrition, WASH, and health services, among and within their communities.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
2.2.6 Work with existing VSLA (and establish where not currently present) to develop a savings buffer that reduces vulnerability during lean season.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
	programs include activities directly affecting the environment.
2.2.7 Conduct a stock take in target districts of existing groups and structures and engage in BCC design and engagement in analyzing the issues faced in nutrition at the community level, and to provide key access points for formative research and participatory monitoring of project activities.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
2.2.8 Reach out to Feed the Future-supported farmer networks to assess and implement SBCC, targeting the 1,000 day households	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
Objective 3: Improve Enabling Environment for Delivery of High Impact Nutrition Practices and Services	
IR3.1: Improved coverage of key WASH-related equipment and infrastructure	
3.1.1 In collaboration with UNICEF, support district level planning sessions to review current WASH and CLTS-related efforts, identify gaps, and gain consensus on SPRING's role in addressing these gaps.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
3.1.2 Using Government partners, facilitate community discussions using a CLTS approach, and develop CLTS action plans.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops and meetings.
3.1.3 Review CLTS agenda to incorporate the WASH 1,000 agenda and adapt.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
3.1.4 Implement WASH 1,000 through previous CLTS methods to target 1,000 Day households	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(viii) for programs involving nutrition, healthcare, or population, and family planning services, except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, and treatment of water in the households).
3.1.5 Introduce and distribute tippy-taps to promote handwashing at key times.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(viii) for programs involving nutrition, healthcare, or population and family planning services, except to the extent designed to include activities directly affecting the environment (such as construction of facilities).
3.1.6 Support uptake of home-based water treatment processes.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(viii) for programs involving nutrition, healthcare, or population and family planning services, except to the extent designed to include activities directly affecting the environment (such as construction

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
	of facilities, water supply systems, waste water treatment, and treatment of water in the households).
IR3.2: Improved cross-sector coordination and action at district level	
3.2.1 Collaborate with REACH and the Regional Planning Group to establish a government led cross-sector coordination mechanism in each project district.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
3.2.2 Provide secretarial and technical support to the coordination forum, and ensure regular coordination meetings.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
IR3.3: Leveraged participation, learning and sharing among ZOI stakeholders	
3.3.1 Complete 'pathways to nutrition' workshop for all Feed the Future partners to strengthen nutrition lens across and among agricultural stakeholders at district and regional levels.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
3.3.2 Develop links with WASH, malaria, and others to expand activities during high-risk season for moderate malnutrition, including community-level educational and BCC activities	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
3.3.3 Work with family planning groups to link MNP with post-partum FP efforts.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
3.3.4 Link with FP stakeholders to review nutritional elements related to FP including maternal nutrition, postpartum hemorrhage and its contribution to anemia, MNP and post-partum FP, and develop educational/BCC tools to include with FP program activities.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
3.3.5 Maintain close linkages with other Feed the Future investments looking for opportunities to address nutrition within existing portfolios.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.

Objective 4: Increase Use of Nutrition-Sensitive Agriculture Practices

IR4.1 Reduced exposure to, and consumption of, aflatoxin

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
4.1.1 Develop and implement district level agriculture sector orientation to aflatoxin reduction and its importance in nutrition.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.1.2 Collaborate with ADVANCE and other relevant projects to determine extent of aflatoxin prevalence in stored maize at HH, community, district, and regional levels, identifying appropriate testing/ sample strategy within the chain for both rapid and laboratory-based testing.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
4.1.3 Work with MOFA and other partners on CB maize and groundnut aflatoxin reduction strategy, including training of extension agents and community agents in GAP for aflatoxin.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(xiv) for studies, projects, or programs intended to develop the capability of recipient countries to engage in development planning, except to the extent designed to result in activities directly affecting the environment (such as construction of facilities, etc.).
4.1.4 Include aflatoxin mitigation strategy with other CB platforms, including training, outreach, information (e.g. Esoko), and monitoring components.	Categorical exclusion recommended pursuant to 22 216.2 (c)(2)(xiv) for studies, projects, or programs intended to develop the capability of recipient countries to engage in development planning, except to the extent designed to result in activities directly affecting the environment (such as construction of facilities, etc.).
4.1.5 Introduce maize and groundnut post-harvest handling and storage practices at community and HH levels.	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
4.1.6 Link aflatoxin strategy to improved and labor-saving technologies, e.g. shellers, dryers, storage silos, bagging.	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
4.1.7 Develop a partnership with the private sector for demonstration plots for aflatoxin tolerant varieties and potential other field trial opportunities.	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
4.1.8 Quantify market demand associated with reducing aflatoxin in groundnuts, and partner with appropriate stakeholders to strengthen groundnut value chain in ZOI.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
4.1.9 Train vendors and processors on aflatoxin management and sorting techniques in groundnuts.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.1.10 Establish partnership with Harvest Plus and any agency in Ghana currently working on bio-fortified crops, and identify potential for crops in agreement with	Categorical exclusion recommended pursuant to 22 216.2 (c)(2)(viii) for programs involving nutrition, healthcare, or population and family planning services, except to the extent

