THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

PRODUCTIVE SAFETY NET PROJECT
PHASE III

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

Natural Resources Management Directorate
PSNP Public Works Coordination Unit

July 28, 2009
LIST OF ACRONYMS

BoARD  Bureau of Agriculture and Rural Development
CSE   Conservation Strategy of Ethiopia
CFSTF  Community Food Security Task Force
CFU   Counterpart Fund Unit
DA    Development Agents
EWRD  Early Warning and Response Directorate
EA    Environmental Assessment
EIA   Environmental Impact Assessment
EPA   Environmental Protection Authority
ESMF  Environmental and Social Management Framework
FSCD  Federal Food Security Coordination Bureau
FSP   Food Security Programme
GOE   Government of Ethiopia
HABP  Household Asset Building Programme
JSOC  Joint Strategic Oversight Committee
KFSTF Kebele Food Security Task Force
MoARD Ministry of Agriculture and Rural Development
MoFED Ministry of Finance and Economic Development
PSNP  Productive Safety Net Programme
RFSCO Regional Food Security Coordination Office
RFSSC Regional Food Security Steering Committee
RPWFU Regional Public Works Focal Unit
SARDP SIDA-Amhara Rural Development Project
SOE   Statement of Expenditures
ToT   Training of Trainers
WFSC  Woreda Food Security Case Team
WFSTF Woreda Food Security Task Force
WOFED Woreda Office of Finance and Economic Development
WARDO Woreda Agriculture and Rural Development Office
WLAEP Woreda Land Administration and Environmental Protection Office
USD  United States Dollars
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Executive Summary

The Productive Safety Net 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 not expected to have 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.

*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) ensures 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.

*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).

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

This Environmental and Social Management Framework (ESMF), developed for the Productive Safety Net Programme (PSNP) will be used for the Food Security Programme (FSP) as convenient to the Government of Ethiopia for implementation of the Household Asset Building Programme.

The NRMD, specifically the PWCU and PWFUs will be mandated to monitor and manage the cumulative potential environmental impacts arising from the Household Asset Building Component of the Food Security Programme.
Part I. PSNP - 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 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.
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 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>
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<tr>
<td>Micro-niche development</td>
<td></td>
</tr>
<tr>
<td>Biological measures</td>
<td></td>
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<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>Roads and bridges</td>
<td>Improved market 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>
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<tr>
<td>Drainage and water canals/conduits</td>
<td></td>
</tr>
<tr>
<td>Infiltration pits</td>
<td></td>
</tr>
</tbody>
</table>
### Typical Subprojects

<table>
<thead>
<tr>
<th>Typical Subprojects</th>
<th>Expected Outcomes</th>
</tr>
</thead>
<tbody>
<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>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, 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 = 323 woredas x approx 15 kebeles/wereda x approx 2

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community watersheds/kebele x approx 4 subprojects/comm. watershed = 38,760);

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 323 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>
<thead>
<tr>
<th>Eco-Climatic Zone</th>
<th>Potential Sensitivities</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Dega Wurch</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>Dega</td>
<td>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>Weyna Dega</td>
<td>The semi-arid, dry savanna landscapes are vulnerable to deforestation and overgrazing, variable rainfall, slower rates of recovery and wildfire potential; soils are generally nutrient poor and moderate-high erosibility.</td>
</tr>
<tr>
<td>Kolla</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>Bereha</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>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>No.</td>
<td>‘000 Ha</td>
<td>‘000 quintals</td>
</tr>
<tr>
<td>Oromiya</td>
<td>78</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>323</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 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 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

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 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.

### 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 Ministry of Agriculture and Rural Development (MoARD) 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 Woreda Agriculture & Rural Development Offices 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 wereda staff who will in turn train DAs and kebele staff.

The PWFUs also conduct capacity needs assessments and provide support at wereda level to ensure that all functions 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 wereda 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 organizational 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:
   ① Subprojects in or adjoining internationally-disputed territories;
   ② Projects requiring the physical relocation of residents or the involuntary loss of assets or access to assets;
   ③ 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 5) 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>
<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>
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<tr>
<td>Subproject incorporates a dam of more than 15 metres in height</td>
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<tr>
<td>Subproject is located in a Priority Forest Area, or involves major land-use change such as draining of a wetland</td>
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</table>

