THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIA DISASTER RISK MANAGEMENT COUNTRY PLAN PROJECT,
PHASE I

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK
(ESMF)

Disaster Risk Management and Food Security Sector

14 June 2011
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1. **INTRODUCTION**

The Ethiopian Disaster Risk Management Plan – Phase I is intended to support the Government of Ethiopia with the implementation of Hyogo Framework for Action (HFA). The overall objective of the support is to reduce loss of lives and assets from disasters, and consolidate a culture of prevention and mitigation.

Ethiopian DRM Country Plan has an overall budget of USD 5.5 million, of which USD 5 million will be financed through GFDRR; the remaining USD 500,000 will be co-financed by the Government of Ethiopia (in kind contribution), UNDP and WFP. The project will be implemented in tranches over a period of three to five years. This is based on the GFDRR Secretariat decision to focus on Ethiopia as one of the priority countries, mainstreaming Disaster Risk Reduction in Development to meet HFA goals. Of the total of US$ 5 million allocated for Ethiopia, the first tranche (US$ 1.75 million) is being allocated for 2011-12.

This Environmental and Social Management Framework for the support of Ethiopian DRM Plan describes the activities and environmental and social issues arising on Phase I, which is processed as a separate Grant. Phase II is expected to be processed in 2012.

A wide range of natural hazards are present in Ethiopia, including drought, floods, landslides, human and animal diseases, pests, earthquakes, and urban and forest fires. Recurrent drought and floods in particular have the most severe impacts on people’s lives in Ethiopia (refer to Figures 1 and 2). The country’s vulnerability to natural disasters is due to a number of inter-linked factors. These include dependence on rain-fed agriculture, under-development of water resources, land degradation, low economic development, and weak institutions. Furthermore, with a population of almost 80 million people, Ethiopia is the second most populous country in Africa, and has a relatively rapid annual population growth rate of 3.2%. With a GNI of US$330 per capita, Ethiopia is also one of the world’s poorest countries.

Drought is the most significant and recurrent climate-related disaster affecting the country. Ethiopia has mainly dry sub-humid, semi-arid and arid regions, all of which are prone to desertification and drought. Ethiopia has a long history of recurring drought; however, since the 1970s, the magnitude, frequency, and impacts of droughts have become more severe. Moreover, due to climate change and human-induced factors, the areas affected by drought and desertification are expanding in Ethiopia.
Flash floods and seasonal river floods are becoming increasingly common due to deforestation, land degradation, increasing climate variability, and settlement patterns. During the past two decades, major floods in 1988, 1993, 1994, 1995, 1996 and 2006 have caused significant loss of life and property. Large-scale flooding is limited to the lowland areas of the country; however, intense rainfall in the highlands causes flooding of settlements in a number of river basins, particularly the Awash River Basin in the Rift Valley. Annual flooding in urban areas, especially in Addis Ababa, causes property damage along streams descending from the nearby hills. Flash floods are common in most parts of the country, especially when rains occur following prolonged dry spells.

Ethiopia’s climate is highly variable, and is projected to become more variable due to climate change, with the potential for increased frequency of extreme weather events including floods and droughts. Rural areas are very vulnerable to climate variability. The most vulnerable sectors to climate variability are agriculture, water, health, and energy. Smallholders dependent on rain-fed crop production and pastoralists in drought-prone areas are the most vulnerable rural livelihood systems. Approximately 85% of the population lives in rural areas and depends on the local natural resource base to meet their basic welfare needs. The relatively under-developed, semiarid, and arid regions of Afar and Somali have been historically vulnerable to unfavorable climatic conditions, which are being exacerbated by climate change. The Amhara and Oromia regions are characterized both by areas of good agricultural production in the highlands and midlands and by recurrent droughts mainly in the lowlands. The Tigray region, vulnerable to recurrent drought, is also vulnerable to climate change. Recurrent droughts, conflict, and rising food prices have resulted in persistent and high levels of food insecurity, and recurrent emergency situations. In 2008, more than six million Ethiopians required emergency food assistance due to drought. In recent years the value of emergency food and non-food aid has reached over US$350 million on average per year. Prior to the PSNP

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1. Most of Ethiopia’s electricity is from hydro-electric power.
which began in 2006, food aid was typically managed through emergency mechanisms that hand out food to needy households, rather than being provided as part of development programs that build and/or protect assets (human, natural or physical). Thus, although there have been massive flows of food aid into Ethiopia since the 1980s, its contribution to sustained economic development has been insignificant until the advent of the PSNP.

The vulnerability to climate-related hazards and food insecurity is closely linked to land degradation. About 85% of the land surface in Ethiopia is considered susceptible to moderate or severe soil degradation and erosion. In the highlands, shrinking farm sizes and soil degradation and erosion are reducing the sustainability of agricultural production and causing downstream pollution (including siltation of dams), thereby making it difficult for rural populations to meet their basic needs. The annual costs of land degradation are estimated to be at least 2-3% of agricultural GDP.\(^3\) To put this in perspective, that means that land productivity would need to increase by more than 20% immediately to reverse the damage of the past 10 years. In addition, land productivity is declining as the average household landholding is declining due to population pressure and limited uncultivated land.

2. **PROJECT OBJECTIVE**

The objective of the Ethiopian DRM Country Plan is to strengthen institutions in disaster risk reduction, improve early warning capacity and improve disaster recovery efforts.

3. **PROJECT DESCRIPTION**

The project will support the following three component activities:

- Woreda Disaster Risk Profiling
- Contingency Planning
- Regional Connectivity Implementation

A. **Woreda Disaster Risk Profiling** (US$533,000)

This activity would provide specialized technical assistance, ICT components, training, workshops, field survey and data collection and profile publication. Woreda Disaster Risk Profiles (WDRP) is representations of information regarding a population, place or system’s exposure, sensitivity and resilience to given hazards that can be applied to disaster risk management strategies. The project adopts the conceptual framework as outlined in the Hyogo Framework of Action, wherein vulnerability, hazards and capacity to cope are three basic elements of disaster risk management. These profiles would be developed for selected 35 rural districts (Woredas) in the country. These will help decision makers at all levels to be better informed about the nature, magnitude and key factors that render people, livelihoods, environment, political systems and infrastructure vulnerable to disasters. The proposed project is intended to feed into all DRM strategies and programs of the country and helps in the preparation of contingency plans, among other things.

B. **Contingency Planning** (US$172,000)

\(^3\)Ethiopian Strategic Investment Framework for Sustainable Land Management (Draft). SLM Secretariat. August 2008.
This activity would provide specialized technical assistance, trainings, workshops and preparation and publication of contingency plan for each selected Woreda. It involves analyzing of disaster risks; identifying, defining and prioritizing contingencies; analyzing scenarios, and preparation of Contingency Plans for each selected scenario. It is part of the preparedness activities for disasters. Contingency Planning results in organized and coordinated courses of action with clearly identified institutional roles and resources, information processes, and operational arrangements for specific actors at times of need. Based on scenarios of possible emergency conditions or disaster events, it allows key actors to envision, anticipate and solve problems that can arise during crises. Thus, it helps decision makers and implementing agencies in ensuring that in the event of a crisis, the response will be rapid, appropriate and effective. The contingency plan will be prepared for 35 rural Woredas.

C. Regional Connectivity Implementation (US$565,000)

The Woreda-Net Connectivity Project aims at having streamlined transfer of early warning data through various administrative levels. The project will be implemented in, 35 Woredas, 4 regional offices and 3 central strategic warehouses. The project has basic activities such as field work assessments, network, database system setting and ICT components as well as trainings.

A smooth flow of information is an essential element of any development process, particularly in the field of DRM, where in most cases timely decisions can save millions of lives, livelihoods and property. The proposed project will contribute to improvement of data quality and supporting data transfers and exchanges between woredas, zones, regions and the federal level DRMFSS offices, the most severely drought-affected Woredas, and the strategic warehouses. It also enables exchange of information among government and international organizations and facilitates coordination. This will ultimately result in a strengthened and effective early warning system.

4 ENVIRONMENTAL AND SOCIAL IMPACTS

The Ethiopian DRM Country Plan project is rated as a Category B project, triggering policy OP 4.01 (Environmental Assessment). Since Phase I involve primarily Technical Assistance, studies and equipment, the overall scale of the impacts is expected to be minor and easily mitigated by the recommendations for safeguard screening included in this ESMF.

The Regional Connectivity implementation involves connecting local government offices by cable, or between small wireless-transmission towers, for transfer of early warning data through various administrative levels. The scale of the impacts is expected to be very minor. In a few cases when the cable is laid outside the office compound this will typically be on or above government land, and as it will not exceed 100 m, any impacts arising can be easily mitigated by the recommendation of safeguards screening included in this ESMF.

The Woreda Disaster Risk Profiles component, which consists of studies and field surveys to assess the current disaster situation in Ethiopia, is not likely to have any environmental and social negative impacts. The Woreda Disaster Risk Profiles will form the basis of contingency plans, which consists of technical assistance and studies, to come up with disaster preparedness plans. The Contingency Planning component is not likely to have any significant environment or social impacts. Any impacts arising during the implementation will be mitigated by the recommendations incorporated in this ESMF, and in procedures to be developed within the Contingency Planning component.
5. LEGAL, POLICY AND ADMINISTRATIVE FRAMEWORK

5.1 Relevant Legislation and Policy

5.1.1 The Constitution of Ethiopia

The 1994 Constitution of Ethiopia proclaims that all citizens shall have a right to live in a clean and healthy environment. It states that Government and citizens have a duty to protect the environment, and the design and implementation of programs and projects shall not damage or destroy the environment. The Constitution incorporates a number of other provisions relevant for the protection, sustainable use and improvement of the environmental resources of the country. It reflects a view of environmental concerns in terms of fundamental human rights, and provides a basis for the formulation of national policies and strategies on environmental management and protection. It assures that no development activity shall be disruptive to the ecological balance, and that people concerned shall be made to give their opinions in the preparation and implementation of environmental protection policies and programs.

The Constitution also:
(a) Maintains land under the ownership of the Ethiopian people and the government but protects security of usufruct tenure;
(b) Reinforces the devolution of power and local participation in planning, development and decision taking by regions and Woredas;
(c) Ensures the equality of women with men;
(d) Ensures the appropriate management as well as the protection of the well-being of the environment; and
(e) Maintains an open economic policy.

The Constitution of Ethiopia further states that land is retained under the control of the people and the Government of Ethiopia, and thus prohibiting its buying and selling. It however ensures its usufruct tenure rights and allows for its usufruct rights to or from others (i.e. rent out the land). All farmers who would like to make a livelihood from farming are entitled to have a plot of land free of charge.

5.1.2 National Policy on Disaster Prevention and Management (NPDPM, 1993)

The NPDPM was introduced in order to address the root causes of the vulnerability to drought and famine. It discourages free distribution of food relief to able bodied persons. Rather it emphasizes the principles of protecting human life in times of disaster, protecting the quality of life from deterioration due to disasters and timely mitigation, protecting the assets and economic fabric and best use of natural resources for speedy post disaster recovery, and the provision of relief taking regard for human dignity.


The first comprehensive Environmental Policy of the Federal Democratic Republic of Ethiopia was approved April 2, 1997 by the Council of Ministers. It derives from the recommendations of the Conservation Strategy of Ethiopia (CSE) which was prepared in 1989 and later updated in 1997. The overall policy goal is to: "improve and enhance the health and quality of life of all Ethiopians and to promote sustainable economic development through the sound management
use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs”.

The Environmental Policy provides a comprehensive set of principles and policies to guide the integration of environmental considerations in development activities, and includes nine policy objectives, 19 guiding principles, ten sectoral policies and ten cross-sectoral policies.

The National Policy was further strengthened with the adoption of several multilateral environmental conventions, including:
- The Convention on Biological Diversity;
- The Basal Convention on the Control of Transboundary Movements of Hazardous Wastes;
- The United Nations Framework Convention on Climate Change;
- The United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa;
- The Vienna Convention and the Montreal Protocol for the Protection the Ozone Layer;
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and

5.1.4 National Action Plan to Combat Desertification (2001)

Ethiopia signed the Convention to Combat Desertification in October 1994 followed by the Government ratification in June 1997. The Environmental Protection Authority (EPA) was designated by the Government as a national focal agency for the implementation of the convention. The activities so far have included, among others, the development of a National Action Plan for the Environment and the regional action programmes are under development.

5.1.5 Environmental Proclamations (2002)

A series of legal proclamations form the basis for the environmental assessment and management framework in the country.

The Proclamation on the Establishment of Environmental Protection Organs (No. 295/2002) assigns organizational responsibilities for environmental management activities as well as environmental protection regulations and monitoring. It gives the Environmental Protection Agency (EPA) the legal powers to ensure enforcement and compliance with environmental laws and standards and differentiates the responsibilities among the environmental agencies at federal and regional level.

The Proclamation on Environmental Impact Assessment (No. 299/2002). Article 5: Project Requiring Environmental Impact Assessment of the Proclamation states that: "Every project which falls in any category listed in any directive issues pursuant to this Proclamation shall be subject to environmental impact assessment”; it also states that programmes and policies with potential impacts shall be subject to the provisions of the proclamation.

The Proclamation on Environmental Pollution Control (No. 300/2002). This law recognizes the fact that some social and economic development endeavors may inflict environmental harm that could make the endeavors counterproductive. To this end, it aims to eliminate or, when not possible, to mitigate pollution as an undesired consequence of development activities.
The Proclamation on Solid Waste management (No. 513/2007). It gives the Environmental Protection Agency (EPA) to enhance capacities at all level to prevent the possible adverse impacts while creating economically and socially beneficial assets out of solid wastes.

5.1.6 EIA Guidelines (2000)

The purpose of the EIA guidelines is to ensure that development projects integrate environmental considerations in the planning process as a condition for their approval. The EIA process includes:

- Application
- Pre-screening
- Screening
- Scoping
- EIA and submission of EIA report
- Review of the EIA and decision by the Competent Authority

The EIA guidelines cover industrial, mining, agriculture and infrastructure development, all of which are likely to impact the environment in a significant manner.

5.1.7 Food Security Strategy (2002)

The Food Security Strategy is targeted mainly toward the chronically food insecure, moisture deficient and pastoral areas, with a focus on environmental rehabilitation to reverse the level of degradation and also as a source of income generation for food insecure households through a focus on biological measures. Water harvesting and the introduction of high value crops, livestock and agroforestry development are also included in the recent strategy. The objectives of this policy are to (i) increase the availability of food through increased domestic production, (ii) ensure access to food for food deficit households, and (iii) strengthen emergency response capabilities. The strategy recognizes the need to tailor interventions to the diversity of the food production zones - areas with adequate moisture, moisture deficient and pastoral areas. Chronically food insecure areas require a more comprehensive and appropriate package of interventions, which may include soil and water conservation, plant nutrient generation and recycling, drought and pest resistant crops and improved post harvest management.

5.2 Administrative Structure for Environmental Management

5.2.1 Federal and Regional EPAs

The EPA has overall responsibility for setting environmental policies, regulations and standards and for administration of EIA requirements.

Regional EPA offices have been established in almost all of the regions and where they have not been established, other bureaus are designated to manage environmental affairs and coordination with the federal EPA. The regional EPA bureaus operate independently of the Federal EPA, reporting to regional government.

5.2.2 Ministry of Agriculture

The ministry is responsible for a broad array of agricultural production and research, food security, poverty reduction, natural resource management and rural development programs and
activities. The regional Bureaus of Agriculture and Natural Resources Development are directly involved in delivery of programs with Woredas, in keeping with the decentralized strategy and the government's Agricultural Development-led Industrialization policy.

5.2.3 Ministry of Water Resources

This ministry is responsible for overall inventory, planning and management of surface and ground water resources in the country. This includes aspects of watershed management, water supply and water quality management that affect rural development programs. Regional Water Bureaus are directly involved in assisting Woredas and other agencies in various water resource development projects.

5.2.4 Woreda Bureaus of Agriculture, Rural Development and Health

The Woredas are a key focus of the government's commitment to decentralized delivery of services. The various departments at the Woreda level have a direct responsibility for finance, land use, natural resources, infrastructure, and development at the local level. The agriculture departments have subject matter specialists and others who advise development agents working at the village level. The PSNP implementation will depend upon appropriate inputs and management controls related to soil and water conservation, small scale irrigation development, rainwater harvesting, road development and water supply, sanitation and waste management associated with rehabilitated schools and clinics.

5.2.5 Kebele Administrations

The kebeles (areas with an average population of about 5,000) are in practice the primary contact level for most Ethiopian citizens. Kebele administrations consist of an elected Kebele council (in principle 100 members), a kebele executive committee of 5-7 citizens, a social court, and the development and security staff posted in the kebele.

The kebele council and Executive committee's main responsibilities are:

- Preparing an annual kebele development plan;
- Ensuring the collection of land and agricultural income tax;
- Organizing local labor and in-kind contributions to development activities;
- Resolving conflicts within the community through the social courts.

Kebele executive committees are answerable to their Woreda council. Unlike executive committee members at the region and zone, elected members receive no stipend. The only official Kebele officer is the council chairman, who receives a small monthly allowance. The kebeles provide a link between the state and households and are responsible for enforcing the directives from the government ministries. In remote areas, the kebeles may be the only association, governmental services are conveyed through them.
6. **RELEVANT WORLD BANK POLICIES**

In addition to the GoE’s environmental and social regulations, the World Bank’s safeguard policies will also apply. The Bank’s Operational Policies further require that the GoE and the World Bank, as a condition for project funding, must disclose the ESMP as a separate and standalone document before the Bank’s appraisal of the proposed project. The World Bank recognizes the importance of sustainable poverty reduction in its support to its member countries and has developed and implemented environmental and social safeguard policies to that effect. These policies are aimed at preventing and mitigating undesired harm to people and their environment in the development process by providing guidelines for Bank and borrower staffs in the identification, preparation, and implementation of programs and projects. The policies also provide opportunity for the participation of stakeholders in project design, and building ownership among local populations.

The Safeguard Policies that are triggered by this subproject are summarized in the following table.

**Safeguard Policies likely to be Triggered by this Project**

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<th>Ref. No</th>
<th>World Bank Safeguard Policies</th>
<th>Objective</th>
<th>Application to the ESMP</th>
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| OP 4.01 | Environmental Assessment                       | • To help ensure the environmental and social soundness and sustainability of the project interventions  
  • To support integration of environmental and social aspects of projects into the decision-making process.       | Mitigation measures avoid or mitigate potential negative environmental or social impacts of the project during project implementation. |

In the above Operational Policies, it is a general requirement that screening be conducted as early as possible for potential impacts and draft mitigation plans are prepared as part of the EA or equivalent process, in a timely manner, before appraisal formally begins, in an accessible place and in a form and language that are understandable to key stakeholders.

The screening will be undertaken by DRMFSS in conjunction with Environmental Focal Person (EFP) at the decentralized level and the local stakeholders (i.e. local recipient communities). In addition, there is the Bank’s Disclosure Policy BP 17.50 which requires that all safeguard documents are disclosed in the respective countries and at the Bank’s Info shop prior to appraisal. Of these operational policies, OP 4.01 is the “umbrella” policy.
7. IMPLEMENTATION ARRANGEMENTS

The overall Project will be executed by Disaster Risk Management and Food Security Sector (DRMFSS), which has overall responsibility for disaster management and reduction of vulnerability to disaster risk for people and assets throughout in Ethiopia. DRMFSS’s Procurement Unit will manage the procurement of goods and services.

All the three programme components will be implemented in the same 35 Woredas (see Annex VI for list). All these woredas (except two) are PSNP woredas and also among the most disaster prone woredas of the country. The modalities of programme implementation can be summarized under the three components:

7.1. Woreda Disaster Risk Profiling

WDRP programme is heavily dependent on data collection that results into the establishment of a woreda-level information system that guides the DRR activities in that woreda. The data is collected both at secondary and primary levels. An indicator compendium has been prepared that lists all possible indicators to capture the various components of disaster risk (hazard, vulnerability and capacity). Initially attempts are made to collect all possible data on these indicators from available sources. For the remaining indicators a primary data collection is organized in the specific woreda.

Both quantitative and qualitative data are collected in a woreda. For the quantitative data, a household questionnaire is administered to statistically significant number of households (average being around 650 households). On the qualitative side, a Focus Group Discussion is conducted with communities in every kebele while Key Informant Interviews are conducted with government and non-government officials (besides community leaders and elderly people) in the woreda. All such primary data collection process is executed by the woreda, zonal and regional bureaus (DPPC, agricultural bureaus and other line bureaus, etc.) and is supervised by the federal DRMFSS. The federal DRMFSS has MOUs signed with all the regional DPPCs and hence transfers the required amount in advance to the regional DPPCs. The regional DPPCs use their regional accountants and disburse the money to the data collectors.

Post completion of the primary survey, all completed study instruments are transported back to the federal DRMFSS where the data are entered by trained data entry operators and analysed by technical staffs. The information thus emanated is combined with the secondary information to prepare a profile for the woreda. Before final publication of the profile, the draft profile is shared with the regional and woreda bureaus for validation. Finally, the profile is published on a web-based database which is publicly accessible.

7.2. Contingency Planning

Contingency Planning is a process in which stakeholders work together to establish shared perspectives of potential crisis scenarios, agree upon common objectives, define how they would work together, and how they would make decisions in the event of crises. The process consists of five essential steps: analysing disaster risk; identifying, defining and prioritizing contingencies; analysing scenarios/projections for the planning process; preparing a Contingency Plan for each selected scenario; and Maintaining and updating the Plan. The Contingency Planning process will build upon the WDRPs as described above wherein the information on the first three steps of Contingency Planning will be generated readily from the profiles.
The process will begin with organisation of a training workshop (Training of Trainers) at federal level for government staff from major regions, zones and DRMFSS for preparation of CPs. This training will be cascaded down to the woreda level through regional training workshops in major regions for woreda staff and woreda training workshops for all Development Agents (DAs) from all kebeles / PAs. The DAs will coordinate the Contingency Planning process in their respective kebeles. These kebele-level plans will be collected and consolidated at woreda level to frame the draft plan for the woreda. The draft CP will be submitted to the zonal office and regional bureau for approval which will send it to DRMFSS for approval. Once approved at regional and federal levels the Contingency Plan for the specific Woredas will be finalised. The entire process at woreda level will be supervised by federal DRMFSS and regional DPPC staffs.

7.3. Regional Connectivity Implementation

The Regional Connectivity component will be implemented in 3 warehouses and 4 regional capital cities, besides the 35 woredas. The implementation of the project in the 35 woredas will be based on the four activities described below.

An initial assessment will be carried out in each woreda by a team of technical staffs of DRMFSS’ EWIMCW to verify and refine the assessed needs. Assessment checklists will be prepared to identify the needs specific to each woreda. The assessment mission will be supported by regional and woreda level DPPBs or equivalent. In particular, the assessment will report on:

- Availability and functionality of necessary equipment;
- Confirm the distance between the DPPB and the Woreda Net office and, consequently, the option of wireless or wired connectivity;
- Implementation issues related to putting in place the required additional infrastructure (including labor costs, specific maintenance needs and issues of local environmental and social impact)
- Training needs of local staff

The project team will identify needs of additional technical equipment- communication or computer hardware- to ensure functioning connectivity. The EWRD’s EWIMCW will prepare specification; tender document will be prepared jointly with the procurement team and, when approved, submitted to the finance case team of EWRD for procurement. The technical evaluation will be handled by team of professional from EWIMCW. The finance case team will carry out procurement following the GoE procedures for national procurement and World Bank procedures for international procurements.

Based on the verified assessment outcomes, the project team will also confirm the required connectivity infrastructure to be built- wireless or wired- , installation of poles and mast, configuration of communication equipment and will report on implementation issues. Based on these inputs, the EWIMCW will draft a contract to outsource the work. Such contract will follow a standard format, but will be modified for each woreda when and where required by the assessment findings. A competitive bid will be opened and widely publicized for each woreda. To select the winner, a committee will be formed beforehand including members of the EWIMCW and other sections of EWRD.

Once bids have been submitted, the committee will select a winner and the contractor will submit an action plan. Once the action plan has been approved the committee, the contractor will commence the implementation of the project. Monitoring of the work of the contractors will be carried out jointly by the EWIMCW staff and by the EICTDA staff.
Woreda-specific trainings needs will also be identified in the assessment missions. EWIMCW staff will deploy or contract small teams to administer trainings in regional capitals. All relevant staff from woredas in a given region will be grouped in one training session catering for all identified trainings needs. Once assessment, procurement, contracting and trainings have been carried out, the project activities relative to a given woreda will be concluded.

8. ENVIRONMENTAL AND SOCIAL SCREENING, ASSESSMENT AND MANAGEMENT

8.1 Potential Environmental and Social Impacts

The impacts of the project are expected to be relatively minor given that the project is primarily of a technical assistance nature. The proposed screening and mitigation measures are summarized in the Annexes of this Framework.

8.2 Regional Connectivity

Before implementation of the sub-project begins, the following ESMF procedures are carried out:

Step (i): The Sub-project Designer and woreda EFP jointly check that the proposed works conform to, and are limited to, the requirements as set out in the Project documents (ie., connecting the two stipulated offices by wireless, overhead or underground cable), and that they will not involve certain specified environmental or social situations that would make the sub-project impractical.

Step (ii): The Sub-Project Designer and the woreda EFP jointly Screen the sub-project for potential negative environmental and social impacts, following the ESMF procedures provided in Annex I and II. In cases where the Screening determines that significant negative impacts might occur, the Sub-Project Designer, and woreda EFP:

a. Jointly re-design the sub-project incorporating the required modification;

b. Jointly design and cost appropriate mitigating measures.

In the event that any significant environmental or social issue cannot be resolved by this means, the sub-project will be referred to the Regional EPA for further guidance.

This step focuses mainly on construction-phase impacts, because potential impacts of the operations phase are regarded as negligible.

The format for this procedure is shown in Annex I and II. The completed Screening Form should remain at the woreda offices; a copy should be sent to the federal DRMFSS.

8.3 Contingency Planning

While the development of contingency plans will not have environmental and social impacts, the ToR, scope and recommendations will ensure that appropriate safeguards are followed during future implementation, following the impact and mitigation tables in annex IV. The contingency planning studies will thus incorporate preparation of a Contingency Plan ESMF, to address the implementation phase.

The most frequent and serious disasters are expected to be drought-induced food shocks (see Fig. 1), in which case the contingency plan will require implementation of the necessary
measures to be conducted through Ethiopia’s Productive Safety Net Program (PSNP). The PSNP provides cash or food transfers to chronically or transitory food insecure households in return for work on integrated and community-selected public works activities. The PSNP, which at present has some 8.2 million beneficiaries, already has a well-established and implemented World Bank-approved ESMF. The PSNP ESMF addresses potential impacts arising from these public works activities. Furthermore, being supported by an annual training programme training up to 6,000 Development Agents and other local government staff, and regular monitoring and review procedures, it provides a strong basis for the management of drought-related DRM environmental and social impacts. The PSNP ESMF is therefore annexed to the present DRM ESMF (Annex V), as a key component of the DRM safeguards package.

