

**Federal Democratic Republic of Ethiopia**  
**Environmental Protection Authority**

**Guidelines for Social, Environmental and Ecological  
Impact Assessment and Environmental Hygiene  
in Settlement Areas  
(Draft)**

NOT FOR CITATION

This guidelines is still under development and shall be binding after consensus is reached between the Environmental Protection Authority and the Environmental Units of Competent Sectoral Agencies

**August 2004**  
**Addis Ababa**

## Table of Content

<b>Introduction.....</b>	<b>1</b>
<b>1. Aim.....</b>	<b>2</b>
<b>2. Main Principles.....</b>	<b>2</b>
2.1 Voluntary and Informed Consultation.....	2
2.2 The Objective of Improving Life Sustainably.....	3
2.3 Environmental Sustainability.....	3
2.4 Cooperation, Self-reliance and Cost-sharing.....	4
2.5 Community-led Administration, Transparency and Responsibility.....	5
2.6 Improvement and Enrichment of Implementation through Action and Experience.....	7
<b>3. Essential Preconditions for a Settlement programme.....</b>	<b>7</b>
<b>4. Action Needed to Ensure Sustainability.....</b>	<b>8</b>
4.1 Firewood Supply.....	9
4.2 Restoration of Vegetation Cover by Stopping Free range Grazing.....	9
4.3 Forest and Park Protection.....	9
4.4 Protection of River and Water Channel Banks.....	10
4.5 Rehabilitation of Land Affected by Gullies.....	10
4.6 The Conservation and Development of Crop and Animal Biodiversity.....	10
4.7 The Discontinuation of the Use of Dangerous Chemicals.....	11
4.8 The Appropriate Use of Chemical Inputs.....	11
<b>5. Sectors in which Capacity Building is Required for the Implementation of the Settlement Programme.....</b>	<b>11</b>
<b>6. Impact Assessment of a Settlement Programme.....</b>	<b>12</b>
6.1 Social Issues.....	12
6.1.1 Human Population.....	12
6.1.2 Environmental Hygiene.....	13
6.1.3 Gender Equity.....	13
6.1.4 People's Participation.....	14
6.1.5 Identification of Institutions.....	14
6.1.6 The Sustainable Development Bylaw of the Local Community.....	15
6.1.7 Prevention of Conflict within the Community.....	15
6.2 Economic Issues.....	16
6.2.1 Capacity Building.....	16
6.2.2 Community Sustainable Development Fund.....	17
6.3 Ecological Issues.....	17
6.3.1 Criteria for Choosing Settlement Areas.....	18
6.3.2 Water Resources and Aquatic Resources.....	18
6.3.3 Natural Scenic Sites.....	19
6.3.4 Wood Demand and Supply.....	19
6.3.5 Forest Development.....	19
6.3.6 Crop Production.....	19
6.3.7 Appropriate Use of Chemical Fertilizer and other Agrochemicals.....	20
6.3.8 Domestic Animals.....	20