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>
<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>
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<tr>
<td>Subproject incorporates a dam</td>
<td></td>
<td></td>
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<tr>
<td>Subproject might involve voluntary loss of assets, or access to assets</td>
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</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>
<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>Roads and Footpaths</td>
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<tr>
<td>Soil erosion or flooding concerns (eg, due to highly erodable soils or steep gradients)</td>
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<tr>
<td>Number of stream crossings or disturbances</td>
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<tr>
<td>Wet season excavation</td>
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<tr>
<td>Creation of quarry sites or borrow pits</td>
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<tr>
<td>Significant vegetation removal</td>
<td></td>
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<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>
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<tr>
<td>New settlement pressures created</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Other (specify):</td>
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<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>Water Subprojects for Human Consumption</td>
<td></td>
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<tr>
<td>New access (road) construction</td>
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<tr>
<td>Existing water sources supply/yield depletion</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Existing water users disrupted</td>
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<tr>
<td>Downstream water users disrupted</td>
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<tr>
<td>Increased numbers of water users due to improvements</td>
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<td></td>
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<tr>
<td>Increased social tensions/conflict over water allocation</td>
<td></td>
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<tr>
<td>Sensitive ecosystems downstream disrupted</td>
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<td></td>
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<tr>
<td>Local incapacity/inexperience to manage facilities</td>
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<tr>
<td>Other (specify):</td>
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</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>
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<tr>
<td>Existing water users disrupted</td>
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<td></td>
</tr>
<tr>
<td>Downstream water users disrupted</td>
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<tr>
<td>Water storage requirement and viability (soil permeability)</td>
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<tr>
<td>Vulnerability to water logging (poor drainage)</td>
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<tr>
<td>Vulnerability to soil and water salinization</td>
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<tr>
<td>Sensitive downstream habitats and waterbodies</td>
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<tr>
<td>Environmentally sensitive areas disturbed</td>
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<tr>
<td>Cultural or religious sites disturbed</td>
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<td></td>
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<tr>
<td>Increased agric. chemicals (pesticides, etc) loading</td>
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<td></td>
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<tr>
<td>Increased social tensions over water allocation</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience to manage facilities</td>
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<td></td>
</tr>
<tr>
<td>Local incapacity/inexperience with irrigated agriculture</td>
<td></td>
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<tr>
<td>Other (specify):</td>
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</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>
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<tr>
<td>Wet season soil disturbance</td>
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<tr>
<td>Sensitive downstream ecosystems</td>
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<tr>
<td>Plant/tree species threaten invasion of native species</td>
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<tr>
<td>Wildlife habitats or populations disturbed</td>
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<tr>
<td>Environmentally sensitive areas disturbed</td>
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<tr>
<td>Insufficient capacity to manage Area Closure</td>
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<tr>
<td>Insufficient capacity to prohibit or control open grazing</td>
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<tr>
<td>Insufficient capacity to manage new pasture</td>
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<tr>
<td>Other (specify):</td>
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### 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>
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<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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<tr>
<td>Wet season soil disturbance</td>
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<tr>
<td>Construction materials impact on adjacent forests/lands</td>
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<tr>
<td>Quarries and borrow pits created</td>
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<td>Cultural or religious sites disturbed</td>
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<td>Water supply development effects in available supply</td>
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<tr>
<td>Effect of sanitation development on existing disposal sites</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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<tr>
<td>Local incapacity/inexperience to manage facilities</td>
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<tr>
<td>Other (specify):</td>
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</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>
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<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>
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</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:

1. Your decision as to whether an EIA is required;
2. 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.
3. 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 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 approves the PW, recommend redesign, 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:
  1. Pest-resistant crops varieties
  2. Use of disease/weed-free planting stock
  3. Farming practices that increase resistance to pests (proper soil preparation, spacing, planting, watering, etc.)
  4. Farming practices that suppress pest populations (crop rotation, cover crops, intercropping, etc.)
  5. Traditional manual control of pests (weeding, removing insect pods, etc.)
  6. Biological controls (predators, pathogens, pheromones, etc.)
  7. 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:
  ① The quantity and quality of wastes generated
  ② The available disposal and treatment options at the site
  ③ Methods to segregate medical waste from general waste
  ④ Internal rules for waste handling, collection and storage
  ⑤ Clinic responsibilities for waste management
  ⑥ 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 5.
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: Reporting and Monitoring

SUPERVISION AND PROCESS MONITORING

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

- The DA, with assistance if required from the wereda 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 wereda, 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/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 wereda 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 Natural Resources Management Directorate/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 (FSCD)

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) Natural Resources Management Directorate (NRMD)

The NRMD is responsible for oversight and coordination of the PSNP Public Works implementation and the day to day activities of the Public Works Coordination Unit (PWCU), established within the Directorate.

Within the NRMD is located the Public Works Coordination Unit, which provides overall coordination and technical oversight of the PW component. 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 Natural Resources Management Directorate (NRMD) 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 RFSSC), the Regional Food Security Coordination Bureau (secretary of FFSSC), 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 wereda 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:
③ Assisting in resolving unresolved appeals submitted to them by the Kebele Council and sharing the outcomes of these appeals cases with the WFSTF.
③ Work with Kebele Councils to ensure that up-to-date listings of beneficiaries are posted in public locations at Woreda, Kebele and community levels.
③ 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 Agriculture and Rural Development Office (WARDO)

The Head of WARDO acts as chair of the Woreda Food Security Task Force. Other functions of the WARDO 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 WFSCTs are responsible for coordination of Safety Net activities and are technically accountable to the RFSCOs. Their duties include:
• Act as Secretary for the Woreda FSTF and for the Early Warning Committee, and as a focal point for all Safety Net issues in the woreda;
• Ensure that a pipeline of projects is prepared (including those to be implemented during the annual programme cycle and those to be implemented in case of emergency) in consultation with the Kebele Food Security Task Force;
• Mobilise technical assistance as needed from woreda sectoral offices;
• Undertake regular monitoring and evaluation in coordination with woreda sectoral offices;
• Hold quarterly technical review meeting with implementing agencies;
• Submit monthly progress reports to the Woreda Rural Development Office;
• Maintain accurate records of kebele Safety Net activities and list of beneficiaries; and
• Provide information on target areas and selected beneficiaries to sectoral offices and other agencies involved in planning and implementing Safety Net activities.

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.
• Assist in coordinating DS training and light labour activities, with due consideration given to gender issues.

