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REPUBLIC OF GHANA

Ministry of Local Government & Rural Development

SOCIAL OPPORTUNITIES PROJECT

Environmental and Social Management Framework [ESMF]

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List of Acronyms

AC	Area Council
ACAP	Area Council Action Plan
AER	Annual Environmental Report
CAP	Community Action Plan
CBRDP	Community-Based Rural Development Project
CSM	Cerebro-Spinal Meningitis
CWSA	Community Water and Sanitation Agency
DA	District Assembly
DE	District Engineer
DFR	Department of Feeder Roads
DSW	Department of Social Welfare
EA	Environmental Assessment
EHS	Environment Health and Safety
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EO	Environmental Officer
EP	Environmental Permit
EPA	Environmental Protection Agency
ESM	Environmental and Social Management
ESMF	Environmental and Social Management Framework
GIDA	Ghana Irrigation Development Authority
GoG	Government of Ghana
GPRS I	Ghana Poverty Reduction Strategy
GPRS II	Growth and Poverty Reduction Strategy
HIV/ AIDS	Human Immuno-Deficiency Virus / Acquired Immune Deficiency Syndrome
ILO	International Labor Organization
LEAP	Livelihood Empowerment Against Poverty
LI	Legislative Instrument
LIPWs	Labor Intensive Public Works
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments and Agencies
MESW	Ministry of Employment and Social Welfare
MiDA	Millennium Development Authority
MLGRD	Ministry of Local Government and Rural Development
MoFA	Ministry of Food and Agriculture
MoFEP	Ministry of Finance and Economic Planning
MTDP	Medium-Term Development Plan
MTEF	Medium-Term Expenditure Framework
NADMO	National Disaster Management Organization
NDPC	National Development Planning Commission
NEAP	National Environmental Action Plan
NMMB	National Museums and Monuments Board
NPSC	National Project Steering Committee
NSP	National Service Personnel
NYEP	National Youth Employment Program
OP	Operational Policy
OSH	Occupational Safety and Health
PEA	Preliminary Environmental Assessment
RCC	Regional Coordinating Council

RCO	Regional Coordination Office
RICU	Rural Infrastructure Coordinating Unit
RPCU	Regional Planning Coordinating Unit
SEA	Strategic Environmental Assessment
SMTDP	Sectoral Medium-Term Development Plan
TOR	Terms of Reference

Executive Summary

Introduction

The Environmental and Social Management Framework (ESMF) has been prepared for the proposed Social Opportunities Project (SOP), a social protection program by the Government of Ghana. The ESMF will be used principally by the participating District Assemblies and other collaborators in ensuring that environmental and social safeguards have been adequately addressed in the sub-projects to be implemented under the SOP. The project will be an opportunity for rural employment creation and income generation in the slack agricultural period in about 10 to 15 districts of the three northern regions of Ghana.

The components of the project will include rationalization of a national social protection policy, labor intensive public works (LIPWs), support to the LEAP program, capacity building and project management and coordination. The sub-projects under the LIPWs will be mainly rehabilitation and maintenance of feeder roads, small dams and dugouts. The sub-projects will be selected from the MTDPs of the DAs and implementation will be by labor-based methods over a period of five years. The cost of the project is estimated at \$88 million.

The three northern regions have the highest incidence of poverty. The main objectives of the project are to provide technical and other support to rationalize Ghana's social protection strategy to make it more cost-effective in reaching the poor while extending coverage to those who need it; to develop a LIPWs program as a rural safety net instrument in the target districts to increase income for the rural poor; and to support the GoG's Livelihood Empowerment Against Poverty (LEAP) program.

This ESMF has been used to mainstream environment and social safeguards into the design and planning of the SOP as well as its sub-projects. The choice of ESMF (instead of EIA) is because of the following reasons:

- Wide geographical spread – about 10 to 15 districts in the three northern regions;
- Implementation duration – spread over five years;
- Scope of involvement – several institutions at the national, regional and local levels;
- Sub-project design and numbers – the design of the sub-projects, types and numbers involved, the specific beneficiary districts and communities are all not known at this stage; and
- Sub-project impacts – the level of sub-project specific impacts cannot yet be determined.

Furthermore, the MLGRD considers it useful to have a framework of principles and procedures that will govern the mitigation of adverse environmental and social (E&S) impacts induced by the SOP and its sub-projects. The ESMF provides:

- Overview of potential E&S risks and safeguards to the SOP and sub-projects;
- Sub-project specific E&S screening/initial assessment framework (in Appendix 2);
- Relevant clauses to guide implementation of environmental safeguards (Appendix 3); and
- Institutional arrangements and mechanisms for effective E&S safeguard compliance and enforcement.

With the use of the ESMF, national and local E&S requirements of the LI 1652 for any affected entity will be met. This will also be consistent with the OP4.01 and other applicable safeguards provisions of the World Bank. The ESMF may also serve as a guide in the implementation of other DMTDPs projects.

General Policy, Legal and Administrative Frameworks

The following national and World Bank environmental policies and procedures among others were used as reference in the ESMF preparation:

- Ghana's Environmental Policy;
- The Environmental Protection Agency Act of 1994 (Act 490);
- The Environmental Assessment Regulations (LI 1652), and EIA procedures; and
- The World Bank's safeguard policies which include guidance on EA requirements - Environmental Assessment (OP4.01), and also the Involuntary Resettlement (OP/BP 4.12), etc.

Description of Baseline Conditions

The three northern regions of Ghana occupy a total land area of 97,700 km² (41% of the land area of Ghana), but comprise only 17.4% of the national population. There are slightly lower numbers of females than males in contrast with the national picture. Agriculture is the main economic activity employing about 80% of the economically active population. Infrastructure for dry season agriculture is highly inadequate, hence a large number of people are without employment during the dry season, resulting in pronounced rural–urban migration of the youth. The area is noted to have the highest incidence of extreme poverty, twice that of the national average (i.e., 63% against 29%). The various districts are connected to the regional capitals by mainly feeder roads, which have either gravel or earth surfaces and become almost impassable in the rainy season.

The area experiences a single rainy season (May to October) and a long dry season (November to March/April). Average annual rainfall varies between 750mm and 1100mm. The vegetation is grassland, interspersed with guinea savannah woodland.

The area falls within the sub-basins of the Red, Black and White Volta. Other rivers and seasonal tributaries form a network with some important valleys such as the Fumbisi, Nasia, Tamne, Katanga Valleys. Groundwater use is common as an estimated 5,000 boreholes have been drilled since 1970. The topography is generally flat and low-lying with a few scattered hilly areas. Flooding is almost a yearly occurrence caused by the overflowing of the Volta and its tributaries.

Potential Environmental and Social Impacts and Mitigations

Environmental and social impacts were considered on both the SOP-level and the sub-project level. The SOP-level beneficial impacts include: mass employment and socio-economic benefits to poor communities, protection of infrastructure developed through community involvement and low migrant-worker influx.

The impacts considered likely to affect the sustainability of the project adversely include potential failure of dams, low E&S safeguards compliance and accelerated silting of dams and dugouts. The main potential adverse social impacts include weakening of the spirit of community volunteerism, exploitation by contractors, shortage of labor and challenges to managing large workforce at a site. Mitigation measures to avoid or reduce the level impacts have been provided in the ESMF for the above impacts.

The likely adverse impacts and corresponding mitigations and other E&S safeguards have been provided for the sub-projects. Additional mitigation principles have been elaborated (given that the specific sub-project impacts

cannot be precisely determined at this stage). These include principles for good employment practices, cultural resource preservation, HIV/AIDS prevention, particulate emission abatement, waste management, landscape improvement, and water resource and habitat protection.

ESMF Implementation and Management

The ESMF has established the link between environmental and social management (ESM) during implementation with the sub-project assessment phase. The ESM commitment originates from the requirement in the Section 5 of the Initial Assessment/EA Screening Form (Appendix 2). The ESM phase comprises monitoring, management (of E&S impacts and mitigations), and reporting during sub-project implementation activities such as rehabilitation, maintenance, decommissioning of sites, etc.

The ESMF also defines institutional roles and arrangements. The Clauses in Appendix 3 and the mitigation measures have been set out to guide the DAs (particularly the District Engineers, DPCs and other officers of the DAs), the Area Councils, and other institutions such as DFR, GIDA, etc. to supervise implementation and also for M&E.

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1.0 INTRODUCTION

1.1 Background

The Government of Ghana (GoG) intends to implement a social protection program called the Ghana Social Opportunities Project (SOP). This will be targeted at the chronically poor in the Northern Savannah Zone (the Upper West, Upper East, and Northern Regions), where the majority of the rural poor in Ghana live.

The main components of the project will be: (i) rationalization of a national social protection policy; (ii) labor intensive public works; (iii) support to the Livelihood Empowerment Against Poverty (LEAP) program; (iv) capacity building; and (v) project management and coordination. SOP will be implemented during the slack agricultural period to provide employment for people who have the ability to work but face high levels of seasonal unemployment.

The main source of employment will be through the labor intensive public works (LIPWs). The key activities under the LIPWs will be rehabilitation and maintenance of feeder roads and small dams and dugouts, and *other works* that could be contemplated by the project including, for instance, construction of schools and clinics, soil and land conservation works for catchment protection and tree planting on communal lands. These sub-projects will be selected from the Medium-Term Development Plans (MTDPs) of the District Assemblies (DAs).