6.3.9	Energy Source.....	20
6.3.10	Composting.....	20
6.3.11	Alien Invasive Plants.....	21
6.3.12	Forest Fires.....	21
6.4	Environmental Hygiene.....	22
6.4.1	Solid Waste Recycling, Stowage, Management and Disposal.....	22
6.4.2	Liquid Waste Recycling, Management and Disposal.....	23
6.4.3	Site Choice and Latrine Construction.....	23
6.4.4	Animal Pens and Feeding Places.....	24
6.4.5	The Handling and Use of Pesticides and Chemical Fertilizers.....	25
6.4.6	Protection of Water Bodies.....	25
6.4.7	The Siting of Water Wells.....	25
6.4.8	Protecting a Spring.....	26
6.4.9	The Management and Use of Stream Water.....	26
6.4.10	Protecting Pond Water.....	26
6.4.11	Using Rain Water.....	27
6.4.12	Water Purification.....	27
6.4.13	Primary Health Service.....	27
<b>7.</b>	<b>Environmental Management Plan.....</b>	<b>28</b>
7.1	Impact Summary.....	28
7.2	Itemization of Steps of Mitigation.....	28
7.3	Implementation Action Plan.....	28
7.4	Organization of Information and Presentation of Reports.....	28
7.5	Monitoring and Evaluation.....	29
<b>8.</b>	<b>Relevant Legal and Policy Provisions.....</b>	<b>29</b>
8.1	The Constitution.....	29
8.1.1	The Right to Property.....	29
8.1.2	Rights to life, the Security of Person and Liberty (Article 14).....	31
8.1.3	Right to Life (Article 15).....	31
8.1.4	Freedom of Religion, Belief and Opinion.....	31
8.1.5	Right of Thought, Opinion and Expression.....	32
8.1.6	Freedom of Association (Article 31).....	32
8.1.7	Freedom of Movement.....	32
8.1.8	Rights of Women.....	33
8.1.9	Right of Access to Justice.....	34
8.1.10	Rights of Nations, Nationalities, and Peoples.....	35
8.1.11	Economic, Social and Cultural Rights.....	35
8.1.12	The Right to Development.....	36
8.1.13	Environmental Rights.....	37
8.2	Environmental Policy.....	37
8.2.1	Soil Husbandry and Sustainable Agriculture.....	38
8.2.2	Forest, Woodland and Tree Resources.....	39
8.2.3	Genetic, Species and Ecosystem Biodiversity.....	40
8.2.4	Water Resources.....	41
8.2.5	Cultural and Natural Heritage.....	42
8.2.6	Community Participation and the Environment.....	42



## **Introduction**

The vegetation cover of our country has been impoverished; soil fertility has decreased; soil erosion has not been contained and springs are drying up. Because of these reasons, the population's capacity has been sapped. Millions of our compatriots have gone hungry, have been forced to migrate and have died. This has exacerbated environmental degradation.

Various national policies, strategies and programmes have been formulated and are being implemented to counter the impact of recurrent droughts and to bring about food sovereignty. One of the programmes is that of giving people who are prone to exposure to serious problems of survival the chance to resettle in better areas. This is to be based on their own wish and initiative.

It is appropriate to try to bring about the sustainable development envisaged by the settlers. Therefore, it is essential to predict any negative impacts of the development activities that will take place in settlement areas and correct them. It is, therefore, equally necessary to put in place a social, economic and environmental impact assessment system to enable the incorporation of corrections at the planning stage. This should be supplemented by an audit system to make the implementation sensitive to needed modifications. These guidelines for environmental, social and economic impact assessment are aimed at doing that.

## **1. Aim**

These guidelines aim at strengthening the positive impacts and reducing to the minimum, and where possible eliminating, the negative impacts of social and economic activities on environmental well-being and human health in settlement areas.

## **2. Main Principles**

Any development initiative planned for implementation in a settlement area should adhere to the following principles starting at its inception and going through to its planning and implementation stages.

### **2.1 Voluntary and Informed Consultation**

The implementation of a settlement programme should be planned through a consultation process involving both settlers and receiving communities. There should be transparent, detailed and all-inclusive discussions among the settlers, receiving communities and others concerned. The participation of all concerned in the planning, implementation and monitoring and control of the economic and social development activities helps maximize possible options as well as choose the most effective among those options. For this participation to be effective, all sides have to obtain in advance accurate information and analysis concerning

the settlers, the recipient communities and the status of the natural resources of the settlement areas.

## **2.2 The Objective of Improving Life Sustainably**

The action taken in a settlement area should free citizens from dependency on aid caused by human induced environmental deterioration or by drought so that they may maintain themselves sustainably through their own efforts. This makes it essential to implement plans that spring from the communities themselves and are in harmony with the ecosystem dynamics as well as being consistent with the national vision of development. Therefore, all plans should incorporate the requisite environmental considerations. The action for environmental protection should be planned and implemented in such a way as to create economic capacity. For this to be possible, the capacity of the local administration, and especially that of the settlers, to plan and implement should be developed. However, this capacity should be built on the endogenous initiative of the local community itself and should not be imposed from outside.