9. **ENVIRONMENTAL MANAGEMENT APPROACH**

As stated in section 8 above, DRMFSS would ensure that the terms of reference for any studies undertaken under the Project would inform the consultant(s) of their obligations to propose adequate environmental and social safeguards for any recommendations emanating from their use.

For the installation of the connectivity activities, DRMFSS will agree with Regional EFP that the Invitation to Bid would require contractors to mitigate any soil disturbances and environmental impacts arising from their installation (see checklist in Annex I). For the Contingency Planning, DRMFSS will ensure that the study team develops the required Contingency Plan ESMF as stipulated in Section 8.3.

10. **SUPERVISION AND MONITORING**

The Director of the DRMFSS/EWRD is overall responsible for ensuring that this ESMF is implemented.

10.1 **In the case of the connectivity component:** supervision of project implementation will be at woreda and regional levels:

- The EWIMCW Head, DRMFSS, is responsible for ensuring that the Sub-Project Designers and the woreda EFPs are given the mandate and instructions to implement the screening procedure.

- A member of the DRMFSS office is required to check that any design changes and/or mitigating measures have been implemented as specified by the Sub-Project Designer, before s/he signs off on the job.

- The woreda Disaster Prevention and Preparedness office or equivalent will monitor, in conjunction with the woreda EFP, the following issues, and report on them to the IT Head, DRMFSS within 6 months of completion of the installation:
  a. the effectiveness of the mitigation measures in avoiding or minimizing adverse impacts;
  b. the nature and extent of any such impacts that may nonetheless occur.

10.2 **In the case of contingency planning:**
The Director of DRMFSS/EWRD and the focal staff for Contingency Planning will be responsible for ensuring that the Contingency Plan ESMF is developed as required. The DRMFSS is responsible for ensuring that the Contingency Plan ESMF is implemented in the event of a disaster occurring. The regional DRMFSS Bureau (DPPC) will be responsible for monitoring the implementation of the Contingency Plan ESMF.

11. **CAPACITY-BUILDING**

11.1 **Connectivity Screening Procedure**

In order to ensure that the officers responsible for implementing the connectivity screening procedure are trained to do so, a one-day training workshop will be held, at which the procedures will be explained, and case-study exercises undertaken.

The training workshop will be attended by the following trainees:

- DRMFSS federal and regional Sub-project Designers
- 35 woreda EFPs

The total number of participants is estimated at around 40.

The cost of the training workshop is estimated as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (Birr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venue: (Nazareth)</td>
<td>4,000</td>
</tr>
<tr>
<td>Travel:</td>
<td>15,000</td>
</tr>
<tr>
<td>Lunch and refreshments:</td>
<td>8,000</td>
</tr>
<tr>
<td>Per Diem:</td>
<td>20,000</td>
</tr>
<tr>
<td>Materials:</td>
<td>4,000</td>
</tr>
<tr>
<td>Contingency</td>
<td>5,000</td>
</tr>
</tbody>
</table>

**Grand Total** Birr 56,000

11.2 **Contingency Planning ESMF Implementation**

It will be necessary to train two senior technical staff from each Woreda in the implementation of ESMF. The total number of participants is estimated at 80 for 2 days. The cost of the training workshops is estimated at Birr 120,000. This ESMF training is expected to be conducted as part of the technical training programme on the Contingency Planning component.
PART A: INSTITUTIONAL & ADMINISTRATIVE

<table>
<thead>
<tr>
<th>Country</th>
<th>ETHIOPIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project title</td>
<td>ETHIOPIA DISASTER RISK MANAGEMENT COUNTRY PLAN – Phase I (P124713)</td>
</tr>
</tbody>
</table>

**Scope of project and activity**
Strengthen institutions in disaster risk reduction, assess hazards and vulnerabilities and improve early warning capacity, reduce underlying risks, build capacities and improve disaster recovery efforts. The activities are Woreda Disaster Risk Profiling, Contingency Planning and Regional Connectivity Implementation

<table>
<thead>
<tr>
<th>Institutional arrangements (Name and contacts)</th>
<th>WB (Project Team Leader) <a href="mailto:WolterSoerwsoer@worldbank.org">WolterSoerwsoer@worldbank.org</a> Tel:251-115-176000</th>
<th>Project Management Disaster Risk Management and Food Security Sector (DRMFSS) MathewoshHunde, Director EWRD <a href="mailto:m_hunde@yahoo.com">m_hunde@yahoo.com</a> Tel:251-115-509666/519728</th>
<th>Local Counterpart and/or Recipient Tesfaye G/Wolde <a href="mailto:tgw@ethiocom.et">tgw@ethiocom.et</a>; <a href="mailto:tesfaye021@gmail.com">tesfaye021@gmail.com</a> Tel:251-115-515612/152935</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation arrangements (Name and contacts)</td>
<td>Safeguard Supervision Ian Campbell <a href="mailto:icampbell@worldbank.org">icampbell@worldbank.org</a> Tel: 5358+6102 or 251-11-5176102</td>
<td>Local Counterpart Supervision Tesfaye G/Wolde <a href="mailto:tgw@ethiocom.et">tgw@ethiocom.et</a> <a href="mailto:tesfaye021@gmail.com">tesfaye021@gmail.com</a> Tel:251-115-515612/152935</td>
<td>N/A</td>
</tr>
<tr>
<td>Local Inspectorate Supervision</td>
<td></td>
<td></td>
<td>Contactor N/A</td>
</tr>
</tbody>
</table>

SITE DESCRIPTION

| Name of site | Federal Disaster Risk Management and Food Security Sector (DRMFSS), Regional Disaster Prevention and Preparedness Bureaus (DPPB) and their respective Woreda Offices, three strategic warehouses and 35 Woredas located in 4 regions. |
| Describe site location | Please see the list of 35 Woredas on Annex VI  |
| Who owns the land? | According to the 1994 Ethiopian Constitution, land is owned by the government.  |
| Geographic description | Ethiopia |

LEGISLATION

<table>
<thead>
<tr>
<th>Identify national &amp; local legislation &amp; permits that apply to project activity</th>
<th>The 1994 Constitution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The Policy on Disaster Prevention and Management(1993)</td>
</tr>
<tr>
<td></td>
<td>The National Action Plan to Combat Desertification(2001)</td>
</tr>
<tr>
<td></td>
<td>The Environmental Proclamation(2002)</td>
</tr>
<tr>
<td></td>
<td>The Environmental Impact Assessment(2002)</td>
</tr>
<tr>
<td></td>
<td>The Food Security Strategy(2002)</td>
</tr>
</tbody>
</table>

PUBLIC CONSULTATION

| Identify when / where the public consultation process took place | | |

INSTITUTIONAL CAPACITY BUILDING

| Will there be any capacity building? | [ ] N or [Y] if Yes, Attachment 2 includes the capacity building program. Please refer the capacity building activities of the government institutions (trainings, ICT components and related database system) indicated in the project grant proposals. |
ANNEX I: Regional Connectivity Component Screening Form

Region: ..................................................  Sub-Project: ..............................................................

Step (i): Eliminating Ineligible Sub-Projects

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sub-project does not follow the specifications set out in the Project documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sub-project contains works in excess of what is specified in the project documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Any part of the sub-project will be implemented in, or in the vicinity of, an internationally-disputed area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-project could affect a National Park or other designated wildlife area or buffer zone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-project could affect a Priority Forest Area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-project could involve disturbance to, a wetland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-project could affect a recognised Cultural Heritage site, or World Heritage site</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-project might involves involuntary land acquisition or loss of assets or access to assets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If any project has an answer, ‘Yes’ in Step (i), the design of the project needs to be modified to avoid the feature of concern.

Step (ii): Screening for Potential Negative Environmental and Social Impacts:

<table>
<thead>
<tr>
<th>Potential Negative Impacts</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil erosion concerns (e.g., due to highly erodable soils or steep gradients)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wet season excavation likely to affect neighboring land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant vegetation removal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural or religious sites disturbed (including modifications to the woreda offices where they constitute a cultural heritage building)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative visual impact on pristine landscape or tourist area, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New access or road construction necessary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alteration of existing drainage conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction materials impact on adjacent forests/lands</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential safety issues for adults, children or animals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary loss of assets or access to assets*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potential community objections or misunderstandings about nature of the sub-project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tick ‘Yes’ if you consider that the impact listed might occur to a significant extent. If any of these potential impacts are ‘Yes’, you will need to modify the Sub-Project design and/or design mitigating measures to avoid or minimise the impacts. Note that the sub-project might have impacts which are not listed here. Consult the guidelines of your REPA if you are not sure.

*While noting that Sub-projects requiring involuntary loss of assets or access to assets will have been addressed in Table (i), it may nonetheless occur that an activity will involve, for example, voluntary loss of use of a very minor piece of land or crop utilised by a cable. In such cases, those members who suffer such minor loss of a productive resource may be entitled to compensation from the project. In such cases, the procedure set out in Annex II of this ESMF must be followed.

Sub-Project Designer                                      Woreda Environmental Focal Person

Name: .......................................................... Name: ..........................................................

Signed: ..........................  Date: .................. Signed: ..........................  Date: ..................
ANNEX II: Regional Connectivity: Voluntary Asset Loss Procedure

This Voluntary Asset Loss Procedure, which already exists in Ethiopian administrative procedures, applies when an individual or household is making a voluntary donation of minor assets or access to minor assets. In the context of Ethiopia, where land is owned by the Government, “land loss” is taken to mean “loss of land use”.

The procedure is based on the following principles:

(i) Arrangements for voluntary resettlement must involve no physical displacement, and no significant adverse impacts on income;
(ii) Voluntary asset loss cannot exceed 10% of an individual’s holdings;

Because determining informed consent can be difficult, the following criteria are suggested as guidelines:

(i) The land required to meet technical project criteria must be identified and agreed by the affected community, not only by line agencies or project authorities;
(ii) The land in question must be free of squatters, encroachers, or other claims or encumbrances;
(iii) Verification of the voluntary nature of asset donations must be obtained from each person donating the use of land;
(iv) If any loss of income or physical displacement is envisaged, verification of voluntary acceptance of community-devised mitigatory measures must be obtained from those expected to be adversely affected.
(v) If community services are to be provided under the project, land title must be vested in the community, or appropriate guarantees of public access to services must be given by the private titleholder.
(vi) Grievance mechanisms must be available.

1. Voluntary Asset Loss Procedure

1.1.1. The …………… Woreda EFP or Natural Resources (NR) Expert or Social Affairs ……… requests the ……… to meet with the potential voluntary asset donor(s).

1.1.2. After satisfying him/herself that the donor is making the donation on a voluntary basis, the ,,,,,,,,,,,,,,,,,, arranges a meeting between the donor(s), the ………, the Chair of the Kebele Land Administration Committee, and the …………………

1.1.3. At that meeting the ………………… satisfies him/herself that the donation is being made on a voluntary basis, and that each donor understands the procedure being followed.

1.1.4. The Voluntary Asset Loss Form is then completed, signed and dated in four (4) copies by the concerned parties.

1.1.5. One completed copy is filed at the Kebele Land Administration Office; one at the ……… office, one remains with the donor, and one is filed at the Woreda NR Case Team office.
1.2. In the event of a grievance, complaint or dispute being lodged with the Kebele Land Administration Committee in respect of this donation, the case is heard by the Land Use Administration Committee. If the matter cannot be resolved at that level, it will be referred to the Social Court of the Kebele. If not resolved at that level, it will be referred to the Woreda Civil Court, and will thus enter the regular legal system of the Republic of Ethiopia.
Disaster Risk Management Regional Connectivity Component
Voluntary Asset Loss Form

Region: ………………  Woreda: ……………………… Kebele: …………………
Community: ……………………………………………………………………………
PW Subproject Name: …………………………………………………………………

I/We , ……………………………………… [name(s)] hereby declare that I/we are donating use of the following land/asset for the benefit of the above-named DRM Connectivity Project.

Description of land/asset ) or access to asset):  

Sketch Plan showing donation (attach separate sketch if necessary):

Location:

Area:

Land Use certificate Number (if any):

I/We also confirm that:

1. The land or asset being donated does not exceed 10% of my/our asset holdings.
2. The community has identified, and is satisfied that this land/asset donation is required by the subproject.
3. The land being donated is free of squatters, encroachers, or other claims or encumbrances.
4. The subproject is not site-specific; I/we had a free choice as to whether to make this donation or not.
5. I am satisfied, and hereby confirm, that any loss suffered by me/us as a result of this donation is compensated for by land or other assets that I/we have received in compensation, Land Use Cert. No:  (tick:….).
6. This donation is being made entirely on a voluntary basis.
7. I hereby grant community access rights to the land or other asset donated for the use of the subproject.
Signed (donor) …………………………….. Name: ………………………….. Date: ……..

Signed (spouse) ……………………………..Name: …………………………..Date: ……

Signed …………………………………..Name: …………………………..Date: ……
(Witness: ……………………………)

Signed …………………………………..Name: …………………………..Date: ……
(Witness: ……………………………)

I hereby witness the above declaration, confirm the contents thereof, and hereby further confirm that the community has land use rights to the land donated, and that guarantees of public access has been given by the donor, as required.

Chair, KebeleLand Administration Committee …-------Kebele
ANNEX III Regional Connectivity: Connection Infrastructure Options

In those Woredas where little pre-existing infrastructure exists or is suitable for the establishment of connectivity, new infrastructure will be built. The technology necessary to establish Woreda-Net connectivity for woreda level DRMFFS offices will depend, in each specific locality, on the distance between the Woreda-Net and the DRMFFS building. Regardless of the technology used, the result will be a connection with a 1MB/s speed. Picture 1 shows this.

Cable Connection
For distances below 100mt, which in most cases will be where the two buildings to be connected are located in the same compound, a cable connection will be installed.

There are two options for cable installation, based on the situation on the ground: over ground connection and underground connection. Both connections will work through a UTP or fiber cable.

Above-ground Cable
In the case of above-ground connection, the cable will be protected by a PVC pipe and supported by a 6mm steel cable. Furthermore a galvanized steel pole will need to be erected to sustain the cable wherever necessary. Picture 2 shows visually details of the pole, which will typically be around 7 m high, at 50 m intervals.

Underground Cable
In the case of underground connection, a PVC pipe in a narrow trench of around 0.5 m depth will be required.

Wireless Connection
For distances above 100m, and where intervening structures would hamper cable connection, a wireless connection system will be implemented. One mast will be built next to the Woreda-Net building and a second mast next to the DRMFFS building. Each mast will be connected to its respective building by means of a cable. Furthermore, wireless connectivity will be established between the two masts. This will ensure that connectivity reaches a distant DRMFFS building.

The bridge proposed is 1310 Aironet wireless bridge which can be operated in outdoor and rough conditions with the antenna AIR-ANT3338 which has again of 21dBi, which can cover 7.17 KM at a rate of 54Mbps to connect Woredas within this range. The second option is using AIR-ANT 1949 antenna which has a gain of 13.5 dBi, with coverage of 2.27 KM at a rate of 54 Mbps for less than 2 KM to connect Woredas within this distance, with a clear line-of-sight.

Picture 3 shows some details of the typical mast that will need to be constructed. An average height of 10m is expected. Some Woredas may need higher masts. But in any case, maximum height will never exceed 20m, as in rural Ethiopia buildings rarely exceed a one storey height. Whenever exceptional physical obstacles will be found, small directional adjustments should be sufficient to establish connectivity.
Cable Connection for less than 100mt within the same compound

1MB/s connection

Moard/DRMFSS and woredaNet Compound

- Cable (UTP/Fiber)
- PVC
- Wire retention
- Pole

UTP/Fiber Cable option 1

Pole >7mt

6mm steel cable & UTP/Fiber cable

fence

PVC

UTP/Fiber Cable under ground option 2

< Picture 1

DRMFSS Woreda Connectivity

Wireless Connection for more than 100mt

1MB/s connection

802.11x (2.4 5GHz) ISM

Mast

DRMFSS Building

Tree

WoredNet Building

Mas t

Tree

Satellite Dish

Picture 1

Satellite Dish

Tree

Tree

Tree

Tree
2.5" Galvanized steel pole

30x30x150cm Concrete Column

12mm hole

20x20x6 plate

20x20x6 base plate

Anchor bolts
Note:
Maximum tower height 20mt, most woredas are with the average of 10mt height.
## ANNEX IV Contingency Planning: Environmental and Social Screening

<table>
<thead>
<tr>
<th>Activity and potential issues and/or impacts</th>
<th>Status</th>
<th>Additional references</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Building rehabilitation</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section B below</td>
</tr>
<tr>
<td>• Site specific vehicular traffic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increase in dust and noise from demolition and/or construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>2. New construction, (including roads, houses and communication infrastructures):</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section B below</td>
</tr>
<tr>
<td>• Excavation impacts and soil erosion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increase sediment loads in receiving waters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Site specific vehicular traffic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Increase in dust and noise from demolition and/or construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Construction waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Individual wastewater treatment system</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section C below</td>
</tr>
<tr>
<td>• Effluent and/or discharges into receiving waters</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Historic building(s) and districts</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section D below</td>
</tr>
<tr>
<td>• Risk of damage to known/unknown historical or archaeological sites</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Acquisition of land[1]</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section E below</td>
</tr>
<tr>
<td>• Encroachment on private property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Relocation of project affected persons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Involuntary resettlement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Impacts on livelihood incomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>6. Hazardous or toxic materials[2]</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section F below</td>
</tr>
<tr>
<td>waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Removal and disposal of toxic and/or hazardous demolition and/or construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Storage of machine oils and lubricants</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>7. Impacts on forests and/or protected areas</strong></td>
<td>[ ] Yes [ ] No</td>
<td>See Section G below</td>
</tr>
<tr>
<td>• Encroachment on designated forests, buffer and/or protected areas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Handling / management of medical waste
   - Clinical waste, sharps, pharmaceutical products (cytotoxic and hazardous chemical waste), radioactive waste, organic domestic waste, non-organic domestic waste
   - On site or off-site disposal of medical waste

9. Traffic and Pedestrian Safety
   - Site specific vehicular traffic
   - Site is in a populated area

1[1] Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.
1[2] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PARAMETER</th>
<th>GOOD PRACTICES MITIGATION MEASURES CHECKLIST</th>
</tr>
</thead>
</table>
| A. General Conditions | Notification and Worker Safety | (a) The local construction and environment inspectorates and communities have been notified of upcoming activities
(b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)
(c) All legally required permits (to include not limited to land use, resource use, dumping, sanitary inspection permit) have been acquired for construction and/or rehabilitation
(d) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.
(e) Workers’ PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)
(f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow. |
| B. General Rehabilitation and/or Construction Activities | Air Quality | (a) During interior demolition use debris-chutes above the first floor
(b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust
(c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site
(d) Keep surrounding environment (side walks, roads) free of debris to minimize dust |
<table>
<thead>
<tr>
<th>Noise</th>
<th>(a) Construction noise will be limited to restricted times agreed to in the permit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b) During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible</td>
</tr>
<tr>
<td>Water Quality</td>
<td>(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and/or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.</td>
</tr>
<tr>
<td>Waste management</td>
<td>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</td>
</tr>
<tr>
<td></td>
<td>(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</td>
</tr>
<tr>
<td></td>
<td>(c) Construction waste will be collected and disposed properly by licensed collectors</td>
</tr>
<tr>
<td></td>
<td>(d) The records of waste disposal will be maintained as proof for proper management as designed.</td>
</tr>
<tr>
<td></td>
<td>(e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</td>
</tr>
</tbody>
</table>

C. Individual wastewater treatment system

<table>
<thead>
<tr>
<th>Water Quality</th>
<th>(a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(b) Before being discharged into receiving waters, effluents from individual wastewater systems must be treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment</td>
</tr>
<tr>
<td></td>
<td>(c) Monitoring of new wastewater systems (before/after) will be carried out</td>
</tr>
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</table>

D. Historic building(s)

<table>
<thead>
<tr>
<th>Cultural Heritage</th>
<th>(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b) Ensure that provisions are put in place so that artifacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.</td>
</tr>
</tbody>
</table>

E. Acquisition of land

<table>
<thead>
<tr>
<th>Land Acquisition Plan/Framework</th>
<th>(a) If expropriation of land was not expected and is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the bank task Team Leader is consulted.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented</td>
</tr>
</tbody>
</table>
| F. Affects forests and/or protected areas | Protection | (a) All recognized natural habitats and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities.  
(b) For large trees in the vicinity of the activity, mark and cordon off with a fence large trees and protect root system and avoid any damage to the trees  
(c) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences  
(d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas. |
| G. Disposal of medical waste | Infrastructure for medical waste management | (a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to:  
• Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal:  
  a. Clinical waste: yellow bags and containers  
  b. Sharps – Special puncture resistant containers/boxes  
  c. Domestic waste (non-organic): black bags and containers  
• Appropriate storage facilities for medical waste are in place; and  
• If the activity includes facility-based treatment, appropriate disposal options are in place and operational |
| H. Traffic and Pedestrian Safety | Direct or indirect hazards to public traffic and pedestrians by construction activites | (b) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to  
• Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards  
• Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes.  
• Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement  
• Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public.  
• Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. |
## Annex V: List of Woredas

<table>
<thead>
<tr>
<th>Region Name</th>
<th>Zone Name</th>
<th>Woreda name</th>
<th>Frequency of Disasters in last 25 years</th>
<th>PSNP</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Drought</td>
<td>Flood</td>
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<td>3</td>
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<tr>
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<td>Borcha</td>
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<td>South Tigray</td>
<td>Hintalo Wajirat</td>
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<td>35</td>
<td>Tigray</td>
<td>Southern</td>
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| Total       | 375       | 94         | 715       | 8        | 540       | 465       | 2,197     | 33       |      |
THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

DISASTER RISK MANAGEMENT PLAN
PHASE I

ANNEX VI:

PRODUCTIVE SAFETY NETS PROJECT
PHASE III
ENVIRONMENTAL AND SOCIAL
MANAGEMENT FRAMEWORK
(ESMF)

Complied by the Natural Resources Directorate
PSNP Public Works Coordination Unit,
NOVEMBER 23, 2011
**LIST OF ACRONYMS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BoARD</td>
<td>Bureau of Agriculture and Rural Development</td>
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<tr>
<td>CSE</td>
<td>Conservation Strategy of Ethiopia</td>
</tr>
<tr>
<td>CFSTF</td>
<td>Community Food Security Task Force</td>
</tr>
<tr>
<td>CFU</td>
<td>Counterpart Fund Unit</td>
</tr>
<tr>
<td>DA</td>
<td>Development Agents</td>
</tr>
<tr>
<td>EWRD</td>
<td>Early Warning and Response Directorate</td>
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<tr>
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<td>Environmental Assessment</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<tr>
<td>EPA</td>
<td>Environmental Protection Authority</td>
</tr>
<tr>
<td>ESMF</td>
<td>Environmental and Social Management Framework</td>
</tr>
<tr>
<td>FSCD</td>
<td>Federal Food Security Coordination Bureau</td>
</tr>
<tr>
<td>FSP</td>
<td>Food Security Programme</td>
</tr>
<tr>
<td>GOE</td>
<td>Government of Ethiopia</td>
</tr>
<tr>
<td>JSOC</td>
<td>Joint Strategic Oversight Committee</td>
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<td>KFSTF</td>
<td>Kebele Food Security Task Force</td>
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<tr>
<td>MoARD</td>
<td>Ministry of Agriculture and Rural Development</td>
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<tr>
<td>MoFED</td>
<td>Ministry of Finance and Economic Development</td>
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<tr>
<td>PSNP</td>
<td>Productive Safety Net Programme</td>
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<tr>
<td>RFSCO</td>
<td>Regional Food Security Coordination Office</td>
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<tr>
<td>RFSSC</td>
<td>Regional Food Security Steering Committee</td>
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<tr>
<td>RPWFU</td>
<td>Regional Public Works Focal Unit</td>
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<tr>
<td>SARDP</td>
<td>SIDA-Amhara Rural Development Project</td>
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<td>Statement of Expenditures</td>
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<tr>
<td>WOFED</td>
<td>Woreda Office of Finance and Economic Development</td>
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<tr>
<td>WARDO</td>
<td>Woreda Agriculture and Rural Development Office</td>
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<tr>
<td>WLAEPO</td>
<td>Woreda Land Administration and Environmental Protection Office</td>
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<tr>
<td>USD</td>
<td>United States Dollars</td>
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</tbody>
</table>
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Executive Summary

The Productive Safety Nets Project (PSNP), which will operate in 321 woredas by the third year of the Project, with a chronically food insecure population of some 8.1 million (2009), includes:

(i) A Productive Safety Net Programme incorporating a community-based Public Works (PW) component, aimed at developing productive and sustainable community assets and infrastructure in areas of chronic food shortage, and

(ii) A Household Asset-Building Programme, providing services to foster and support micro-level activities, enabling beneficiaries to build assets at the household level and strengthen livelihoods.

All environmental and social safeguards to be followed in the management of these two programmes are covered by this Environmental and Social Management Framework (ESMF).

Public Works

The community-based PW are intended to make a major contribution towards environmental transformation, and consequently improved agricultural productivity and more sustainable livelihoods. Such changes, in conjunction with other interventions, are expected to support eventual graduation from poverty of the beneficiary households.

Many PW are intended to enhance the environment and increase the productive capacity of the natural resource base. However, a large proportion of past mass-mobilisation efforts towards environmental rehabilitation in Ethiopia have failed or have been abandoned, largely due to inappropriateness of the activity, a top-down approach, a lack of integration between the activity and the surrounding environment and land use pattern, and a sole focus on the provision of labour. As a result, the activities often failed, and the environment returned to its degraded state. Furthermore, some of the projects, although intended to protect or enhance the natural resource base, were poorly designed, and ended up doing the opposite.

The conclusion is that such activities have the potential for failure, and adverse environmental impacts on human populations or the biophysical environment, if the location or design does not follow good environmental practice.

The PW subprojects are planned, selected and implemented at community level; the cost of community labour is augmented by an average of an additional 25% to cover non-labour inputs, and each subproject is subject to Environmental Assessment, to that it is environmentally sound and sustainable.