The SOP has the following development objectives:

- To improve targeting in social protection spending
- Increase access to conditional cash transfers nationwide
- Increase access to employment and cash-earning opportunities for the rural poor during the agricultural off-season and
- Improve economic and social infrastructure in target districts.

1.2 Purpose and Objectives of the ESMF

The EA Regulations of Ghana provide the general framework and procedures for EA and environmental management (EM) of development actions. Most Development Partners (DPs) and funding institutions, including the World Bank also have EA requirements. As part of funding arrangements for the SOP therefore, the Bank's E&S safeguards policies (OP/BP 4.01, EA and OP/BP 4.12, Involuntary Resettlement) and national requirements must apply. The project has the following attributes (quite distinct from project-specific level assessment):

- Geographical spread of between 10 to 15 districts in the three northern regions of Ghana;
- Implementation duration spread over five years and in phases;
- Involvement of several institutions at the national, regional, district and local levels;
- Involvement of five components, two main sectors and sub-projects; with the
- Design of the sub-projects, types and numbers for implementation, and the specific beneficiary districts and communities are not determined at this stage.

The attributes above indicate SOP as a program-type of 'undertaking' for which the appropriate level of EA is the Strategic Environmental Assessment (SEA) under the Ghana EA Procedures. Under the World

Bank's, however, the ESMF is used in the case of operations with multiple sub-projects, various phases and spread over a long period - similar in concept to SEA.

Due to the small- to medium-scale nature, the sub-projects (under SOP) are classified as Schedule 1 undertakings (i.e., projects which require registration and permit) for the Ghana system; while these are screened as Category B under the World Bank EA Procedures.

The ESMF spells out the E&S safeguards, institutional arrangements and capacity required to use the framework. This ensures that sub-projects meet the national and local E&S requirements and are consistent with OP 4.01, OP 4.12, etc. of the Bank. Other objectives of the ESMF include:

- Assessment of potential adverse E&S impacts commonly associated with the listed sub-projects and the way to avoid, minimize or mitigate these impacts;
- Establishment of clear procedures and methodologies for the E&S planning, review, approval and implementation of sub-projects;
- Development of an EA screening/initial assessment system to be used for sub-projects; and
- Specification of roles and responsibilities and the necessary reporting procedures for managing and monitoring sub-project E&S concerns.

The ESMF will be principally used by DAs and other collaborators to ensure that adequate mitigation measures and other environmental and social safeguards have been incorporated into the sub-projects to be implemented under the SOP.

1.3 Methodology for the ESMF Preparation

The ESMF preparation involved document review and consultation with key representative stakeholders at the national, regional, district and local levels. The main national and the World Bank reference documents reviewed included:

- Environmental Protection Agency Act, 1994 (Act 490);
- Environmental Assessment Regulations, 1999 (LI 1652);
- National Environmental Action Plan;
- Ghana EIA Procedures; and
- World Bank's Environmental and Social Safeguards Policies (OP/BP 4.01 and OP/BP 4.12).

The national level institutions consulted included the EPA, CBRDP and the DFR. The regional level organizations (in Northern and Upper East Regions) involved in the ESMF process were the RPCU, EPA, DFR, GIDA, NADMO, DSW, CWSA, WRC, Contractors and the RICU/CBRDP.

The DAs consulted were the Savelugu-Nanton and West Mamprusi (Northern Region), and Builsa and Bongo (Upper East Region). The following Area Councils and communities also participated in the process Nyogulo and Tinguri communities and the Moglaa Area Council (Northern Region), and Siniensi, Doninga, Bachonsi and Beo communities and also Beo Area Council (Upper East Region).

Two sets of stakeholder participatory questionnaires were prepared for the ESMF process – general and institution-specific questionnaire. The general questionnaire covered the following:

- Project stakeholder role identification matrix;
- Environmental and social concerns likely to be associated with the SOP and sub-projects;
- Sub-project ranking for LIPWs;

- Labor-based implementation of sub-projects – potential negative impacts;
- Labor-based implementation of sub-projects – potential benefits;
- Stakeholder responsibility for various stages (life cycle) of sub-projects (institutional arrangement);
and
- Institutional capacity, coordination and management roles.

The questionnaires were sent in advance to enable stakeholder preparation for effective participatory activities. The summarized consultation results are presented in Appendices 4, 6 and 7. Following the consultation processes, two regional disclosure sessions were held in Tamale and Bolgatanga to help build consensus on the various issues discussed. The disclosure outcomes and participant lists are presented in Appendix 5.

2.0 GENERAL POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

The environmental policy and EA legislation and procedures of Ghana and those of the World Bank, which are relevant to the project, are outlined. In principle the two sets of policies and procedures on environmental and social assessment are similar in many respects.

2.1 National Environmental Requirements

2.1.1 Ghana's Environmental Policy

The environmental policy of Ghana formulated in the National Environmental Action Plan (NEAP) of 1993 hinges strongly on 'prevention' as the most effective tool for environmental protection. The policy aims at a sound management of resources and environment, and the reconciliation between economic planning and environmental resources utilization for sustainable national development. It also seeks among others, to institute an environmental quality control and sustainable development programs by requiring prior EA of all developments, and to take appropriate measures to protect critical eco-systems, including the flora and fauna they contain against harmful effects, nuisance or destructive practices. The adoption of the NEAP led to the enactment of the EPA Act 1994 (Act 490); and subsequently the passing of the Ghana EIA Procedures into the EA Regulations, 1999 (LI 1652).

2.1.2 The Environmental Protection Agency Act

The Environmental Protection Agency (EPA) Act, 1994 (Act 490) grants the Agency enforcement and standards-setting powers, and the power to ensure compliance with the Ghana EA requirements/procedures. Additionally, the Agency is required to create environmental awareness and build environmental capacity as relates all sectors, among others. The Agency (including its Regional and District Offices) is also vested with the power to determine what constitutes an 'adverse effect on the environment' or an activity posing 'a serious threat to the environment or public health', to require EAs, EMPs, AERs, etc. of an 'undertaking', to regulate and serve an enforcement notice for any offending or non-complying undertaking.

The Agency is required to conduct monitoring to verify compliance with given approval/permit conditions, required environmental standard and mitigation commitments. Furthermore, a requirement by EPA for an EA precludes any authorising MDA from licensing, permitting, approving or consenting such undertaking, unless notified otherwise.

2.1.3 EA Regulations and Procedures

The EA Regulations combine both assessment and environmental management systems. The regulations prohibit commencing an undertaking/activity without prior registration and environmental permit (EP). Undertakings are grouped into schedules for ease of screening and registration and for EP. The schedules include undertakings requiring registration and EP (Schedule 1), EIA mandatory undertakings (Schedule 2), as well as Schedule 5-relevant undertakings (located in Environmentally Sensitive Areas).

The Regulations also define the relevant stages and actions, including: registration, screening, preliminary environmental assessment (PEA), scoping and terms of reference (ToR), environmental impact assessment (EIA), review of EA reports, public notices and hearings, environmental permitting and certification, fees payment, EMP, AER, suspension/revocation of permit, complaints/appeals, etc.

2.1.4 EA (Amendment) Regulations, 2002

The EA (Amendment) Regulations were made to amend sections of the EA fees regime of LI 1652 (the 'principal enactment') on fee payment for EP and certificate issued by the Agency.

2.2 National Labor, Safety and Health Requirements

2.2.1 Factories, Offices and Shops Act

The Factories, Offices and Shops Act of 1970 (Act 328) mandates the Factories Inspectorate Department to register factories and ensure that internationally accepted standards of providing safety, health and welfare of persons are adhered to. It defines a factory to include any premises (whether in or not in a building) in which one or more persons are employed in manual labor, among others.

2.2.2 Occupational Safety and Health Policy of Ghana (Draft)

The policy statement of the OSH Policy (draft 2004) is: 'to prevent accidents and injuries arising out of or linked with or occurring in the course of work, by minimizing, as far as reasonably practicable, the cause of the hazards in the working environment and, therefore, the risk to which employees and the public may be exposed'. The policy is derived from provisions of the International Labor Organization (ILO) Conventions 155 and 161. The policy document has specific sections on objectives, scope, strategies, activities and promotion and awareness creation.

2.2.3 National Workplace HIV/AIDS Policy

The broad objectives of the policy, among others, are to provide protection from discrimination in the workplace to people living with HIV and AIDS; prevent HIV and AIDS spread amongst workers; and provide care, support and counselling for those infected and affected.

2.2.4 Labor Act

The purpose of the Labor Act, 2003 (Act 651) is to amend and consolidate existing laws relating to labor, employers, trade unions and industrial relations. The Act provides for the rights and duties of employers and workers; legal or illegal strike; guarantees trade unions and freedom of associations, and establishes the Labor Commission to mediate and act in respect of all labor issues. Under Part XV (Occupational Health, Safety and Environment), the Act explicitly indicates that it is the duty of an employer to ensure that every worker works under satisfactory, safe and healthy conditions.

2.2.5 Youth Employment Implementation Guidelines

The authority for decision-making on the implementation of the National Youth Employment Program (NYEP) resides in the Ministry of Employment and Social Welfare, through a National Employment Task Force (NETF) set up to implement the program. District Employment Task Forces set up are made accountable to the NETF in all their undertakings throughout the implementation of the program.