## **2.3 Environmental Sustainability**

The economic and social development activities carried out in a settlement area should be based on a coherent environmental

management plan that enhances the quality of the environment and maximizes its productivity sustainably. Special care and protection must be given to fragile natural and human made environments that can be easily damaged or destroyed and cannot be easily replaced. Therefore, consultations should be carried out on the environmental, economic, social and cultural impacts of any activity aimed at implementing the settlement programme. This is a necessary precondition for precaution. Similarly, a utilization and management plan of the area should be prepared based on the environmental audit of any activity being undertaken to implement the settlement programme.

## **2.4 Cooperation, Self-reliance and Cost-sharing**

The implementation of a settlement programme should involve the settlers, the receiving local community, governmental and other actors in a cooperative and mutually supportive interaction. It should first use the development potential of the settler community. It is more important to realize that it is the settlers that can, and have the prime responsibility to, put in place all requirements for living rather than insisting that all the requirements be already ready before the settlement programme starts being implemented.

The Settlement programme should foster self-reliance and eliminate the spirit of dependency. Great care should be taken not to present the settlement process as a welfare programme based on



endless largesse. It should be viewed as an outcome of the settlers' own efforts with help being only temporary and only aimed at enabling self-reliance. Therefore, the settlers should provide the labour needed to collect the materials that can be found locally and should reduce the cost of implementation and thus clearly fulfill their cost-sharing responsibility.

## **2.5 Community-led Administration, Transparency and Responsibility**

A part of a population the members of which are found in a distinct area, believe that they have a common heritage, are bound together by the same language and customs, and, in general, by a common culture, constitutes a community. We call the members that live in a specified part of the area occupied by a community a local community.

Paragraph 3 of Article 39 of the Constitution [Refer to Section 8.1.10.3] gives the complete right of self-administration to every community. Therefore, it is appropriate that members of a community organize themselves to bring about their own sustainable development and to care for the wellbeing of their environment. The factors that determine sustainable development and environmental management vary from place to place. The organization of the community also thus needs to vary its nature

from place to place. This makes the organization of a local community the functional unit of the community. It also makes the bylaws for the self-administration of a local community the main instrument for enforcing the right of a community to self-administration. So long as no provisions of the Constitution or any other law are not contravened during formulation or enforcement, therefore, local community bylaws for self-administration enable the community to collectively promote the realization of its right to use, write and develop its language; to express, develop and expand its culture; as well as to expound its history.

Local community bylaws for self-administration enable the forging of cooperation based on common interest between neighboring local communities or between settler and receiving local communities. They also help develop and apply new and constructive amalgams of culture and traditions for unified action. Article 37 of the Constitution [Refer to Section 8.1.9] empowers any association to seek justice from any legally constituted judiciary so as to protect the private or collective interests of its membership. Article 31 of the Constitution [Refer to Section 8.1.6] gives the right to any component of the population to organize itself to achieve any common objective so long as it is within the law. Therefore, it is appropriate that local community to organizes itself and uses the rights given to associations to enforce the rights of the community of which it is a part.

For these reasons, the capacities of local communities should be developed to use their rights to become the leading actors in their own affairs and thus to manage their own environments according to systems of their own making based on the national vision. Settlers and the receiving local community that live together in a locality should thus manage their daily environmental, social and economic life together as a reconstituted local community through a system they themselves have created, led by their own representatives elected by them. This should be achieved through combining the useful elements of the local community's customary practices or through the local community itself formulating a new set of bylaws and having them written. The written local community bylaws should then be given recognition at, and their enforcement supported by, all levels of governance.