The relevant laws of the Republic of Ethiopia are:

- the Environmental Impact Assessment (EIA) proclamation;
- the Environmental Management proclamation; and
- the Pollution Control proclamation
The instrument normally employed in Ethiopia to ensure that projects are designed to avoid or minimise negative environmental impacts is Environmental Impact Assessment (EIA).\(^1\) Where there are subprojects, which are numerous, community-based, and not identified beforehand, it is not possible to apply EIA to each subproject in advance. Instead, the EIA requirements of both the Government of Ethiopia and the PSNP donors are addressed through this (ESMF).

Under the ESMF, subproject screening is conducted by the Development Agent (DA), and supervised at wereda level.

PW subprojects, which are community-based and small-scale, normally follow published designs into which good environmental practice has been incorporated. Thus the majority are expected to have no negative impacts. However, depending on the environmental setting, in exceptional cases it may be necessary for a subproject to be reviewed at a higher level. The Screening earmarks of such subprojects as being of environmental concern, and draws it to the attention of the Regional Environmental Protection Authority (REPA), which is the responsible authority under Ethiopia’s *Environmental Management* proclamation.

The REPA decides if an EIA is necessary, and if so, the regional Public Works Focal Unit (PWFU) arranges with the concerned wereda office for the EIA to be conducted. Wereda staff are trained for this eventuality. In such cases, the REPA is responsible for reviewing the EIA and making the final decision as to whether the subproject can proceed.

**HABP**

The aim of HABP is to foster household asset-building through household-level micro-scale activities, each of which, taken individually, is expected to have no significant impact on the environment. However, the strategy is to offer HABP services and facilities to large numbers of households over several years, totaling some $565 million in grants and credits from 2010 to 2014. Thus the HABP is very large. Furthermore, since support from HABP is agreed to be essential to household graduation from the PSNP, and the total number of PSNP beneficiaries is in excess of 1.2 million households, there is potential for large numbers of households in a given area to choose to embark on identical or similar HABP activities. If this were to happen, there could be significant cumulative negative environmental impacts.

Thus this ESMF incorporates a Strategic Environmental Assessment (SEA), which identifies certain cumulative impacts that might reasonably be expected to occur. Because it is not possible to predict what activities might be undertaken, and where, and because of the potentially very large number of HABP activities that might be undertaken, a framework approach is adopted. Thus this document sets out procedures for (i) Avoiding or mitigating such impacts before they occur, and (ii) Monitoring the implementation of the mitigating measures.

At wereda level, the Extension Unit NR Expert takes the lead responsibility for implementing the Environmental Management system. At regional level, responsibility for managing the process is assumed by a joint team of concerned staff of the Extension Case Team and the PW Focal Unit (PWFU).

\(^1\) In keeping with Ethiopia’s *Environmental Impact Assessment* proclamation, the term ‘environment’ in this context covers biophysical, social and cultural heritage impacts.
Summary of Roles and Responsibilities for Safeguards Implementation

The federal PW Coordination Unit (PWCU) is responsible for coordination, oversight and technical support.

The regional Public Works Focal Units (PWFUs) ensure that the ESMF is implemented in their respective region, and manages the process.

Responsibility for implementation of the ESMF procedures is at wereda level, and differs for the two programmes:

(a) For the PW Programme, the Natural Resources Expert in the Wereda NR Case Team is responsible for implementing the ESMF procedures, part of which (notably the ESMF Screening) is delegated to the DA.

(b) For the HABP, the Natural Resources Expert in the Wereda Extension Services Case Team is responsible for implementing the ESMF procedures (notably the HABP SEA), in conjunction with then Environmental Specialist in the wereda Environmental Protection Office (EPO).

Implementation Budget

The ESMF-related costs of the federal PWCU and the regional PWFUs are incorporated in the budgets for these Units.

The costs of annual training of staff undertaking safeguards work on the PSNP are included in the annual operating budget for the PWCU (approx. $200,000/annum) and the annual budget for the eight regional PWFUs (approx. $500,000/annum). The incremental cost of training due to the SEA, much of which will be absorbed into the regular ESMF training within the overall PW training programme, is estimated at an additional $19,000/annum. A more detailed budget breakdown will be developed by the PWCU during project negotiations, when the final design of the HABP has been completed.

This SEA was developed by the PWCU in the Natural Resources Directorate, MoARD, with support from the PW Task Force (consisting of government and nine donor agencies) and with additional consultations with regional and wereda staff, and in particular utilizing the experience of the IPMS program, on which the design of the HABP is partly based. Further extensions and improvements to this SEA and the design of the Environmental management system will be made by the PWCU when the final design of the HABP has been completed.

It should be noted that the Environmental Management system set out in this SEA is based on the system already in use in the IPMS programme, for which Wereda staff have already been trained. Thus it does not introduce new concepts or a new approach. The training modules used for the IPMS training will therefore be applicable for the training under the HABP.
Introduction

Food insecurity has become one of the defining features of rural poverty, particularly in drought-prone areas of Ethiopia. Poverty is widespread in both rural and urban areas. However, the magnitude is much greater in drought-prone rural areas than in urban areas. The problem of food insecurity has worsened in recent years, with around 10-14 million people requiring emergency food aid.

The Government of Ethiopia has decided that there is an urgent need to address the basic food needs of food insecure households via a productive safety net system financed through multi-year predictable resources, rather than through a system dominated by emergency humanitarian aid. Moreover, the Government seeks to shift the financing of the programme from food aid to cash. On this basis, within the framework of the national Food Security Programme, which emphasizes the three interrelated pillars of food security that address food availability, access to food and utilization, the Government decided to develop a new Productive Safety Nets Project (PSNP).

The PSNP provides:

(i) Transfers of cash or food to the food insecure population in chronically food insecure woredas in a manner that prevents asset depletion at the household level and creates assets at the community level. This programme incorporates community-based Public Works (PW) subprojects;

(ii) Services to foster and support micro-level activities enabling beneficiaries to build assets at the household level and strengthen livelihoods, known as the Household Asset-Building programme (HABP).

Part I of this ESMF addresses the PW; Part II addresses the HABP.
PART I: Public Works

1. Background

The major causes of food insecurity in Ethiopia include land degradation, recurrent drought, population pressure and subsistence agricultural practices characterized by low input and low output. Many of the PW subprojects, which constitute a portfolio of several thousand community-level activities, are intended to address this situation, by creating community-level assets, avoid household asset depletion and contributing to rural transformation. Thus a large proportion of the projects are aimed at enhancing the environment and increasing the productive capacity of the natural resource base. Nonetheless, PW also have the potential for adverse environmental impacts on human populations or the biophysical environment, particularly if their location and design do not follow good environmental practices.

The procedures set out in this Section of the ESMF are designed to address such potential impacts.

2. Programme Description

2.1 Public Works Projects: Eligibility Criteria

Public Works subprojects are labour-intensive, community-based activities designed to provide employment for chronically food insecure people who have “able-bodied” labour, and to create community assets and contribute to environmental transformation of the community micro-watershed. The Programme Implementation Manual (PIM) requires that to be eligible for financing under the PSNP, the subprojects must be environmentally sound. It specifies that projects should be adapted to local conditions and protect the environment. They should be based on sound technical advice, and adequate technical supervision should be available to ensure the quality of work.

The subprojects are also required to meet the following criteria:
- **Labour intensity:** Subprojects activities must be labour-intensive and use simple tools as much as possible.
- **Communal benefits:** The subprojects must benefit the community as whole or groups of households within a given area.
- **Community acceptance:** The subprojects must be accepted and approved by the community. They should have active community support and commitment.
- **Feasibility and sustainability:** The subprojects must be feasible technically, socially and economically. They should be simple and manageable in implementation and also in on-going maintenance in order to be sustainable.
- **Productive:** The subprojects should create durable community assets which should contribute to reducing severe food problems.
- **Gender sensitivity:** Priority should be given to subprojects that are assigned to enable women to participate and which contribute to reducing women’s regular work burden and increase access to productive assets.
2.2 Planned Location of Subprojects

Subprojects will be implemented in rural areas, within the identified regions. In cropping areas, they are expected to be within around 5 kilometres of the homes of the intended beneficiaries, or less in areas of steep or difficult terrain.

In pastoral areas, subprojects will be organized at strategic locations to which families can move or send selected able-bodied members.

2.3 Types of Subproject

The selection of activities to be undertaken under the PW component will be driven by the local planning process, which will include input from both men and women as well as representatives from vulnerable groups, in order to identify community needs and prioritise activities based on those needs. This will allow a pipeline of subprojects to be developed. Although the principal level of decision-making for determining appropriate subprojects will be the community, subprojects determined to be priority by the woreda level may also be included in the PW pipeline.

Priorities, desirable outcomes and connected activities will vary based on location. Examples of outcomes and activities in settled cropping areas such as are typically found in Tigray, Amhara, Oromiya and SNNPRO, are outlined in the Table below.

Table 1: Examples of PW Subprojects and Expected Outcomes

<table>
<thead>
<tr>
<th>Typical Subprojects</th>
<th>Expected Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Area closures/wood lots</td>
<td>Improved land productivity and soil fertility restoration</td>
</tr>
<tr>
<td>■ Multi-layered/storied agro-forestry</td>
<td></td>
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<tr>
<td>■ Physical conservation measures, e.g. hill side terracing.</td>
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<tr>
<td>■ Micro-niche development</td>
<td></td>
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<tr>
<td>■ Biological measures</td>
<td></td>
</tr>
<tr>
<td>■ Mulching of degraded areas</td>
<td></td>
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<tr>
<td>■ Removal of invasive plant species</td>
<td></td>
</tr>
<tr>
<td>■ Gully control</td>
<td>Increased land availability</td>
</tr>
<tr>
<td>■ Land reclamation of extremely degraded land</td>
<td></td>
</tr>
<tr>
<td>■ Roads and bridges</td>
<td>Improved market infrastructure</td>
</tr>
<tr>
<td>■ Market yards and storage</td>
<td></td>
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<tr>
<td>■ Stock routes</td>
<td></td>
</tr>
<tr>
<td>■ Stream diversion – for irrigation</td>
<td>Improved access to drinking and irrigation water</td>
</tr>
<tr>
<td>■ Spring development</td>
<td></td>
</tr>
<tr>
<td>■ Shallow wells</td>
<td></td>
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<tr>
<td>■ Small dams</td>
<td></td>
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<tr>
<td>■ Water ponds</td>
<td></td>
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<tr>
<td>■ Drainage and water canals/conduits</td>
<td></td>
</tr>
<tr>
<td>■ Infiltration pits</td>
<td></td>
</tr>
<tr>
<td>■ Seepage control measures</td>
<td></td>
</tr>
<tr>
<td>Typical Subprojects</td>
<td>Expected Outcomes</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>Vegetative fencing and fodder belts</td>
<td>Increased availability of fodder</td>
</tr>
<tr>
<td>Conservation measures</td>
<td></td>
</tr>
<tr>
<td>Fodder seed collection</td>
<td></td>
</tr>
<tr>
<td>Paddock systems</td>
<td></td>
</tr>
<tr>
<td>Water logging control</td>
<td></td>
</tr>
<tr>
<td>Multi-purpose nurseries</td>
<td></td>
</tr>
<tr>
<td>Repairing classrooms and health facilities</td>
<td>Improved school and health facilities</td>
</tr>
<tr>
<td>Build latrines</td>
<td></td>
</tr>
<tr>
<td>Build classrooms and health facilities</td>
<td></td>
</tr>
<tr>
<td>Build child care centre</td>
<td>Improved child care-crèches</td>
</tr>
<tr>
<td>Run child care centre</td>
<td></td>
</tr>
</tbody>
</table>

### 2.4 Subprojects in Pastoralist Areas

In pastoral areas, which are found especially in Afar and Somali regions, the emphasis is expected to be on interventions that reduce risk and increase the resilience of communities to shocks, such as:

- Development of water points (using both traditional and innovative methods);
- Reclamation and rehabilitation of grazing areas and creation of grazing reserves through improved water harvesting and conservation-based activities (rainfall multiplier systems for improved pastures, agro-pastoralist systems, irrigation, etc.);
- Agro-forestry systems in grazing reserves to improve aerial pasture and multipurpose species, and access to fruits, dyes and gums;
- Other initiatives related to livestock trade and livestock health;
- Development of sustained agro-pastoral systems through rehabilitation of crusted and desertified areas (use of run-off/run-on systems integrated with dry-land conservation measures); and
- Windbreaks and fodder belts in protected areas.

### 2.5 Institutional Arrangements

The PSNP is a component of the larger Food Security Programme (FSP). Under the overall supervision of the Ministry of Agriculture and Rural Development, agencies at every level of Government will be accountable for the oversight and coordination of the programme, with implementation of programme activities being undertaken by woredas and kebeles, line ministry/agencies and other partners. The roles and responsibilities envisaged for the key institutions at each level are set out in summary form in Annex 1.

The preparation of the proposed projects identified as priorities by the community is carried out at kebele level, usually by the Development Agent (DA). Where technical inputs not available at the kebele level are required, these are to be provided by the woreda line, or sector, offices concerned.

Regional Public Works Focal Units (PWFU), in liaison with Regional line bureaus, are responsible for ensuring that the standards published in the Technical Materials are maintained as required.
2.6 Subproject Planning Process

Kebele Development Plans will form the basis for all safety net interventions. Kebele plans are developed following existing participatory planning practices and methodologies extensively used in community planning in various regions and should ensure an effective participation of the communities in the planning process. The basic planning sequence is as follows:

a) *The community endorses its Community Food Security Task Force Committee (CFSTF)*

Each community reviews, and is invited to endorse in a general assembly, the membership of the CFSTF, which is elected by the community in the first year of programme operation. This committee is composed of a representative from the Kebele Food Security Task Force (KFSTF); a DA (if available in the village); two or three women’s representatives (elected); two or three men’s representatives (elected); a youth representative (elected); and an elder’s representative (elected).

b) *The CFSTF prepares a list of community needs and priorities*

The CFSTF can benefit from the technical support of DAs from line departments at the kebele level, to identify and formulate the list of needs and priorities. Once this list is prepared, it is transmitted to the KFSTF.

c) *The KFSTF prepares a kebele safety net/development plan*

The KFSTF consolidates all lists of needs and priorities prepared by the CFSTF which are part of the kebele, and prepares a kebele safety net plan. This plan will identify and specify which activities within the development plan will be undertaken under the Safety Net Programme. It should pay particular attention, where relevant, to incorporating management and rehabilitation of the watershed as a key activity for promoting long-term food security. This means that the plan should properly sequence activities in a way that ensures that watershed management concerns are addressed as an integral part of ensuring sustainability of the assets created.

d) *If a kebele development plan has already been developed*

A number of kebeles may already have developed a development plan through the same process as described in (a) to (c). In such cases, the kebele development plan will be adapted to integrate new needs and priorities identified by the CFSTF, taking into account the input of men and women, youth and elderly and other vulnerable groups, and will specify which activities within the development plan will be undertaken under the Safety Net Programme.

e) *Presentation to the communities*

Once the kebele development plan has been established, it will be presented to a general meeting of all communities in the kebele for review and endorsement by these communities.

The Safety Net component of the kebele development plan will be despatched to the kebele Council/Cabinet for approval, and on up to woreda level, where the plans from all the kebeles will be consolidated and, after approval, sent to the Regional level.
2.7 Analysis of Alternatives

The ESMF is required to assess options for achieving the programme purpose. There are a number of alternative strategies which the Government could adopt:

(i) No Safety Net Programme

Poverty is widespread in both rural and urban areas of Ethiopia, and is particularly severe in drought-prone rural areas. In recent years millions of people have required food aid, and in 2002 and 2003 the food security situation and malnutrition levels reached crisis proportions. Given that the major causes of food insecurity include land degradation, population pressure and subsistence agricultural practices, that vulnerability to climatic shock is cumulative,\(^2\) and that a significant proportion of the vulnerable people are in a state of chronic food insecurity, to opt for no Safety Net Programme would mean continuing with emergency relief coordinated by the Early Warning and Response Directorate (EWRD), and implemented on an ad hoc basis. While this strategy may enable the beneficiaries to survive in the short-term, it would fail to:

(a) address the cumulative impacts of these factors in drought-prone areas in a systematic manner; or

(b) execute PW in a comprehensive manner, incorporating capital and other non-labour costs, which can be provided for only in a systematic, annual programme.

By allowing widespread chronic food insecurity to persist, the resultant downward spiral of environmental degradation would continue, and by failing to institute satisfactory public works, the opportunity to correct this vicious cycle would be lost. Thus from an environmental, as well as socio-economic and humanitarian viewpoint, the ‘no Safety Net’ alternative would not be preferable.

(ii) Safety Net Provision with Centrally-Planned Public Works

Previous Ethiopian governments have experimented with programmes involving food payments to beneficiaries for providing labour to centrally-planned public works. However, this approach was generally not effective, equitable or sustainable, as the lack of meaningful local inputs to the planning process, and lack of ownership by the communities, meant that in many cases the projects were inappropriately designed and located. The results were lost opportunities to carry out serious enhancement of the natural resource base, at considerable human cost. Thus from an environmental viewpoint, this option would not be a preferred alternative.

2.8 Implementation Challenges

PW are implemented in geographically and agro-climatically diverse regions of the country. The implementation challenges will therefore vary considerably from location to location. Challenges which may arise which could affect the quality and effectiveness of the environmental standards of the public works projects include:

i. The regional PWFUs may lack the necessary capacity to ensure implementation of the ESMF, particularly given the large number of subprojects (Est. No. of

subprojects in 2012 = 321 woredas x approx 15 kebeles/wereda x approx 2 comm
watersheds/kebele x approx 4 subprojects/comm. watershed = 38,520);

ii. In the context of the ongoing decentralization programme, woreda capacities will
vary; some will be less able to provide technical assistance for project design and
implementation than others;

iii. Although there is some level of improvement with regard to participatory
planning process, there is still a need for more awareness-creation and training for
some kebele officials and communities;

iv. In some communities, the capacity of local organizations for sustainable work,
accountability and maintenance of assets is not yet well developed, and will take
time to perform to the required standards;

v. In some regions the Regional Environmental Protection Authority (REPA), or its
equivalent, does not yet have sufficient capacity, and may not yet be in a position
to provide the basic services which may be required of it to ensure that good
environmental practices are adopted in the PW;

vi. While woreda development officers and DAs are actively involved with
communities in helping to identify local priorities for investment, in some cases
they may be at the limit of their capacity to suggest and guide the potential range
of available and suitable project options.

The PSNP capacity-building programmes, and support and resources for the PWFUs are
designed to ensure that these challenges are addressed.
3. Environmental Context and Baseline Conditions

3.1 Overview of PSNP Regions

The 290 PSNP woredas are located principally in Tigray, Amhara, Afar, SNNP, Oromiya and Somali regions. However, the environmental characteristics of these areas may be more usefully demarcated by altitude, rather than administrative boundaries. Thus they are presented in Table 2 below, with their height above sea level, which is correlated with temperature.

### Table 2: Eco-Climatic Zones and Potential Environmental Sensitivities

<table>
<thead>
<tr>
<th>Eco-Climatic Zone</th>
<th>Potential Sensitivities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Dega Wurch</strong></td>
<td>Regeneration of natural resources in the high elevation zones need to recognize the limited plant species adapted to these highland conditions and the slower growth rates, potential for rapid rainfall runoff and the vulnerability to overgrazing and other human uses. The elevation changes, the relatively high rainfall and the potential high soil erosion rates present opportunities and constraints for environmental rehabilitation and management of increasing land use pressures in the Dega zone.</td>
</tr>
<tr>
<td>High elevation areas (&gt;3200 m) in Wollo, Gonder and Gojam in Amhara; dominated by grassland landscapes; rainfall is 1000-1600 mm.</td>
<td></td>
</tr>
<tr>
<td><strong>Dega</strong></td>
<td>The elevation changes, the relatively high rainfall and the potential high soil erosion rates present opportunities and constraints for environmental rehabilitation and management of increasing land use pressures in the Dega zone. The relatively high level of ecosystem productivity and biotic diversity provides for significant natural resources and the pressures of human uses, along with the presence of important and sensitive natural habitats but with generally high recovery rates if managed properly.</td>
</tr>
<tr>
<td>High elevation areas (2000-3200 m) in Tigray, Wollo, Gonder and Gojam in Amhara, and Harrege, Arsi and Bale in Oromiya; typically mixed coniferous shrubs and trees; rainfall is 1000-2000 mm.</td>
<td></td>
</tr>
<tr>
<td><strong>Weyna Dega</strong></td>
<td>The semi-arid, dry savanna Kolla landscapes are vulnerable to deforestation and overgrazing, variable rainfall, slower rates of recovery and wildfire potential; soils are generally nutrient poor and moderate-high erodability.</td>
</tr>
<tr>
<td>Mid-elevation areas (1500-2400 m) in the western half of Ethiopia covering Amhara, Oromiya, SNNP and Tigray; typically mixed temperate forests and shrubs and riparian and other vegetation associated with the Abbay River and Awash River; rainfall is 800-1600 mm.</td>
<td></td>
</tr>
<tr>
<td><strong>Kolla</strong></td>
<td>The semi-arid, dry savanna Kolla landscapes are vulnerable to deforestation and overgrazing, variable rainfall, slower rates of recovery and wildfire potential; soils are generally nutrient poor and moderate-high erodability.</td>
</tr>
<tr>
<td>Low elevation semi-arid areas (500-1500 m) of western Tigray, western Gonder in Amhara, southern Oromiya and northern Somali; dry savanna landscapes; rainfall is in the range of 200-800 mm.</td>
<td></td>
</tr>
<tr>
<td><strong>Bereha</strong></td>
<td>Moisture and nutrient limitations, poor water holding capacity of soils, high livestock grazing pressures and slow recovery rates present constraints in these mostly Arid landscapes that generally have low soil quality, high erosion potential and vulnerability to pastoral livelihoods.</td>
</tr>
<tr>
<td>Low elevation arid areas in Afar, Somali, Benshangul, Gumuz and Gambella and the western parts of Tigray and Gonder in Amhara, and eastern Oromiya (Harrerege and Bale); arid and dry savanna landscapes; rainfall is generally less than 200 mm.</td>
<td></td>
</tr>
</tbody>
</table>

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3.2  Socio-Economic Characteristics of the PSNP Regions

Table 3 presents basic data on population and agriculture in the PSNP regions, ranked in descending order of agricultural production.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>No.</td>
<td>‘000 Ha</td>
<td>%</td>
</tr>
<tr>
<td>Oromiya</td>
<td>76</td>
<td>1,438,134</td>
<td>3,613</td>
<td>44%</td>
</tr>
<tr>
<td>Amhara</td>
<td>64</td>
<td>1,519,829</td>
<td>3,074</td>
<td>37%</td>
</tr>
<tr>
<td>SNNPR</td>
<td>84</td>
<td>1,459,160</td>
<td>696</td>
<td>9%</td>
</tr>
<tr>
<td>Tigray</td>
<td>31</td>
<td>1,453,707</td>
<td>561</td>
<td>7%</td>
</tr>
<tr>
<td>Somali</td>
<td>32</td>
<td>732,671</td>
<td>48</td>
<td>1%</td>
</tr>
<tr>
<td>Afar</td>
<td>32</td>
<td>472,229</td>
<td>19</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Harar (rural)</td>
<td>1</td>
<td>16,614</td>
<td>7</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Dire Dawa (rural)</td>
<td>1</td>
<td>52,614</td>
<td>6</td>
<td>&lt;1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>321</strong></td>
<td><strong>8,134,480</strong></td>
<td><strong>8,217</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

The Kebele Development Plans will be include a review of socio-economic characteristics of the kebeles. These will be taken into account during the EA process.

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4. Legal, Policy and Administrative Framework

4.1 Relevant Legislation and Policy

4.1.1 The Constitution of Ethiopia

The 1994 Constitution of Ethiopia proclaims that all citizens shall have a right to live in a clean and healthy environment. It states that Government and citizens have a duty to protect the environment, and the design and implementation of programs and projects shall not damage or destroy the environment. The Constitution incorporates a number of other provisions relevant for the protection, sustainable use and improvement of the environmental resources of the country. It reflects a view of environmental concerns in terms of fundamental human rights, and provides a basis for the formulation of national policies and strategies on environmental management and protection. It assures that no development activity shall be disruptive to the ecological balance, and that people concerned shall be made to give their opinions in the preparation and implementation of environmental protection policies and programs.

The Constitution also:
(a) Maintains land under the ownership of the Ethiopian people and the government but protects security of usufruct tenure;
(b) Reinforces the devolution of power and local participation in planning, development and decision taking by regions and woredas;
(c) Ensures the equality of women with men;
(d) Ensures the appropriate management as well as the protection of the well-being of the environment; and
(e) Maintains an open economic policy.

The Constitution of Ethiopia further states that land is retained under the control of the people and the Government of Ethiopia, and thus prohibiting its buying and selling. It however ensures its usufruct tenure rights and allows for its usufruct rights to or from others (i.e. rent out the land). All farmers who would like to make a livelihood from farming are entitled to have plot of land free of charge.

4.1.2 Policy on Disaster Prevention and Management (1993)

The PDPM was introduced in order to address the root causes of the vulnerability to drought and famine. It discourages free distribution of food relief to able bodied persons. Rather it emphasizes the principles of protecting human life in times of disaster, protecting the quality of life from deterioration due to disasters and timely mitigation, protecting the assets and economic fabric and best use of natural resources for speedy post disaster recovery, and the provision of relief taking regard for human dignity.


The first comprehensive Environmental Policy of the Federal Democratic Republic of Ethiopia was approved April 2, 1997 by the Council of Ministers. It derives from the recommendations of the Conservation Strategy of Ethiopia (CSE) which was prepared in 1989 and later updated in
The Overall Policy Goal is to: "improve and enhance the health and quality of life of all Ethiopians and to promote sustainable economic development through the sound management use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs".

The Environmental Policy provides a comprehensive set of principles and policies to guide the integration of environmental considerations in development activities, and includes nine policy objectives, 19 guiding principles, ten sectoral policies and ten cross-sectoral policies.

The National Policy was further strengthened with the adoption of several multilateral environmental conventions, including:
- The Convention on Biological Diversity;
- The Basal Convention on the Control of Transboundary Movements of Hazardous Wastes;
- The United Nations Framework Convention on Climate Change;
- The United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa;
- The Vienna Convention and the Montreal Protocol for the Protection the Ozone Layer;
- The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and

4.1.4 National Action Plan to Combat Desertification (2001)

Ethiopia signed the Convention to Combat Desertification in October 1994 followed by the Government ratification in June 1997. The Environmental Protection Authority (EPA) was designated by the Government as a national focal agency for the implementation of the convention. The activities so far have included, among others, the development of a National Action Plan for the Environment and the regional action programmes are under development.

4.1.5 Environmental Proclamations (2002)

A series of legal proclamations form the basis for the environmental assessment and management framework in the country.