The overall objective of the program is to empower the youth to be able to contribute more productively towards the socio-economic and sustainable development of the nation. The specific objectives of the Program include checking the drift of the youth from the rural to urban communities in search of jobs by creating those opportunities in the rural areas, etc.

2.3 The Poverty Reduction Strategy of Ghana

2.3.1 GPRS I and II

The GPRS I was a comprehensive framework of policies and development strategies, programs and projects to facilitate macro-economic stability, sustainable growth and poverty reduction (2003-2005). The central goal of GPRS II (2006-2009), which built on GPRS I was to accelerate the growth of the economy to attain a middle-income status. The GPRS II emphasizes the implementation of growth-inducing policies and programs with the potential to support wealth creation and sustainable poverty reduction. The document refers to the need to apply environmental impact assessment and environmental audit to ensure that the growth arising from the GPRS is environmentally sustainable.

2.4 The World Bank Requirements

2.4.1 The Bank's Safeguard Policies

The Bank's ten safeguard policies are designed to help ensure that programs proposed for financing are environmentally and socially sustainable, and thus improve decision-making. The Bank's Operational Policies (OP) are meant to ensure that operations of the Bank do not lead to adverse impacts or cause any harm. They include guidance on EA requirements. The following four are relevant for considerations under the project. These are:

- Environmental Assessment (OP 4.01);
- Involuntary Resettlement (OP/BP 4.12);
- Safety of Dams (OP/BP 4.37);
- International Waters (OP7.50);

2.4.2 Environmental Assessment (OP 4.01)

The OP 4.01 requires among others that screening for potential impacts is carried out early, in order to determine the level of EA to assess and mitigate potential adverse impacts. The Bank's project screening criteria group projects into three categories:

- Category A – Detailed Environmental Assessment;
- Category B - Initial Environmental Examination; and
- Category C – Environmentally Friendly

The EA ensures that appropriate levels of environmental and social assessment are carried out as part of project design, including public consultation process, especially for Category A and B projects. The OP 4.01 is applicable to all components of the Bank's financed projects, even for co-financed components. This project is a Category B project.

2.4.3 Involuntary Resettlement (OP/BP 4.12)

The Policy on Involuntary Resettlement is intended to assist displaced people arising from development projects, in order not to impoverish any affected people within the area of influence of projects. An action plan that at least restores the standard of living must be instituted, in cases where resettlement is inevitable or loss of assets and impacts on livelihood occurs.

2.4.4 Safety of Dams (OP/BP 4.37)

OP 4.37 is triggered for this project. This project will rehabilitate existing small dams. The Policy seeks to ensure that appropriate measures are taken and sufficient resources provided for the safety of dams the Bank finances. The Bank distinguishes between small and large dams, and the policy is triggered for large dams. Small dams are normally less than 15m in height; this category includes farm ponds, local silt retention dams, and low embankment tanks. For small dams, generic **dam safety measures designed and supervised by experienced and competent professionals will be carefully implemented**. Both the design and supervision of works would take into account the relevant dam safety issues. The dam safety plan(s) will ensure the following elements are taken into account: the types of dams to be rehabilitated and their size and storage capacity. The plan should ensure that the rehabilitated dams may exceed 500m in length because of the flat topography of the north, but the project will pre-select dams where the storage capacity does not exceed 250,000m³ for a 5m dam. The dam safety plan will ensure that capacity does not exceed 500,000m³ for a 6-10m high dam; and that selected dams are generally not located near settlement areas.

The dam safety plans and EIA of sub-projects (i.e., dams and roads) will be carried out by separate independent consultant firms contracted by the project. Given the low technical capacity regarding local designers, contractors and supervisors to monitor and ensure the sound construction of dams in Ghana, the project will use external expertise where necessary as well as provide on the job training for workers, GIDA and others associated with the rehabilitation and maintenance of the dams. Water/Dam users associations will be used to perform regular dam maintenance and consistent monitoring throughout the project period.

2.4.8 International Waters (OP7.50)

OP 7.50 is triggered for this project. However, exceptions to Notification Requirement, No. 7 was granted on the following basis:

Normally, if a project falls under the scope of this OP, the borrower (beneficiary state) is required to inform all riparian states. But the OP provides exceptions to the need for notification under para. 7(a). The exception states that “*for any ongoing schemes, projects involving additions or alterations that require rehabilitation, construction, or other changes that in the judgment of the Bank (i) will not adversely change the quality or quantity of water flows to the other riparians; and (ii) will not be adversely affected by the other riparian’s possible water use. This exception applies only to minor additions or alterations to the ongoing scheme; it does not cover works and activities that would exceed the original scheme, change its nature.*” The proposed project is designed to create employment while rehabilitating existing schemes and will not support any major activities that would change the nature of the original scheme to the extent that it would make it appear to be a new scheme. **Based on this, the project qualified for a waiver that has been granted by the Regional Vice President of the Africa Region on April 5, 2010, this waiver was cleared by the legal units (LEGEN and LEGAF) of the World Bank.**

3.0 DESCRIPTION OF THE SOCIAL OPPORTUNITIES PROJECT

The Social Opportunities Project is a proposed GoG social protection intervention targeted at the chronically poor in northern Ghana. The objectives of the Project are to improve targeting in social protection spending, increase access to conditional cash transfers nationwide, increase access to employment and cash-earning opportunities for the rural poor during the agricultural off-season, and improve economic and social infrastructure in target districts. The duration of the Ghana Social Opportunities Project is five years, and it will have five components: (i) rationalize the National Social Protection Strategy; (ii) labor intensive public works (LIPW); (iii) supporting the Livelihood Empowerment Against Poverty Program (LEAP); (iv) building capacity at the central and district levels to plan and implement LIPW and LEAP and to strengthen the decentralization process; and (v) project management and coordination.

The *key performance indicators* related to the PDO are: (i) share social protection spending allocated to programs targeted to the poor (percent); (ii) LEAP and Ghana Health Insurance indigent exemption expenditures in the government's overall package of pro-poor expenditures as defined by MoFEP (percent); (iii) person days of unskilled workers disaggregated by district; (iv) average earnings per unskilled workers in LIPWs; (v) beneficiaries subject to school enrolment condition that comply with it (percent); and (vi) direct project beneficiaries (number), of which female (percent).

- Modifications to the national social protection strategy to make it better targeted to those below the poverty line;
- Total number of poor rural persons in target districts temporarily employed in labor intensive public works (LIPWs) during the slack agricultural season (November to March/April), disaggregated by district;
- Average number of days that participating individuals have thus been employed in LIPWs during the slack agricultural season;
- Average cash earnings per poor rural person participating in LIPWs; and
Number of households benefiting from LEAP grants.

3.1 Project Components

The five main components of the project are described below.

Component One: Rationalize National Social Protection Policy

(US\$2.5 million of which IDA contribution is \$2.5 million)

Component one would provide support to the government to help redirect its social protection expenditures to the most effective areas and reduce those in less effective activities. This would allow greater coverage of the poor despite current fiscal constraints in the wake of current and future economic crises. To facilitate the process, the component would finance technical assistance, studies, training, and Secretariat services. This would require the cooperation of many ministries and it would be best to give the lead to a non-sectoral ministry without any programs of its own in social protection but which has the necessary interest and clout to lead but include all involved ministries. The best candidate for this would be the Ministry of Finance and Economic Planning (MoFEP) with implementation services being provided by the project management and coordination team in Ministry of Local Government and Rural Development (MLGRD).

Component Two: Labor Intensive Public Works (LIPW)

(US\$56 million, of which IDA contribution is \$56 million)

The objective of this component is to provide targeted rural poor households with access to employment and income-earning opportunities. This pertains particularly to seasonal labor demand shortfalls that is, the agricultural off-season from November to March/April, and in response to external shocks, through rehabilitation and maintenance of public or community infrastructure. The aim is to maximize local employment while rehabilitating productive infrastructure assets, which have potential to: (i) generate local secondary employment effects and (ii) protect households and communities against external shocks. The component will establish a LIPW-based social protection scalable instrument that provides quick-response mechanisms against external shocks, such as floods or droughts, during a crisis. The payment modality for LIPWs will be cash. The scope of works eligible for LIPWs will be defined based on labor content and scope to generate significant local employment.

About 10 percent of the funds allocated under this component will be set aside as employment generation incentive window to provide additional funding to local authorities which reach a higher percentage of labor use in their works. An additional 10 percent will be set aside to allocate to areas that suffer from occasional disasters such as flooding.

The poor state of infrastructure remains a major obstacle to economic development in rural areas, especially in the northern regions. For example, it has been estimated that about 60 percent of the 11,800km of rural roads and a majority of over 900 small (earth) dams and dugouts in the three northern regions are in poor to fair condition. It is expected that LIPWs will target mainly the following assets that are both highly appreciated by communities¹ and allow for timing of labor inputs during the dry season:

- (a) *Rehabilitation and maintenance of rural feeder and access roads:* Although the “utility” value of access roads was not rated as highly as dams, the fact that the labor opportunities made available are sufficient to allow for people to plan a dry season “at home” is highly appreciated, as well as the possibility of earning sufficient cash to strengthen the base of household livelihoods.
- (b) *Rehabilitation of small dams, dugouts, and related public infrastructure:* Dams and dugouts are of great significance in much of the three northern regions, where underground water sources are insufficient to provide for domestic and livestock needs through the dry season. Where dams allow for dry season irrigated agriculture, it has a dramatic impact on local livelihoods, greatly reducing the incentive to migrate away from the region during the dry season.
- (c) *Other works* that could be contemplated by the project include, for instance, construction of schools and clinics, dugouts, soil and land conservation works for catchment protection and tree planting on communal lands.