This process makes transparency and answerability essential characteristics of the formulation and implementation of any action plan of the settlement programme. The implementation of settlement activities and the sustainability of development plans should be clearly visible to both the settlers and the receiving local community. Any individual who commits a crime should be subjected to the law; and the law should consist of both those enactments that have been issued nationally and the local community's bylaws.

## **2.6 Improvement and Enrichment of Implementation through Action and Experience**

The settlement programme should be enriched and improved using knowledge gained through implementation, monitoring and control. The implementation should vary according to what the diversity in time and space calls for. For this reason, resettlement should not take place in one go but should rather be initiated by family or local community representatives and, upon evaluation and realization of its effectiveness, the accumulated positive experience can be used to develop a strategy for a more extensive implementation.

## **3. Essential Preconditions for a Settlement programme**

The following are issues that require attention for the success of the implementation of the settlement programme.

- 3.1 Prepare both settler and receiving local communities psychologically so that they can join together and support each other for their common good;
- 3.2 Facilitate an exploratory visit of the settlement area by representatives of settler individuals or local communities and their consent to be resettled;
- 3.3 Inform each settler of the size of the land she/he will use and of the security of the access she/he will be granted to that land;

- 3.4 Facilitate the formulation and implementation of land use plans and environmental management through the local community own initiative and direct participation, as well as the resolution in a similar manner of conflicts that may arise from land use;
- 3.5 Ensure that any plan that is formulated to improve infrastructure and economic services is implementable;
- 3.6 Provide incentives for the development in each village of sectors of employment that reduce pressure from land and sustainably enhance the economic capacity of the local community;
- 3.7 Ensure in advance that any support given to a local community because it is indispensable at the initial stage in the settlement process, far from fostering dependency, enables it to become self reliant;

#### **4. Action Needed to Ensure Sustainability**

The empoverishment of vegetation cover and the consequent soil erosion by water and wind in and around each village can be avoided through helping the village community organize itself, raise its awareness and build its capacity to take the cooperative action it believes in. The reduction in the empoverishment of vegetation cover and soil erosion following increased capacity for action also eases the problem of reducing water availability. Therefore, activities aimed at enhancing the environmental quality of a settlement area could focus on the following issues. These activities need to be carried out in conjunction with those given under the headings of soil husbandry

and sustainable agriculture, forest and tree resources, water resources, genetic, species and ecosystem biodiversity, cultural and natural heritage and community participation and the environment in Annex 2 to this document.

#### **4.1 Firewood Supply**

A major improvement in vegetation cover will take place if each farmer were to plant trees for firewood to be used at home and sold in the market.

#### **4.2 Restoration of Vegetation Cover by Stopping Free range Grazing**

If either each farmer or the community as a whole were to keep domestic animals in a defined area and each farmer were to cut and carry feed for his/her animals, the vegetation cover of the land would be restored in a one-, two- or three- year time.

#### **4.3 Forest and Park Protection**

In order to protect existing forests and parks, consultations should be carried out involving all concerned starting from the village to the Regional administration to demarcate areas for protection by each village or district (kebele). This will make it possible to protect biodiversity found outside national forests and parks.

#### **4.4 Protection of River and Water Channel Banks**

In order to develop a system of protecting the banks of rivers, streams and other water channels based on the wish of the community, consultations should be carried out based on knowledge and information which is as complete as possible. If the local community's wish is then enshrined in its bylaws and these are enforced, the protection will become sustainable.

#### **4.5 Rehabilitation of Land Affected by Gullies**

Water flow should be prevented from gullying the land. To achieve this, it is necessary to conduct field visits, consult with local communities, terrace the whole country and especially ensure that the consultations to this effect are carried out everywhere where the land is uneven.