The Proclamation on the Establishment of Environmental Protection Organs (No. 295/2002) assigns organizational responsibilities for environmental management activities as well as environmental protection regulations and monitoring. It gives the Environmental Protection Agency (EPA) the legal powers to ensure enforcement and compliance with environmental laws and standards and differentiates the responsibilities among the environmental agencies at federal and regional level.

The Proclamation on Environmental Impact Assessment (No. 299/2002). Article 5: Project Requiring Environmental Impact Assessment of the Proclamation states that: "Every project which falls in any category listed in any directive issues pursuant to this Proclamation shall be subject to environmental impact assessment"; it also states that programmes and policies with potential impacts shall be subject to the provisions of the proclamation.
The *Proclamation on Environmental Pollution Control* (No. 300/2002). This law recognizes the fact that some social and economic development endeavours may inflict environmental harm that could make the endeavours counter productive. To this end, it aims to eliminate or, when not possible, to mitigate pollution as an undesired consequence of development activities.

The *Proclamation on Solid Waste management* (No. 513/2007). It gives the Environmental Protection Agency (EPA) to enhance capacities at all level to prevent the possible adverse impacts while creating economically and socially beneficial assets out of solid wastes.

### 4.1.6 EIA Guidelines (2000)

The purpose of the EIA guidelines is to ensure that development projects integrate environmental considerations in the planning process as a condition for their approval. The EIA process includes:

- Application
- Pre-screening
- Screening
- Scoping
- EIA and submission of EIA report
- Review of the EIA and decision by the Competent Authority

The EIA guidelines cover industrial, mining, agriculture and infrastructure development, all of which are likely to impact the environment in a significant manner.

### 4.1.7 Food Security Strategy (2002)

The Food Security Strategy is targeted mainly toward the chronically food insecure, moisture deficient and pastoral areas, with a focus on environmental rehabilitation to reverse the level of degradation and also as a source of income generation for food insecure households through a focus on biological measures. Water harvesting and the introduction of high value crops, livestock and agroforestry development are also included in the recent strategy. The objectives of this policy are to (i) increase the availability of food through increased domestic production, (ii) ensure access to food for food deficit households, and (iii) strengthen emergency response capabilities. The strategy recognizes the need to tailor interventions to the diversity of the food production zones - areas with adequate moisture, moisture deficient and pastoral areas. Chronically food insecure areas require a more comprehensive and appropriate package of interventions, which may include soil and water conservation, plant nutrient generation and recycling, drought and pest resistant crops and improved post harvest management.

### 4.2 Administrative Structure for Environmental Management

#### 4.2.1 Federal and Regional EPAs

The EPA has overall responsibility for setting environmental policies, regulations and standards and for administration of EIA requirements.
Regional EPA offices have been established almost all of the regions and where they have not been established, other bureaus are designated to manage environmental affairs and coordination with the federal EPA. The regional EPA bureaus operate independently of the Federal EPA, reporting to regional government.

4.2.2 Ministry of Agriculture and Rural Development

The newly amalgamated ministry is responsible for a broad array of agricultural production and research, food security, poverty reduction, natural resource management and rural development programs and activities. The regional Bureaus of Agriculture and Natural Resources Development are directly involved in delivery of programs with Woredas, in keeping with the decentralized strategy and the government's Agricultural Development-led Industrialisation policy.

4.2.3 Ministry of Water Resources

This ministry is responsible for overall inventory, planning and management of surface and ground water resources in the country. This includes aspects of watershed management, water supply and water quality management that affect rural development programs. Regional Water Bureaus are directly involved in assisting woredas and other agencies in various water resource development projects.

4.2.4 Woreda Bureaus of Agriculture, Rural Development and Health

The woredas are a key focus of the government's commitment to decentralized delivery of services. The various departments at the woreda level have a direct responsibility for finance, land use, natural resources, infrastructure, and development at the local level. The agriculture departments have subject matter specialists and others who advise development agents working at the village level. The PSNP implementation will depend upon appropriate inputs and management controls related to soil and water conservation, small scale irrigation development, rainwater harvesting, road development and water supply, sanitation and waste management associated with rehabilitated schools and clinics.

4.2.5 Kebele Administrations

The kebeles (areas with an average population of about 5,000) are in practice the primary contact level for most Ethiopian citizens. Kebele administrations consist of an elected Kebele council (in principle 100 members), a kebele executive committee of 5-7 citizens, a social court, and the development and security staff posted in the kebele.

The kebele council and Executive committee's main responsibilities are:
- Preparing an annual kebele development plan;
- Ensuring the collection of land and agricultural income tax;
- Organizing local labor and in-kind contributions to development activities;
- Resolving conflicts within the community through the social courts.
Kebele executive committees are answerable to their woreda council. Unlike executive committee members at the region and zone, elected members receive no stipend. The only official Kebele officer is the council chairman, who receives a small monthly allowance. The kebeles provide a link between the state and households and are responsible for enforcing the directives from the government ministries. In remote areas, the kebeles may be the only association, governmental services are conveyed through them.

5. Potential Environmental and Social Impacts

The proposed PW subprojects have the potential, and will frequently be designed to, create many beneficial impacts related to environmental regeneration and sustainable agriculture. However, they may also have adverse impacts, if good practice is not followed in their siting, design and implementation.

Annex 2 sets out guidelines for Screening subprojects, based on likely typical potential adverse impacts that need to be avoided, managed and mitigated.

Annex 4 sets out mitigating measures that have been found to be useful to offset potential adverse impacts. Detailed mitigating measures recommended to offset adverse impacts for specific types of sub-project will be integrated into the technical specifications, work norms and information kits guiding the implementation of the public works under the PSNP.

6. Capacity Building

6.1 Institutional Capacity for ESMF Implementation

The institutional structure for managing the environmental aspects of the project involves four levels:

6.1.1 Federal Level

The PWCU will ensure that the technical specifications, work norms and information kits related to implementation of the PW covers the range of potential activities, summarises the latest knowledge on the various types of interventions, and presents this information in a user-friendly manner that is understandable by woreda staff and DAs. The mandate of the PWCU includes further development and field testing of these specifications and kits, as required, including those relating to the design and implementation of the ESMF.

The PWCU will also organise the delivery of training and/or refresher course for regional Training of Trainers (ToT), on an annual basis.

The community-based focus of the PW, which has been utilised during Phases I and II, will continue drawing on lessons and innovations from similar programmes (such as: MERET,
SARDP, SLM, etc). Linkages with these programmes, and the inter-agency forum that has been established to facilitate collaboration between them, will assist in strengthening this role.

The PWCU also provides support to ensure that the capacity of the PSFUs are up to the required level.

6.1.2 Regional Level

The PWFUs are responsible for ensuring ESMF implementation. Staff of these Units receive orientation and training in the ESMF process, and the use of the technical specifications, works norms and information kits. The PWFUs deliver ESMF training to the concerned woreda staff as part of the overall annual PW training programme. This includes TOT for woreda staff who will in turn train DAs and kebele staff.

The PWFUs also conduct capacity needs assessments and provide support at woreda level to ensure that all fundctions relating to PW, including ESMF implementation, are carried out to the required standard.

6.1.3 Woreda Level

The capacity of woreda staff to provide timely technical support and guidance to kebeles is critical. Woreda capacity development supports the design, operation and environmental management of proposed irrigation systems, water harvesting structures and irrigated agriculture as well as soil and water conservation subprojects.

The woreda staff conducts training DAs and kebele staff as required, ensuring that the Natural Resources DA in each of the estimated 4,800 PSNP kebeles is trained and able to conduct subproject Screening according to ESMF standards and procedures.

6.1.4 Kebele Staff

Kebele staff are involved in orientation and capacity-building in the communities, in conjunction with the Das. Areas in which the communities are trained include participatory watershed planning procedures, and the organisational management of subprojects such as drinking water systems, irrigation facilities, etc., through the establishment of water users committees and watershed committees

6.2 Proposed Training and Technical Assistance Topics

6.2.1 Development of Training Materials and Technical Specifications, Work Norms and Information Kits

These materials are important tools to incorporate mitigation measures and to minimize adverse effects. The capacity building needed for Woreda Technical Committees to undertake EIA of PW where required should take place in conjunction with dissemination of these materials. These
materials serve to guide the design of projects, so they are important in managing potential environmental effects. The lead woreda staff involved and the regional monitoring and evaluation coordinators will receive training based on these materials.

Training materials are under constant review and revision by the PWCUs and the PWFUs, including enhancing of the communication aspects. The training covers the development of a basic watershed or catchment area plan and design and sequencing of integrated subprojects for soil and water conservation and watershed regeneration, including:

- Subproject consultation, design and approval
- Watershed concept for soil and water conservation
- Participatory methods for community action
- Gully treatment prescriptions
- Water harvesting structures, such as rooftop catchment systems
- Appropriate irrigation technologies
- Terracing and bunding methods
- Check dams and other control structures
- Biological measures for soil and water conservation
- Plantation methods and management for effective soil conservation
- Implementation in all aspects of the ESMF

In order to facilitate the environmental management of medical wastes associated with rehabilitation of rural clinics, a *Medical Waste Management Guide for Rural Health Centres* was produced by Government and disclosed.

Guidance for the development of Integrated Pest Management plans was also developed by Government and disclosed.

6.2.2 **Training in Environmental Management**

Regional and woreda staff receive training in the ESMF procedures, including:

- EIA and mitigation case studies
- Assessment of impacts and design of site-specific monitoring measures which also takes into account social issues and impacts, over and above the standard measures recommended in the Technical Materials
- Incorporation of mitigation measures in subproject designs and construction documents
- Review and approval of PW proposals
- Public consultations in the EIA process which includes women and other vulnerable groups
- Training on waste management, including bio-medical waste
- Environmental Audit/monitoring training

6.2.3 **Farmer Training in Irrigated Agriculture**

In projects involving small-scale irrigation systems, there is often a need to provide farmers with training on managing the increased number of inputs, including fertilizers, pesticides and their alternatives, management of these systems, the development of water user committees and follow-up extension support to assist farmers and DAs in developing irrigated agriculture, and managing the environmental aspects including integrated pest management.
6.2.4 Awareness-Creation Training

Training will also focus on creating awareness of the EA process, including consultation, participation, disclosure, design and approval. This training needs to include women and men, elderly and youth, as well as vulnerable groups.

6.3 Training Mechanism

Training in ESMF implementation will not be conducted in isolation. It will be based on the ongoing PSNP capacity needs assessment, and will be included as an integral part of the capacity-building programme currently being designed and budgeted for the PSNP, and budgeted for and delivered within the PSNP awareness-creation and training programme.
7. **Environmental and Social Management Plan**

7.1 **Strategy**

The PSNP Environmental and Social Management Plan is based on the following principles:

i. The PSNP involves small-scale subprojects that can be designed, implemented and managed at the kebele level using standardised published guidance, and with the assistance of woreda staff as required.

ii. Environmental management will be integrated into project planning and implementation.

iii. Subprojects will be adopted in the kebele PSNP plan on the basis of selection criteria and screening designed to eliminate projects with major, or irreversible environmental or social impacts. In particular, the following subprojects are not admissible as PSNP PW:
   - Subprojects in or adjoining internationally-disputed territories;
   - Projects requiring the physical relocation of residents or the involuntary loss of assets or access to assets;
   - Subprojects incorporating dams of 15 metres or more in height.

iv. Subprojects likely to involve medical waste disposal will trigger application of the Government’s medical waste management guidelines.

v. Subprojects likely to involve the use of agrochemicals will trigger the Government’s integrated pest management procedures, and will lead to the development and implementation of an IPM Plan.

vi. PSNP procedures ensure that participation in the community projects is voluntary; each community member will have an option to opt out of the PSNP, should he or she wish to do so.

vii. The design of community PW subprojects will be guided by technical design standards that incorporate recommended measures designed to minimise adverse impacts and encourage positive environmental effects.

viii. Capacity building in environmental and social management will be provided by the PSNP as and when required.

ix. Approval of subprojects with environmental concerns will involve the Regional Environmental Protection Agency (REPA), or its equivalent, which will have the right to reject a project on environmental or social grounds, or to conduct an assessment of likely impacts prior to approval.

x. Special attention will be given to the impacts of water supply and irrigation subprojects, rehabilitation of health clinics, and subprojects involving possible voluntary loss of assets or access to assets. The PWFU will notify these to the REPA by the PWFU. The REPA
will decide whether an EIA is required. Following such EIA, the REPA may modify the
project, call for a management plan, or reject the project.

xi. In all cases where a subproject involving voluntary loss of assets or access to assets, the
Voluntary Asset Loss Procedure (Annex 6) will be implemented, under the auspices of
the Kebele Land Administration Committee. If it cannot be handled at this level, the
subproject will not be admissible.

xii. Any subproject involving construction of a dam will be referred to REPA for guidance
regarding design and environmental management.

xiii. Supervision of subproject implementation will be at kebele and woreda levels, with
technical backstopping from the PWFU or line bureau. The DA, with assistance if
required from the woreda line office concerned, will ensure that the specified mitigating
measures are implemented.

7.2 ESMF Procedures

The steps in the subproject Screening and Approval procedure are set out in Figure 1 overleaf.
The normal planning process is shown in the left of the diagram. The right side of the diagram
shows the subproject Screening and Approval steps.

The Screening procedure, which is conducted by the DA under the supervision of the Wereda
NR Expert in the NR Case Team, which are itemised separately here with guidance for the DA,
are combined in one Screening Form in Annex 2.

7.2.1 Step (i): Subproject Eligibility Check

Following selection by the community, check each subproject for eligibility:

Table (i): Subprojects Ineligible as PSNP PW

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject is in, or adjacent to, an internationally-disputed area*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject may involve the physical relocation of residents, or involuntary loss to any household of assets, or access to assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject incorporates a dam of more than 15 metres in height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject is located in a Priority Forest Area, or involves major land-use change such as draining of a wetland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Refer Annex 5 for details.

If any project has an answer, ‘Yes’, try to modify the design of the project to avoid the feature of
concern. If you are unable to do so, you must reject the subproject.
Figure 1: Flowchart showing the First Five steps in ESMF Implementation, within the PSNP Planning Process

**Note:**
- Steps (i) and (ii) are mandatory for all PW.
- Steps (iii) and (iv) apply only to PW of Environmental Concern.
- Steps (v) and (vi) apply only to PW for which an EIA is required (information flows for step (vi) are not shown above.)
7.2.2 Step (ii): Subproject Screening

After identifying the eligible subprojects, carry out a Screening of each one, in order to identify any that are of environmental concern.

Firstly, check whether the subproject falls into any of the following categories:

**Table (ii): Subprojects Requiring Special Attention**

<table>
<thead>
<tr>
<th>Feature Requiring Special Attention</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject likely to involve disposal of medical waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject likely to use pesticides or other agro-chemicals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject incorporates a dam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject might involve voluntary loss of assets, or access to assets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bring any subproject with ‘Yes’ above to the attention of the Woreda NR Expert in the NR Case Team, who, in liaison with the Wereda Environmental Expert in the WEPO, will ensure that the necessary procedures are followed. Subject to this notification, the subproject may proceed.

Secondly, fill in the following Screening Form for the type of subproject concerned. This checklist identifies potential impacts which may require the design to be modified.

**Table (iii): Subproject Screening Checklist**

<table>
<thead>
<tr>
<th>Roads and Footpaths</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>Soil erosion or flooding concerns (eg, due to highly erodable soils or steep gradients)</td>
<td></td>
</tr>
<tr>
<td>Number of stream crossings or disturbances</td>
<td></td>
</tr>
<tr>
<td>Wet season excavation</td>
<td></td>
</tr>
<tr>
<td>Creation of quarry sites or borrow pits</td>
<td></td>
</tr>
<tr>
<td>Significant vegetation removal</td>
<td></td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td></td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td></td>
</tr>
<tr>
<td>New settlement pressures created</td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Subprojects for Human Consumption</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
</tr>
<tr>
<td>New access (road) construction</td>
<td></td>
</tr>
<tr>
<td>Existing water sources supply/yield depletion</td>
<td></td>
</tr>
<tr>
<td>Existing water users disrupted</td>
<td></td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
<td></td>
</tr>
<tr>
<td>Increased numbers of water users due to improvements</td>
<td></td>
</tr>
<tr>
<td>Increased social tensions/conflict over water allocation</td>
<td></td>
</tr>
<tr>
<td>Sensitive ecosystems downstream disrupted</td>
<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td></td>
</tr>
</tbody>
</table>
### Water Subprojects for Human Consumption

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other (specify):</td>
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</tbody>
</table>

### Small-scale Irrigation Subprojects

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing water sources supply/yield depletion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing water users disrupted</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water storage requirement and viability (soil permeability)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vulnerability to water logging (poor drainage)</td>
<td></td>
<td></td>
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<tr>
<td>Vulnerability to soil and water salinization</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Sensitive downstream habitats and waterbodies</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Increased agric. chemicals (pesticides, etc) loading</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Increased social tensions over water allocation</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience with irrigated agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
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</tbody>
</table>

### Area Closure and SWC (Soil and Water Conservation) Activities

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Wet season soil disturbance</td>
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<tr>
<td>Sensitive downstream ecosystems</td>
<td></td>
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<tr>
<td>Plant/tree species threaten invasion of native species</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
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<tr>
<td>Insufficient capacity to manage Area Closure</td>
<td></td>
<td></td>
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<tr>
<td>Insufficient capacity to prohibit or control open grazing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insufficient capacity to manage new pasture</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Other (specify):</td>
<td></td>
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</tbody>
</table>

### Infrastructure such as School and Health Facilities

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
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<tr>
<td>Alteration of existing drainage conditions</td>
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<tr>
<td>Vegetation removal</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wet season soil disturbance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction materials impact on adjacent forests/lands</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Quarries and borrow pits created</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Water supply development effects in available supply</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effect of sanitation development on existing disposal sites</td>
<td></td>
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<tr>
<td>Effects of medical waste on existing disposal system</td>
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<tr>
<td>In-migration/settlement induced by facilities development</td>
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<td></td>
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<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
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</tbody>
</table>
If your assessment shows that the subproject is likely to have impacts ranging from low to moderate, or has only one high potential impact, try to determine (with the assistance of wereda experts if necessary) if it is possible to incorporate suitable mitigating measures into the design to overcome the problem. Suggested mitigating measures can be found in the design specifications in the *Community Based Participatory Watershed Development Guideline*, or in Annex 3 of the present document.

The following subprojects should be earmarked as a **Subproject of Environmental Concern:**
- Any subproject expected to cause more than one **high** potential impact that cannot be easily corrected by a simple change in the design;
- Any subproject with impacts that are difficult to predict, ie several ticks under “unknown”.

*Note:* Be alert to the possibility that the subproject may have impacts which are not listed here. Consult the Environmental Expert in the WEPO if you are not sure.

In addition, check whether the subproject falls into any of the following categories:

**Table (iv): Features of Environmental Concern**

<table>
<thead>
<tr>
<th>Feature of Concern - For All Types of Subproject</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject located within National Park or other designated wildlife area or buffer zone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject located within a recognised Cultural Heritage site, or World Heritage site</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If there is an answer, ‘Yes’, try to modify the design of the subproject to avoid the aspect of concern. If you are unable to do so, the subproject file should be marked ‘**Subproject of Environmental Concern**’.

Make sure that a list of any subprojects in your kebele that you have earmarked as being of environmental concern accompanies the subproject files forwarded to the Wereda NR Expert in the NR Case Team.

7.2.3 **Step (iii): Taking Action on Subprojects Requiring Special Attention: Guidance for the Woreda NR Expert (NR Case Team)**

For any project with a feature checked in Table (ii), refer to the relevant procedure in Section 7.3 of this ESMF, and take the necessary action.

7.2.4 **Step (iv): Notification of Subprojects of Environmental Concern: Guidance for the Wereda Council and PWFU**
The Wereda Council should ensure that the plans forwarded to the regional PWFU, via the BoARD, are accompanied by each wereda’s list of Projects of Environmental Concern, if any. The PWFU should consult the REPA, who will determine if any of these PW require an EIA.

7.2.5 Step (v): Reviewing Notified Subprojects: Guidance for the Regional EPA

When you review a planned subproject that has been listed by the wereda as being of environmental concern, note that:

- Not all of these subprojects necessarily need an EIA. That decision rests with your office;
- Subprojects that involving medical waste, agro-chemicals such as pesticides, a dam, land acquisition, or voluntary loss of land-based assets or access to assets are subject to special procedures or a management plan. These subprojects will have been earmarked for special attention by the Wereda Environmental Expert in the WEPO.
- For abstraction from rivers ultimately draining into the Nile, check with your office on the requirements of any international agreements under the Nile Basin Initiative.

For each listed PW, you should prepare for the PWFU the following:
- Your decision as to whether an EIA is required;
- If EIA is not required, the recommended scope of EIA, indicating aspects to be focussed on, skills required, and likely duration of the EIA. These will constitute ToR for the EIA.
- If EIA is not required, guidance regarding any special needs such as technical guidelines or an environmental management plan, including mitigating measures;

7.2.6 Step (vi): Conducting an EIA: Guidance for the Wereda ARDO and WEPO

The Wereda ARDO & EPO are responsible for ensuring that the required EIA is conducted, in liaison with the RPWFU. Normally the ARDO it will establish a team drawing upon wereda sector experts, DAs and others as appropriate. The wereda experts concerned will have received basic training in EIA in the PSNP PW training course.

The cost of conducting the EIA should be covered by the PSNP, from the PSNP administration fund for that wereda. The cost will normally be modest, covering expenses above normal daily work, such as travel and field expenses.

The ToR for the EIA will be based on the recommendations of the Regional EPA.

The EIA report should consist of a brief environmental baseline, impact assessment, mitigating measures, and recommendations for implementation and monitoring of the mitigating measures.

EIA guidelines will be available from the Regional EPA, supplemented by PSNP PW training material. A list of common mitigating measures appears in Annex 4 of the present document.
7.2.7 Step (vii): Reviewing EIA Report: Guidance for the Regional EPA

The Regional EPA will review the EIA report, and either approve the PW, recommended re-design, or reject. Reviews should be conducted as quickly as possible, to avoid delay in the PSNP PW programme. The results of the review should be notified immediately to the RPWFU.

Every effort should be made to provide advice to modify a project to enable it to become environmentally sustainable if at all possible, rather than reject it.

7.3 Guidelines for Projects requiring Special Attention

7.3.1 Integrated Pest Management for Agricultural activities

The Government supports the use of biological or environmental controls and other measures to reduce reliance on agricultural chemicals. Integrated Pest Management (IPM) refers to a mix of farmer-driven, ecologically based pest control practices that seek to reduce reliance on synthetic chemical pesticides. It involves (a) managing pests (keeping them below economically damaging levels) rather than seeking to eradicate them, (b) relying, to the extent possible, on nonchemical measures to keep pest populations low; and (c) selecting and applying pesticides, when they have to be used, in a way that minimises adverse effects on beneficial organisms, humans, and the environment.

The following strategy addresses the use of agricultural chemicals and to promote IPM in the PSNP and HABP:

- Public works project funds will not be used for the purchase of pesticides or fertilizers.
- Information on acceptable and unacceptable pesticides will be provided to farmers and Woreda staff to encourage compliance with government policy and international standards.
- Training in agricultural activities on pest and fertilizer applications, safe chemical handling and IPM will be provided to communities as required.
- A basic Guide for IPM in the PSNP has been prepared by Government and disclosed (Annex 4), as a menu of practical methods for reducing the need for pesticides, covering techniques such as:
  - Pest-resistant crops varieties
  - Use of disease/weed-free planting stock
  - Farming practices that increase resistance to pests (proper soil preparation, spacing, planting, watering, etc.)
  - Farming practices that suppress pest populations (crop rotation, cover crops, intercropping, etc.)
  - Traditional manual control of pests (weeding, removing insect pods, etc.)
  - Biological controls (predators, pathogens, pheromones, etc.)
  - Targeted chemical use (pest scouting/selective treatments)
- Based on the Guide, an IPM Plan will be produced for each agricultural activities which likely utilize agrochemicals.
7.3.2 Medical Waste Management

It is critical that a medical waste management plan for all sub-projects financed under the PNSP which include the construction or rehabilitation of health facilities (irrespective of their size). Therefore project proposals involving the rebuilding of rural health clinics should include provisions for the safe management of medical wastes.

The following strategy addresses medical waste issues in the PSNP:

- A Waste Management Guide for Rural Health Clinics and market places has been prepared by Government and disclosed (Annex 8), to assist subproject design and operations;
- A preliminary environmental audit of clinic rehabilitation proposals will be undertaken by a qualified professional;
- All proposals will undergo environmental screening to identify environmental concerns and environmental assessment and mitigation requirements associated with waste;
- All proposals will be required to prepare a Waste Management Plan following approval of the project by Woreda Council and before implementation. This plan will be based on the Waste Management Guide. The Medical Waste Management Plan addresses:
  - The quantity and quality of wastes generated
  - The available disposal and treatment options at the site
  - Methods to segregate medical waste from general waste
  - Internal rules for waste handling, collection and storage
  - Clinic responsibilities for waste management
  - Proposed landfill development and operations

7.3.3 Projects involving Dams

Projects requiring the construction of dams of 15 metres or more in height, will not be approved. Dams of less than 15 metres height may be approved, subject to a qualified engineer being responsible for the design and supervision of construction, and the construction being carried out by a qualified contractor.

7.3.4 Projects involving Asset Acquisition or Loss of Access to Assets

While noting that there will be no projects potentially requiring involving relocation, or involuntary loss of assets or access to assets. It may nonetheless occur that a subproject may involve, for example, voluntary loss of use of a piece of land utilised by a pipe traversing a farmer’s plot, or voluntary loss of access to a limited area of grazing land used for an irrigation canal. In such cases, compensation is normally received in the form of benefits and services from the subproject. Alternatively, if appropriate, the member may receive in-kind compensation such as a piece of replacement land. In all cases of voluntary asset (or access to assets) loss, a Voluntary Loss of Assets procedure will be followed, as set out in Annex 6.
7.4 Implementation of Mitigating Measures

The mitigating measures presented in the Technical Materials, supported by the general guidance provided in this ESMF provide the primary means of implementing environmental management of the PW subprojects. Three aspects will be important in applying and monitoring the effectiveness of these measures during the implementation phase:

- The Kebele or community proponent will designate a person who will be responsible for ensuring the mitigation measures are effectively implemented as specified before, during and after construction. This will normally be the DA.
- The Woreda EPO will designate a staff member who will be responsible for inspection and oversight of the implementation of the mitigation measures as required.
- The PWFU in collaboration with REPA will assess the application of the prescribed mitigation measures in monitoring and evaluating environmental performance of the public works.