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): .................................**

### Subprojects Ineligible as PSNP PW

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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</table>

- Subproject is in, or adjacent to, an internationally-disputed area
- Subproject may involve the physical relocation of residents, or *involuntary* loss to any household of assets, or access to assets
- Subproject incorporates a dam of more than 15 metres in height
- Subproject is located in a Priority Forest Area, or involves land-use change such as draining of a wetland

### Subprojects Requiring Special Attention

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

### Subproject Screening

#### 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>
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<tbody>
<tr>
<td>Soil erosion or flooding concerns (eg. due to highly erodable soils or steep gradients)</td>
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<tr>
<td>Number of stream crossings or disturbances</td>
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<tr>
<td>Wet season excavation</td>
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<tr>
<td>Creation of quarry sites or borrow pits</td>
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<tr>
<td>Significant vegetation removal</td>
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<tr>
<td>Wildlife habitats or populations disturbed</td>
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<tr>
<td>Environmentally sensitive areas disturbed</td>
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<tr>
<td>Cultural or religious sites disturbed</td>
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<tr>
<td>New settlement pressures created</td>
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<td>Other (specify):</td>
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#### Drinking Water Projects

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

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<thead>
<tr>
<th>Potential for Adverse Impacts</th>
<th>None</th>
<th>Low</th>
<th>Med</th>
<th>High</th>
<th>Unknown</th>
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<tbody>
<tr>
<td>Existing water sources supply/yield depletion</td>
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<tr>
<td>Existing water users disrupted</td>
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<tr>
<td>Downstream water users disrupted</td>
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<tr>
<td>Water storage requirement and viability (soil permeability)</td>
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<tr>
<td>Irrigation Projects</td>
<td>Potential for Adverse Impacts</td>
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<tr>
<td>Vulnerability to water logging (poor drainage)</td>
<td>None</td>
<td>Low</td>
<td>Med</td>
<td>High</td>
<td>Unknown</td>
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<tr>
<td>Vulnerability to soil and water salinization</td>
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<tr>
<td>Sensitive downstream habitats and waterbodies</td>
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<tr>
<td>Environmentally sensitive areas disturbed</td>
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<td></td>
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<tr>
<td>Cultural or religious sites disturbed</td>
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<tr>
<td>Increased agric. chemicals (pesticides, etc) loading</td>
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<tr>
<td>Increased social tensions over water allocation</td>
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<tr>
<td>Local incapacity/inexperience to manage facilities</td>
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<tr>
<td>Local incapacity/inexperience with irrigated agriculture</td>
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<td>Other (specify):</td>
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<table>
<thead>
<tr>
<th>Area Closure and SWC (Soil and Water Conservation)</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>None</td>
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<tr>
<td>Wet season soil disturbance</td>
<td></td>
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<tr>
<td>Sensitive downstream ecosystems</td>
<td></td>
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<tr>
<td>Introduced plant/tree species invasion of native species</td>
<td></td>
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<tr>
<td>Wildlife habitats or populations disturbed</td>
<td></td>
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<tr>
<td>Environmentally sensitive areas disturbed</td>
<td></td>
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<tr>
<td>Insufficient capacity to manage Area Closure</td>
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<tr>
<td>Insufficient capacity to prohibit or control open grazing</td>
<td></td>
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<tr>
<td>Insufficient capacity to manage new plantations/pastures</td>
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<tr>
<td>Other (specify):</td>
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<table>
<thead>
<tr>
<th>Infrastructure such as School and Health Facilities</th>
<th>Potential for Adverse Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>New access (road) construction</td>
<td>None</td>
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<tr>
<td>Alteration of existing drainage conditions</td>
<td></td>
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<tr>
<td>Vegetation removal</td>
<td></td>
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<tr>
<td>Wet season soil disturbance</td>
<td></td>
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<tr>
<td>Construction materials impact on adjacent forests/lands</td>
<td></td>
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<tr>
<td>Quarries and borrow pits created</td>
<td></td>
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<tr>
<td>Cultural or religious sites disturbed</td>
<td></td>
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<tr>
<td>Water supply development effects in available supply</td>
<td></td>
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<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>
<td></td>
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<tr>
<td>In-migration/settlement induced by facilities development</td>
<td></td>
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<tr>
<td>Local incapacity/inexperience to manage facilities</td>
<td></td>
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<tr>
<td>Other (specify):</td>
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<table>
<thead>
<tr>
<th>Feature of Concern - For All Types of Subproject</th>
<th>Yes</th>
<th>No</th>
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<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>
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</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>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>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 (eg 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>
<tr>
<td>Irrigation Projects</td>
<td></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>Water storage requirement and viability (soil permeability)</td>
<td>Test the soil percolation and ensure and impermeable layer in the structure design</td>
</tr>
<tr>
<td>Vulnerability to water logging (poor drainage)</td>
<td>Assess soil characteristics and either avoid or provide drainage for areas prone to waterlogging</td>
</tr>
<tr>
<td>Vulnerability to soil and water salinization</td>
<td>Irrigation expert to assess the potential for high salinity and ensure appropriate irrigation practices to minimize impacts</td>
</tr>
<tr>
<td>Sensitive downstream habitats and waterbodies</td>
<td>Identify and avoid effects of diversion or extraction on downstream ecosystems that depend on the surface or groundwater supply</td>
</tr>
<tr>
<td>Environmentally sensitive areas disturbed</td>
<td>Identify and avoid forest, riparian and wetland habitats with particular biodiversity</td>
</tr>
</tbody>
</table>
### Irrigation Projects

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mitigation Measures</th>
</tr>
</thead>
<tbody>
<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>Increased agricultural chemicals (pesticides, etc) loading</td>
<td>Develop an integrated pest management strategy and provide training to farmers</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>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>Local incapacity/inexperience to manage facilities</td>
<td>Establish an operations and maintenance manual, authority and provide training to persons responsible for operating the system</td>
</tr>
<tr>
<td>Local incapacity/inexperience with irrigated agriculture</td>
<td>Provide training to farmers on sustainable irrigated agriculture</td>
</tr>
<tr>
<td>Other (specify):</td>
<td>Possible additional incentives or mitigation measures.</td>
</tr>
</tbody>
</table>

### Area Closure & SWC subprojects

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mitigation Measures</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 addresses 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</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>
<td>Possible additional incentives or mitigation measures.</td>
</tr>
</tbody>
</table>
## Drinking Water Projects

<table>
<thead>
<tr>
<th>Issue</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>Issue</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 sustainably 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:

<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>

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.
Annex 5: 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:

(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, which are implemented by the communities in return for the transfers;

(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).