#### **4.6 The Conservation and Development of Crop and Animal Biodiversity**

Consultations should take place within each local community to develop systems of conserving each crop variety and animal breed. New ideas in conservation can be introduced during these consultations. These varieties and breeds and other interventions consciously put in place can be used to improve soil fertility. Chemical fertilizer could be included judiciously. The whole combination can generate recipes for a sustainable soil fertility increase. The biodiversity can then provide varieties and breeds

that are appropriate for the increased soil fertility and thus increase production.

#### **4.7 The Discontinuation of the Use of Dangerous Chemicals**

In cooperation with international organizations mandated to protect the environment, we should discontinue through substitution the use of dangerous pesticides that poison the environment, e.g. DDT.

#### **4.8 The Appropriate Use of Chemical Inputs**

To prevent water and soil contamination with the increased use of chemical fertilizer and pesticides, regular monitoring is required.

This should be followed by the development of appropriate protective strategies and laws and their implementation and enforcement.

### **5. Sectors in which Capacity Building is Required for the Implementation of the Settlement Programme**

The capacity building required for the implementation of the Settlement Programme is likely to be in the following areas:

- 5.1 Matching the human resources with the natural resources available;
- 5.2 Hygienic water availability and liquid waste disposal service;
- 5.3 Public health and family planning service;



- 5.4 Education and training;
- 5.5 Credit facilities;
- 5.6 The creation of alternative employment;
- 5.7 Provision of energy resources;
- 5.8 Disaster early warning and preparedness system;
- 5.9 The planning, implementation and monitoring of environmental management.

## **6. Impact Assessment of a Settlement Programme**

An impact assessment needs to be carried out on the planned activities aimed at implementing the settlement programme in order to predict their positive and negative impacts on the environment, and on social and economic conditions so as to strengthen the positive and, when possible avoid (or at least minimize) the negative consequences. An impact statement is then prepared based on the assessment. The statement may be compiled under the following headings:

### **6.1 Social Issues**

A new settlement area is usually not devoid of people; the local community that has been in the area will continue in that area. Therefore, there will be some social issues that affect the settlers and the receiving community differently and others that affect them both similarly. Even the settlers will usually have come from diverse local communities. Therefore, settlement areas cannot be taken as socially

homogenous. This makes social issues play critical roles in settlement areas.

### **6.1.1 Human Population**

It is essential to plan the implementation so as to keep the size of the human population within the carrying capacity of the environment. As a first step, the population should be categorized into groups of similar condition. This will enable the identification of the existing labour force and those that require assistance. This will in turn enable the planning of alternative employment. The categories could thus show population size, age, gender, family status, the number that needs aid, immigration, educational status, geographic distribution in the settlement area etc.

### **6.1.2 Environmental Hygiene**

Factors that reduce health should be removed, environmental hygiene should be maintained and health services should be made available so as to improve the health of the population. Traditional systems of health care should be strengthened. This will require organizing local communities and individuals that have traditional medical knowledge. This will help conserve biodiversity, save foreign currency and expand health services using existing economic capacity. Parallel to this, modern health facilities should be created and strengthened. Special attention should be paid to HIV/AIDs, especially in the 15-34 year-old age group, under nutrition and malnutrition, communicable diseases including

malaria, venereal diseases, and ailments associated with pesticide use, the handling and use of chemical fertilizers, the use of containers that had chemicals in them and the handling and use of agricultural implements.

### **6.1.3 Gender Equity**

Any attempt at development should aim at equal access to men and women. Various cultures view women as inferior. This has to change. Some of the issues that must be considered in bringing about gender equity include the division of labour between the sexes especially in the homestead, access to natural resources based on gender equality, women's participation in the society and in environmental management, family planning, HIV/AIDs, the types and capacities of women's organizations in the area, the creation and strengthening of programmes and projects for strengthening women's capacities.

### **6.1.4 People's Participation**

Participation is decisive for the success or failure of any planning and implementation. When planning the implementation of a settlement programme, the participation of all stakeholders that can contribute knowledge or experience, including farmers, civil servants, employees of non-governmental organizations, various experts, traders and renowned individuals, will help ensure success.