7.5 HIV/AIDS

The PSNP poses both challenges and opportunities regarding prevention and control of HIV/AIDS. Safety Net activities will engage in widespread community mobilization to implement public works activities. These activities could have negative impacts through increasing mobility of large number of people, thereby creating favorable conditions for the spread of HIV/AIDS. To mitigate the potential negative impacts of Safety Net activities, it will be essential to include effective & participatory HIV/AIDS prevention and control measures in the design of the programme.

Mainstreaming HIV/AIDS Prevention and Control

The existence of organized structures which coordinate the planning, implementation, monitoring and evaluation of the PSNP at federal, regional, wereda and community levels, provides an opportunity to mainstream HIV/AIDS prevention, and to control activities in the PSNP. The interface between local government (woreda, kebele) and local community governance structures is strong, and these structures can be used as a basis on which the local response of HIV/AIDS can be built.

Training

Training for CFSTFs will include a component addressing the prevention and control of HIV/AIDS. The CFSTF will work in close collaboration with Anti AIDS committees, wherever they exists, to raise the awareness of the community and prevent the spread of HIV/AIDS.

Protection and Involvement of Women and Girls

As women and girls are more vulnerable to HIV/AIDS risks than other members of the community, it is imperative to emphasize the protection and role of women and girls in the prevention and control activities that will be planned.
Avoidance of Discrimination

It is also essential to ensure chronically food insecure households which are affected by HIV/AIDS will benefit from SNP without being exposed to any stigma and discrimination.

In addition, if a household cannot provide labour to participate in the public works because illness associated with HIV/AIDS, it should be eligible to receive direct support from the SNP.
Part II: The Household Asset-Building Programme

STRATEGIC ENVIRONMENTAL ASSESSMENT

Executive Summary

The aim of HABP is to foster household asset-building through household-level micro-scale activities, each of which, taken individually, is expected to have no significant impact on the environment. However, the strategy is to offer HABP services and facilities to large numbers of households over several years, totaling some $565 million in grants and credits from 2010 to 2014.

This SEA establishes that since support from HABP is agreed to be essential to household graduation from the PSNP, and the total number of PSNP beneficiaries is in excess of 1.2 million households, there is potential for large numbers of households in a given area to choose to embark on identical or similar HABP activities. If this were to happen, there could be significant cumulative negative environmental impacts.

This SEA identifies certain cumulative impacts that might reasonably be expected to occur. However, because it is not possible to predict what activities might be undertaken, and where, and because of the potentially very large number of HABP activities that might be undertaken, a framework approach is adopted. Thus this document sets out procedures for (i) Avoiding or mitigating such impacts before they assume significant proportions, and (ii) Monitoring the implementation of the mitigating measures.

The procedures recommended draw upon the Environmental Management system developed by the CIDA-financed IPMS programme. In order to illustrate the implementation of the procedures developed, a set of documents relating to Alamata Wereda, Tigray, are annexed. However, for the purposes of this SEA they are only hypothetical examples, and their content is for illustrative purposes only.6

At wereda level, the Extension Unit NR Expert takes the lead responsibility for implementing the Environmental Management system. At regional level, responsibility for managing the process is assumed by a joint team of concerned staff of the Extension case Team and the Regional PW Focal Unit. At federal level, coordination and oversight are the responsibility of the federal PW Coordination Unit in the NRM Directorate.

The basic costs of annual training of staff undertaking safeguards work on the PSNP are included in the annual budgets for the PWCU and the PWFUs. The incremental cost of training due to the SEA, much of which will be absorbed into the regular ESMF training within the overall PW training programme, is estimated at $19,000. A more detailed breakdown will be developed by the PWCU during project negotiations, when the final design of the HABP has been completed.

This SEA was developed by the PWCU in the Natural Resources Directorate, MoARD, with support from the PW Task Force (consisting of government and nine donor agencies) and

6 These Annexes are based on actual data relating to household-level activities in this Wereda implemented through the CIDA-financed IPMS.
with additional consultations with regional and wereda staff, and in particular utilizing the experience of the IPMS program, on which the design of the HABP is partly based. Further extensions and improvements to this SEA and the design of the Environmental management system will be made by the PWCU when the final design of the HABP has been completed. It should be noted that the Environmental Management system set out in this SEA is based on the system already in use in the IPMS programme, for which Wereda staff have already been trained. Thus it does not introduce new concepts or a new approach. The training modules used for the IPMS training will therefore be applicable for the training under the HABP.
1. Background

Phase III of the Ethiopia Productive Safety Nets Project will incorporate a Household Asset Building Programme (HABP) as well as a Productive Safety Nets Programme (PSNP). The HABP will support, and bring about reforms of, the Government’s Household Asset Building Program, formerly known as “Other Food Security Project (OFSP)”. Over the last five years US$400 million has been invested by Government in this activity, which is designed to support sustainable graduation. The Government has confirmed its intention to continue to invest at a similar level over the coming five years; with a total HABP Project cost of some $649 million, of which approximately $481 million is expected to be disbursed in credits through a revolving fund, and $85 million in grants to households in some 290 weredas in Tigray, Amhara, Oromia, SNNPR, Dire Dawa, Harar, Afar and Somali Regions.

APL III preparation has been utilized to dialogue with Government on several issues arising from past performance of the OFSP. In addition, the experience of the WB-funded Food Security Project provides important experience upon which to draw.

HABP will provide an asset transfer to individual households along with skills training, market opportunities, and access to savings services as a precursor to entering the formal credit system. These support activities are designed to ensure that the credit is effective and sustainable.

Some of the activities chosen for support under the HABP will be traditional; others will be innovative, and may be designed as off-farm income-generators. Some may involve introducing crops not traditionally grown in the location concerned; some may involve introducing new techniques such as micro-scale irrigation for crops previously only rain-fed.

Typical HAB investment activities could include, but may not be limited to, the following:

- Poultry keeping
- Ox fattening
- Sheep fattening
- Sheep production
- Goat fattening
- Goat production
- Bee keeping
- Micro-scale irrigation for cash crop production (eg. Vegetables, fruit, ensete, coffee and trees for fuelwood or poles)
- Petty trading
- Other (eg micro-scale agro-industrial production)

This list is not exhaustive. Furthermore, although the types of activity to be chosen by individual households are expected to fall for the most part into such broadly identifiable categories, the specific choices and locations of any particular type of activity are not known in advance. It should also be noted that some households may elect to undertake activities not listed here, and in some regions and weredas, area-specific activities that are not found in other parts of the country may arise. Indeed, some $26.5 million is scheduled to be used to support innovation in on/off-farm investments and income-generating activity (IGA) enterprise development. Thus it is not possible to predict in advance either the activities to be
undertaken, nor the scale or nature of their implementation. For this reason, no attempt is made here to make definitive forecasts as to the likely cumulative impacts of the programme. Instead, the focus of this SEA is on providing an environmental management framework that will enable the regional and wereda authorities to track the cumulative impacts, if any, and take corrective action as required.

2. Environmental Context and Baseline Conditions

2.1 Overview of PSNP Regions

The 262 PSNP woredas are located principally in Tigray, Amhara, Afar, SNNP, Oromiya and Somali regions. However, the environmental characteristics of these areas may be more usefully demarcated by altitude, rather than administrative boundaries. Thus they are presented in Table 2 below, with their height above sea level, which is correlated with temperature.

Table 1: Eco-Climatic Zones and Potential Environmental Sensitivities

<table>
<thead>
<tr>
<th>Eco-Climatic Zone</th>
<th>Potential Sensitivities</th>
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<tr>
<td><strong>High Dega Wurch</strong></td>
<td>Very high elevation areas (&gt;3200 m) in Wallo, Gonder and Gojam in Amhara; dominated by grassland landscapes; rainfall is 1000-1600 mm. Regeneration of natural resources in the high elevation zones need to recognize the limited plant species adapted to these highland conditions and the slower growth rates, potential for rapid rainfall runoff and the vulnerability to overgrazing and other human uses. The elevation changes, the relatively high rainfall and the potential high soil erosion rates present opportunities and constraints for environmental rehabilitation and management of increasing land use pressures in the Dega zone.</td>
</tr>
<tr>
<td><strong>Dega</strong></td>
<td>High elevation areas (2000-3200 m) in Tigray, Wollo, Gonder and Gojam in Amhara, and Harrege, Arsi and Bale in Oromiya; typically mixed coniferous shrubs and trees; rainfall is 1000-2000 mm. The elevation changes, the relatively high rainfall and the potential high soil erosion rates present opportunities and constraints for environmental rehabilitation and management of increasing land use pressures in the Dega zone.</td>
</tr>
<tr>
<td><strong>Weyna Dega</strong></td>
<td>Mid-elevation areas (1500-2400 m) in the western half of Ethiopia covering Amhara, Oromiya, SNNP and Tigray; typically mixed temperate forests and shrubs and riparian and other vegetation associated with the Abbay River and Awash River; rainfall is 800-1600 mm. The relatively high level of ecosystem productivity and biotic diversity provides for significant natural resources and the pressures of human uses, along with the presence of important and sensitive natural habitats but with generally high recovery rates if managed properly.</td>
</tr>
<tr>
<td><strong>Kolla</strong></td>
<td>Low elevation semi-arid areas (500-1500 m) of western Tigray, western Gonder in Amhara, southern Oromiya and northern Somali; dry savanna landscapes; rainfall is in the range of 200-800 mm. The semi-arid, dry savanna Kolla landscapes are vulnerable to deforestation and overgrazing, variable rainfall, slower rates of recovery and wildfire potential; soils are generally nutrient poor and moderate-high erodability.</td>
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2.2 Socio-Economic Characteristics of the PSNP Regions

Table 3 presents basic data on population and agriculture in the PSNP regions, ranked in descending order of agricultural production.

<table>
<thead>
<tr>
<th>Table 3: Population and Agricultural Production of PSNP Regions as of 2006</th>
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<tr>
<td>No.</td>
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<tr>
<td>Oromiya</td>
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<td>Amhara</td>
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<td>SNNPR</td>
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<td>Tigray</td>
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<td>Somali</td>
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<tr>
<td>Afar</td>
</tr>
<tr>
<td>Harar (rural)</td>
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<tr>
<td>Dire Dawa (rural)</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

3. Legal, Policy and Administrative Framework

3.1 The Constitution of Ethiopia

The 1994 Constitution of Ethiopia proclaims that all citizens shall have a right to live in a clean and healthy environment. It states that Government and citizens have a duty to protect the environment, and the design and implementation of programs and projects shall not damage or destroy the environment. The Constitution incorporates a number of other provisions relevant for the protection, sustainable use and improvement of the environmental resources of the country. It reflects a view of environmental concerns in terms of fundamental human rights, and provides a basis for the formulation of national policies and strategies on environmental management and protection. It assures that no development activity shall be disruptive to the ecological balance, and that people concerned shall be made to give their opinions in the preparation and implementation of environmental protection policies and programs.

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The Constitution also:
(a) Maintains land under the ownership of the Ethiopian people and the government but protects security of usufruct tenure;
(b) Reinforces the devolution of power and local participation in planning, development and decision taking by regions and woredas;
(c) Ensures the equality of women with men;
(d) Ensures the appropriate management as well as the protection of the well-being of the environment; and
(e) Maintains an open economic policy.

The Constitution of Ethiopia further states that land is retained under the control of the people and the Government of Ethiopia, and thus prohibiting its buying and selling. It however ensures its usufruct tenure rights and allows for its usufruct rights to or from others (i.e. rent out the land). All farmers who would like to make a livelihood from farming are entitled to have plot of land free of charge

3.2 Policy on Disaster Prevention and Management (1993)

The PDPM was introduced in order to address the root causes of the vulnerability to drought and famine. It discourages free distribution of food relief to able bodied persons. Rather it emphasizes the principles of protecting human life in times of disaster, protecting the quality of life from deterioration due to disasters and timely mitigation, protecting the assets and economic fabric and best use of natural resources for speedy post disaster recovery, and the provision of relief taking regard for human dignity.


The first comprehensive Environmental Policy of the Federal Democratic Republic of Ethiopia was approved April 2, 1997 by the Council of Ministers. It derives from the recommendations of the Conservation Strategy of Ethiopia (CSE) which was prepared in 1989 and later updated in 1997. The Overall Policy Goal is to: "improve and enhance the health and quality of life of all Ethiopians and to promote sustainable economic development through the sound management use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs".

The Environmental Policy provides a comprehensive set of principles and policies to guide the integration of environmental considerations in development activities, and includes nine policy objectives, 19 guiding principles, ten sectoral policies and ten cross-sectoral policies.

The National Policy was further strengthened with the adoption of several multilateral environmental conventions, including:
- The Convention on Biological Diversity;
- The Basal Convention on the Control of Transboundary Movements of Hazardous Wastes;
- The United Nations Framework Convention on Climate Change;
- The United Nations Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa;
- The Vienna Convention and the Montreal Protocol for the Protection the Ozone Layer;
• The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; and
• The Stockholm Convention on Persistent Organic Pollutants.

3.4 National Action Plan to Combat Desertification (2001)

Ethiopia signed the Convention to Combat Desertification in October 1994 followed by the Government ratification in June 1997. The Environmental Protection Authority (EPA) was designated by the Government as a national focal agency for the implementation of the convention. The activities so far have included, among others, the development of a National Action Plan for the Environment and the regional action programmes are under development.

3.5 Environmental Proclamations (2002)

A series of legal proclamations form the basis for the environmental assessment and management framework in the country.

The Proclamation on the Establishment of Environmental Protection Organs (No. 295/2002) assigns organizational responsibilities for environmental management activities as well as environmental protection regulations and monitoring. It gives the Environmental Protection Agency (EPA) the legal powers to ensure enforcement and compliance with environmental laws and standards and differentiates the responsibilities among the environmental agencies at federal and regional level.

The Proclamation on Environmental Impact Assessment (No. 299/2002). Article 5: Project Requiring Environmental Impact Assessment of the Proclamation states that: "Every project which falls in any category listed in any directive issues pursuant to this Proclamation shall be subject to environmental impact assessment"; it also states that programmes and policies with potential impacts shall be subject to the provisions of the proclamation.

The Proclamation on Environmental Pollution Control (No. 300/2002). This law recognizes the fact that some social and economic development endeavours may inflict environmental harm that could make the endeavours counter productive. To this end, it aims to eliminate or, when not possible, to mitigate pollution as an undesired consequence of development activities.

The Proclamation on Solid Waste Management (No. 513/2007). This law gives EPA the mandate to enhance Government agencies at all levels to prevent potential adverse impacts while creating economically and socially beneficial assets from solid wastes.

3.6 EIA Guidelines (2000)

The purpose of the EIA guidelines is to ensure that development projects integrate environmental considerations in the planning process as a condition for their approval. The EIA process includes:
• Application
• Pre-screening
• Screening
• Scoping
• EIA and submission of EIA report
• Review of the EIA and decision by the Competent Authority

The EIA guidelines cover industrial, mining, agriculture and infrastructure development, all of which are likely to impact the environment in a significant manner.

3.7 Food Security Strategy (2002)

The Food Security Strategy is targeted mainly toward the chronically food insecure, moisture deficient and pastoral areas, with a focus on environmental rehabilitation to reverse the level of degradation and also as a source of income generation for food insecure households through a focus on biological measures. Water harvesting and the introduction of high value crops, livestock and agroforestry development are also included in the recent strategy. The objectives of this policy are to (i) increase the availability of food through increased domestic production, (ii) ensure access to food for food deficit households, and (iii) strengthen emergency response capabilities. The strategy recognizes the need to tailor interventions to the diversity of the food production zones - areas with adequate moisture, moisture deficient and pastoral areas. Chronically food insecure areas require a more comprehensive and appropriate package of interventions, which may include soil and water conservation, plant nutrient generation and recycling, drought and pest resistant crops and improved post harvest management.

3.8 Administrative Structure for Environmental Management

3.8.1 Federal and Regional EPAs

The EPA has overall responsibility for setting environmental policies, regulations and standards and for administration of EIA requirements. The Federal agency is organized into nine technical departments and four service units, with an overall staff of 167.

Regional EPA offices have been established almost all of the regions and where they have not been established, other bureaus are designated to manage environmental affairs and coordination with the federal EPA. The regional EPA bureaus operate independently of the Federal EPA, reporting to regional government.

3.8.2 Ministry of Agriculture and Rural Development

This Ministry is responsible for a broad array of agricultural production and research, food security, poverty reduction, natural resource management and rural development programs and activities. The regional Bureaus of Agriculture and Natural Resources Development are directly involved in delivery of programs with Woredas, in keeping with the decentralized strategy and the government's Agricultural Development-led Industrialization policy.

3.8.3 Ministry of Water Resources

This ministry is responsible for overall inventory, planning and management of surface and ground water resources in the country. This includes aspects of watershed management, water supply and water quality management that affect rural development programs. Regional Water Bureaus are directly involved in assisting woredas and other agencies in various water resource development projects.
3.8.4 Woreda Bureaus of Agriculture, Rural Development and Health

The woredas are a key focus of the government's commitment to decentralized delivery of services. The various departments at the woreda level have a direct responsibility for finance, land use, natural resources, infrastructure, and development at the local level. The agriculture departments have subject matter specialists and others who advise development agents working at the village level. The PSNP implementation will depend upon appropriate inputs and management controls related to soil and water conservation, small scale irrigation development, rainwater harvesting, road development and water supply, sanitation and waste management associated with rehabilitated schools and clinics.

3.8.5 Kebeles

The kebeles (areas with an average population of about 5,000) are in effect the prime contact level for most Ethiopian citizens. Kebele administrations consist of an elected Kebele council (in principle 100 members), a kebele executive committee of 5-7 citizens, a social court, and the development and security staff posted in the kebele.

The kebele council and Executive committee's main responsibilities are:
- Preparing an annual kebele development plan;
- Ensuring the collection of land and agricultural income tax;
- Organizing local labor and in-kind contributions to development activities;
- Resolving conflicts within the community through the social courts.

Kebele executive committees are answerable to their woreda council. Unlike executive committee members at the region and zone, elected members receive no stipend. The only official Kebele officer is the council chairman, who receives a small monthly allowance. The kebeles provide a link between the state and households and are responsible for enforcing the directives from the government ministries. In remote areas, the kebeles may be the only assoc

4. Safeguards Experience

Phases I and II of the PSNP did not incorporate household-level interventions. The Project had, and will have for Phase III, an Environmental and Social Management Framework (ESMF), but this instrument is for application to community sub-projects under the PSNP Public Works (PW) programme, each of which could potentially have significant negative impacts. Thus the PSNP has no precedent for addressing potential impacts of household-level micro-projects.

The Government OFSP appears to have had no environmental safeguards instruments.

The ongoing PSNP Phase II Project has since 2005 had an ESMF applicable to community-level Public Works (PW) activities. Some capacity problems, particularly at federal and regional levels, were experienced in implementing this ESMF to a satisfactory standard for all sub-projects. To resolve this capacity issue, steady progress has been made to build the necessary teams. There is now a fully-functioning federal-level PWCU consisting of 11 full-time staff, and a PWFU in each region. These PWFUs are now undergoing a major strengthening to 12 full-time staff in each, and PWFUs are now being set up in the Zones.

These PWFUs, under the auspices of the PWCU, are responsible for safeguards issues for the PW component of the PSNP, and under Phase III will take ultimate responsibility, in liaison
with the Extension service, for safeguards under the HABP. It is considered that the capacity of these Units will likely be sufficient for this purpose. The PWCU will, however, monitor this situation, and during the course of Phase III will make recommendations for upgrading the teams with additional staff if this proves necessary to cover the work involved in overseeing and managing the HABP Environmental management system.

5. **Rationale for an SEA**

While individual household activities under the HABP may individually have insignificant environmental impacts, given that the PSNP currently has some 1.5 million beneficiary households, the potential negative impacts of large-scale adoption of new household asset structures and corresponding activities, such as significant increases in livestock ownership, micro-scale irrigation, export crop cultivation, etc., may be considerable. In other words, the impact of a large number of households taking up the same activity in a given area is often ‘greater than the sum of the parts’.

Such impacts, usually known as ‘cumulative impacts’, can best be addressed at strategic level, rather than the site-specific approach of Environmental Impact Assessment (EIA). Thus the objective of this SEA is to:

(i) Identify the type of household-level activity that might give rise to significant potential impacts if adopted at scale;
(ii) Assess the possible nature and extent of such impacts;
(iii) Develop environmental guidelines, if appropriate, at household activity level;
(iv) Produce wereda-level Environmental Management Plans (EMP) for monitoring, managing and mitigating such impacts.

6. **The Dynamics of HABP Environmental Impact**

6.1 **Environment – HABP Linkages**

The environmental impact of the HABP will be influenced by:

(i) The nature, condition and resilience of the receiving environment
(ii) The HABP activities chosen
(iii) The rate of take-up of the activities
(iv) The PSNP Public Works and other community projects in the community watersheds concerned.

PSNP weredas are all to a greater or lesser extent environmentally degraded, and even those that have been partially rehabilitated have fragile eco-systems. Thus given the relatively high population densities, when a particular type of household activity becomes popular and is adopted on a wide scale, there is the potential for two types of environmental interaction: the impact of the activities on the environment, and impacts of the environment on the activities.
6.2 HAB – PSNP PW Linkages

There will also be linkages between HAB activities and other community programmes such as the PSNP PW programme. For example:

- Households embarking on bee-keeping will need Area Closure nearby for growing the required bee-forage plants;
- Households embarking on export crop cultivation may need shallow wells, which in turn will need adequate ground-water;
- Households embarking on animal fattening will need Area Closure to ensure an adequate supply of feed.
- Households embarking on activities such as vegetable production will benefit greatly from PW SWC activities in the vicinity.

Thus the PW program in a community watershed will have a bearing on which income-generating activities will be viable for the beneficiary households, and in some cases should be a condition for granting the concerned credits.

Therefore the PW program must be a consideration in predicting HAB impacts, and in establishing guidelines and mitigating measures for the implementation of HAB activities.

7. Potential Cumulative Impacts on the Environment

Certain of the anticipated HABP activities will have the potential for cumulative impacts on the environment if they become very popular and are taken up at scale, particularly when households get together to share common costs in activities such as irrigated agriculture. These impacts will depend on the ecology of the weredas concerned. Examples of medium-term and long-term impact that might be expected are as follows:

(i) Animal production and/or fattening leading to (a) uncontrolled use of drugs or chemicals, leading to chemical pollution, and (b) an increase in animal numbers and uncontrolled grazing, leading to increased environmental degradation;
(ii) Poultry keeping leading to uncontrolled use of drugs or chemicals, leading to chemical pollution;
(iii) Crop irrigation using surface water (in water-harvesting ponds), causing (a) reduced river-flows, (b) increased safety risk for children and livestock; and (c) an increased risk of malaria;
(iv) Crop irrigation using ground-water (eg shallow wells), leading to (a) a lowering of the water-table, (b) soil salination, and (c) uncontrolled use of agrochemicals, resulting in groundwater pollution, and subsequent health hazards for human and animal life;
(v) Crop irrigation using river or lake water, leading to (a) reduced river flows, (b) soil salination and encrustation, and (c) uncontrolled use of agrochemicals, resulting in groundwater pollution and subsequent health hazards for human and animal life;
(vi) Micro-processing of agricultural residues for animal feed production, thereby reducing local energy sources, leading to deforestation;
(vii) Increased rainfed or irrigated cultivation, leading to increased pressure on land, and possible encroachment up the hillsides and into forested areas, leading in turn to increased environmental degradation and river siltation;
(viii) Trading in fuelwood or poles or charcoal, leading to deforestation and a reduction in local energy sources;
(ix) Introducing new crop varieties could lead to a narrowing of the genetic base by eradicating land races, which could mean, for example, that in the event of an outbreak of disease, there is no alternative, disease-resistant strain available;
(x) If the cultivation of cash crops becomes so popular that cash crops come to displace food crops to a significant extent, this could produce an imbalance that might lead to food shortages within, or outside, the wereda;
(xi) Area Closure for growing bee forage crops might oblige cattle to seek marginal grazing lands;
(xii) For households receiving loans for fisheries activities, the use of inappropriate nets and poor fishing practices may have negative environmental impacts such as stock depletion.

8. Potential Impacts of the Environment on HABP Investment Activities

Just as the HABP activities may have negative cumulative impacts on the environment, so, conversely, a fragile, drought-prone environment, particularly if densely populated, or subject to climate change effects, may have negative impacts on HABP activities.

For example,
(i) Drought, putting the livestock and livelihoods at risk, and lowering the water table;
(ii) Flooding, causing excessive soil erosion and destroying micro-irrigation schemes and community roads;
(iii) Outbreaks of livestock diseases such as Trypanosomosis and other diseases (paturellosis, blackleg, etc.);
(iv) Sediment load due to poor watershed management in the catchment could bring stones into the flood plains, with negative impacts on lowlands farming.


For practical purposes, cumulative environmental impacts will be monitored at wereda level.

Since weredas differ widely in terms of agro-climatic condition, so the likely impacts of an activity will depend on where it is implemented.

Therefore procedures are set out here for each wereda in order to:
(a) Predict the major impacts, if any, likely to arise from the (expected) most popular activities,
(b) Identify suitable mitigating measures that can be adopted:
   ➢ At household level;
   ➢ At wereda, zone or regional level, as appropriate.
(c) Monitor the implementation of the mitigating measures and do the necessary follow-up.
9.1 Wereda Environmental Profile

In each PSNP wereda, a basic Wereda Environmental Profile is drawn up by the Wereda Extension Case Team NR Expert in conjunction with the Wereda Environmental Expert, the Wereda Natural Resources Case Team NR Expert, and the Natural Resources DAs.

The Environmental Profile consists of:

- A brief environmental baseline, characterizing the wereda ecosystem and the state of the environment;
- The principal environmental issues in the wereda.

An indicative specimen draft of an Environmental Profile is set out in Annex 5.

9.2 Identifying Potential Environmental Impacts

The Wereda Extension Case Team NR Expert (in conjunction with the Wereda Environmental Expert, the Wereda Natural Resources Case Team NR Expert, and the Natural Resources DAs) identifies the activities considered most likely to have cumulative impacts in the wereda concerned if adopted by large numbers of households. These potential impacts are identified, covering medium-term impacts (up to 5 years ahead) and long-term impacts (more than 5 years).


9.3 Developing a Wereda Environmental Management Plan

For the medium- and long-term potential environmental impacts, the Wereda Extension Case Team NR Expert (in conjunction with the Wereda Environmental Expert, the Wereda Natural Resources Case Team NR Expert, and the Natural Resources DAs) develops appropriate mitigating measures. These will fall into the following groups:

- Measures to be adopted at household level as either conditions of the credit/loan or recommended good practice;
- Measures to be adopted at wereda level;

In order to ensure that these mitigating measures are implemented, the Wereda Extension Case Team NR Expert follows an environmental monitoring procedure, identifying a short list of simple indicators to be measured and recorded at given intervals. These are then entered on a Data Monitoring Sheet, based on observation and data provided by the DAs.