The LIPWs will be selected from the Medium-Term District Development Plans (MTDDPs) and/or related Area Council Action Plans (ACAPs) based on a set of criteria to:

- (i) maximize rural employment (high labor content);
- (ii) create or rehabilitate public or collective (i.e., community) assets;
- (iii) create, rehabilitate, or protect productive assets capable of generating secondary employment and economic development within local communities;
- (iv) undertake LIPWs within reasonable proximity of target populations;

¹ See Participatory Development Associates. 2009. *Participatory Poverty and Vulnerability Assessment: Understanding the Regional Dynamics of Poverty: Main Report and Technical Annex*. Kumasi (Ghana): Participatory Development Associates Ltd. The PPVA carried out participatory research in 12 communities in northern Ghana, covering all three regions. These results were confirmed in consultations carried out during the pre-appraisal mission in four of these communities (Northern and Upper East Regions).

(v) avoid competing with labor demand from the agricultural sector (i.e., appropriate timing); (vi) comply with social and environmental safeguards; and (vii) ensure equal opportunity for women and men to participate. However, it will be necessary to review the MTDDPs and ACAPs in the selected project districts at the start of the project to update them and ensure that the respective project activities are fully integrated with other ongoing feeder road and small dam rehabilitation activities that may be financed by other sources.

In line with the government's ongoing decentralization process, the LIPWs will be implemented through District Assemblies, which will in turn benefit from technical assistance by relevant line agencies like the Department of Feeder Roads, the Government Irrigation Development Agency, and the Department of Social Welfare.

Component Three: Livelihood Empowerment Against Poverty Program (LEAP)

(US\$20 million of which IDA contribution is \$20 million)

The objective of this component is to support the full rollout of the pilot phase of the LEAP program by strengthening its management and administration, providing technical assistance to improve targeting, providing cash transfers to beneficiaries under LEAP, and providing incentives to ensure that GoG's annual budget allocations are sufficient.

There is recognition within the government and among the partners of the need to build additional capacity within the LEAP administration at the national, regional, district, and community levels to allow for the rapid expansion of the program and adjust the program to better target the neediest, which is included in component four. In addition, the project will, under component three, finance incentive payments to the unified treasury account to assure that GoG each year allocates sufficient budget for LEAP to meet its target of 164,370 households by 2012, and will thereby contribute to the improved human capital outcomes for these households. This will be done through conditional disbursement-linked incentives, which will include: (i) success in reaching the target households as evidenced by actual expenditures and (ii) progress on implementing the Action Plan for LEAP. To ensure that these expenditures are mainstreamed into the GoG budget, the IDA-disbursement-linked incentives payments will not exceed one-third of the actual budget expenditures in any given year of the LEAP program.

At present the number of LEAP beneficiaries in the districts where the program is active is very small compared to the potential eligible population. Because of this, the LEAP pilot phase is not gaining sufficient experience with targeting issues, which is essential when considering the full rollout of the program. Therefore, the project will support the deepening of the LEAP pilot in a small sub-set of districts in different parts of the country, whereby a substantial share of the potential eligible population will become LEAP beneficiaries. Furthermore, several of these "deepening" districts should also be targeted by the LIPW component to determine the synergies and complementarities between the two instruments. Strengthening complementarities between cash transfers and income earning opportunities via public works program is particularly important for mitigating possible adverse impacts on the well-being of the poor during times of global financial crisis.

Component Four: Capacity Building

(US\$4.1 million of which IDA contribution is \$4.1 million)

The objective of this component is to create capacity at the national and local levels to implement the National Social Protection Strategy (NSPS) in selected project districts, with the view of enabling a gradual scaling-up and targeting at the national level. This component will therefore implicitly strengthen GoG's decentralization program. Several distinct sets of capacity-building activities will be supported.

Establishing a LIPW-supportive policy and institutional framework. The project will support GoG to amend and adapt the existing policy and regulatory framework to stimulate a wider use of labor intensive methods, both as social protection and infrastructure-generation mechanisms. The following specific activities will be undertaken: (i) a detailed review of the current policy and regulatory framework as it

relates to labor intensive methods; (ii) national consultations with all relevant stakeholders; (iii) drafting of a new framework and a new bill on labor intensive methods, to be presented to Parliament for approval; and (iv) an information and sensitization campaign, at the national and regional levels, for decision-makers, concerned private operators, and the population at-large.

Capacity building to support LIPW implementation is aimed at decision-makers, DA technical staff, relevant line agencies, and private contractors, and follows the below breakdown:

- (a) *Rehabilitation and maintenance of roads:* The project will support the re-establishment of the training program for contractors and relevant district and regional road engineers by the Koforidua Training Center, which was recently renovated. The terms of reference for course designs have already been prepared by the International Labor Organization (ILO); and
- (b) *Rehabilitation of small dams and water storage infrastructure:* The project will support dam and irrigation design and construction training to complement that being planned for 2010 under the IFAD-AfDB-funded Northern Rural Growth Project (NRGP).
- (c) *Other works:* including, construction of schools and clinics, dugouts, soil and land conservation works for catchment protection, and tree planting on communal lands.

Capacity building to support implementation of LEAP to complement ongoing technical support financed by DFID and UNICEF/USAID as needed, with the objective of strengthening and improving the targeting and monitoring of the government's social protection instruments and programs (e.g., LEAP). The project will also support the capacity of the central unit of the Ministry of Employment and Social Welfare to plan, develop, and monitor social protection and District Assemblies to implement the programs.

District and regional capacity building to strengthen the technical and management capacities of the Regional Coordinating Committees (RCC), District Assemblies (DA) of LIPW target districts, and at least two Area Councils in each of these districts to: (i) identify, prioritize, and plan their development needs—in particular in terms of rural infrastructure; and (ii) strengthen fiduciary capacities (i.e., financial management, procurement, and monitoring and evaluation). Capacity-building support will be implemented through on-the-job-training and specific short training courses tailored to the needs of DAs and RCCs.

Other activities and pilot programs that could become necessary during implementation to support the overall objective of strengthening safety nets and providing safety ladders including building capacity for disaster risk management.

Component Five: Project Management and Coordination

(US\$6.5 million of which IDA contribution is \$6 million)

The institutions, structures, and capacities of the Government of Ghana will serve as the foundation for project management and coordination. With the aim of bolstering GoG operations, the Social Opportunities Project will fund costs associated with: project management and coordination; relevant technical assistance; project monitoring and evaluation; consultancy services; communication and training; equipment and vehicles; and incremental operating costs. In addition, the component will include the cost of annual impact evaluation surveys, including a baseline study and an end-of-the-project comprehensive impact evaluation study.

4.0 DESCRIPTION OF BASELINE CONDITIONS

The three northern regions occupy a total land area of 97,700 km² (41% of the land area of Ghana) and are similar in characteristics with respect to climate and vegetation. The regions also share common socio-economic traits as they are regarded as the most impoverished in the country. They are however different in their demographic trends, characterized by various ethnic groups. The three regions comprise a total of thirty eight (38) districts; twenty (20) in the Northern Region and nine (9) districts each in the Upper East and Upper West Regions.

4.1 Climate and Vegetation

The main climatic pattern in the northern regions is the single rainy season from May and June ending in October, and the dry season from November to March/April. Average annual rainfall varies between 750mm and 1100mm. The dry season is accentuated by the Harmattan Winds between December and mid-February, during which period day time temperature can soar to 45°C, reducing to as low as 14°C in the night. Humidity is typically low.

The high temperature conditions have been associated with seasonal bouts of such diseases as cerebrospinal meningitis (CSM). These regions fall within the meningitis belt of Africa.

The vegetation type comprises of vast areas of grassland, interspersed with guinea savannah woodland. This makes the area susceptible to widespread annual bushfires aided by the almost semi-arid conditions and long dry spell. Trees of economic importance to the people include *Magnifera indica* (mango), *Adansonia digitata* (baobab), *Butyrospermum parkii* (sheanut), *Acacia mangium* (acacia), *Parkia biglobosa* and *Azadirachta indica* (neem).

4.2 Water Resources, Topography and Drainage

The three regions fall within the sub-basins of the Red, Black and White Volta. Apart from the rivers Sissili, Nasia and Daka, there are seasonal tributaries that dwindle off in the dry season and revive with the onset of the rains. These rivers form a network with some important valleys such as the Fumbisi, Nasia, Tamne, Katanga, Nabogu and Soo Valleys. These areas are under consideration to be developed because of their high potential for agriculture. The rivers link up with the Volta. Groundwater use is common in all three regions as an estimated 5,000 boreholes have been drilled since 1970. With a groundwater accessibility and use rate of about 58%, groundwater forms a significant source of daily water use.

The topography of the area is generally low-lying and flat with a few scattered hilly areas, such as the Gambaga Escarpment in the north-eastern corner and also along the western corridor (Northern and Upper West Regions), and east and south-east (Upper East Region). Flooding is a yearly occurrence caused by the overflowing of the Volta and subsequently its tributaries.