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
MOFA.	designed to include activities directly affecting the environment (such as construction of facilities).
4.1.11 Undertake participatory on-farm trials.	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
4.1.12 Access planting material for orange flesh sweet potatoes and distribute to M2M groups	Negative Determination with conditions recommended pursuant to 22 CFR 216.3 (a)(2)(iii) for small-scale gardening/farming activities.
4.1.13 Adapt SPRING Bangladesh farmer field and nutrition school (FFNS) approach to Ghana context.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.1.14 Establish FFNS trainers and facilitators through MOFA and LNGOS.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment
4.1.15 Support the establishment of FFNS to targeted 1,000 day households.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
IR4.2 Expanded LEAP cash transfer activities to eligible pregnant and lactating mothers	
4.2.1 Strengthen LEAP cash transfer management at the district level to smooth inconsistent distribution.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.2.2 Target LEAP recipients to establish new or to join existing mother-to-mother groups.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.2.3 In districts without LEAP, strengthen VSLAs with HH cash flow management skills to support purchasing power for nutrition.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i), for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
4.2.4 Work with social welfare to introduce expanded criteria for cash transfers in four to five of SPRING's target districts, including support to families with moderately malnourished children.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(1)(i) for actions (such as development of basic tools, strategies and materials) that do not have an effect on the natural or physical environment.

Interventions	Recommended Threshold Determination 22 CFR Part 216 Citation
4.2.5 In collaboration with UNICEF, monitor/measure impact of cash transfers on key nutrition indicators.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
Objective 5: Enhance Policy Environment for Delivery of State-of-the-Art Nutrition Interventions	
5.1.1 Participate in national and regional nutrition coordination mechanisms, and provide technical support where necessary.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(iii) for analysis, studies, academic or research workshops, and meetings.
5.1.2 Support the national anemia strategy refresh and prioritized actions in collaboration with other partners.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.
5.1.3 Support the SUN secretariat initiative to develop an M&E agenda.	Categorical exclusion recommended pursuant to 22 CFR 216.2 (c)(2)(i) for all activities consisting of education, technical assistance, or training programs, except to the extent such programs include activities directly affecting the environment.

5. Environmental Management Plan

EMMP Table for SPRING/Ghana

SPRING proposes to undertake interventions involving small-scale agriculture (crop production) and other post-harvest management activities to improve nutrition for which Negative Determination with Conditions 22 CFR 216.3 (a) (2) (iii) have been recommended. The details of these activities were not specified in the IEE and have been specified in the environmental monitoring and mitigation plan in the table below:

Table 3. Environmental Monitoring and Mitigation Plan

Specific Activity	Describe specific environmental threats of your organization's activities (based on analysis in SPRING PEE and USAID/Ghana IEE)	Description of Mitigation Measure for Activities	Who is responsible for Monitoring	Monitoring Indicator	Frequency of Monitoring
1.3.7 Establish and manage a quality improvement (QI) small grants program to accommodate needs of specific nutrition QI projects	No adverse environmental impacts are anticipated; however, grants may be used on projects that have a potential to negatively affect the environment	<ul style="list-style-type: none"> The project team will institutionalize environmental review or screening for environmental impacts of all interventions being promoted to ensure they comply with local environmental laws and USAID's environmental regulation: 22CFR216; the environmental screening must identify any potential adverse impacts. The project will include an environmental compliance template into RFPs to ensure subcontractor compliance. 	Grants Manager, Senior Technical Advisor, DCOPs	Number of subcontracts issued, including environmental compliance template	Annual
4.1.5 Introduce groundnut post-harvest handling and storage practices at	Spoilage creates unsafe food due to microbial infection and poor handling, which leads to loss in quality or contamination	<ul style="list-style-type: none"> SPRING will not promote the construction of structures for storage. SPRING will promote the use of effective and proven strategies in preventing invasion by storage pests 	Agriculture Advisor, M&E Advisor, M&E Officers	<ul style="list-style-type: none"> Number of farmers trained in effective storage technologies Number of training sessions on post-harvest loss reduction 	Quarterly