The Wereda Extension Case Team NR Expert will submit the completed Data Monitoring Sheets to a joint Regional PW-HABP Team, consisting of Extension staff dealing with HABP, and the NR and ESMF Specialists in the PWFU.

A specimen indicative draft EMP is set out in Annex 10.
9.4. Reporting and Follow-up

The details of the management, monitoring and oversight arrangements for the HABP Environmental management system will be finalised by the PWCU when the final design of the HABP has been completed.

The joint Regional PW-HABP Environmental Team will be responsible for:

(i) Ensuring that the Data Monitoring Sheets are completed and submitted in a timely manner, and
(ii) Taking any necessary steps to augment or modify the required mitigating measures;
(iii) Reporting to the federal PWCU the outcome at federal level, with recommendations as appropriate to ensure that the PW programme and the HABP are fully harmonized in terms of environmental impacts and environmental management.

Coordination, oversight and support to this process will be the responsibility of the ESMF and Environmental Specialists in the federal PWCU of the NRM Directorate of the MoARD.

10. Institutional Arrangements, Capacity and Training

The EMP outlined here will be implemented by the existing Government system; no new departments or Units will be created. It will also use existing Government staff. They are considered to have the capacity to operate the system.

Nonetheless, some of the existing staff will need additional training in order to be able to implement the EMP. The training of the DAs and Wereda Natural Resources staff will be combined with the annual Public Works (PW) training of the same staff. However, the NR Experts in the Wereda Extension Offices will need additional training, and an annual training budget of some $19,000 is estimated for this purpose. A detailed estimate will be produced by the PWCU and the federal Extension Unit after the final detailed design of the HABP has been completed.
Part III: Reporting and Monitoring

SUPERVISION AND PROCESS MONITORING

Supervision of project implementation will be at kebele, woreda and regional levels:

- The DA, with assistance if required from the woreda line office concerned, will ensure that the specified mitigating measures for the PSNP PW subprojects are implemented;
- The Wereda NR Expert in the NR Case Team, in liaison with the Wereda EPO, will verify that the proper procedures are being followed for all the PSNP PW in the woreda, and that no significant negative environmental impacts are taking place. Where such impacts may occur, the Wereda EPO will provide advice on actions to be taken.
- The Environmental and ESMF Specialist(s) in the PWFU will monitor, in conjunction with the REPA:
  - Implementation of the ESMF and of the separate procedures within it, including the PW Subprojects Screening, the Voluntary Loss of Assets Procedure, the Integrated Pesticide Management Guidelines, the Medical Waste Guidelines, and the HABP SEA;
  - Effectiveness of the mitigation measures in avoiding or minimizing adverse impacts, and the nature and extent of any such impacts.

Final design of the process monitoring and reporting procedures will be completed during the first quarter of the PSNP Phase III.

RESULTS MONITORING

Monitoring of the implementation of the PW and the HABP is an important aspect of ensuring that the commitment to environmental and social sustainability of the PSNP is being met. The regular monitoring of the implementation of the ESMF, including the Voluntary Asset Loss Procedure and the HABP SEA, will be managed at regional level. It will be the responsibility of the Environmental Specialist in the regional Public Works Focal Unit (PWFU), who will receive the relevant information from each Wereda NR Case Team and the Wereda Extension Case Team.

The monitoring plan has two components:

i. Monitoring of the compliance and effectiveness of the ESMF and application of the recommended PW standards;

ii. Impact monitoring: measuring the biophysical and socio-economic impacts of the PW subprojects, and the contribution of the subprojects within the community watershed management plan.

This monitoring will be coordinated and overseen by the Environmental and ESMF Specialists in the federal Public Works Coordination Unit (PWCU), who are also responsible for ensuring that adequate training of woreda staff and Development Agents (DAs) is conducted each year at regional level, and that the training materials and modules are kept up-to-date.
Additional monitoring will be conducted annually by PW Reviews, in which sample weredas is each region will be visited and spot-checks made on the implementation of the ESMF, including the *Voluntary Asset Loss Procedure*.

If experience during the first year shows that a separate Social Specialist is required in the regional PWFUs and federal PWCU, these additions will be made.
Annex 1: Institutional Roles and Responsibilities for the PSNP

The following roles and responsibilities are envisaged for key government agencies at each level.

1. Federal Level

(i) The Ministry of Agriculture and Rural Development (MoARD)

The MoARD is responsible for oversight and coordination of the Safety Net Programme through the Federal Food Security Coordination Bureau (FSCB) and the Federal Public Works Coordination Unit.

- provide technical support for planning and implementation of Safety Net activities, including the development of technical guidelines, and training, including for specific public works and based on request from FSCB and the regions;
- liaising with other line ministries (water, social affairs, health, education, etc) and development partners for technical assistance, for example, with respect to pastoral areas, issues such as gender, joint integrated efforts, training and technical guidelines, as necessary and based upon request.

(ii) Federal Food Security Coordination Directorate (FFSCD)

The FFSCD reports directly to the Ministry of Agriculture and Rural Development. Its duties and responsibilities are to:

- Coordinate and oversee the Safety Net Programme to ensure that the programme meets food security objectives of the country;
- Allocate PSNP resources to regions and ensure that funds reach implementing woredas, and that they are properly utilized.
- Ensure appropriate linkages of the Safety net Programme with other Food Security Programme Interventions.
- Hold quarterly meetings with regional food security offices to review progress of the Safety Net Programme and discuss related safety net issues;
- Review and provide feedback on reports submitted by regional food security offices on the implementation of regional Safety Net Programmes;
- Provide support to regional food security offices on coordination and implementation of Safety Net projects;
- Mobilize technical assistance for food security coordination as needed from sectoral agencies, including those in line ministries outside of MoARD;
- Provide procurement support to PSNP in accordance with PSNP Procurement Procedures, as noted in section 5.8
- Monitor overall capacity to implement PSNP food security coordination activities. Identify gaps. Ensure mechanisms are in place to address any gaps in capacity.
- Facilitate regional implementation of the Environment and Social Management Framework
- Facilitate information exchange and document experiences and lessons learned across regions;
- Submit periodic progress reports on implementation of the Safety Net Programme to MoARD.
- Allocate safety net resources to regions, and ensure that they are properly utilized.
- Implement the Rapid Response Mechanism described in Annex 4.
- Monitor and evaluate adherence to PSNP procedures and guidelines, effectiveness of utilization of resources, and programme impact;
- Update PSNP guidelines and operational mechanisms in response to M&E findings, RRM and emerging issues, & disseminate as necessary
iii) Federal Public Works Coordination Unit

The Federal Public Works Coordination Unit provides overall coordination and technical oversight of the PW component. The Unit is located in the Natural Resources Department of the MoARD. Its duties and responsibilities are to:

- Provide technical support and ensure quality of public works through dissemination of standards, technical backstopping and implementation of the Environmental and Social Management Framework
- Cooperate with the regions to organise and support capacity needs assessments for public works, development of training materials, training of trainers, and other training programmes
- Report on progress and outputs of the public works programme at federal level
- Support the Food Security Programme M&E system and Public Works Reviews
- Support the Rapid Response Mechanism and monitor response to RRT recommendations
- Develop policies for public works planning and implementation
- Support the Food Security Programme M&E system and Public Works Reviews
- Assist FFSCB in the expansion of the PSNP to new regions
- Assist the FFSCB in the development of exit strategies through the sustainable rehabilitation of watersheds.

iv) Joint Strategic Oversight Committee (JSOC)

The Joint Strategic Oversight Committee (JSOC) provides overall advice to ensure the proper implementation of food security strategies and programmes, including the Safety Net Programme. The JSOC is made up of representatives from MoARD (chair of JSOC), the Federal Food Security Coordination Directorate (secretary of JSOC), the Ministry of Finance and Economic Development (MoFED), the Ministry of Federal Affairs, the Early Warning and Response Directorate (EWRD), the Ministry of Water Resources Development, Office of Women’s Affairs, the Regional Food Security Coordination Offices, the Federal Public Works Coordination Unit (PWCU) and the representatives of the Development Partners. Its duties and responsibilities are to:

- Offer overall advice to meet food security objectives;
- Provide periodic recommendations to the MoARD;
- Hold quarterly meetings, with a specific agenda for safety net issues;
- Assess the resource contribution of the Government and donors;
- Liaise closely with the Federal Public Works Coordination Unit in the MoARD with regards to the provision of technical support to regions (e.g. training, development of technical manuals, and guidelines), and
- Perform annual review of the Food Security Programme and forward recommendations for implementation;
- Assess performance of monitoring and evaluation system including the Rapid Response Mechanism

iv) Early Warning and Response Directorate (EWRD)

The EWRD’s primary mandate is to respond to food and other basic needs of people affected by acute, unpredictable disasters under emergency appeal circumstances. However, given its substantial logistic capacity and experience with management of food aid, as well as the relevance of some of its regular activities such as the EWS to the safety net program, it will provide the following additional support:

- Provide National Early Warning Information;
- Participate, when conducted, in Food Security Needs Assessments for the Safety Net Programme;
- Assist on logistic issues for food resources when needed. The Ministry of Agriculture and Rural Development will give instructions to the EWRD to fulfil this function. The logistics
responsibility of the EWRD will include warehousing, tendering, awarding, and contracting transporters and effecting payments.

- Participate in annual reviews conducted by MoARD to identify areas where coordination needs to be improved;
- Coordinate with FSCD to ensure no gaps emerge between the PSNP and emergency assistance.
- Manage allocation of resources for the Contingent Grant jointly with FSCD.

v) Ministry of Finance and Economic Development (MoFED)

In the context of the Safety Net Programme, MoFED is responsible for disbursing safety net resources to regions based on the size of the targeted food insecure population and in line with requests submitted by FSCB. In addition, MoFED assumes the usual financial responsibilities under the normal government financial system.

2. Regional Level

i) Regional Council/Cabinet

The Regional Council/Cabinet is the highest decision-making body at the regional level. Its major responsibilities related to the Safety Net Programme are to review and approve:

- Food security and safety net annual plans and budgets submitted by woredas through the Regional Bureau of Agriculture and Rural Development (BoARD) based on the size of chronic food insecure population; and
- Annual and biannual progress reports on implementation of the regional Safety Net Programme and utilization of its budget.

ii) Regional Food Security Steering Committee (RFFSC)

The Regional Food Security Steering Committee (RFFSC) provides advice to ensure the proper implementation of food security strategies and programmes at the regional level. The RFFSC also ensures effective integration of the regional Safety Net Programme into the regional development plan and participates in monitoring and evaluation of Safety Net Programme activities including the Rapid Response Mechanism. The RFFSC is made up of representatives from the Regional Bureau of Agriculture and Rural Development (chair of RFFSC), the Regional Food Security Coordination Bureau (secretary of RFFSC), the Bureau of Finance and Economic Development (MoFED), the Bureau of Capacity Building, the Disaster Preparedness and Prevention Bureau, the Bureau of Water Resources, the Bureau of Natural Resources and Land Administration, the Bureau of Cooperatives Promotion; and NGO representatives.

iii) Regional Bureau of Agriculture and Rural Development (BoARD)

Its duties include:

- Overseeing the integration of safety net activities into the Food Security Programme and the regional rural development strategy;
- Providing overall guidance to the Regional Food Security Office, the Regional Public Works Focal Unit, and line bureaus to ensure coordination on planning and implementation of the regional Safety Net Programme;
- Disbursing periodic safety net budget to woredas and line bureaus based on the annual allocation approved by the Regional Council;
- Providing technical support to the Regional Food Security Office, and the Regional Public Works Focal Unit on implementation of Safety Net and related activities;
- Ensuring efficient procurement where applicable (see Section 5.8).
- Reviewing and providing feedback on reports submitted by Regional Food Security Coordination Office and the Regional Public Works Focal Unit on implementation of safety net interventions.

iv) Regional Food Security Coordination Office (RFSCO)

The Regional Food Security Coordination Office (RFSCO) reports to the Regional BoARD. However, it is also technically accountable to the Federal Food Security Coordination Bureau within the Safety Net framework. The RFSCO acts as secretary of the RFSSC and chair of the Regional Technical Coordination Committee. Its responsibilities also include:

- Developing and consolidating annual implementation plans and budgets for regional Safety Net Programmes in line with proposals from woredas, Regional Public Works Focal Unit, and line bureaus;
- Mobilizing technical assistance from the Regional Public Works Focal Unit and line bureaus;
- Identifying and monitor capacity to implement PSNP activities at regional, woreda and kebele levels. Ensuring mechanisms are in place to address any gaps in capacity,
- Holding quarterly review meetings with government and non-governmental agencies involved in implementation of the Safety Net Programme in the regions, to monitor and coordinate safety net interventions;
- Approving NGO plans of safety net activities, budget and beneficiaries, and consolidating these into regional safety net plans;
- Collecting and reviewing progress reports from woredas, Regional Public Works Focal Unit, line bureaus and other agencies engaged in safety net interventions, and providing feedback to those organizations;
- Coordinating monitoring and evaluation; and
- Preparing quarterly and annual progress reports on implementation of the Safety Net Programme for submission to the Regional BoARD, as well as to the Federal Food Security Coordination Bureau.
- Ensuring to the extent possible a co-ordinated use of emergency resources for public works.
- Establishing and implementing the Rapid Response Mechanism.
- With the assistance of the social development officer, providing oversight for the management, implementation and coordination of DS activities, including technical back stopping support and facilitating coordination of DS activities with relevant sector bureaus as may be required

v) Regional Public Works Focal Unit (RPWFU):

The Regional Public Works Focal Unit is located in the Natural Resources Department of the BoARD. It has responsibility for the effectiveness of the PW programme and acts as secretary for the Regional Technical Coordination Committee. Its responsibilities include:

- Preparing and reviewing community level planning formats
- Consolidating public works plans and budgets developed in the woredas
- Overseeing integration of community watershed plans into woreda plans
- Ensure implementation of the ESMF through integration of the ESMF in the planning procedures and training for the PW programme
- Disseminating technical standards
- Overseeing woreda supervision of the PW, and providing technical backstopping
- Assessing the effectiveness of training, undertaking training needs assessments, and implementing training programmes
- Liaising with other sectors and sub-sectors
- Establishing linkages with other PW-related programmes
- Regular reporting on public works
- Participating in RRT and PW Reviews
• Supporting the M&E system of the FFSCD
• Knowledge Management including identifying and disseminating best practices, reviewing standards and work norms, and identifying new technologies to enhance the quality and impact of public works

vi) Regional Line Bureaus

These agencies:
• Incorporate PSNP activities in their yearly programmes/action-plans based upon the specific opportunities PSNP resources represent in terms of labour-based activities, capacity building and availability of supplementary non-wage costs.
• Initiate woredas LDs to include PSNP plans in their yearly programme activities/plans, including capacity building, and training in particular.
• Coordinate with RPWFU the timing of various capacity efforts and ensure timely technical support and procurement of essential items.
• Provide technical assistance to Regional Food Security Coordination Office, RPWFU, and woreda line offices in planning, implementation and monitoring of Safety Net projects.
• Undertake annual reviews of technical specifications and work norms of Safety Net activities to assist in enhancing the safety net technical specifications and work norms
• Participate in the Regional Technical Coordinating Committee

vii) Regional Technical Coordinating Committee (RTCC)

The Regional Technical Coordinating Committee is chaired by the RFSCO. The secretariat is provided by the RPWFU. The RTCC coordinates the interaction and involvement of the relevant line bureaux and other PSNP actors in all aspects of the PW programme. Its responsibilities include:
• Reviewing the annual regional public works plan to ensure the feasibility of projects, a balanced portfolio of projects under PW, and inclusion of all PW actors
• Ensuring budget provision for the operation and maintenance of new infrastructure in all sectors including health and education
• Ensuring the active participation and technical inputs of the relevant line bureaux and offices in the implementation and monitoring of the PW programme.

3. Woreda Level

The Woreda is the key level of government that determines needs, and undertakes planning and implementation of Safety Net activities.

i) Woreda Council/Cabinet

The Woreda Council is the highest decision-making body at woreda level and is responsible for the allocation of safety net resources to kebeles in line with size of vulnerable population and based on the recommendations of the Woreda Food Security Task Force. It will have responsibility for:
• Assisting in resolving unresolved appeals submitted to them by the Kebele Council and sharing the outcomes of these appeals cases with the WFSTF.
• Work with Kebele Councils to ensure that up-to-date listings of beneficiaries are posted in public locations at Woreda, Kebele and community levels.
• Work with Kebele Councils to ensure that up-to-date listings of appeals and appeals resolutions are posted in public locations at Woreda, Kebele and community levels.

ii) Woreda Food Security Task Force (WFSTF)
This committee will not duplicate existing similar structures, but will build upon previous institutions such as the Woreda Development Committee or the Woreda Disaster Prevention Committee, where relevant, and will be strengthened as necessary. Where such committees do not exist the WFSTF should be made up of the head of the Woreda Rural Development Office or the Woreda Administration (who acts as chairperson), and representatives from the Woreda offices of: Food Security (who acts as secretary), Finance, Natural Resource Office, Capacity Building, Agriculture and Rural Development, Women’s Affairs, and NGOs. Inclusion of women in the committee is encouraged. The Woreda FSTF’s duties within the Safety Net Programme are to:

- Review and recommend kebele annual Safety Net plans for approval, including the total number of beneficiaries of the Safety Net Programme;
- Consolidate annual woreda safety net plans and budget and prepare proposals for resource allocation to be submitted to Woreda Council;
- Ensure close collaboration with Regional and Woreda Food Security Offices and Woreda Council;
- Participate in monitoring and evaluation of safety net activities, including the Rapid Response Mechanism.
- Provide direction and assistance to kebeles in establishing and training KFSTFs.
- Hold quarterly progress review meeting on safety net activities and provide implementing agencies with feedback; and
- Review monthly progress reports on safety net activities.

iii) Woreda Rural Development Office (WRDO)

The Head of WRDO acts as chair of the Woreda Food Security Task Force. Other functions of the WRDO are to:

- Oversee integration of Safety Net activities into the Food Security Programme and the woreda rural development strategy;
- Provide technical assistance and training to technical personnel and Kebele staff in planning and implementation of PW activities;
- Provide support to communities for the preparation of Community Based Participatory Watershed Development Plans;
- Provide support to communities for the identification of public works projects for the annual safety net plan;
- Ensure that all public works projects comply with the ESMF;
- Ensure that all PW projects are implemented in accordance with the required standards;
- Manage and organize activities for both safety net beneficiaries and additional beneficiaries due to emergency (the latter in conjunction with DPPB).
- Coordinate implementation agencies involved in the Safety Net Programme;
- Receive and review monitoring reports from Woreda FSTF, and forward to the Woreda Council;
- Ensure provision of technical input from Woreda sectoral offices to the safety net implementing agencies;
- Submit monthly progress reports to the Woreda FSTF;
- Maintain accurate records of kebele safety net activities and beneficiary lists; and
- Gather, consolidate and maintain accurate records of appeals and appeals resolutions on a 6 monthly basis as submitted by the Woreda Council and Kebele Councils.

iv) Woreda Food Security Case Team (WFSCT)

The WFSCT’s are responsible for coordination of Safety Net activities and are technically accountable to the RFSCOs. Their duties include:
v) Woreda Sectoral Offices (Line Offices)

These include woreda offices and desks of Agriculture, Rural Roads, Water, Natural Resource Management, Education, Health, Cooperative Promotion and Women’s Affairs. The responsibilities of these agencies include:

- Incorporate PSNP activities in their yearly programmes/action-plans based upon the specific opportunities PSNP resources represent in terms of labour-based activities, capacity building and availability of supplementary non-wage costs.
- Provide technical assistance and training to technical personnel and Kebele staff in planning and implementation of Safety Net activities;
- Consolidate and compile the proposals of the Kebele Food Security Task Force to incorporate into the woreda Safety Net plan;
- Undertake project screening in accordance with the Environment and Social Management Framework
- Prepare activity implementation plans and request budget for implementation;
- Implement safety net activities at kebele and community levels;
- Conduct monitoring and evaluation of activities, in collaboration with other relevant woreda level stakeholders; and
- Prepare and submit quarterly progress and financial reports to WRDO.

vi) Woreda Office of Finance and Economic Development (WoFED)

The WoFED is responsible for ensuring that:

- The budget for the Safety Net Programme is received in a timely manner at the woreda level to guarantee smooth implementation of approved plan and activities; and
- Timely disbursement of the safety net budget is made to sectoral offices for safety net activities and the purchase of relevant equipment and materials, and to the implementing bodies.

4. Kebele Level

Kebele Council/Cabinet

This body is the highest political decision-making body in the kebele. The kebele council/cabinet will have the following responsibilities:

- Approve kebele Safety Net beneficiaries;
- Identify people eligible for public works and direct support;
- By participating with the people, identify activities for Safety Net purposes;
- Approve the kebele Safety Net plan;
• Visit shelf projects and adapt them to the Safety Net plan as required;
• Create an appropriate atmosphere for proper payment to the beneficiaries;
• Ensure that the Safety Net programme is linked, and consistent with, other food security interventions;
• Ensure that each Safety Net beneficiary household participates in other food security interventions as appropriate;
• Maintain records on the status of beneficiary households and keep the community informed by ensuring that updated listings of Safety Net beneficiaries and of appeals and appeals resolutions heard by the Kebele Appeals Committee are posted in public locations at the Kebele and community levels every 6 months;
• Develop monthly reports to the woreda cabinet;
• Oversee food security activities in the kebele, including those of the Safety Net programme;
• Ensure the establishment and effective operation of a Kebele Appeals Committee whose function will be to hear and resolve appeals regarding Safety Net matters in a timely manner. The Kebele Appeals Committee will meet quarterly under the auspices of the Kebele Council. The Kebele Appeals Committee should be comprised of: 1 elected Kebele Council member (not the Chairperson); 1 (elected) female representative to the KFSTF; 1 (elected) female representative from a CFSTF; a DA; and 2 elder representatives (1 female). The Kebele Appeals Committee should submit to the Kebele Council a complete listing of appeals cases, appeals resolutions, and submission of unresolved appeals each quarter to the Kebele Council which will review them and forward them to the Woreda Council and the WRDO every quarter; and
• Participate as required in the monitoring and evaluation system for the food security programmes.

Kebele Food Security Task Force (KFSTF)

The KFSTF is a decision-making body that oversees all planning and implementation of safety net activities. It is formed in each Peasant Association (PA) or Kebele and builds upon previous institutional structures such as Kebele Development Committee or Kebele Disaster Prevention Committee. KFSTF members include the Kebele Administration, Development Agents, Community Based Health Workers (CBHW), Teachers, Youth associations, etc. The minimum composition of the KFSTF includes: a Chairperson of the Kebele council, a member from the Kebele Council, one or more Development Agents (DAs) as available in the PA; three elected representatives of women’s groups; and two elected representatives from elders and youth (one from each group).

The KFSTF, in the context of the Safety Net Programme, is responsible for:
• Agreement with the woreda on the general implementation procedures and roles and responsibilities of concerned individuals;
• Community mobilisation to identify and prioritize community needs;
• Plan prioritised activities with community members;
• The KFSTF will support DAs planning work with identified communities following participatory watershed planning guidelines (MOARD) and Line Bureaus specific proposals (schools, etc);
• Based on such comprehensive local/community based development plans, specific activities will be selected to constitute the safety net plan;
• The KFSTF will strive to advocate for complementary resources and additional support for the activities indicated in the overall development plan, including mobilizing self-help efforts, and other FS and development programmes;
• Target beneficiaries and participants for public works and direct support based on community targeting exercises;
• Prepare Kebele Safety Net Plan in consultation with woreda sectoral offices, including proposed activities, and identify needs for technical assistance;
• Maintain minutes of KFSTF meetings on Safety Net issues, Kebele Safety Net activities, list of participants and progress reports;
• Establish and train of Community Food Security Task Force;
• Participate in monitoring and evaluation of safety net activities including the Rapid Response Mechanism; and
• Following review of the results of monitoring and evaluation, the membership of the KFSTF may be reviewed and modified in accordance with the normal government procedure.

5. Community Level

Community Food Security Task Force (CFSTF)

The Community Food Security Task Force’s primary responsibility is identification of beneficiaries of the Safety Net Programme. Its functions also include mobilisation of the community for participatory planning exercises. It is composed of a representative from the Kebele FSTF; a Development Agent (if available in the village); two or three women’s representatives (elected); two or three men’s representatives (elected); a youth representative (elected); and an elder’s representative (elected). The responsibilities of the CFSTF are to:

• Identify the names of participants in the Safety Net Programme in their respective villages according to selection guidelines and local community knowledge;
• Undertake a needs assessment, and identify those households who can participate in public works and those without sufficient labour (particularly female-headed households), or other support who will need direct support;
• Have the proposed list of participants commented on and endorsed by the general meeting of the village residents;
• Finalize the list of participants and submit it to the Kebele FSTF for verification and action and ensure that an updated listing of beneficiaries is posted in public locations every 6 months and that these updated listings are read out at a community meeting held every 6 months;
• Inform community members at the 6 monthly meetings of the appeals process – that appeals should be taken to the Kebele Appeals Committee which will resolve the appeals or forward difficult cases to the Woreda Council for resolution;
• Ensure that an updated listing of appeals cases, appeals resolutions, and outstanding appeals resolutions forwarded by the Kebele Council to the Worda Council is posted in public locations and read out to community members at the 6 monthly community meetings;
• Prepare a pipeline of projects, including those to be implemented during the annual programme cycle and those to be implemented in case of emergency, with technical assistance from implementing agencies and NGOs;
• Monitor periodically the public works to ensure that they are undertaken as prioritised; and
• Participate as required in the regular review of safety net beneficiaries.

6. Role of NGOs

Implementation of the Safety Net Programme should utilize and benefit from the participation of non-governmental actors having relevant capacity, experience and expertise.

• The Safety Net Programme is a social security intervention and typically the government has the primary responsibility for implementation of such programmes.
• Given that the nature of the Programme is to guarantee transfers to chronically food insecure households, it is important that Programme capital and administrative cost is kept to the programme norm of a maximum of 20%.
• NGO resources should be additional to government safety net resources.
• NGOs should abide by the Government’s Programme Implementation Manual.
• The government welcomes NGO participation in the Safety Net Programme if NGOs meet the above criteria.
NGOs should consult the government to discuss potential options for their involvement in the Programme, within the above guidelines.