4.3 Population and Socio-Economic Characteristics

The three regions take up 97,700 km², which is 41% of the total land area, but comprise only 17.4% of the national population. The Northern Region (70,383km²), even though a large land area, is sparsely populated (density of 26 persons per km²), less than that of the Upper East (8,842 km²) the smallest of the three regions, but with 104 persons per km². The population density of the Upper West is 31 persons per km² with a land area of 18,478 km².

In terms of age structure, the regions exhibit slightly lower numbers of females than males in contrast with the national picture, which puts the female population at 50.1%.

Agriculture, hunting and forestry are the main economic activities in the region. About 80% of the economically active population are into agriculture; engaged in the production of millet, guinea-corn, maize, groundnut, beans, sorghum and dry season tomatoes and onions. Infrastructure for dry season agriculture is inadequate and as such a large number of people are left with no source of income during the dry season. Migration becomes pronounced with a large number of the youth moving to the urban centers in search of employment.

4.4 Feeder Road Network

The various districts are connected to their regional capitals mainly by feeder roads. Almost all feeder roads in the North have either gravel or earth surfaces. These become almost impassable during rainy seasons. Table 4.1 gives the length and state of feeder roads.

Table 4.1: Length and State of Feeder Roads by Districts in the North

Districts	Total Length (Kilometres)	Condition Mix of Roads			Surface Type of Road		
		Good (km)	Fair (km)	Poor (km)	Bitumen (km)	Gravel (km)	Earth (km)
Bawku East	606.56	258.20	216.93	131.43	4.40	352.63	249.53
Bawku West	279.42	187.83	68.44	23.15	10.0	220.44	48.98
Bole	591.57	165.22	260.94	165.41	-	347.03	244.54
Bolgatanga	431.80	284.50	90.02	57.28	2.28	296.43	133.09
Bongo	155.28	122.48	30.93	1.87	-	97.68	57.60
Bulsa	360.20	239.09	78.41	42.70	-	232.96	127.24
East Gonja	833.09	427.40	348.31	57.39	-	509.42	291.67
East Mamprusi	293.49	71.39	184.61	37.48	5.25	160.59	132.90
Gushiegu Karaga	434.89	202.08	127.72	105.09	-	379.74	21.34
Jirapa Lambussie	558.90	434.00	79.80	45.10	-	491.30	67.60
Kassena Nankana	322.73	193.58	91.37	37.78	-	201.61	115.87
Lawra	238.30	148.50	78.60	11.20	-	210.00	28.30
Nadowli	549.68	205.58	129.25	214.85	-	477.48	72.20
Saboba Chereponi	393.62	144.09	195.47	54.06	-	199.89	193.72
Savelugu Nanton	375.05	36.28	152.72	186.05	-	268.22	106.83
Sissala	703.10	147.52	204.80	350.78	-	527.45	175.65
Tamale	225.43	98.87	93.06	28.50	-	162.14	63.30
Tolon Kumbungu	383.89	1.06	147.81	235.02	-	209.12	174.77
Wa	1,104.84	445.33	361.28	297.84	0.07	710.34	402.40
West Gonja	789.59	334.52	403.96	51.12	-	340.37	449.22
West Mamprusi	369.21	129.13	172.25	67.83	-	201.51	167.70
Yendi	727.74	172.24	424.08	131.41	-	234.70	493.04
Zabzugu Tatele	481.15	198.60	220.37	62.18	-	199.15	282.00

Source: Department of Feeder Roads and Highways, Accra.

4.5 Culture and Religion

Each region consists of at least three ethnic groups and spoken languages are varied accordingly. The major ethnic groups are each represented by a paramount chief. The Northern Region has four paramount chiefs who represent four major ethnic groups.

Islam is the dominant religion in the Northern Region, whereas Traditional and Christian religions are prominent in the Upper East and Upper West Regions respectively. Aside agriculture, the people engage in the manufacture and sale of traditional artifacts and musical instruments. Blacksmithing and pottery are also common.

4.6 Disaster Risk Exposure

Risk sources range from erratic climatic conditions, limited opportunities for off-farm economic activities, poor planning and implementation of development policies to frequent incidence of bushfires, floods and droughts, which are the bane of the area's underdevelopment. Additionally, persistent inter- and intra-ethnic conflicts result in heavy loss of lives and property, with resources redeployed into conflict resolution.

5.0 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATIONS

5.1 Screening of the SOP and Sub-Projects

The Social Opportunities Project will be implemented over a five-year period with a geographical spread between 10 to 15 districts of the three northern regions with potential for diversification to other parts of the country. The scope of involvement includes various institutions at the national, regional to local levels with various responsibilities and coordination arrangements. The SOP has five components, with the LIPWs sub-projects falling under rural road and water sectors. However, the sub-project designs, types and numbers involved and the specific beneficiary districts are all not determined at this stage.

The above attributes indicate the SOP as a program for which the appropriate level of EA is the Strategic Environmental Assessment (SEA), and ESMF under the Ghana and the World Bank EA Procedures respectively. Due to the small- to medium-scale nature of the sub-projects, they are classified as Schedule 1 undertakings (i.e., projects which require registration and permit) under the Ghana system. Under the World Bank EA Procedures, however, the components and sub-projects are screened as Category B.

The potential impacts of the SOP are presented below. The beneficial impacts come first, followed by the adverse impacts and the corresponding mitigation measures.

5.2 Potential Benefits of the SOP

The potential benefits of the project include:

- Socio-economic benefits to poor communities;
- Mass employment (even of the unskilled);
- Community interest and protection of infrastructure;
- Low migrant-worker influx;
- Enhanced capacity to support decentralization; and
- Extension of E&S safeguards to cover other district projects

5.2.1 Economic Benefits to Poor Communities

The northern regions are classified as the poorest in Ghana. Improved feeder road infrastructure through rehabilitation and maintenance provides such socio-economic benefits as accessibility, which will significantly enhance economic prospect and integration. Lack of access has been traditionally linked to poverty in Ghana. Dugouts and dams will promote access and availability to water for both humans and livestock, and for all season farming respectively. This potentially will result in adequate water availability, regular employment, increase food production and income, etc.

5.2.2 Mass Employment

Large numbers of people and households will be gainfully employed during the slack agricultural period. This will significantly discourage the rural-urban drift very pronounced during such periods. Part of the income received could be invested in farm expansion during the farming season, among others.

5.2.3 Community Protection for Facilities

Consultations with local communities revealed that community infrastructure constructed through labor-based methods tend to enjoy community interest, protection and attachment. The sub-projects are therefore

expected to engender a feeling of ownership and invariably a responsibility towards protection of such facilities in the interest of their sustainability.

5.2.4 Low Migrant-Worker Influx

The mass employment openings targeted at the community members presupposes that there will be very low migrant-worker influx into these rural communities. The attendant social and health risks of, for instance, HIV/AIDS spread, cultural insensitivity and conflicts, social inequalities, increased incidence of teenage pregnancy and dropout rates, etc. otherwise associated with influx of migrants will not arise.

5.2.5 Enhanced Institutional Capacity to Support Decentralization

The project will offer an important contribution and legacy to the decentralization program by providing capacity-building opportunities to several institutions at the regional, district and local levels. The support to Area Councils will particularly enhance community involvement in decision processes affecting their interests, gender issues and other environmental and social related activities in their immediate neighbourhoods.

5.2.6 E&S Safeguards Applied to MTDP Projects

The skills and the culture developed by the DAs in applying E&S safeguards in the implementation of the SOP sub-projects, are most likely to be extended to other projects from the MTDPs. This will not only help the DAs meet the requirements of the LI 1652, but also adequately address E&S safeguards for sustainable district developments and investments.

5.3 Potential Adverse Impacts

The impacts considered likely to affect sustainable implementation and expected outputs of the project adversely are presented as environmental and social impacts. The potential adverse environmental impacts include:

- Potential failure of dams
- Low E&S safeguards compliance;
- Accelerated silting of dams and dugouts

The potential adverse social impacts are:

- Weakening the spirit of community volunteerism;
- Inadequate contractors with labor-based experience;
- Potential delays in contract completion schedule;
- Exploitation by contractors;
- Non-availability of labor at certain times; and
- Challenges to managing large workforce at a site.

5.3.1 Potential Failure of Dams

Some dams are known to have been affected by storm and floodwaters in the rainy seasons, based on consultation with some stakeholders. Others put the blame on the integrity of the structures. The effects include breaching, seepage and piping problems. The inability of the dams constructed previously to withstand the elements and to function optimally and sustainably is a loss to such communities whose

livelihoods are tied to such facilities. The investment in dam rehabilitation and maintenance under the SOP must therefore not go the same way.

Mitigation of Dam Failure

The measures required to address the risk of dam failure include training of local consultants and contractors and also communities to design, rehabilitate, operate and maintain facilities more efficiently. The training must also include site selection, material testing for suitability and ascertaining compaction in order to assure the integrity of dams. These measures are contained in the dam safety plan in the Project Implementation Manual (PIM).