Specific Activity	Describe specific environmental threats of your organization's activities (based on analysis in SPRING PIEE and USAID/Ghana IEE)	Description of Mitigation Measure for Activities	Who is responsible for Monitoring	Monitoring Indicator	Frequency of Monitoring
community and household levels		and diseases. <ul style="list-style-type: none"> Farmers will be taught appropriate times for harvesting to reduce pest invasion, as well as proper handling of different farm products. 		held	
	Poor disposal practices of solid waste and effluent of gardening by-products from crop processing will negatively affect the environment and human health	<ul style="list-style-type: none"> Training will be provided to processors on safe disposal methods. SPRING will promote the use of by-products from crop processing as alternative animal feed or for composting to improve soil fertility. 	Agriculture Advisor, M&E Advisor, M&E Officers	Number of farmers trained in proper and safe disposal of solid waste and effluent from processing activities	Quarterly
4.1.6 Link the aflatoxin strategy to improved and labor-saving technologies (e.g., shellers, dryers, storage silos, bagging)	Improper use of various protective and labor-saving technologies will affect the safety and health of users and those around them	Training will be provided on: <ul style="list-style-type: none"> Safe handling and use of equipment, and supplies introduced to reduce the drudgery. Proper maintenance of labor-saving technologies. Utilization of protective clothing during handling or operation of equipment and supplies. 	Agriculture Advisor and M&E Advisor, M&E Officers	Number of training sessions delivered to users of equipment and other supplies	Quarterly
4.1.7 Develop partnership with private sector to create demonstration plots for aflatoxin tolerant groundnut varieties and other potential	<ul style="list-style-type: none"> Various activities involved in crop production have the potential to affect the soil, water, flora and fauna if not properly carried out. There is a danger in inadvertently introducing exotic species. 	The project will include the environmental compliance template into RFPs to ensure subcontractor compliance.	Agriculture Advisor, DCOPs, M&E Advisor, M&E Officers	Number of subcontracts issued including environmental compliance template	Quarterly

Specific Activity	Describe specific environmental threats of your organization's activities (based on analysis in SPRING PIEE and USAID/Ghana IEE)	Description of Mitigation Measure for Activities	Who is responsible for Monitoring	Monitoring Indicator	Frequency of Monitoring
field trial opportunities					
4.1.12 Access planting material for orange-fleshed sweet potatoes (OFSP) and distribute to mother-to-mother groups	Introduction of exotic species	<ul style="list-style-type: none"> • SPRING will not procure, distribute or introduce any new invasive species or GMO seeds/planting material. SPRING will only procure locally improved, high yielding varieties of seeds and planting materials that are locally sourced non-GMOs. • SPRING must also use approved species and select suitable sites that support the growth of the species. • Outline seed specifications in procurement RFQs to vendors. 	Agriculture Advisor, M&E Advisor, M&E Officers	Number of certificates of authenticity and signed subcontracts received from vendors, including environmental compliance template	Quarterly
4.1.15 Support the establishment of FNS to targeted 1,000 Day Households	Natural habitat destruction or degradation as a result of establishing farms.	<ul style="list-style-type: none"> • Training and education of farmers on best practices and selection of best areas for establishment of small-scale farms and gardens. • SPRING will not engage in any land leveling/land clearing activities. • Establish small-scale gardening and farming that will minimize the environmental impacts, such as the use of already cleared land. 	Agriculture Advisor, M&E Advisor	Number of training sessions undertaken to sensitize farmers on environmentally-sound practices during the establishment of small-scale farms.	Quarterly
	Cutting down of trees during land clearing leading to deforestation	Training of farmers will include a module on the negative impacts of deforestation and on sustainable land management practices (non-cutting of	Agriculture Advisor	Number of trainings on the negative effects of deforestation and how to prevent it.	Quarterly

Specific Activity	Describe specific environmental threats of your organization's activities (based on analysis in SPRING PIEE and USAID/Ghana IEE)	Description of Mitigation Measure for Activities	Who is responsible for Monitoring	Monitoring Indicator	Frequency of Monitoring
		existing trees).			
	Use of slash and burn during the establishment of demonstration plots and establishment of small-scale farms	Training in the establishment of fire belts, and the importance of turning crop residues and bio-degradable trash into the soil during land preparation.	Agriculture Advisor	Number of trainings on the establishment of fire belts and importance of turning over and bio-degradable trash into the soil during land preparation	Quarterly
	Soil erosion due to deforestation, flooding, unprotected fields, plowing done in the wrong way down the slope	A training module on sustainable practices that reduce the loosening of soil and erosion will be developed and incorporated into existing training.	Agriculture Advisor	Number of trainings completed	Quarterly
	Reduction of soil fertility as a result of poor agronomic practices	Educate farmers on turning in crop residues rather than burning, crop rotation with legumes, composting, green manuring and cover cropping and use of animal manure via manual on good agricultural practices used in trainings.	Agriculture Advisor, M&E Advisors	Number of farmers trained	Quarterly
	Bio-diversity loss	Provide basic training to farmers on biodiversity and its importance in preparing farm plots.	Agriculture Advisor	Number of farmers trained	Quarterly

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SPRING

JSI Research & Training Institute, Inc.

1616 Fort Myer Drive, 16th Floor ○ Arlington, VA 22209 ○ USA

Phone: 703-528-7474

Fax: 703-528-7480

Email: info@spring-nutrition.org

Internet: www.spring-nutrition.org

JSI Research & Training Institute, Inc. ○ Helen Keller International ○

The International Food Policy Research Institute ○ Save the Children ○ The Manoff Group