### **6.1.5 Identification of Institutions**

There are both formal and informal institutions in any community. Enlisting the support of these institutions in the planning and execution of the implementation of the development programme of the settlement area is essential. The main institutions that require attention include government institutions, professional associations, religious organizations, district (kebele) offices, farmers' associations, and non-governmental organizations. After these organizations have been identified, agreement should be made with each of them as to what activities they will carry out and what they will monitor.

#### **6.1.6 The Sustainable Development Bylaw of the Local Community**

Local communities need to care for their communal natural resources and take development action that concerns them all collectively. Among the activities that require collective action, the main ones include soil and water conservation, the management of community grazing land, the management of community areas closed off to grazing for cutting and carrying forage and for producing wood; the management of protected forests and parks; water development; compost preparation; rehabilitating gullies; protecting and reforesting hillsides; recognizing individuals with outstanding contributions to managing and using private or community holdings etc. Bylaws are needed to give legal basis for collective decisions to coordinate action in these areas, to create a

system of community-wide monitoring and evaluation of action taken, to raise financial resources for community use, and to withstand droughts cooperatively. These bylaws should be given legal recognition and their enforcement supported at the district (kebele) level and above. For this to be possible, the bylaws must be consistent with national law.

### **6.1.7 Prevention of Conflict within the Community**

Conflicts can arise from the use of natural resources, cultural diversity, differences in religion or other social relations. It is preferable to anticipate and prevent such conflicts by removing their causes. It is thus advisable to give priority to traditional systems of conflict resolution.

## **6.2 Economic Issues**

The settler should be given sufficient information to enable her/him to decide on what economic activity to focus upon to increase income. However, the initial focus will have to be on sectors that can absorb large numbers of people but can also enhance environmental management.

### **6.2.1 Capacity Building**

It is useful to create a consultation forum for analysing the impacts of the implementation plan of a settlement programme. Experts and other stakeholders that can help look for corrective measures

for the negative impacts should participate in the consultations. Following the expression of the wish of the local community, it will be appropriate to correct the negative impacts including through the provision of technical assistance.

Among the issues that may need technical assistance are the provision of essential implements, produce storage technologies, training identified by the local community as required, marketing and credit services, renewable energy supply (e.g biogas, solar, hydropower), water supply for human and animal use as well as for irrigation and sanitation, latrine construction, solid waste stowage, the recycling of solid and liquid wastes hygienically and their disposal when deemed necessary, access to health service institutions (hospital, health centre, health station, pharmacy,etc.), educational institutions, and communication facilities (telephone, post office).

### **6.2.2 Community Sustainable Development Fund**

It would be very helpful to establish a Community Sustainable Development Fund to strengthen the economic capacity of the local community in the settlement area. The primary source of finance for this Fund will be the settler and receiving communities themselves. However, the Fund may also obtain contributions both from within the country and from abroad. The Community Sustainable Development Fund will create in the community the

ability to withstand unexpected difficulties. But it will especially enable it to plan and undertaken activities essential for sustainable development which will not produce results in the short run.

Among the activities that can benefit from the Community Sustainable Fund, the following can be given as examples: to develop a sustainable animal feed source, to fortify and protect springs, to protect and devolope slopes, to rehabilitate gullied areas, to protect denuded areas from animal and human impact and thus rehabilitate them, to provide credit services to members, to make agricultural inputs available to members, to undertake other development activities, to prepare and take agricultural produce to the market.

## **6.3 Ecological Issues**

The receiving local community in a settlement area will have been having its own ecological impact on the area. The incoming settlers are bound to exacerbate these impacts. They may even produce totally new impacts. Therefore, ecological considerations play a critical role in the sustainability of the settlement.