5.3.2 Low E&S Safeguards Compliance and Involvement

Feeder road projects appear to be generally non-complying with E&S safeguards requirements. These projects, particularly those initiated at the district-level do not obtain required permits before being implemented. It follows that neither E&S concerns of projects are considered, nor mitigation measures and resettlement (compensation) actions taken. Opportunity to involve relevant communities is also unavailable.

The implementation of projects from the DMTDPs is often with no regard to the E&S requirements of the Ghana EIA procedures and the EA Regulations. No E&S appraisal records exist on these projects. It cannot therefore be verified that relevant E&S safeguards are ever considered and incorporated in projects. It also cannot be ascertained that M&E of these projects cover E&S safeguards.

Mitigation – High E&S Safeguards Awareness for Community Involvement

There is the need for increased E&S safeguards awareness within the project communities, Area Councils and DAs. Once communities become conscious of the right to participate in decision processes affecting them, they will begin to demand that such rights are respected. The Area Council and the DAs will also be conscious of the need, benefits and also the risks to project sustainability in ignoring E&S safeguards. The training must cover how to build the cost of E&S safeguards requirements into the overall project cost:

- At planning/design stages and related assessment requirements,
- Environmental permit acquisition,
- Implementation of safeguards (at construction stages), and
- Monitoring and enforcement requirements.

The E&S safeguards training must include contractors on their obligations to fulfil permit conditions on safeguards, relevant E&S safeguards management planning, compliance and reporting.

5.3.3 Accelerated Silting of Dams and Dugouts

Dams and dugouts may experience accelerated rate of siltation from either silt-laden run off or eroded embankment, especially during the rainy seasons. This has the tendency to reduce the reservoir capacity, adversely affect the quality of water and also the lifespan of reservoirs.

Mitigation of Siltation of Dam and Dugouts

The immediate catchment area and embankment of dams and dugouts must be reforested. The banks of dams must be grassed progressively with the rehabilitation or maintenance works. It is important that bare areas on the embankment do not occur.

5.3.4 *Upsetting the Spirit of Community Volunteerism*

Many community projects are undertaken through communal (self-help) labor. Such regular free labor is regarded as community contribution towards improving livelihood through construction and maintenance of essential community infrastructure and facilities. The LIPWs approach is likely to diminish the communal spirit and the self-help practice commonly exhibited by the people.

It is however, noted that the type of sub-projects – feeder roads and small dams involved in the SOP are not the usual type of candidate projects for self-help labor. The ‘money-for-community work’ may therefore not significantly affect the willingness to contribute free labor in future for community services.

Mitigation – Retaining the Communal Spirit of Volunteerism

Effective sensitization of communities must precede implementation of all sub-projects to ensure understanding of the SOP. Sensitisation should cover areas such as: the contract terms (between contractors and DAs); obligations of the contractor; obligations of the workers, purpose of the project; source of funding; mechanisms for addressing grievances; wages, as well as on the need to maintain the spirit of volunteerism.

5.3.5 *Inadequate Contractors with Labor-based Experience*

The stakeholder consultations revealed that only a few contractors have experience in LIPWs. In all the districts visited, none has a single contractor with the capacity. The very few trained contractors (found at the regional capitals) were asking for re-training. This will be a limiting factor to the rapid commencement of the project implementation. Without the requisite LIPWs skills for contractors and capacity for managing the rather large numbers of workers, the project implementation may suffer set-backs.

Mitigation – Building a Pool of Local Contractors

There is the need to identify contractors in the districts (where possible) to train on labor-based works. This will ensure that the greatest proportion of the project money is retained in the area.

5.3.6 *Potential Delays in Contract Completion Schedule*

In situations where work drags on for months, fatigue may set in, especially in cases where workers are subjected to long hours of work. Diminishing returns could reduce output and delay contracts beyond stipulated completion schedule, possibly extending to the farming season.

Mitigation – Formation of Work Teams

In order to sustain output and increase the total number of people that benefit from employment, contractors must form work teams who may work for instance, every other fortnight. This can provide the workers enough time to regain energy in the hot and dry Harmattan Season (i.e., slack agricultural period).

5.3.7 *Exploitation by Contractors*

Consultation with one AC and community members revealed that the labor-based works is not new. They hinted of the potential to exploit workers by long working hours (7am to 5pm), with incommensurate wages. Contractors may also default in payment of wages, especially for work done in the final stages of the contract and disappear. Mistrust between community members and contractors may undermine the project implementation.

Mitigation – Avoidance of Worker Exploitation

Contracts to be signed between DAs and contractors must specify maximum work-hours (not to exceed eight (8) hours for manual workers as indicated in the Labor Act). For instance, work hours of 7am to 4pm daily with 1.5 hours of short breaks would guarantee 7.5 hours of productive work.

5.3.8 Non-availability of Labor at Certain Times

Some community members may withdraw and resort to other activities, if they perceive such alternatives as more financially rewarding or less stressful than the project. Thus, the community could abandon a sub-project midstream disrupting the planned implementation schedule.

Mitigation – Sourcing for Labor Elsewhere

The implementation of the project must be preceded by an awareness program of the ACs and communities involved for a good appreciation and for them to be able to identify with the objectives of project. In the event, however, that a community's grievances cannot be resolved by the AC and the DA, leading to abandonment of the project, labor may be imported from other nearby communities by the contractor.

5.3.9 Concentration of Large Workforce at a Site

Managing large numbers of people (as required in LIPWs) at a site will be a major challenge for contractors. Some of the sources of concern may include quarrels, fighting, lateness, laziness and cheating affecting output. Others include waste generation and disposal (e.g., food leftovers, plastic waste and human waste (excreta)).

Mitigation – Building of Capacity of Contractors

The training for contractors must include management of large number of people (labor force) who will then be able to train their foremen to professionally handle the situations that will arise. Some of the specific areas may include worker behaviour, sanitation, etc.

6.0 E&S IMPACTS AND MITIGATIONS OF SUB-PROJECTS

6.1 Impacts and Mitigations at Sub-Project Level

This section provides the general impacts and mitigations at the sub-project level. The sub-project level refers to the specific rehabilitation/maintenance works of feeder road or small dam or dugout to be implemented in future, as distinct from the SOP-level, which covers the bulk of the five components.

The general impacts and mitigations associated with the feeder roads, small dams and dugout sub-projects are presented in table 6.1. These are provided to guide in the rapid screening/initial assessment of sub-project impacts for approval purposes by the EPA.

Table 6.1 General Impacts and Mitigations Associated with Sub-Projects

Sub-Projects	Potential Impacts	Sources	Safeguards/Mitigations
Rural Road Infrastructure	Dust/ emissions	<ul style="list-style-type: none"> Removal of top soil / clearing and site preparation Dumping of spoil materials Compaction with machinery Burrow pits and gravel winning Operating quarries Haulage of materials 	<ul style="list-style-type: none"> Water dousing to minimize dust Cover all heaped sand and flyable construction materials Tarpaulin covering of haulage truck (for dust control) Minimize area of ground clearance Haulage speed limit in sensitive areas (40km/hr) Regular Servicing of equipment/machinery Work-site dust management (nose mask)
	Noise and vibration	<ul style="list-style-type: none"> Compaction with machinery Burrow pits and gravel winning Operating quarries Haulage of materials Use of implements 	Noise-sensitive areas (include schools, hospitals/clinics, communities, wildlife sanctuary, reserves, etc) <ul style="list-style-type: none"> Maintain equipment noise level (less than 75dBs) Hours of operation (between 8.30 and 5.00pm) Haulage speed limit in sensitive areas (40km/hr) Work-site noise management (less than 65dBs, ear plugs)
	Pits/trenches near road	<ul style="list-style-type: none"> Landscape disturbance Gravel removal Trenching 	<ul style="list-style-type: none"> Restore topsoil and re-vegetate landscape after construction Cover all pits and trenches Reclaim borrow pits
	Construction waste generation and disposal	<ul style="list-style-type: none"> Over extended site preparation and unnecessary waste generation Poor handling of cleared vegetation and top soil Inappropriate disposal of spoil and other construction wastes 	<ul style="list-style-type: none"> Minimizing the area of ground clearance Waste minimization measures Work-site waste management (Plastics, scraps, waste wood, etc.) Provision of waste bins for use by workers Disposal of waste at approved locations
Public		<ul style="list-style-type: none"> Exposure to atmospheric 	<ul style="list-style-type: none"> Regular servicing of construction equipment