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:

1. Subprojects within, or adjacent to, internationally-disputed territory;
2. Subprojects located in a Prime Forest Area, involving drainage of wetlands, or any change of land use;
3. Subprojects likely to involve involuntary resettlement, loss of assets or access to assets;
4. 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>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;

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.

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 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:

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

Location:

Area:

Land Use certificate Number (if any):

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

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:
   (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 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, Kebele Land Administration Committee,…………………Kebele
Annex 6: Medical Waste Management Guide

GUIDELINE
FOR WASTE HANDLING AND DISPOSAL IN HEALTH FACILITIES

Prepared by:
Industrial and other Health Institutions
Hygiene Control Team Department of
Hygiene and Environmental Health
Ministry of Health
Sept. 1990 E.C.
Addis Ababa

Note:
The Guide is translated from Amharic into English for World Bank
1. INTRODUCTION

As the result of advancement of the knowledge of prevention and control of communicable diseases, better curing of the sick, man’s average life expectancy is increasing from time to time. This is the effect mainly of advancement of science, technology and modern treatment systems.

Although the aim of establishing examination and medical service delivery system is to provide medical care, yet if these facilities are not up to the desired standard, maintained clean and safe they could pose high risk to the health care workers, patients, visitors and to the surrounding community.

For example at present it has been identified in Canada, Japan and North America that infectious wastes discharged from hospitals are becoming great concern as source of HIV and Hepatitis B infections for health workers (doctors) nurses, health assistants, custodial and maintenance workers) who are directly involved in handling infectious wastes. During the last ten years medical wastes disposed from health institutions have become worldwide political, social and economic issues.

Since the 1960s the quantity of wastes disposed from health institutions have increased tremendously.

Because of the growth and wide distribution of plastic technology, disposables (use and throw) medical supplies such as syringes, needles, plastic gloves etc the wastes disposed from research and health facilities, research laboratories etc. have increased both in quality and quantity.

According to studies done in some countries it is known that a patient on average contributes about 6.5 to 9 pounds (LB) of waste per day. Looking at Ethiopia’s situation, according to a study done in 1985 E.C by the Department of Hygiene and Environmental Health (MOH), in 46 hospitals and 76 health centers, up to 178,000 pounds (Lb) of waste generated and disposed per day. Similarly a feasibility study carried out in 16 health centers and 48 clinics revealed that most of the health facilities had no satisfactory liquid and solid wastes disposed systems.

Furthermore, the situation became worse because most of the health facilities are old and did not have adequate budget nor functioning technologic etc.

Therefore, giving due attention to the problems and moving towards action is timely question of the day.
2. OBJECTIVES FOR THE DEVELOPMENT OF THE GUIDELINE

2.1 To enable health professionals to protect themselves against health-hazards, which might be encountered as a result of their occupation.

2.2 To create awareness among workers in health facilities about the importance of safe disposal of wastes generated from health facilities according to this guideline.

2.3 To prevent and control environmental pollution by wastes carelessly disposed from health facilities.

2.4 To provide technical support to health professionals and environmental health workers engaged in day to day health inspection and control activities.

2.5 Comparing to the present faulty and indiscriminate infectious waste disposal pattern, this guideline may seem to be unrealistic. However, it would indicate the future direction to remedy. The situation and would lead towards establishing infectious and other wastes disposal system that would meet health safety and hygienic standard.

3. DEFINITIONS

3.1 HEALTH FACILITIES (INSTITUTIONS)
Places in which examination and treatment, medical investigation, microbiological, chemical, toxicological, laboratory examination etc are carried out.

3.2 INFECTIOUS AGENT
An organism (usually microscopic), such as bacteria, protozoa, fungus, rickettsia) virus helminthes that is capable of causing infection or infectious diseases in man

3.3 DISINFECTION
Destroying and eliminating infectious agent through chemical or physical processes.

4. SOME MAJOR TYPES OF WASTES DISPOSED FROM HEALTH FACILITIES

4.1 MEDICAL WASTE
Any waste discharged from health facilities during work process, excluding non hazardous waste.

4.2 NON-HAZARDOUS WASTES
Wastes which are dangerous to health such as produced from food preparation (kitchen Taste or garbage) offices, bath room etc.

4.3 PATHOLOGICAL WASTE
Wastes from blood and blood products, surgical remains of body parts, tissues, dead animals etc.
4.4 RADIOACTIVE WASTE
Liquid or solid wastes disposed from research laboratories nuclear treatment unit etc.
Containers of radioactive products, needles, syringes, gloves etc used in radioactive treatment processes.

4.5 CHEMICAL WASTE
Wastes resulting after usage such as antiseptic, disinfectants, chemicals of acid and alkaline nature, inflammables, corrosives, reactive etc which are capable of causing danger to the skin, or reproductive organ.

4.6 INFECTIOUS OR BIOLOGICAL WASTE
Type of waste that contains viruses, bacteria, intestinal worms, etc mostly disposed from research laboratory, surgical unit. Wound treatment room, delivery room etc.

4.7 SHARPS
Includes stitches, sucker, needle, syringe needle, broken bottle and the like.

4.8 PHARMACEUTICAL WASTE
Includes discarded or expired medicines, supplies, pharmaceutical contaminated by microorganisms.