### **6.3.1 Criteria for Choosing Settlement Areas**

The following criteria should be considered when selecting a settlement area:

6.3.1.1 The fertility of the soil;

- 6.3.1.2 The capacity of the area to support the receiving community and the settlers, together with expected increase from population growth, materially and socially in the next 10 years;
- 6.3.1.3 Adequacy of rainfall or water resource;
- 6.3.1.4 Availability of land for grazing or forage production;
- 6.3.1.5 Availability or potential for production of energy and construction materials;
- 6.3.1.6 Absence of any novel negative effects on humans, domestic animals or crops that the settlers are not familiar with;
- 6.3.1.7 The potential to rehabilitate the environment in the event of damage;
- 6.3.1.8 Safety from flooding, earthquakes, and landslides.

### **6.3.2 Water Resources and Aquatic Resources**

Because water bodies, including rivers, lakes and marshes, have ecological, economic, social and cultural values, they have to be appropriately protected and used. Likewise, aquatic resources, e.g. fish, papyrus, have economic, cultural and ecological uses. But they can be easily destroyed. Therefore, they should be handled with care. A manual to help in their use should be prepared and appropriate training should be given to the users.

### **6.3.3 Natural Scenic Sites**



Naturally scenic sites may attract tourists and create employment for members of the local community. A manual should be prepared to help in their protection especially from pollution associated tourism, and appropriate training should be given to the local community.

#### **6.3.4 Wood Demand and Supply**

So as to protect forests from decimation and tree biodiversity from elimination, each family should plant the trees it needs for firewood, construction and the market around the homstead or in plots set aside for it for the purpose.

#### **6.3.5 Forest Development**

Community forest development should take place in slopes and other areas not suitable for agriculture. This will help maintain ecological balance while providing animal feed and wood for fuel and construction and thus also yield income for the local community. Even if the whole area turns out to be suitable for crop cultivation, a part of it should be delimited and protected for afforestation. This will help maintain its ecological balance and increase the productivity of the whole area.

#### **6.3.6 Crop Production**

A system of environmental management that protects the soil from fertility loss should be instituted in each settlement area. Specifically, the settlers and the receiving community members

individually or in groups should collect biomass and prepare compost to raise and maintain soil fertility.

### **6.3.7 Appropriate Use of Chemical Fertilizer and other Agrochemicals**

When settlers and the receiving community use chemical fertilizer to increase their production, care should be taken so as to use the fertilizer appropriate for the soil and prevent disturbance of the ecological balance of the area as well as damage downstream to aquatic biological resources from the fertilizer washed off from the fields. Some agrochemicals, e.g. pesticides, kill living things and they should thus be used only with great care.

### **6.3.8 Domestic Animals**

The farmers and pastoralists of our country feed their domestic animals by letting them graze freely in natural grasslands. Overgrazing prevents the grass from growing. This causes ecological instability. Therefore, it is essential to help them develop the culture of keeping their animals tethered or free only in restricted areas and feed them by cutting and carrying fodder. This will often require the deliberate production of forage crops.

### **6.3.9 Energy Source**

It would be more economically cost-effective to use animal (cattle, sheep, goats, camels) droppings to produce biogas in a digester, use the biogas for fuel and the slurry for fertilizer than to burn dried animal dung.

### **6.3.10 Composting**

The settlers and receiving community should be helped to develop the skill to make compost out of household organic waste, byproducts of home brewed beer, animal urine and droppings, trampled feed remains, other agricultural waste, weeds and other herbs and leaver and apply it in their fields. This would free them from the need to buy chemical fertilizer to raise their agricultural production. It would also help protect water from pollution and maintain environmental hygiene and the ecological balance of the area. It is essential to prepare a composting manual and to use it to train the local communities. An organization called the Institute for Sustainable Development has already prepared such a manual. The usefulness of compost would be more quickly and more widely known in the country if composting were offered in farmer training schools as a regular subject.