7. **Role of Donors**

The Government’s financing partners have several roles in the Safety Net Programme, including:

- Providing resources at the appropriate time;
- Supporting capacity building and providing technical assistance at all levels, when requested by the government;
- Documenting and disseminating lessons learned and international experience;
- Organizing joint review meetings with Government to review progress on implementation;
- Providing advice by participating in the Federal Food Security Steering Committee; and
- Participating in review missions, including site visits, monitoring and evaluation and the Rapid Response Mechanism.
Annex 2: SUBPROJECT SCREENING FORM

Region: ........................................... Woreda: ...........................................

Kebele: .......................................... Community: ...........................................

Subproject Name: ......................... D.A. (Name): ...........................................

Subproject Screening

<table>
<thead>
<tr>
<th>Subprojects Ineligible as PSNP PW</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject is in, or adjacent to, an internationally-disputed area</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject may involve the physical relocation of residents, or involuntary loss to any household of assets, or access to assets</td>
<td></td>
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</tr>
<tr>
<td>Subproject incorporates a dam of more than 15 metres in height</td>
<td></td>
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</tr>
<tr>
<td>Subproject is located in a Priority Forest Area, or involves land-use change such as draining of a wetland</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subprojects Requiring Special Attention

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject likely to involve disposal of medical waste</td>
<td></td>
</tr>
<tr>
<td>Subproject likely to use pesticides or other agro-chemicals</td>
<td></td>
</tr>
<tr>
<td>Subproject incorporates a dam</td>
<td></td>
</tr>
<tr>
<td>Subproject might involve voluntary loss of assets, or access to assets</td>
<td></td>
</tr>
</tbody>
</table>

Roads and Footpaths

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil erosion or flooding concerns (eg, due to highly erodible soils or steep gradients)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Number of stream crossings or disturbances</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Wet season excavation</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Creation of quarry sites or borrow pits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significant vegetation removal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New settlement pressures created</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
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</tbody>
</table>

Drinking Water Projects

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing water sources supply/yield depletion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing water users disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased numbers of water users due to improvements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased social tensions/conflict over water allocation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensitive ecosystems downstream disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

Irrigation Projects

<table>
<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing water sources supply/yield depletion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing water users disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water storage requirement and viability (soil permeability)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Irrigation Projects

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vulnerability to water logging (poor drainage)</td>
<td>None</td>
</tr>
<tr>
<td>Vulnerability to soil and water salinization</td>
<td>None</td>
</tr>
<tr>
<td>Sensitive downstream habitats and waterbodies</td>
<td>None</td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td>None</td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td>None</td>
</tr>
<tr>
<td>Increased agric. chemicals (pesticides, etc) loading</td>
<td>None</td>
</tr>
<tr>
<td>Increased social tensions over water allocation</td>
<td>None</td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td>None</td>
</tr>
<tr>
<td>Local incapacity/inexperience with irrigated agriculture</td>
<td>None</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>None</td>
</tr>
</tbody>
</table>

### Area Closure and SWC (Soil and Water Conservation)

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>None</td>
</tr>
<tr>
<td>Wet season soil disturbance</td>
<td>None</td>
</tr>
<tr>
<td>Sensitive downstream ecosystems</td>
<td>None</td>
</tr>
<tr>
<td>Introduced plant/tree species invasion of native species</td>
<td>None</td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td>None</td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td>None</td>
</tr>
<tr>
<td>Insufficient capacity to manage Area Closure</td>
<td>None</td>
</tr>
<tr>
<td>Insufficient capacity to prohibit or control open grazing</td>
<td>None</td>
</tr>
<tr>
<td>Insufficient capacity to manage new plantations/pastures</td>
<td>None</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>None</td>
</tr>
</tbody>
</table>

### Infrastructure such as School and Health Facilities

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>None</td>
</tr>
<tr>
<td>Alteration of existing drainage conditions</td>
<td>None</td>
</tr>
<tr>
<td>Vegetation removal</td>
<td>None</td>
</tr>
<tr>
<td>Wet season soil disturbance</td>
<td>None</td>
</tr>
<tr>
<td>Construction materials impact on adjacent forests/lands</td>
<td>None</td>
</tr>
<tr>
<td>Quarries and borrow pits created</td>
<td>None</td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td>None</td>
</tr>
<tr>
<td>Water supply development effects in available supply</td>
<td>None</td>
</tr>
<tr>
<td>Effect of sanitation development on existing disposal sites</td>
<td>None</td>
</tr>
<tr>
<td>Effects of medical waste on existing disposal system</td>
<td>None</td>
</tr>
<tr>
<td>In-migration/settlement induced by facilities development</td>
<td>None</td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td>None</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>None</td>
</tr>
</tbody>
</table>

### Feature of Concern - For All Types of Subproject

<table>
<thead>
<tr>
<th>Feature of Concern</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subproject located within National Park or other designated wildlife area or buffer zone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subproject located within a recognised Cultural Heritage site, or World Heritage site</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Approved Unconditionally: ☐
- Approved subject to Special Attention: ☐
- Notify to REPA for Review: ☐
- Rejected: ☐
- Screening conducted by: Name: Position: Signature: Date:
- Screening supervised by: Name: Position: Signature: Date:
Annex 3: TYPICAL MITIGATING MEASURES

The following mitigation measures may be required to help avoid or reduce the potential adverse impacts. These measures may sometimes be necessary in addition to the measures built into the project design in the MoARD Community Based Participatory Watershed Development Guideline. Note that in addition, the REPA may be able to provide region-specific lists of typical mitigating measures.

<table>
<thead>
<tr>
<th>Potential Impacts</th>
<th>Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads and Footpaths</td>
<td></td>
</tr>
<tr>
<td>Soil erosion/flooding concerns</td>
<td>Drainage control measures to be included within construction plans</td>
</tr>
<tr>
<td>Number of stream crossing/disturbances</td>
<td>Minimize water crossings in road location and alignment</td>
</tr>
<tr>
<td>Wet season excavation</td>
<td>Schedule construction for the dry season</td>
</tr>
<tr>
<td>Quarry sites/borrow pits created</td>
<td>Re-contour and rehabilitate sites/pits and avoid collection of standing water</td>
</tr>
<tr>
<td>Vegetation removal</td>
<td>Minimize temporary or permanent removal of natural vegetation</td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td>Identify and avoid effects on habitats and migration routes of key species</td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td>Identify and avoid forest, riparian and wetland habitats with particular biodiversity</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td></td>
</tr>
<tr>
<td>Private assets displaced</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Informal land uses displaced or access restricted</td>
<td>Avoid interference with informal land users, and take measures to provide access to alternative lands or resources</td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td>Identify and avoid cultural or religious sites. If disturbance unavoidable, agreement on mitigating measures must first be reached with stakeholders (e.g., Community, mosque, church). If excavation encounters archaeological artifacts, halt construction and notify relevant authorities.</td>
</tr>
<tr>
<td>New settlement pressures created</td>
<td>Ensure road development is coordinated with local land use plans and discuss with the kebele</td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
</tr>
</tbody>
</table>

| Irrigation Projects                      |                                                                                                               |
| Existing water sources supply/yield depletion | Assess water supply and existing demands, and manage sustainability                                          |
| Existing water users disrupted           | Identify and avoid negative impacts on existing water users in the system design                              |
| Downstream water users disrupted         | Identify and avoid effects of diversion or extraction on downstream users in the system design               |
| Water storage requirement and viability (soil permeability) | Test the soil percolation and ensure and impermeable layer in the structure design                          |
| Vulnerability to water logging (poor drainage) | Assess soil characteristics and either avoid or provide drainage for areas prone to waterlogging            |
| Vulnerability to soil and water salinization | Irrigation expert to assess the potential for high salinity and ensure appropriate irrigation practices to minimize impacts |
| Sensitive downstream habitats and waterbodies | Identify and avoid effects of diversion or extraction on downstream ecosystems that depend on the surface or groundwater supply |
| Environmentally sensitive areas          | Identify and avoid forest, riparian and wetland habitats with particular biodiversity                         |
### Cultural or religious sites disturbed
Identify and avoid cultural or religious sites. If disturbance unavoidable, agreement on mitigating measures must first be reached with stakeholders (e.g., Community, mosque, church). If excavation encounters archaeological artifacts, halt construction and notify relevant authorities.

### Increased agricultural chemicals (pesticides, etc) loading
Develop an integrated pest management strategy and provide training to farmers.

### Land Acquisition
Avoid occupied land. Prepare procedures to ensure equitable resolution.

### Private assets displaced
Avoid occupied land. Prepare procedures to ensure equitable resolution.

### Informal land uses displaced or access restricted
Avoid interference with informal land users, and take measures to provide access to alternative lands or resources.

### Increased social tensions/conflict over water allocation
Establish a water users committee through the kebele and equitable rules for water allocation.

### Local incapacity/inexperience to manage facilities
Establish an operations and maintenance manual, authority and provide training to persons responsible for operating the system.

### Local incapacity/inexperience with irrigated agriculture
Provide training to farmers on sustainable irrigated agriculture.

### Other (specify):

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### Catchment, Forestry, Grasslands Projects

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>Ensure drainage controls on new roads and rehabilitate temporary access following subproject implementation</td>
</tr>
<tr>
<td>Wet season soil disturbance</td>
<td>Schedule activities for the dry season</td>
</tr>
<tr>
<td>Potential for debris flows or landslides</td>
<td>Prepare a watershed plan that identifies and address drainage/slope instability</td>
</tr>
<tr>
<td>Sensitive downstream ecosystems</td>
<td>Identify and avoid effects of diversion or dams on downstream ecosystems</td>
</tr>
<tr>
<td>Removal of native plant/tree species invasion of native species</td>
<td>Protect and encourage regeneration of endemic species</td>
</tr>
<tr>
<td>Introduced plant/tree species invasion of native species</td>
<td>Ensure non-native species are compatible with native species</td>
</tr>
<tr>
<td>Wildlife habitats or populations disturbed</td>
<td>Identify and avoid effects on habitats and migration routes of key species</td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td>Identify and avoid activity in forest, riparian and wetland habitats with particular biodiversity</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Private assets displaced</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Informal land uses displaced or access restricted</td>
<td>Avoid interference with informal land users, and take measures to provide access to alternative lands or resources</td>
</tr>
<tr>
<td>Insufficient capacity to manage catchment ponds</td>
<td>Establish a water users committee, where appropriate, and/or kebele bylaws and provide training to water users</td>
</tr>
<tr>
<td>Insufficient capacity to prohibit or control open grazing</td>
<td>Establish a watershed committee, where appropriate, and/or kebele bylaws and provide alternative sources of fodder</td>
</tr>
<tr>
<td>Insufficient capacity to manage new plantations/pastures</td>
<td>Establish a local committee, where appropriate, and/or kebele bylaws and provide appropriate controls</td>
</tr>
<tr>
<td>Other (specify):</td>
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</tbody>
</table>

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### Drinking Water Projects

<table>
<thead>
<tr>
<th>Activity</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>Ensure drainage controls on new roads and rehabilitate temporary access following subproject implementation</td>
</tr>
<tr>
<td>Existing water sources supply/yield depletion</td>
<td>Assess water supply and existing demands, and manage sustainability</td>
</tr>
<tr>
<td>Existing water users disrupted</td>
<td>Identify and avoid negative impacts on existing water users in the system design</td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
<td>Identify and avoid effects of diversion or extraction on downstream users in the system design</td>
</tr>
<tr>
<td>Increased numbers of water users due to improvements</td>
<td>Assess water supply and existing demands, and manage sustainability</td>
</tr>
<tr>
<td>Increased social tensions/conflict over water allocation</td>
<td>Establish a water users committee through the kebele and equitable rules for water allocation</td>
</tr>
<tr>
<td>Sensitive ecosystems downstream disrupted</td>
<td>Identify and avoid effects of diversion or dams on downstream ecosystems</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Private assets displaced</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Informal land uses displaced or access restricted</td>
<td>Avoid interference with informal land users, and take measures to provide access to alternative lands or resources</td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td>Establish a local committee, where appropriate, and/or kebele bylaws and provide appropriate controls</td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
</tr>
</tbody>
</table>

### School and Health Projects

<table>
<thead>
<tr>
<th>Activity</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alteration of existing drainage conditions</td>
<td>Drainage control measures to be included within construction plans</td>
</tr>
<tr>
<td>Vegetation removal</td>
<td>Minimize temporary or permanent removal of natural vegetation</td>
</tr>
<tr>
<td>Wet season soil disturbance</td>
<td>Schedule construction for the dry season</td>
</tr>
<tr>
<td>Construction materials impact on adjacent forests/lands</td>
<td>Avoid taking construction materials in an unmanaged manner</td>
</tr>
<tr>
<td>Quarries and borrow pits created</td>
<td>Re-contour and rehabilitate sites/pits and avoid collection of standing water</td>
</tr>
<tr>
<td>Water supply development effects in available supply</td>
<td>Identify and avoid negative impacts on existing water users in the system design</td>
</tr>
<tr>
<td>Sanitation development effects on existing disposal fields</td>
<td>Ensure the necessary facilities and capacity for upgraded facilities, consistent with health department design standards</td>
</tr>
<tr>
<td>Medical waste increase effects on existing disposal system</td>
<td>Prepare a waste management plan for major facility upgrades; ensure sufficient facilities and capacity for medical waste</td>
</tr>
<tr>
<td>Land Acquisition</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Private assets displaced</td>
<td>Avoid occupied land. Prepare procedures to ensure equitable resolution.</td>
</tr>
<tr>
<td>Cultural or religious sites disturbed</td>
<td>Identify and avoid cultural or religious sites. If disturbance unavoidable, agreement on mitigating measures must first be reached with stake holders concerned (eg. Community, mosque, church). If excavation encounters archaeological artifacts, halt construction and notify relevant authorities.</td>
</tr>
<tr>
<td>Informal land uses displaced or access restricted</td>
<td>Avoid interference with informal land users, and take measures to provide access to alternative lands or resources</td>
</tr>
<tr>
<td>In-migration/settlement induced by facilities development</td>
<td>Control unplanned settlement near the facilities</td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td>Establish/strengthen local committees, where appropriate, through the kebele and provide appropriate procedures and training to maintain the facilities</td>
</tr>
<tr>
<td>Other (specify):</td>
<td></td>
</tr>
</tbody>
</table>
Annex 4: IPM Guideline

The Federal Democratic Republic of Ethiopia

Ministry of Agriculture and Rural Development
Crop Protection Department
P.O.Box 62347
Addis Ababa
Ethiopia

Guidelines on the Implementation of Integrated Pest Management (IPM) for Small-Scale Irrigation Schemes in the Productive Safety Net Programme

Introduction

At present, agricultural development is an area of top priority in Ethiopia, as is demonstrated in the Government's commitment to attain self-sufficiency in crop production, so as to sustainable ensure food security for the ever-increasing population of the country, and to ensure that food security efforts are made to intensify grain production through the utilization of agricultural input such as high yielding crop varieties, fertilizers and irrigation. Moreover, recognizing the intolerable magnitude of losses due to pests and the need to introduce ecologically preferable, socially acceptable, cost effective, rational and sustainable pest management technologies to farmers, IPM has been accepted as a strategy for tackling the problem.

Principles of IPM Implementation in Ethiopia

1. The basic need for IPM implementation in the country is to increase yields in a sustainable manner, and attain clean environment, safe food and healthy citizens.

2. The emphasis of IPM programme is on the reduction of or wherever possible, the elimination of the use of pesticides to avoid the misuse
of pesticides and to prevent or at least to delay the breakdown of the agro-ecosystem through good crop management decisions. This condition will enable the prevention of unnecessary stockpiling of pesticides and their inevitable consequences of accumulating obsolete pesticides. Implementation of IPM also helps the country to produce acceptable products for the international market.

3. The basis of good crop management decisions is a better understanding of the crop ecosystem including that of pests, their natural enemies and the surrounding environment.

4. Traditional and indigenous crop protection methods that encourage the building up of natural enemies, such as crop rotation, intercropping, host plant resistance, appropriate planting time and planting density, use of local botanicals are highly encouraged.

5. Pesticides should be used only as a last resort.

6. Where pesticide use is unavoidable, it is desirable to select locally registered pesticides which are both effective at controlling pests and cause minimal damage to the environment.

7. The registered pesticide should be used according to Good Agricultural Practice (GAP) only when absolutely necessary for the right crop at recommended dose and at the right time.

8. Farmer should use pesticide safety gear whenever they apply pesticides.

9. Farmers should get training on safe use, handling and proper storage of pesticides.

10. Creating awareness among the general public about the potential risks associated with pesticide use is highly essential

Contents of an IPM Plan

In order to ensure that the above principles are followed, each small-scale irrigation scheme should have an IPM Plan.

The IPM Plan may form part of the Irrigation Project Document.
The IPM Plan should, at a minimum, contain the following components and activities:

1. *Technical Assistance*: The Wereda Crop Production and Protection Expert contacts the Plant Health Clinic/Crop Protection Section of the Regional Bureau of Agriculture and Rural Development (BoARD) for technical assistance;

2. *Training and Awareness-Creation*: The Crop Protection Section of the Regional BoARD arranges an IPM Training and Awareness-Creation workshop for the members of the scheme, incorporating the above-mentioned principles;

3. *Pest-Resistant Varieties*: The Development Agent (DA) and wereda Crop Production and Protection Expert provide advice to the members on pest-resistant crop varieties based on expertise and knowledge at regional, zone and wereda levels;

4. *Supervision*: During scheme operations, the DA visits the members, on at least a weekly basis, to ensure that the scheme is being operated as intended, to monitor the presence or absence of pests, and provide advice on the management options. Management should be in accordance with the IPM components favouring traditional and indigenous pest management practices and conservation of natural enemies.

5. *Technical Information*: The DA ensures that information is made available to the members regarding the management of pests expected in the location concerned. In the event that the need for pesticides arises, the DA provides advice on the recommended pesticides and their usage, within the list of allowable pesticides as established by the *Pesticides Registration and Control Decree No. 20/1990* of Ethiopia, and any other relevant legislation or regulations.

6. *Safety and Storage of Pesticides*: The DA and Wereda Crop Production and Protection Expert will develop and implement arrangements for the safe use, handling and storage of pesticides, and the proper use, maintenance and storage of pesticide spraying equipment. Storage should follow the instructions provided. Pesticides should be kept separately, away from humans and animals in a closed, dry and secure place. Any surplus or unwanted pesticides should be reported to the DA for disposal.

7. *Regular Monitoring*: The Wereda team of Experts will conduct monthly visits to the scheme, to monitor as follows:
8. **Reporting:** The Wereda team will report to the Regional BoARD (in some regions, reporting will be to the Zonal office), which will take action, if required, to rectify any shortcomings arising from the use of pesticides.

<table>
<thead>
<tr>
<th>Expert Responsible</th>
<th>Indicators Monitored</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Production and Protection</td>
<td>Compliance with IPM good practice guidelines</td>
</tr>
<tr>
<td>Natural Resources, in conjunction with the Regional Environmental Protection Authority (EPA)</td>
<td>Environmental impacts including human health, soil and water pollution</td>
</tr>
<tr>
<td>Livestock</td>
<td>Hazards to animals, bees and aquatic life, etc.</td>
</tr>
</tbody>
</table>
Annex 5: ENVIRONMENTAL PROFILE: ALAMATA WEREDA (Hypothetical Example)

Environmental Baseline

Alamata wereda, with an estimated 2008 population of 150,000 consists largely of a valley running between two ranges of small, undulating mountains which are very steep and have low vegetative cover. Some 75% of the wereda is covered by an alluvial floodplain consisting of silt deposition from seasonal rivers running in mountain gulleys, forming a relatively fertile, loamy soil. However, as most of the top soils from the mountains of the surrounding weredas is eroded. Soil carried by floodwater is not fertile; instead it covers the already existing fertile soils in the plains of the wereda. To the west is a ‘peninsular’ of mountainous, intermediate highland landscape.

The main road from Mekele (to the north) and Addis Ababa (to the south) runs through Alamata town, the principal town of the wereda. Traffic presently using the northern section of this road will in due course be diverted to a highway presently being reconstructed to the west of the wereda. All other roads in the wereda are secondary dirt roads linking areas in the east and west to the main road.

The farmers cultivate largely cereals (principally teff and sorghum) and vegetables, and keep cattle and sheep. The wereda is drought-prone and the farmers traditionally employ only surface water and spate irrigation. The wereda is classified as chronically food insecure. Paradoxically, the annual run-off has led to a steadily increasing volume of unutilized ground water, resulting in a high water-table.

Household energy fuel is mainly sorghum residue. When not available (in the dry season), animal dung is often used.

There are no natural forests in the wereda. Vegetation on the mountain slopes consists mainly of bushes and shrubs. Acacia woodlands are found in some parts of the alluvial plain.

Fauna is limited mainly to the mountainous areas.

Cultural sites are principally churches, mosques and burial grounds. It is not considered likely that there are significant unregistered cultural sites in the wereda.

Environmental Issues

There are six significant environmental issues in this wereda:

(i) Alamata wereda is located in a low-lying area surrounded by mountains to the north and west, in adjoining weredas. This has made it vulnerable to flooding, and consequent environmental problems: (a) Danger to human life; (b) Fertile croplands are covered by silt; and (c) Newly built roads and bridges are being damaged.
(ii) Within the wereda, the steep slopes of the mountain slopes are being continually suffering loss of top-soil and vegetation, particularly from free-ranging livestock such as goats. Remedial actions taken so far have focused mainly on limited area closure to enable revegetation, and basic SWC measures.

(iii) Malaria and bilharzia have in recent years become increasingly common in the wereda, due largely to (a) the increasing stagnant water in the wetlands, and (b) the increasing number of water-harvesting ponds.

(iv) Expansion of the wetlands has been accompanied by the appearance of plants and toxins in the water both of which have proved injurious to livestock, with consequent reduction in milk yield and water quality.

(v) Although salinity has not typically been a problem in the wereda, due to recent evidence of salinity in areas now used for cotton under irrigation, steps are being taken to investigate the problem and come up with suitable solutions.

(vi) The presence of Congress Weed is proving to be an environmental problem in the wereda. The wereda agricultural office proposes to employ community mobilization to eradicate it.
Annex 6: Voluntary Asset Loss Procedure

PSNP Phase III

Voluntary Asset Loss Procedure
25 July 2009

1. Background

Food insecurity has become one of the defining features of rural poverty, particularly in drought-prone areas of Ethiopia. Poverty is widespread in both rural and urban areas. However, the magnitude is much greater in drought-prone rural areas than in urban areas. The problem of food insecurity has worsened in recent years, with around 10-14 million people requiring emergency food aid.

The Government of Ethiopia has decided that there is an urgent need to address the basic food needs of food insecure households via a productive safety net system financed through multi-year predictable resources, rather than through a system dominated by emergency humanitarian aid. Moreover, the Government seeks to shift the financing of the programme from food aid to cash. On this basis, within the framework of the national Food Security Programme, which emphasizes the three interrelated pillars of food security that address food availability, access to food and utilization, the Government decided to develop a new Productive Safety Nets Project (PSNP).

The PSNP provides:

(iii) Transfers of cash or food to the food insecure population in chronically food insecure woredas in a manner that prevents asset depletion at the household level and creates assets at the community level. This programme incorporates community-based Public Works (PW) subprojects, which are implemented by the communities in return for the transfers;

(iv) Services to foster and support micro-level activities enabling beneficiaries to build assets at the household level and strengthen livelihoods, known as the Household Asset-Building programme (HABP).

The present Voluntary Asset Loss Procedure addresses issue arising in the Public Works (PW) programme.

The PW subprojects, which constitute a portfolio of some 38,000 community-level activities each year, are intended to create or renovate community-level assets, and contribute to rural transformation.

The subprojects are selected by the communities following a participatory procedure, and are designed in accordance with good-practice technical guidelines.

Subprojects will be implemented in rural areas, within the identified regions. In cropping areas, they are expected to be within around 5 kilometres of the homes of the intended beneficiaries, or less in areas of steep or difficult terrain.
In pastoral areas, subprojects will be organized at strategic locations to which families can move or send selected able-bodied members.

2. Public Works Projects: Eligibility Criteria

Public Works subprojects are labour-intensive, community-based activities designed to provide employment for chronically food insecure people who have “able-bodied” labour, and to create community assets and contribute to environmental transformation of the community micro-watershed. The Programme Implementation Manual (PIM) requires that to be eligible for financing under the PSNP, the subprojects must be environmentally sound. It specifies that projects should be adapted to local conditions and protect the environment. They should be based on sound technical advice, and adequate technical supervision should be available to ensure the quality of work.

The subprojects are also required to meet the following criteria:

- **Labour intensity**: Subprojects activities must be labour-intensive and use simple tools as much as possible.
- **Communal benefits**: The subprojects must benefit the community as whole or groups of households within a given area.
- **Community acceptance**: The subprojects must be accepted and approved by the community. They should have active community support and commitment.
- **Feasibility and sustainability**: The subprojects must be feasible technically, socially and economically. They should be simple and manageable in implementation and also in ongoing maintenance in order to be sustainable.
- **Productive**: The subprojects should create durable community assets which should contribute to reducing severe food problems.
- **Gender sensitivity**: Priority should be given to subprojects that are assigned to enable women to participate and which contribute to reducing women’s regular work burden and increase access to productive assets.

The following types of project are not permissible under the PSNP Project:

- Subprojects within, or adjacent to, internationally-disputed territory;
- Subprojects located in a Prime Forest Area, involving drainage of wetlands, or any change of land use;
- Subprojects likely to involve involuntary resettlement, loss of assets or access to assets;
- Subprojects incorporating a dam more than 15 metres in height.

While noting that there will be no PW subprojects potentially involving relocation, or involuntary loss of assets or access to assets, it may nonetheless occur that a subproject may involve, for example, voluntary loss of use of a piece of land utilised by a pipe traversing a farmer’s plot, or voluntary loss of access to a piece of grazing land used for an irrigation canal. In such cases, the members make the voluntary asset donation in return for benefits or services related to the subproject. Alternatively, if appropriate, the member may receive in-kind compensation such as a piece of replacement land.
3. **Types of Subproject**

The selection of activities to be undertaken under the PW component will be driven by the local planning process, which will include input from both men and women as well as representatives from vulnerable groups, in order to identify community needs and prioritise activities based on those needs. This will allow a pipeline of subprojects to be developed. Although the principal level of decision-making for determining appropriate subprojects will be the community, subprojects determined to be priority by the woreda level may also be included in the PW pipeline.

Priorities, desirable outcomes and connected activities will vary based on location. Examples of outcomes and activities in settled cropping areas such as are typically found in Tigray, Amhara, Oromiya and SNNPR, are outlined in the Table below.