4.9 PRESSURIZED CONTAINERS
Containers of gases under pressure such as oxygen cylinder etc.

5. HEALTH FACILITIES, THEIR UNITS, AND RESEARCH INSTITUTES WHICH GENERATE AND DISPOSED INFECTIOUS AND OTHER WASTE DURING THEIR WORK PROCESSES

5.1 HOSPITALS, HEALTH CENTERS AND CLINICS
5.1.1 Surgical department
5.1.2 Internal medical department
5.1.3 Obstetrics department
5.1.4 Genecology department
5.1.5 Microbiology laboratory
5.1.6 Nuclear medicine unit
5.1.7 Emergency department
5.1.8 Isolation and recovery unit
5.1.9 Orthopedic department
5.1.10 Pediatric department
5.1.11 1 Morgue
5.2 Research institutes
5.2.1 Microbiological laboratory
5.2.2 Toxicological laboratory
5.2.3 Chemical laboratory
5.3 ANIMAL EXAMINATION AND TREATMENT INSTITUTION
5.4 PHARMACEUTICAL FACTORIES

6. BASIC PRECAUTIONARY MEASURES TO BE CONSIDERED BEFORE STORAGE OF INFECTIOUS WASTE

6.1 Packaging condition of waste
6.2 Temperature level of the storage place and storage time. During storage it is preferable that the storage time be four days at below 0 to 10 degree centigrade. This is because higher temperature level increases bacterial multiplication rate thus accelerated decomposition followed by emission of foul smell.
6.3 Storage location and adequacy of the design
6.4 Suitability of the storage place for making it free from microorganisms, and conduciveness of pickup site
6.5 Ensuring that storage place is inaccessible to insects and rodents
6.6 Ascertaining that the containers of waste, cold storage place etc. have clearly visible International Biohazard label or mark.

7. WASTE STORAGE

One of the first job should be proper collection and storage of wastes generated during work processes. The wastes collected from different work places or department must be segregated or sorted out and must be stored properly arranged in temporary container or storage tanks.

The job of proper collection and storage of wastes produced from different work units require the director indirect participation of most of the doctors, nurses, laboratory technicians, health assistants, custodial workers etc. IF these professionals participate in proper management of waste disposal, then:

1. It is possible to maintain cleanliness of the inside and outside of the health facility.
2. It is possible to follow up the health status of the workers engaged in moving waste from place to place.
3. The cost of treating the waste can be minimized.
7.1 WASTE SEGREGATION AND STORAGE METHOD
7.1.1 Then wastes discharged from different units must be segregated and placed in leakage roof, non corrosive iron sheet barrel or plastic containers. This alone is not adequate, hence, the inside of the container should have plastic sheet, cover in order to avoid possibility of leakage.

For example wastes collected from administration, doctors or nurses offices should not be stored with wastes disposed from the delivery and operation rooms. In addition infectious waste should not be put in any container but stored in leakage proof strong plastic bag or plastic jar properly sealed or tied up.

7.1.2 Workers directly involved in handling wastes should identify each kind of waste carefully and put in easily identifiable different colour plastic bag or container. This will enable to collect and dispose hazardous wastes. This can be done us follow:

7.2 BLACK PLASTIC
This bag must be used to store wastes discharged from food preparation area and officers.

7.3 YELLOW PLASTIC BAG
The yellow plastic bag should be used to store waste discharged from:
- Surgical unit
- Internal medical unit
- Delivery room
- Isolation unit
- Recovery unit
- Infectious wastes produced from examination and treatment unit etc.
- Instruments like sharps must be stored in bags not likely to be torn or pierced.

For example, used blade, stitching needle, syringe etc. are contaminated, hence if one carelessly or accidentally cut or pricked by these sharps, it will expose one to HIV and other infections.

7.4 RED PLASTIC BAG
Chemicals and the related medicines should be stored in red plastic bag properly tied or sealed.
- The plastic bag should be stored in leakage proof and non corrosive plastic or iron sheet barrel.
- The storage capacity of the barrel preferably be of 100kg for solid waste and 50 letter for liquid waste.
- Each unit should have (as needed) of similar kind and capacity waste collection barrel.
- All units, except the isolation word, should have place for placing non-dangerous items.
- For tying or sealing it is not necessary to wait until the bag is full to the brim.
• Even though it is necessary to treat-disinfect infectious as soon as possible, yet if it is not possible for various reasons the follow steps should be taken:

1. Protect the waste from wind and rain.
2. First dispose the waste which can decompose quickly
3. If the waste storage place is outside the house, it should be placed in a reliable and secure container.
4. The waste should be protected from access to flies, rodents and similarly from scavengers.

8. HANDLING

• The plastic containers in operation room and recovery word should be emptied at least to twice daily in to the main collection tank and new clean plastic bag be replaced immediately.
• The waste should be handled only by the person who is assigned for the job.
• In case the waste is accidentally scattered spilled in the rooms or in other places. it should be cleaned immediately and carefully be disinfected by disinfectant meant for the purpose.
• It is possible to dispose non-hazardous waste through the municipal management system or to transport by vehicle to the final disposable site.
• In order to safeguard the health, and to avoid accident such as cuts by sharps etc the porter must be provided with acceptable work clothes, gloves, protective eye glasses, muffles for mouth and nose and work shoes.
• It is necessary to assure that reusable or multiple use examination and treatment supplies and other items should be properly cleaned and sterilized.
• For transporting the waste container or barrel from place to place there must be trolleys or carts. The trolleys should be carefully handled to avoid tipping off the content.
• All wastes produced from health facilities, except those from offices, kitchen, compound cleaning, should be transported by specially designed closed containers.