	safety/health Accidents	<p>emissions from construction equipment</p> <ul style="list-style-type: none"> • Exposure to excessive and continuous noise and vibration from construction activities • Lack of warning sign and safeguards • Excessive manual work 	<ul style="list-style-type: none"> • Use of equipment with low operating noise levels (less than 65dBs) • Provision and use of appropriate PPEs • Restricting construction works to day time hours • Intensive public awareness campaigns • Open ditches and other hazard areas to be marked with visible tapes
	Workers safety/health accidents	<ul style="list-style-type: none"> • Exposure to atmospheric emissions from construction equipment • Exposure to excessive and continuous noise and vibration from construction activities • Lack of warning sign and safeguards • Excessive manual work • Health and safety risks due to improper working gear and lack of monitoring 	<ul style="list-style-type: none"> • Regular servicing of construction equipment • Use of equipment with low operating noise levels (less than 65dBs) • Provision and use of appropriate PPEs • Restricting construction works to day time hours • Intensive public awareness campaigns • Open ditches and other hazard areas to be marked with visible tapes • Provision of safety wears like boots and helmets, maintenance and upkeep of health safety log book and monitoring officer
	Water contamination and flooding	<ul style="list-style-type: none"> • Construction-related activities – land clearing, gravel removal, drain construction, etc. • Inappropriate disposal of waste • Blocking of drains and drainage/stream diversion 	<ul style="list-style-type: none"> • Water crossings to be minimized, and buffer zones of undisturbed vegetation left between construction sites and watercourses. • Redesign of road/construction to accommodate flood prevention methods. • Disposal of waste materials at designated site • Provision of planned diversion routes • Flood control management
Rural Water Infrastructure (Dams and Dugouts)	Siltation and modification of flow of water courses	<ul style="list-style-type: none"> • Site preparation and clearing • Excavation, transportation of raw materials • Dam excavation • Run-off from exposed surfaces • Stream diversion works • Dumping of spoilt materials 	<ul style="list-style-type: none"> • Avoiding alignments which are susceptible to erosion, such as those crossing steep slopes • Sourcing raw materials away from water sources • Minimize area of ground clearance • Waste materials to be dumped at EPA and DAs approved dump sites
	Water quality degradation (surface and groundwater)	<ul style="list-style-type: none"> • Exposed soil surfaces • Sediment laden run-offs • Concentrating flows at certain points and, in some cases, increasing the speed of flow resulting in flooding, soil erosion, channel modification, and siltation of streams. 	<ul style="list-style-type: none"> • Minimize area of ground clearance • Introduce speed reduction measures e.g. grasses, riprap, and other devices in water channels and stream diversions, etc. • Provide settling basins to remove silt and debris from run-off before discharge to streams, etc • Construction of runoff channels, contouring or other means of erosion control • Use clean fill materials for dams and around watercourses such as quarry fine sand; • Avoidance of increasing speed of water courses • Provide adequate spillways in dam constructions

	Public Safety/Accidents		<p>and other embankments; Provide reservations/buffer zones of undisturbed vegetation between construction sites and water bodies. (Minimum of 60m on both sides of Volta Rivers and 30m for other water bodies)</p> <ul style="list-style-type: none"> • Re-vegetate the dam banks to ensure dam stability and safety • Annual community maintenance of dams with strong oversight by qualified engineers • Compliance with the dam safety plan in the PIM
	Ground water table modifications	<ul style="list-style-type: none"> • Stream drainage excavation & embankments (restricting flow) • Sedimentation, changes in biological activity in streams and on their banks • Uncontrolled construction activities, • Chemicals (agro-chemicals spillage). 	<ul style="list-style-type: none"> • Introduce speed reduction measures e.g. grasses, riprap, and other devices in water channels, etc. • Provide settling basins to remove silt and debris from road runoff before discharge • Construct run-off channels, contouring or other means of erosion control • Pave sections of roads prone to erosion and sedimentation particularly near water crossings. • Compensate with provision of bore holes and wells for communities adversely affected • Adopt enhancements measures in design such as water retention structures in dry areas, and raising inlets to drainage culverts in high water table areas, retarding basins in areas prone to flooding to reduce runoff peaks, spillways.

6.2 Other Mitigation and Safeguard Principles of Sub-Projects

The following are other sub-project level mitigation and safeguards principles that will be observed (further expanded in Appendix 3):

- Principles for good employment practices;
- Particulate emission abatement principles;
- Cultural resources preservation principles;
- Waste generation and management principles;
- HIV/AIDS prevention principles;
- Landscape improvement principles;
- Water resource protection principles; and
- Habitat protection principles.

6.2.1 Principles for Good Employment Practices

To ensure recruitment terms are streamlined for the protection of the rights of community members the following principles will be observed:

- Sensitization of the people prior to commencement of sub-projects on their roles, contract specifications, mechanisms for addressing grievances, etc;
- Specification of work-hours e.g. 8.30am-5pm (for men) and 8.30am-4pm (for women);
- Formation of work teams and use shift systems (to address fatigue and maximize benefits);

- Payment of wages to be supervised by the DAs and also verified in E&M;
- Training of contractors (at the district levels) in labor-based methods.

6.2.2 Particulate Emission Abatement Principles

Implementation of sub-projects will factor the following principles in controlling air pollution (on feeder road works, dams and dugout development, etc):

- Enclosing all construction sites and activities, especially close to communities in order to limit exposure to dust generation;
- Ensuring effective use of water (dousing) to control or minimize dust emission;
- Mounting speed control signals and ramps;
- Contract specifications to include dust control measures;
- Covering of sand heaps (or hauling trucks carrying sand) to avoid dust emission; and
- Planting tall, leafy and dense species between feeder roads and settlements to filter pollutants.

6.2.3 Cultural Resources Preservation Principles

- Feeder roads and other sub-projects will avoid areas that cut through known cultural sites;
- Cultural resources uncovered during works will be handed over to the National Museums and Monuments Board (NMMB) for preservation and/or preservation of the site;
- Salvage excavation and relocation of artefacts or ruins from a cultural site;
- Collaboration between the DAs and the NMMB in determining and avoiding damage to cultural sites and resources; and
- Marking and fencing important cultural sites during works period.

6.2.4 Waste Generation and Management Principles

Waste management mitigation principles will include:

- Disposal of construction and related waste materials at designated/approved dump site;
- Adoption of waste minimization measures;
- Incorporation of waste management plan in contract specifications;
- DAs to enforce appropriate sanitation and related bye laws; and
- Worker awareness program to observe proper waste management measures.

6.2.5 Work Place HIV/AIDS Prevention Principles

Highlights of the principles to be followed by contractors are set out below, based on ILO guidelines and those of the Ghana AIDS Commission:

- HIV/AIDS prevention clauses will be incorporated into works contracts;
- Ethical principles in handling persons with medical conditions will apply;
- Relations with infected/potential workers will be governed by the basic human rights as enshrined in the Constitution of Ghana;
- Refusal of employment or dismissals will not be based on HIV status;
- HIV/AIDS prevention and treatment guidelines for community/workplace will be prepared;
- Due care and confidentiality will be exercised in handling information on HIV status of workers;
- Prevention programs on HIV by contractors will include education and information provision, peer counselling, condom use promotion and distribution, and facilitation of voluntary counselling and testing

6.2.6 Landscape Improvement Principles

A number of management principles to protect the soil and landscape will include:

- Minimizing the area of ground clearance along the construction corridor;
- Avoiding sensitive alignments, including steep slopes;
- Prompt reclamation of degraded lands (e.g. burrow pits).
- Progressive replanting of disturbed areas during construction;
- Specifying as contractors' obligation - erosion control, spillage prevention and effective re-vegetation;
- Erection of intercepting ditches at the tops and bottoms of slopes, with gutters and spillways used to control the flow of water down a slope; and
- Emergency response procedures for spillages.

6.2.7 Water Resource Protection Principles

Mitigation principles to prevent, minimize and manage impacts on water resources will include:

- Avoiding alignments which are susceptible to erosion (as much as possible);
- Minimizing the number of water crossings through alternative route surveys;
- Using clean fill materials around watercourses such as quarried rock containing no fine soil;
- Providing settling basins to remove silt, pollutants, and debris from road and other construction run-off before discharge to adjoining streams or rivers;
- Constructing run-off channels, contouring or other means of erosion control;
- Paving sections of feeder roads susceptible to erosion and sedimentation; and
- Compensating by providing alternative source of water such as bore holes for communities adversely affected.

6.2.8 Habitat Protection Principles

Mitigation principles to address habitat destruction and disruption will include:

- Avoiding environmentally sensitive areas to prevent severe impacts on flora and fauna;
- Replanting in road rights-of-way and adjacent areas to accelerate re-vegetation and succession;
- Re-engineering road cross-section designs by using narrower widths, lower vertical alignments, smaller cuts and fills, flatter side slopes, and less clearing of existing vegetation;
- Providing "aquatic crossings" with culverts designed with the needs of migratory aquatic species in mind;
- Installing roadside reflectors to scare animals away from the roadway when vehicles approach at night.

7.0 ESMF IMPLEMENTATION AND MANAGEMENT

The successful implementation of the ESMF depends on the commitment of the beneficiary DAs and ACs, the contractors, consultants and the safeguards specialist, as well as capacity within the institutions and the institutional arrangement to effectively use the framework. This section presents the institutional arrangement, capacity building, E&S monitoring plan and budget provision necessary for the ESMF implementation.

7.1 Implementing the ESMF

The DAs will be responsible for E&S assessment and for securing the required permits for the sub-projects under the LIPWs, with the help of consultants. The District Engineer (DE Works Department) will take custody of this ESMF and will play a lead role under the guidance of a consultant in conducting the initial sub-project E&S assessment (using the customized form in Appendix 2). The DE will liaise with the EPA for submission of the completed assessment forms, for inspection and other processes leading to granting of the permit for sub-projects.

The project environmental and social management (ESM) is linked to the project implementation activities. The ESM commitment originates from the requirement in Section 5 of the Initial Assessment/EA Screening Form (Appendix 2). The ESM phase comprises monitoring, management (of E&S impacts and mitigations) and reporting during implementation activities such as rehabilitation, maintenance, decommissioning of sites, etc. The ESM process will verify:

- Effectiveness of mitigation measures being implemented;
- Compliance with mitigation and other environmental and social requirements;
- Unanticipated or residual impacts that have arisen requiring remedial action;
- How far contractors are meeting or adhering to required environmental and social principles, standards and commitments; and
- Extent to which project monitoring and reporting requirements are met.