**Table 1: Examples of PW Subprojects and Expected Outcomes**

<table>
<thead>
<tr>
<th>Typical Subprojects</th>
<th>Expected Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area closures/wood lots</td>
<td>Improved land productivity and soil fertility restoration</td>
</tr>
<tr>
<td>Multi-layered/storied agro-forestry</td>
<td></td>
</tr>
<tr>
<td>Physical conservation measures, e.g. hill side terracing.</td>
<td></td>
</tr>
<tr>
<td>Micro-niche development</td>
<td></td>
</tr>
<tr>
<td>Biological measures</td>
<td></td>
</tr>
<tr>
<td>Mulching of degraded areas</td>
<td></td>
</tr>
<tr>
<td>Removal of invasive plant species</td>
<td></td>
</tr>
<tr>
<td>Gully control</td>
<td>Increased land availability</td>
</tr>
<tr>
<td>Land reclamation of extremely degraded land</td>
<td></td>
</tr>
<tr>
<td>Road upgrading</td>
<td>Improved infrastructure</td>
</tr>
<tr>
<td>Market yards and storage</td>
<td></td>
</tr>
<tr>
<td>Stock routes</td>
<td></td>
</tr>
<tr>
<td>Stream diversion – for irrigation</td>
<td>Improved access to drinking and irrigation water</td>
</tr>
<tr>
<td>Spring development</td>
<td></td>
</tr>
<tr>
<td>Shallow wells</td>
<td></td>
</tr>
<tr>
<td>Small dams</td>
<td></td>
</tr>
<tr>
<td>Water ponds</td>
<td></td>
</tr>
<tr>
<td>Drainage and water canals/conduits</td>
<td></td>
</tr>
<tr>
<td>Infiltration pits</td>
<td></td>
</tr>
<tr>
<td>Seepage control measures</td>
<td></td>
</tr>
<tr>
<td>Vegetative fencing and fodder belts</td>
<td>Increased availability of fodder</td>
</tr>
<tr>
<td>Conservation measures</td>
<td></td>
</tr>
<tr>
<td>Fodder seed collection</td>
<td></td>
</tr>
<tr>
<td>Paddock systems</td>
<td></td>
</tr>
<tr>
<td>Water logging control</td>
<td></td>
</tr>
<tr>
<td>Multi-purpose nurseries</td>
<td></td>
</tr>
<tr>
<td>Repairing classrooms and health facilities</td>
<td>Improved school and health facilities</td>
</tr>
<tr>
<td>Building latrines</td>
<td></td>
</tr>
<tr>
<td>Building school and health post extensions</td>
<td></td>
</tr>
<tr>
<td>Typical Subprojects</td>
<td>Expected Outcomes</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Build child care centre</td>
<td>Improved child care-crèches</td>
</tr>
<tr>
<td>Run child care centre</td>
<td></td>
</tr>
</tbody>
</table>

4. **Principles of the Voluntary Asset Loss Procedure**

This Voluntary Asset Loss Procedure applies when a household is making a voluntary donation of assets or access to assets in exchange for subproject benefits or services. In the context of Ethiopia, where all land is owned by the Government, “land loss” is taken to mean “loss of land use”.

In cases where household in effect has no choice, due to their being no alternative site for the subproject, loss of land would be regarded as involuntary. Such cases are not eligible as PSNP PW subprojects, and in any case the Voluntary Asset Loss Policy would not apply.

Furthermore the procedure is based on the following principles:
(i) Arrangements for voluntary resettlement must involve no physical displacement, and no significant adverse impacts on income;
(ii) Voluntary asset loss cannot exceed 10% of an individual’s holdings;
(iii) Because determining informed consent can be difficult, the following criteria are suggested as guidelines;
(iv) The land required to meet technical project criteria must be identified and agreed by the affected community, not only by line agencies or project authorities;
(v) The land in question must be free of squatters, encroachers, or other claims or encumbrances;
(vi) Verification of the voluntary nature of asset donations must be obtained from each person donating the use of land;
(vii) If any loss of income or physical displacement is envisaged, verification of voluntary acceptance of community-devised mitigatory measures must be obtained from those expected to be adversely affected.
(viii) If community services are to be provided under the project, land title must be vested in the community, or appropriate guarantees of public access to services must be given by the private titleholder.
(ix) Grievance mechanisms must be available.

5. **Voluntary Asset Loss Procedure**

5.1 When each subproject is selected by the community during the annual community planning, the Development Agent (DA) checks the subproject site, conducts a preliminary design, and carries out Screening according to the principles of the Environmental and Social Management Framework (ESMF).

5.2 The DA Screening procedure includes elimination of any subproject likely to involve involuntary loss of assets or access to assets;
5.3 In the case of potential voluntary loss of assets or access to assets, the DA may still approve the subproject (subject to the other Screening requirements), but notifies the Wereda Natural Resources (NR) Expert in the NR Case Team (hereafter referred to as the Wereda NR Expert) that the subproject has been earmarked as a subproject requiring Special Attention.

5.4 When the Wereda NR Expert receives the subproject file, he or she passes it on to the Wereda NR Case Team for review and consolidation into the kebele plan, but also triggers the following procedure:

5.4.1 The Wereda NR Expert contacts the DA responsible for the Screening, and requests the DA to meet with the potential voluntary asset donor(s).

5.4.2 After satisfying him/herself that the donor is making the donation on a voluntary basis, the DA arranges a meeting between the donor(s), the DA, the Chair of the Kebele Land Administration Committee, and the Wereda NR Expert.

5.4.3 At that meeting the Wereda NR Expert satisfies him/herself that the donation is being made on a voluntary basis, and that the each donor understands the procedure being followed.

5.4.4 The Voluntary Asset Loss Form is then completed, signed and dated in four (4) copies by the concerned parties.

5.4.5 One completed copy is filed at the Kebele Land Administration Office; one at the DA’s office, one remains with the donor, and one is filed at the Wereda NR Case team office.

5.5 In the event of a grievance, complaint or dispute being lodged with the Kebele Land Administration Committee in respect of this donation, the case is heard by the Land Use Administration Committee. If the matter cannot be resolved at that level, it will be referred to the Social Court of the Kebele. If not resolved at that level, it will be referred to the Wereda Civil Court, and will thus enter the regular legal system of the Republic of Ethiopia.
Productive Safety Net
Voluntary Asset Loss Form

Region: …………………. Wereda: ……………………. Kebele: ……………………

Community: ……………………………………………………………………………

PW Subproject Name: …………………………………………………………………

I/we , ……………………………………… [name(s)] hereby declare that I/we are donating use of the following land/asset for the benefit of the above-named PSNP Public Works subproject:

<table>
<thead>
<tr>
<th>Description of land/asset ) or access to asset):</th>
<th>Sketch Plan showing donation (attach separate sketch may if necessary):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location:</td>
<td></td>
</tr>
<tr>
<td>Area:</td>
<td></td>
</tr>
<tr>
<td>Land Use certificate Number (if any):</td>
<td></td>
</tr>
</tbody>
</table>

I also confirm that:

1. The land or asset being donated does not exceed 10% of my/our asset holdings.
2. The community has identified, and is satisfied that this land/asset donation is required by the subproject.
3. The land being donated is free of squatters, encroachers, or other claims or encumbrances.
4. The subproject is not site-specific; I/we had a free choice as to whether to make this donation or not.
5. I am satisfied, and hereby confirm, that any loss suffered by me/us as a result of this donation is compensated for by:
   (i) The benefits I/we will receive from the subproject (tick:…..), or
   (ii) Land that I/we have received in compensation, Land Use Cert. No: (tick:…..).
6. This donation is being made entirely on a voluntary basis.
7. I hereby grant community access rights to the land donated for the use of the subproject.

Signed (donor) ........................................ Name: .................................. Date: .......

Signed (spouse) ..........................Name: ..........................Date: ......

Signed ..............................................Name: ..........................Date: ......
(Witness: Wereda Natural Resources Expert)

Signed ..............................................Name: ..........................Date: ......
(Witness: Development Agent)

I hereby witness the above declaration, confirm the contents therof, and hereby further confirm that the community has land use rights to the land donated, and that guarantees of public access has been given by the donor, as required.

Chair, Kebele Land Administration Committee, ............. Kebele
Annex 7: Internationally Disputed Areas
Annex 8: Medical Waste Management Guide
Annex 9: Potential Environmental Impacts and Mitigating Measures: Alamata Wereda
(Hypothetical Example)

1. Potential Environmental Impacts

Of the activities available under the HABP in Alamata wereda, the following are considered likely to prove popular, and likely to give rise to cumulative impacts if adopted by a large number of households:

(i) Cash-crop cultivation, typically using water-harvesting ponds, shallow wells, or river or lake water;
(ii) Cutting and mixing sorghum residue as animal feed (an income-generating scheme, utilizing a simple piece of equipment);
(iii) Animal purchase and fattening.

For each of these, potential environmental impacts have been identified. Each of these impacts are based on a combination of:

- The potential impacts typically associated with this type of activity;
- The specific impacts likely to arise in the context of Alamata wereda, based on the Alamata Environmental Profile.

These impacts and recommended mitigating measures are set out in the Table following.

2. Potential Long-term Environmental Impacts

2.1 Lowering of Water-Table

Unparalleled success of the growing of irrigated crops resulting in high water extraction, leading to a significant reduction in the water-table. The wereda agricultural office will closely monitor the water-table and will control any further establishment of shallow wells, etc., by informing the Wereda Extension Unit so as to avoid an undesirable reduction in ground-water levels.

2.2 Ratio of Cash:Food Crop Production

If the cultivation of cash crops becomes so popular that cash crops come to displace food crops to a significant extent, this could produce an imbalance that might lead to food shortages within, or outside, the wereda. However, the Wereda Agriculture Office and the Regional Food Security Office have planning systems to address such a trend before it becomes a problem.

2.3 Loss of Species Diversity

Uncontrolled adoption throughout the wereda of a newly introduced crop species could lead to a situation whereby the genetic base of the crop concerned is unduly narrowed. This could mean, for example, that in the event of an outbreak of disease, there is no alternative strain available.
Table: Matrix of Potential Environmental Impacts and Mitigating Measures
(Indicative Example)

<table>
<thead>
<tr>
<th>Activities:</th>
<th>Development of Irrigation Potential</th>
<th>Cultivation under Agrochemicals</th>
<th>Animal Feed Production</th>
<th>5. Animal Purchase and Fattening</th>
</tr>
</thead>
</table>
| Potential Impacts                    | (i) Extensive use of irrigation may result in salinisation and consequent soil encrustation.  
(ii) Extensive use of irrigation may result in depletion of ground water  
(iii) Shallow wells and water harvesting ponds may pose a hazard to human and animal life, especially children. | (i) Uncontrolled or careless use of agrochemicals may pollute the groundwater, resulting in health hazards for human and animal life, and may pose a hazard for bees. | (i) The reduction in the availability of sorghum residue for household energy may cause a significant increase in the use of animal dung or fuelwood, with subsequent loss of dung for fertilizer, and deforestation. | (i) Uncontrolled or careless use of livestock veterinary drugs or chemicals may pollute the groundwater, resulting in health hazards for human and animal life.  
(ii) Uncontrolled grazing will cause environmental degradation. |
| Mitigating Measures                  | (i) As drip and sprinkler irrigation will be widely used, this is not expected to be a major issue. However, in areas where it may be a problem, measures will be implemented including balanced surface water use, choice of salinity-tolerant crops, and spate irrigation for flushing as appropriate.  
(iii) It is intended that there should be water-table reduction, to reduce extent of waterlogged land. Water-table levels will be monitored by wereda agric. office.  
(iii) The project will recommend for shallow wells: cover or protection, and designs enabling anyone who falls in to climb out. For ponds: protection, and safer designs. | (i) An Integrated Pesticide Management (IPM) plan covering use of a combination of natural methods and agrochemicals will be drawn up and implemented, covering acquisition, application, accidents, storage and disposal of agrochemicals. In addition, the location of use will take into account proximity to PAs dependent on apiculture. | (i) The likely depletion of household energy supply will be determined by the wereda agricultural office, which is engaged in a parallel programme to propagate the use of energy-saving stoves. New fuelwood and multipurpose crops will be introduced, to provide additional household energy sources to the extent that proves necessary. | (i) A Drugs and Chemicals Management plan will be drawn up and implemented, covering acquisition, application, accidents, storage and disposal of livestock veterinary drugs and chemicals.  
(ii) This activity will be allowed only if there is adequate forage available from Area Closure or from the animal feed plant. |
It is thus recommended that the regional or wereda agricultural office should monitor production rates of new crop varieties, and should liaise with the Biodiversity Institute to ensure that the gene banks contain alternative varieties.

2.4 Urban Zero-Grazing

Although the Project is not promoting zero-grazing in high-density urban areas, the zero-grazing being promoted (which by reducing grazing and often livestock numbers is generally environmentally beneficial) in the less dense area may eventually lead to uncontrolled adoption of zero-grazing in urban areas, with resultant health hazards, noise and smell pollution. To avoid this happening, the Wereda Extension Unit will liaise with the urban Public Health authority to ensure that any regulations controlling the keeping of cattle in the urban areas are recognized and enforced.

3. Effects of the Environment on the Project

3.1 Rising Water Table

The most likely effect of the environment on the project would be a rising water-table, which would continue to have an increasingly detrimental impact on human and animal heath and a reduction in cultivatable land. However, with expanded use of irrigation particularly for cotton, will help to reduce the water-table, this impact is not expected to occur.

3.3 Drought

Extended periods of drought would reduce the availability of surface water for irrigation of the small-scale cultivation of fruit and vegetables. However, the encouragement of individual shallow wells is designed to offset such eventualities.

3.4 Flood and change of course by seasonal rivers

Much of Alamatia Wereda is situated in the lowlands where flood water deposits silt from the surrounding mountains. As a result, fertile soils in the bottomlands of Alamata are being silted, affecting productivity of many farmlands. Although Alamata uses a lot of the flood water as a source of spate irrigation, when the intensity of the floods increase the floods make river courses to change and hence make a significant amount of farmlands out of production. The wereda is surrounded by many weredas, especially to the west and north of the wereda by both Tigray and Amhara. It is expected that these regions will enhance the watershed management schemes in their respective weredas so that flood water affecting Alamata is substantially reduced.
Annex 10: Environmental Monitoring Plan (EMP): Alamata Wereda (Hypothetical Example)

The following Tables set out the potential impacts and related mitigating measures, and the monitoring to be conducted for each mitigating measure.

Table (a) shows indicators for monitoring the implementation of mitigating measures designed to address potential medium-term environmental impacts.

Table (b) shows indicators to be monitored for the implementation of mitigating measures designed to address potential long-term environmental impacts.

Table (c) shows indicators to be monitored for the implementation of mitigating measures to address the potential impacts of the environment on the HABP household activities.

Table (d) summarises the basic information on the indicators and how the data will be collected.

Note that the mitigating measure indicators listed in Tables (a) to (c), and summarised in Table (d), are designed to verify that the mitigating measures are being implemented as intended. It is not intended that the long-term effect of the mitigating measures on the environment should be formally monitored by the HABP. Such monitoring is normally the responsibility of the Wereda authorities. However, the Extension Unit staff concerned will be alert to any significant environmental change that may occur during the implementation of the programme.
### Table (a) Monitoring Mitigating Measures for Medium-Term Environmental Impacts (Indicative Example)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Development of irrigation potential of the PLW</th>
<th>Cultivation with Agrochemicals</th>
<th>Expanded Animal Feed Programme</th>
<th>Use of Livestock Drugs &amp; Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Likely Impacts</strong></td>
<td>Extensive use of irrigation may result in salinisation and consequent soil encrustation.</td>
<td>Shallow wells and water harvesting ponds may pose a hazard to human and animal life, especially children.</td>
<td>Uncontrolled or careless use of agrochemicals leading to pollution of groundwater, leading to health hazards for human and animal life.</td>
<td>Uncontrolled or careless use may pollute groundwater, leading to health hazards for human and animal life.</td>
</tr>
<tr>
<td><strong>Mitigating Measures</strong></td>
<td>Drip and sprinkler irrigation will be encouraged. Recommend for shallow wells cover or protection, and designs enabling anyone who falls in to climb out. For ponds: protection, and safer designs. Draw up an Integrated Pesticide Management (IPM) plan covering natural methods, and acquisition, application, accidents, storage and disposal of agrochemicals. Implement IPM plan. Take into account proximity to kebeles dependent on apiculture, when determining location of use.</td>
<td>Propagate the use of energy-saving stoves and plant multipurpose trees (MPTs) will be introduced.</td>
<td>Draw up a Drugs and Chemicals Management (DCM) plan, covering acquisition, application, accidents, storage and disposal of livestock veterinary drugs and chemicals.</td>
<td></td>
</tr>
</tbody>
</table>

| Indicator | Area under drip/sprinkler irrigation | Number of shallow wells with cover/safely designed ponds; Existence of IPM plan | IPM plan being used by DAs and farmers Coverage of topic in location plan. | Number of stoves distributed and MPTs planted Existence of DCM Plan DCM plan being used by DAs and farmers |
| Who collects the data? | WoA/RDO | WoA/RDO | WoA/RDO | WoA/RDO | WoA/RDO | WoA/RDO | WoA/RDO |
| How? | Collect data from RDO Planning office reports/Visits | Check whether IPM plan is published Make spot checks on site | Check activity design document Reports from Planning office | Check whether DCM plan is published Make spot checks Check FTC curriculum |
| When? | Annual | Annual | Annual | Before activity starts | Annual | Annual | Annual |
| Where? | WoA/RDO | WoA | WoA/RDO | Activity site RDO/IPMS | WoA | IPMS Office | Activity sites Wereda FTC Office |

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10 It is expected that as livestock marketing is enhanced, market take-off will increase and intensive livestock management will be encouraged. As a result, this impact is expected to have a low probability.
11 Once publication of the DCM plan has been verified, subsequent annual checks should record reprints, updates, etc.
## Table (b) Monitoring Mitigating Measures for Long-Term Environmental Impacts
(Indicative Example)

<table>
<thead>
<tr>
<th>Activities</th>
<th>Expanded Irrigated crop production</th>
<th>Peri-urban dairy</th>
<th>The general encouragement of cash crop production</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential Cumulative Impacts</strong></td>
<td>Unparalleled success of irrigated cotton and sesame-growing programme may result in uncontrolled growth in boreholes beyond the presently planned IPMS interventions, leading to a significant reduction in the water-table.</td>
<td>Loss of species diversity, leading to undue narrowing of the genetic base of the crop concerned. This could mean, for example, that in the event of an outbreak of disease, there is no alternative strain available.</td>
<td>Extensive use of irrigation may result in depletion of ground water.</td>
</tr>
<tr>
<td><strong>Mitigating Measures</strong></td>
<td>Water-table levels will be monitored by WoA., and Wereda Extension Unit will restrict grants and credits for new household irrigation schemes.</td>
<td>Regional or Wereda Agricultural Office should monitor the production rates of new crop varieties, and should liaise with the Biodiversity Institute to ensure that the gene banks contain alternative varieties.</td>
<td>Water-table levels will be monitored by WOA.</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Drop down of water table in cm, and Number of new micro-irrigation schemes approved.</td>
<td>Production rates of new crop varieties, Inclusion of alternative varieties in Biodiversity Institute gene bank</td>
<td>Take physical measurement on drop down of water table on sample wells</td>
</tr>
<tr>
<td><strong>Who collects?</strong></td>
<td>WoA/RDO</td>
<td>Regional or Wereda Agricultural Officer</td>
<td>Regional or Wereda Agricultural Officer</td>
</tr>
<tr>
<td><strong>How?</strong></td>
<td>Meet Wereda Crop Head</td>
<td>Collect market survey data</td>
<td>Collect gene bank data</td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td>Annual</td>
<td>Annual</td>
<td>Annual</td>
</tr>
<tr>
<td><strong>Where?</strong></td>
<td>Wereda Agric Office</td>
<td>Wereda Office</td>
<td>Biodiversity Institute</td>
</tr>
</tbody>
</table>
### Table (c) Monitoring Mitigating Measures for Impacts of Environment on Household Activities
(Indicative Example)

<table>
<thead>
<tr>
<th>Environmental Phenomenon</th>
<th>Extended Periods of Drought</th>
<th>Flooding and change of course by seasonal rivers</th>
<th>Rising Water Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Potential Impacts</strong></td>
<td>Reduced food and feed availability, leading to deterioration in household livelihoods.</td>
<td>Reduction in crop and livestock productivity,</td>
<td>Conducive environment for malaria to breed, and spread of water borne diseases.</td>
</tr>
<tr>
<td><strong>Mitigating Measures</strong></td>
<td>The encouragement of individual water harvesting ponds and river diversion schemes.</td>
<td>Reclamation of abandoned land</td>
<td>Implementation of improved land management tools.</td>
</tr>
<tr>
<td><strong>Indicator</strong></td>
<td>Number of individual water harvesting ponds and river diversion schemes operational in the wereda</td>
<td>Area of land reclaimed this year</td>
<td>No. of farmers receiving training on improved land management tools</td>
</tr>
<tr>
<td><strong>Who collects?</strong></td>
<td>WoA/RDO</td>
<td>WoA/RDO</td>
<td>WoA/RDO</td>
</tr>
<tr>
<td><strong>How?</strong></td>
<td>Data check on water harvesting ponds and river diversions</td>
<td>Physical observation and data check</td>
<td>Collect workshop participation data</td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td>Annual</td>
<td>Annual</td>
<td>Annual</td>
</tr>
<tr>
<td><strong>Where?</strong></td>
<td>Wereda ARD Office</td>
<td>IPMS Office</td>
<td>Wereda sites</td>
</tr>
</tbody>
</table>
Table (d): Summary of Mitigating Measure Indicators (Indicative Example)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Who collects</th>
<th>How</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monitoring Mitigating Measures (Medium-term)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area under drip/sprinkler irrigation</td>
<td>WoA/RDO</td>
<td>Collect data from RDO</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Number of shallow wells with cover/safely designed pond</td>
<td>WoA/RDO</td>
<td>Reports/visits</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Existence of IPM plan</td>
<td>WoA/RDO</td>
<td>Check whether IPM plan published</td>
<td>Annual</td>
<td>WoA/IPMS Office</td>
</tr>
<tr>
<td>IPM plan being used by DAs and farmers</td>
<td>WoA/RDO</td>
<td>Make spot checks on site</td>
<td>Annual</td>
<td>Activity site</td>
</tr>
<tr>
<td>Existence of DCM Plan</td>
<td>WoA/RDO</td>
<td>Check whether PCM plan published</td>
<td>Annual</td>
<td>WExt Unit</td>
</tr>
<tr>
<td>DCM plan is normally being used by DAs and farmers</td>
<td>WoA/RDO</td>
<td>Make spot checks</td>
<td>Annual</td>
<td>Activity sites</td>
</tr>
<tr>
<td>DAs and WoA are promoting these initiatives in FTCs</td>
<td>WoA/RDO</td>
<td>Check FTC curriculum</td>
<td>Annual</td>
<td>Wededa FTC</td>
</tr>
<tr>
<td><strong>Monitoring Mitigating Measures (Long-term)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop down of water table in cm</td>
<td>WoA/RDO</td>
<td>Meet wereda crop head</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Production rates of new crop varieties</td>
<td>Regional/WoA</td>
<td>Collect market survey data</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Inclusion of alternative varieties in biodiversity Ins. Gene bank</td>
<td>Regional/WoA</td>
<td>Collect gene bank data</td>
<td>Annual</td>
<td>Biodiversity Institute</td>
</tr>
<tr>
<td>Measure drop down of water table from sample wells</td>
<td>WoA</td>
<td>Reports</td>
<td>Annual</td>
<td>WoA/RDO in PLW</td>
</tr>
<tr>
<td>Participation of public health representatives in training workshops</td>
<td>WoA/RDO</td>
<td>Check workshop participants list</td>
<td>Annual</td>
<td>Reg or Wereda Offices</td>
</tr>
<tr>
<td>Evidence that regulations are being enforced</td>
<td>WoA/RDO</td>
<td>Physical observation</td>
<td>Annual</td>
<td>Urban and Peri-urban areas</td>
</tr>
<tr>
<td>Existence of Wereda/Regional food production planning system</td>
<td>WoA/RDO</td>
<td>Meet Wereda/Regional Crop Heads</td>
<td>Annual</td>
<td>Wereda/Regional Agric Office</td>
</tr>
<tr>
<td><strong>Monitoring Mitigating Measures for Potential Impact of Environment on the Project</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of farmers receiving training on improved land management tools</td>
<td>WoA/RDO</td>
<td>Collect workshop participation data</td>
<td>Annual</td>
<td>IPMS Office</td>
</tr>
<tr>
<td>No. of farmers using improved land management tools</td>
<td>WoA/RDO</td>
<td>Physical observation – sample survey</td>
<td>Annual</td>
<td>Wereda sites</td>
</tr>
<tr>
<td>Number of mosquito nets distributed</td>
<td>WoA/wereda Health office</td>
<td>Collect data from wereda Health/Planning office reports</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Number of households using tap water</td>
<td>WoA/wereda Health office</td>
<td>Collect data from wereda Health/Planning office reports</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
<tr>
<td>Take physical measurement on sample wells</td>
<td>WoA/RDO</td>
<td>Take physical measurement on sample wells</td>
<td>Annual</td>
<td>Wereda Office of Agr.</td>
</tr>
</tbody>
</table>

12 Once publication of the IPM plan has been verified, subsequent annual checks should record reprints, updates, etc.
13 Once publication of the DCM plan has been verified, subsequent annual checks should record reprints, updates, etc.
Annex 11: Additional Wereda Extension NR Experts SEA Training  
Estimated Annual Budget

1. **Regional Trainers attending ToT Sessions in Addis Ababa**

2 Trainers from each of 6 regions + 1 from Harar and 1 from Dire Dawa = 14 trainees  
Travel days: 2  
Training days: 3  
Per Diem: Birr 100

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (Birr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport: 14 trainees @ Average Birr 1,000</td>
<td>14,000</td>
</tr>
<tr>
<td>14 Trainees x 5 days @ Per Diem Birr 100</td>
<td>7,000</td>
</tr>
<tr>
<td>Training Materials: 14 x Birr 200</td>
<td>2,800</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>23,800</strong></td>
</tr>
</tbody>
</table>

2. **Wereda Trainees attending Training Sessions in Regional or Zone Capitals**

290 trainees (One from each wereda)  
Travel days: 2  
Training days: 3  
Per Diem: Birr 100

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost (Birr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport: 290 trainees @ Average Birr 100</td>
<td>29,000</td>
</tr>
<tr>
<td>290 Trainees x 5 days @ Per Diem Birr 100</td>
<td>145,000</td>
</tr>
<tr>
<td>Training Materials: 290 x Birr 100</td>
<td>29,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>203,000</strong></td>
</tr>
</tbody>
</table>

**Grand Total:**                                       | **226,800** |

**Approx. Equiv. to US$ 19,000**
ANNEX 7: Medical Waste Management Guide for Rural Health Clinics