9. NEED FOR TREATING SOLD INFECTIOUS WASTE

9.1 Need for disinfection infectious waste before disposal

Wastes generated during work processes from health facilities must be made free from microbial contamination before transporting to the find disposal site for the following reasons:

1. Treating the waste by chemicals, holding under high temperature heat, exposing to radiation energy or burning the waste can destroy microorganism in the waste.
2. Thus, the risk to human health and environment pollution can be prevented.
3. Breaking into smaller pieces or shredding the waste can reduce the bulk volume of the waste.
3. Body parts removed during surgical operation should be shredded before disposal to avoid aesthetically unacceptable contrition.
4. To avoid problem which might arise from disposable supplies such as needles, syringe etc after they have been used

9.2 WASTE TREATMENT FACILITY
Selecting and setting up processes of waste treatment facility depends on the following factors:

1. Type and quantity of infectious waste to be disposed.
2. Availability of waste treatment technology nearby or around the surrounding area.
3. Having financial capability to procure necessary equipment.
4. Availability of professional to operate and maintain the equipment.
5. The equipment and work process should satisfy the requirement of the area.
6. Opinions and goodwill of the community where the waste treatment activities is to be carried out.

9.3 METHODS OF DISINFECTING WASTE
Before final disposal the waste must be disinfected in order to avoid health risk to man and environment pollution.
The infectious waste collected from different activity units must be treated before hand to prevent spread of microorganisms in the waste by applying chemical treatment, radiation energy or other similar treatment method.

Provided the treatment is reliable, the treated waste can be disposed with municipal disposal system, if no such system the waste can be transported by sucking truck to the selected final disposal site.

However, discarded materials such as syringe, needle etc must be disposed carefully in case they might fall in the hands of scavengers to be sold for reuse.

9.3.1. Chemical Disinfection
Chemical treatment is a process of destroying microorganisms in the waste by using liquid chemical disinfectants.

To disinfect using chemicals:
- Select appropriate chemical for the job.
- Determine the concentration level of the chemical selected.
- Determine the contact time of the chemical with the waste
- Reduce the bulk volume of solid waste by grinding, shredding or similar method.
- This will help to avoid reuse of such material at syringes, needles etc.
- Some strains of pathogens may be resistant to chemicals, hence medical wastes treated by chemicals should be considered as hazardous to health and be handled carefully.
Therefore, it is necessary to make bacteriological test on the waste treated to ensure its safety.
Method of disposing the chemical used for the treatment should be planned because the chemical mixed with the liquid waste could create health hazard (see Annex 2)

9.3.2. Thermal Sterilization
Thermal sterilization is a method of treating waste by applying steam at 160 degree centigrade temperature level in autoclave
- Autoclave is used for sterilizing surgical and bacteriological equipment and supply.

In order to ensure the effective functioning of the autoclave:
- Large and solid material like syringes, needles etc. should be reduced to small size by breaking and compacting.
- Capable person be assigned for operation and maintenance of autoclave.
- The amount of waste produced and the capacity of the autoclave must compatible.

9.3.3. Sterilization by microwave
This is a disinfecting method of waste produced during work processes by burning in microwave oven.
- Small size of microwave oven can be applied for relatively small amount of waste discharged from laboratory, while larger quantity of waste produced from health facility require larger size microwave oven.
- Large and solid waste can be reduced to smaller size by shredding the waste.
- The waste must be held in the microwave oven for at least 30 minutes at 100 degree centigrade.
- The disinfected waste bailed out from the microwave oven must be disposed carefully.

9.3.4. Electromagnetic Radiation
This is a method of destroying microorganism in the waste by applying gamma ray or electron beam. In order to destroy effectively the microorganisms in the wastes large and sold waste have to be reduced to smaller size by grinding and compacting:
- Using electron magnetic beam or gamma ray for treatment method is relatively more effective than other methods, however the cost is too high.
- The waste after disinfection must be carefully transported and buried.

9.3.5. Incineration
This is a method of destroying microorganisms. By incinerating or burning the waste in a high temperature heat.
- If the health facility does not have its own incinerator, it is necessary to transport the waste to the nearby unit which has incinerator and do the job carefully.
- If the facility has its own incinerator, ensure that the combustion of the waste in the incinerator takes place at 1000 degree centigrade heat inorder to reduce the smoke and foul smell emitted.
• The incinerator must be designed and constructed with scrubber or cyclone device which serves to control floc gas emitted during combustion process. The purpose of the scrubber or cyclone is to filter out the floc gas emitted into the air. Nowadays simple type of incinerators are designed and constructed at low cost. However, since these incinerators function at relatively low temperature (heat), they emit smoke and foul smell, thus contribute to environment.

When building small scale incinerator, it is necessary to take into consideration the height of the chimney and wind direction for the purpose of reducing smoke and foul smell emission.

In places where high combustion calorific value, such as paper and the like is scarce, it is possible to use kerosene oil etc. to facilitate combustion process.

• However, using radioactive material, pressurized gas in containers etc. should not be used to start combustion.
• For small health facility a 200 litter capacity iron barrel or similar design can be set up and used (Annex 4)
• Ashes drawn from the incinerator can be disposed in places designated by the municipal or town administration.

9.3.6. Mechanical treatment

This method involves the process of such as cutting or slicing to pieces the’ removed body parts into smaller size, compressing discarded syringes etc and then disinfecting by applying steam or disinfecting chemicals. Care should be taken not to spill blood or body fluid while cutting or shredding process in order to avoid contaminating the workers or the surrounding. Special care must be taken also white shredding such things as syringes and needles because the bacteria-load fluid content can spread in aerosol form and contaminate the air.