The E&S Clauses (Appendix 3) combined with Table 6.1 will guide the DE, Works Department, the E&S Consultants and other officers of the DAs, DFR, GIDA, etc. to supervise implementation and M&E.

7.2 Institutional Arrangements

The MLGRD, the decentralized agencies and particularly the DAs and ACs are the main implementers of the project. The other institutions and agencies whose functions relate to the project in terms of project design, technical support and project E&S approvals include the Safeguards Specialist, EPA, DFR and GIDA.

7.2.1 Project Oversight

A decentralized oversight committee and secretariat of MLGRD will be established to coordinate and oversee implementation. The committee will be known as National Project Steering Committee (NPSC) and the secretariat will be National Coordinating Office (NCO).

The National Project Steering Committee (NPSC) will:

- Provide guidance on strategic, policy and implementation issues;

- Coordinate activities of the ministries, agencies and other stakeholders involved in the project implementation;
- Review and approve annual work plans, budget and annual reports;
- Review and discuss quarterly and annual project progress reports and make necessary recommendations; and
- Assess the progress towards achieving the project's objectives and take corrective action if necessary.

The NPSC will be chaired by the minister of MLGRD or his/her designee. The NPSC will include representatives at the chief director level for the ministries and at the director levels for the agencies of relevant ministries and institutions and civil society organizations, including: (i) Ministries of Finance and Economic Planning; Employment and Social Welfare; Food and Agriculture; Works and Housing; Environment, Science and Technology; Roads and Highways; and Interior; (ii) Department of Feeder Roads (DFR); Ghana Irrigation Development Authority (GIDA); Labor Department; and (iii) Ghana Association of Private Volunteer Organization in Development (GAPVOP) and Civil Works Contractors Associations. The NPSC will meet quarterly in rotation in project regional capitals to allow members to assess the project implementation progress on the ground.

7.2.2 Project Implementation and Management

National Level

There will be a National Coordinating Office (NCO), which would assist NPSC to oversee and coordinate project implementation. The NCO will be a lean structure with the main functions of project coordination, financial management, procurement review and monitoring and reporting. It will function as the secretariat for the NPSC. The NCO will be headed by a national coordinator supported by chief financial controller who will be located in Accra. The following are the main functions of NCO: (i) coordinating, consolidating and reviewing the project's annual work programs, budgets and procurement plans; (ii) preparing quarterly project progress reports; (iii) disbursing project funds to DAs/other implementing agencies and ensuring the replenishment of project accounts; and (iv) undertaking the necessary reporting, audit and M&E activities. The following NCO national staff will be decentralized to Tamale to provide closer support to frontline activities: a chief infrastructure engineer; a chief institution and capacity specialist; a safeguard specialist and a monitoring and evaluation specialist.

Regional Level

At the regional levels, the Regional Coordination Councils (RCC) will coordinate all regional development programs, give technical support to the DAs, conduct monitoring of the sub-projects and report to the NPSC. The three (3) RCC under the leadership of the regional minister will coordinate the implementation arrangement in the beneficiary districts and ensure that the E&S safeguards are adhered to. The regional chief planning officer will act as technical secretariat for the project and will coordinate program planning and execution.

Since the RCCs are however weak and poorly resourced, they will be supported by project Regional Coordinating Units (RCUs). The RCUs will assist the RCCs to plan, coordinate and monitor project activities at the regional level. The RCUs will assist other relevant line ministries and agencies in providing timely and efficient backstopping to DAs and also support DAs to implement agreed annual work programs. RCUs will also ensure prudent management of project funds by DAs. Each RCU will be headed

by a regional coordinator and staffed by a rural engineer, an institution/capacity-building specialist and an accountant.

District Level

At the district levels, the DAs will have full responsibility for the project implementing in collaboration with the beneficiary communities. The District Planning Committee (DPC), which includes the heads of the technical departments and the representatives of the Area Councils, will be responsible for the planning of activities that are selected from their development plans in close consultation with the target communities. The DPC will be responsible for the timely preparation and submission of annual work programs and budget, detailed design of LIPWs, procurement, supervision and payment of contractors.

The Community Development and Cooperative Department will spearhead the mobilization of communities and groups. The DPC will undertake regular field supervision to monitor implementation progress and produce a quarterly report for submission to the RCCs and NCO, with copies to be sent to the respective departmental heads.

7.3 Capacity Building

Capacity building in E&S assessment and management will be essential for the ESMF implementation. The institutions need to understand the purpose of the ESMF, their expected roles and the extent to which the ESMF will facilitate the respective statutory functions. This will engender the required collaboration for the ESMF implementation.

The objectives of the capacity building efforts will include to:

- Support the NPSC and NCO to mainstream E&S issues in the sub-projects; and
- Strengthen the RCUs and other stakeholders (DFR, GIDA, etc.) to support DAs and ACs in E&S and other aspects of the implementation of sub-projects.

The target groups for training include:

- Project coordinators;
- Project teams;
- Consultants;
- Contractors;
- District Coordinating Office staff (including the Planning officers);
- Decentralized Departments of the DAs;
- EPA staff in the three Regional Offices;
- Regional Coordinating Office staff

The broad areas for capacity building include the following:

- Project screening/initial assessment techniques, screening tools, legislation and procedures;
- General project planning and management inter-faced with E&S assessment and management;
- E&S Assessment (in PEA, EIA, SEA/ESMF);
- Review techniques;
- Environmental (and social) management (including monitoring, environmental audit, etc.);
- Environmental report preparation and other reporting requirements;
- Public participation techniques and procedures;

- Public awareness creation/educational techniques (on environmental, social and health issues); and
- Climate change (vulnerability assessment and adaptations in MTDPs).

7.4 Environmental and Social Monitoring and Reporting

Monitoring is a key component of the ESMF during project implementation. It is essential that the basis for the choices and decisions made in the sub-project design and other E&S safeguard measures implemented are verified. Monitoring will verify the effectiveness of impact management, including the extent to which mitigation measures are successfully implemented.

Monitoring of the general project and the specific sub-project activities will help to:

- Improve environmental and social management practices;
- Check the effectiveness of the DAs' E&S oversight responsibility; and
- Provide the opportunity to report the results on safeguards, impacts and mitigation measures implementation.

The district engineer (DE) support by the consultants will be responsible for E&S oversight and monitoring. The DE will ensure that contractors adhere to the E&S safeguards (Appendix 3).

For the Contractor to successfully carry out his obligations on E&S safeguards, a designated supervisor/foreman will be employed to monitor and report progress on E&S compliance to the DA through the DE on monthly basis. The DA on its part will submit bi-monthly E&S monitoring reports to the EPA and copy RCU. The E&S monitoring reports of all participating districts will be collated by the RCU and submitted to the NPSC. The NPSC will then collate the regional E&S management reports for submission to MLGRD. NPSC and RCC will conduct evaluation of project implementation in the three regions.

Table 7.1 Proposed Budget for the ESMF Implementation

No.	Institution	Capacity Gaps Identified	Capacity Building Measures	Rate	Estimated Cost (\$)
1.	Environmental Protection Agency (EPA)	<ul style="list-style-type: none"> Inadequate number of staff at the regional offices Inadequate know-how in SEA and project cycle review Inadequate number of vehicles at the regional offices 	<ul style="list-style-type: none"> Processing charges and Permit fees for 3 small 'impact scale' construction-related proposals for each of 38 districts Training in SEA and Project cycle review (5 days for 5 persons per regional office for 3 regions) 	<ul style="list-style-type: none"> \$ 413 per proposal 	47,082
				<ul style="list-style-type: none"> \$ 40/p/d (/p/d: per person per day) 	3,000
Sub-Total					50,082
2.	Department of Feeder Roads (DFR)	<ul style="list-style-type: none"> Inadequate knowledge of staff in environmental safeguard principles for LIPWs 	<ul style="list-style-type: none"> Training course in environmental management, labor standards, contract management etc. (5 days for 5 persons per regional office) 	<ul style="list-style-type: none"> \$ 40/p/d 	3,000
Sub-Total					3,000
3.	Area Council	<ul style="list-style-type: none"> Lack of awareness among community members on the workability of LIPWs 	<ul style="list-style-type: none"> Sensitization of AC members on LIPWs (380 ACs, 10 members each for 1 day) 	<ul style="list-style-type: none"> \$ 5/p/d 	19,000
Sub-Total					19,000
4.	District Assembly (DA)	<ul style="list-style-type: none"> Inadequate technical environmental screening, appraisal and safeguards capacity of the DAs 	<ul style="list-style-type: none"> 3-day training workshop for 5 key members in each of the 38 DAs 	<ul style="list-style-type: none"> \$ 40/p 	22,800
Sub-Total					22,800
5.	Contractors	<ul style="list-style-type: none"> Inadequate capacity in LIPWs management and coordination 	<ul style="list-style-type: none"> Technical training in the use of LIPWs for feeder roads and dam construction for 20 contractors for 3 days 	<ul style="list-style-type: none"> \$ 40/p/d 	2,400
Sub-Total					2,400
TOTAL					97,282

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