10. TREATMENT OF FLUID WASTE

10.1 FOR SMALL HEALTH FACILITIES WASTE

Infectious wastes disposed from various treatment units are:

• Blood and blood product
• Biological culture
• Urine and stool
• Sputum and nasal discharge
• Waste water from washing floors, walls and latrines.

The infectious waste from the above sources should be disinfected by applying chlorine solution, phenol, creosol, lysol etc disinfectants and then must discharged into septic tank. The amount of disinfectant applied should not be more than needed to do the job; otherwise it will interfere with the decomposition process in the septic tank. Similarly disposable (single use) medical supplies, after use should be disinfected by chlorine solution etc and then be disarranged into the septic
tank prepared for this purpose. The disinfected waste can be collected and discharged into municipal system, if there is such, or can be transported by suck truck to the final disposed site.
10.2 For larger health facilities

10.2.1 Sewage screening and treatment method

The treatment system can be small or large, depending on the volume of liquid waste to be treated. Nevertheless, there must be provision for liquid waste treatment.

The liquid waste clarification process includes the following:

10.2.2 Screening for removal of large size solid waste

This is a process in which liquid waste collected from different units before entering into the sedimentation tank, is lead to pass through screen for retaining relatively large size solid waste. In this screening process:

The Purpose of Screening is:

- To reduce workload on the next process of treatment steps.
- To avoid blockage of the flow pipe line for removal of sludge.
- To reduce solid material which can be collected in the aeration and sludge digester tanks.

The wet solid material collected during screening process be placed in plastic bag sealed and disposed carefully by burning at selected place.

10.2.3 Floating mechanical aerator

The aeration process is one of the steps of the biological treatment system. Aeration process helps to decompose organic and floating waste component and to reduce bacterial multiplication in liquid waste.

10.2.4 Sedimentation tank

The liquid waste coming from the floating mechanical lank is lead to the sedimentation lank. Here floating and organic parts in the waste is made to sediment by adding ferrous sulphate to accelerate the process. This process is assumed to reduce about 60% of solid and floating waste and decrease the pollution rate of the waste by about 35%. However, after this process chemical treatment is needed

10.2.5 Sludge trickling and driving bed

The sludge collected in the sedimentation tank is bailed out by pumping and spread over the sludge trickling and drying bed. The sledge trickling and drying basin contains gravel over which the wet sludge is spread and made to trickle. After this the liquid component is returned to the mechanical aeration and floatation chamber. The sludge that is collected over the basin is dried by sunlight or electric drier and disposed by burning.
10.2.6 Chlorination tank

The liquid waste (effluent) discharged after sedimentation process must be disinfected by applying calcium hypochlorite solution through automatic feeder.

10.2.7 The chemically treated

Liquid waste (in 10.2.6 above) is made to flow slowly in a zigzagging tank to ensure proper disinfection before discharging to the environment.

11. DISPOSAL METHOD FOR OTHER KINDS OF TOXIC WASTE WHICH REQUIRE SPECIAL ATTENTION

11.1 Drugs that can cause serious damage to human tissues

Drugs for cancer control i.e anticoplastic or thermotupuetic drugs, similarly empty containers of drugs like vials and bottles, needles and syringes used for injections, gloves, bandages and other items related to the drugs must be incinerated by professionals, disposed after detoxified by chemicals. However, diluting the drugs with water and discharging to sewer line must be recognized as a dangerous act.

11.2 Radioactive Materials

- Radioactive wastes discharged from examination and treatment facilities generally have low radioactivity and short shelf life. Therefore, it is possible to store them and hold until the radioactivity level is drastically reduced to zero or eliminated before disposal.
- Items such as gloves, syringes, gauze and other items which had contact with, after their service is over should be disposed of after holding them for adequate period. However for items in which radioactive was brought, or empty containers, the Radiation Control Authority should be consulted.

11.3 High Pressure Contained Disposal

When there is need to dispose containers which hold air under pressure, they should be buried in a prepared deep pit or they should be returned to the dealer who provided them. However, it should not be forgotten that burning these item is very dangerous act.

12. SOLID WASTE DISPOSAL

Before transporting and disposing the waste collected from the health facility, in designated place, the following factors must be considered:

- Wastes disposed from health facilities under conditions which are injurious to human health, and pollute the environment; such wastes as syringes, needles drug container and bottles, plastic dextrose bags, gauze, bandage and other items, disposed from health
facilities under dangerous conditions pose high risk to human health and the environment. Furthermore, special care should be taken because these items can be puked up by illegal scavengers and could be sold for other use.

- Improperly stored waste provides breading place for flies and harborage for rodent.
- In addition it can create conditions favorable for spread of commutable diseases.
- It also spoils the aesthetic condition of the environment.
- The smoke emitted as result of burning the waste can contaminate the surrounding with carbon monoxide, particulate and impart foul smell. In addition it can contribute to the transmission of respiratory illness.
- Solid waste contain pollutants of chemical and biological nature and when discharge into rivers or water body, they are dangerous to aquatic organisms.

Furthermore, discarded items, such as needle, syringe and similar items of medical waste can be carried by water flow to the coastline and could create health hazard to people recreating in the water.

Therefore, in order to prevent and control the above listed problems as well as to prevent danger that might arise from hazardous waste, health facilities preferably have compounds with adequate space from proper disposal of waste.

However, if the area allotted to the health facility is inadequate, then the waste can be incinerated or treated by chemical and can be buried in accordance to the guideline requirement.

12.1 FOR SMALL HEALTH FACILITIES

12.1.1 Incineration

Solid wastes (such as syringes, needles, sharps, bandages, discarded blood bags etc.) can be incinerated in incinerators and the resulting ashes can be buried in the composed in pits designated for the purpose (See Annex 4)

12.1.2 Disposal of waste inside the health unit compound

If the health facility has adequate space, a circular or rectangular pit can be dug and prepared for disposal of waste by burial method.

The depth of pit must be adequate for the waste generated. The walls and floor of the pit be made of stone, the base should be raised from ground cover. The pit should have an openable slab cover made of reinforced (with iron bar) concrete slab. The concrete slab cover serves to prevent access of children, scavengers or animals to the buried waste (See Annex 5)

13. MAINTAINING CLEANLINESS OF MEDICAL SUPPLIES, CLOTHING AND ROOMS
13.1 Various non disposables (multiple uses) medical supplies after service must be cleaned, by immersing in chlorine solution or phenol compounds before sterilizing in autoclave in addition:

13.2 Instruments which can stand high temperature heat can be sterilized by holding at 160 degree centigrade for one hour in the autoclave.

13.3 Instruments sensitive to high temperature heat can be disinfected with chlorine solution or phenol compounds before reuse. In addition they can be effectively disinfected (if possible) with gama ray or ethylene oxide gas before reuse.

13.4 Enamels made of iron or plastic, or beds painted in various colours; carts, drawers and items of plastic covers must be properly washed with savelon or similar chemicals. Materials meant for single use (disposables) must be disposed immediately after use.

13.5 When patients are discharged after cure or expired, the room and all medical and other items used by the patient should be cleaned with chemicals and then sterilized before use by new admission.

13.6 Work clothes, gowns, especially those which had contact with infectious waste must be sterilized in autoclave before sending to the laundry. The inside and outside of shoes should be cleaned with phenolic compounds and be disinfected at least once per day and sterilized in autoclave.

13.7 The floor, walls and ceiling must be made of cleanable materials and be cleaned with phenolic compounds at least once per day.

13.8 It is necessary to use wet vacuum or filter dry mopping method for cleaning the floor. But dry mopping or sweeping of floor raise dust, hence is strictly forbidden.

13.9 The mop should be cleaned with soap and water and then be immersed in Phoenolic compound and kept in it for a reasonable time.

13.10 All lavatory seats, fittings, wash hand basins, bathtubs etc. must be washed with powder detergent and then cleaned by savelon.
REFERENCES

5. EPA, Operation and maintenance of Hospital medical waste incinerator Cincinnati, 1990.
Categories of institutions’ Waste

1. General Waste

1.1 Paper
1.2 Wood
1.3 Ashes
1.4 Card board
1.5 Cartons
1.6 Plastics
1.7 Rags
1.8 Wood scraps
1.9 empty Cans
1.10 Food Remains
1.11 Vegetable remains
1.12 Toilet Waste

2. Infectious Waste

2.1 Isolation Room Waste
2.1.1 Waste from patients with diseases considered communicable (blood, excretion, exudes, secretions)

2.2 Cultures
2.2.1 Culture and stocks of infectious agent from clinical and research laboratories
2.2.2 Disposable culture dishes,
2.2.3 Devices used to transfer, inoculate and mix culture
2.2.4 Discarded live and attenuated vaccines

2.3 Animal Waste
2.3.1 Contaminated animals carcasses
2.3.2 Body parts
2.3.3 Beddings of animal that were known to have been exposed to infectious agent
2.3.4 Human Blood and Blood Products
2.3.5 Waste blood
2.3.6 Serum
2.3.7 Plasma
2.3.8 Blood products
2.3.9 Fluids. /residuals
2.3.10 Containers which were used in patient care, testing, laboratory, analysis, intravenous bugs.

2.4 Pathological waste (removed during surgery, autopsy & biopsy)
2.4.1 Tissue
2.4.2 Organs
2.4.3 Body Parts Limbs
2.4.4 Blood
2.4.5 Body fluid and their containers
2.4.6 Obstetrical Waste (Placenta, Still birth)

2.5 Contaminated equipment (Medical & Surgical)
2.5.1 Blood transfusion sets
2.5.2 Catheter
2.5.3 Colostomy bags
2.5.4 Examination gloves
2.5.5 Surgeon gloves
2.5.6 Ryle’s tubes
2.5.7 Sputum Container
2.5.8 Needles
2.5.9 Syringes
2.5.10 Spigots
2.5.11 Oxygen mask
2.5.12 Iv. Cannulae & infusion sets
2.5.13 Urine, drainage bags and tubs
2.5.14 Spatulae renal tubes
2.5.15 Tracheostomy sets
2.5.16 Scalpel blades
2.5.17 Pasteur pipettes
2.5.18 Blood vials (Slides and Converse Slips)
2.5.19 Broken and unbroken glass ware
2.5.20 Swabs, absorbants
2.5.21 Tougne depressers
2.5.22 Beddings, Shavings, Feacal Matter
2.5.23 Gauze, pads, bandages and garments
2.5.24 Plastics, etc.
2.5.25 Bed Pan covers
2.5.26 Dressing towels

3. Laboratory and Pharmaceutical Chemicals (Care should be taken in handling)

3.1 Alcohols
3.2 Disinfectants
3.3 Antineoplastic agent
3.4 Heavy metals
3.5 Insecticides
4. Radioactive Waste
4.1 Nuclear medicine diagnostic and therapeutic
4.2 Contamination of radioactive spills
4.3 Solid, Liquids and gases from analysis procedure, body organism imaging and tumors localization, and treatment
Diagrams 1