### **6.3.11 Alien Invasive Plants**

Care should be taken to prevent useless, or even more so harmful, alien invasive plants from being brought into the settlement areas by the settlers and causing harm through invading grazing areas, forage production areas, protected areas, water bodies, marshes etc. If a plant species becomes perceived as invasive, its usefulness and harm should be compared and, if found harmful, it should be destroyed through concerted campaigns.

### **6.3.12 Forest Fires**

Fires lit to rid grazing grounds of ticks as well as to remove silicified grass so as to encourage palatable young growth should be carefully controlled so that they do not get out of control and cause unintended forest damage. If the grass is cut for hay before it is silicified, the problem will be solved. Grass species that cannot be made into hay can be uprooted when still small and deliberately replaced by appropriate species.

## **6.4 Environmental Hygiene**

Issues that require attention to spare settlers and receiving communities from diseases and to protect the environment when settlers go into a new areas are detailed as follows.

### **6.4.1 Solid Waste Recycling, Stowage, Management and Disposal**

The solid waste that originates from the home and the compound has to be recycled when possible, and otherwise be disposed without affecting human health and without polluting ground or surface water. Solid wastes originating from the home consists of peels and bits of fruits and vegetables, fragments swept from the floor, ash, leaves and roots and the like. Those originating from the compound include leaves shed from trees, trampled feed remains, larger domestic animal and chicken droppings and the like. These wastes can be put into a compost pit or heap and be used as fertilizer. A manual should be prepared and the communities

trained to do this. Plastic bags and other plastic wastes should be separated and kept. They should not be burnt as they are a health hazard. If composting is not possible, any solid waste should be covered and stowed away until it is taken away to the prescribed spot for being burnt. But solid wastes that can rot away can be buried in a hole in the ground and covered with soil. Dry solid wastes can be burnt carefully in a hole in the ground so that the fire will not go out of control and cause damage.

If wheel barrows that can be pushed by hand or carts that can be drawn by animals are available, the work can be made easier. However, since the daily production of solid waste from a homestead is likely to be small, human portage will probably suffice. In order to keep a settlement area clean and to keep monitoring its cleanliness, it would be good to train from within the community individuals that can train the whole community on environmental hygiene. When seen as necessary, the whole community can also carry out cleanliness campaigns.

#### **6.4.2 Liquid Waste Recycling, Management and Disposal**

Liquid waste originates from bathing, laundry and washing up household ware. The water that flows out of a compound during rains is also liquid waste. When the quantity of liquid waste increases, so does the risk of water body contamination. Water that is thus contaminated becomes dangerous and unusable. When liquid waste forms pools, it acts as a breeding medium for disease

vectors. Therefore, liquid waste from a settlement should be made to flow away through a canal (or canals) into a seepage pit. The construction of a seepage pit should be appropriate for the amount of liquid waste and the type of soil. The pit is dug, and layers of large stones, pebbles and sand put into it successively.

The liquid waste that comes out of a latrine and an animal pen is best used as raw material for biogas or compost making.

### **6.4.3 Site Choice and Latrine Construction**

If human waste produced in settlements is not appropriately disposed, it is washed off by rain and pollutes water bodies. The users of the water will then risk illness. Latrines should thus be constructed and there should be no one without access to a latrine. If possible, the latrines should be connected to digesters to produce both biogas and slurry as organic fertilizer. As a minimum, they should be connected to a compost pit and the human waste should be used to produce compost. This will render the human waste harmless and will produce organic fertilizer.

When a latrine site is chosen, care should be taken to prevent water contamination. The spot should be one into which water does not flow. It should not risk flooding. It should be 20-30 meters away from any building. A latrine should be dug at least 30 meters away from, and be positioned below, any well, spring, stream, pond or other water body. The wind direction should be noted and the spot

should be far enough from any house so that the surrounding is free from smell for at least 20-30 meters. The depth will depend on the soil type, but it should not be deeper than 3-5 meters.

A latrine should be fitted with a ventilation tube to remove the smell. The tube should be covered by a mesh. This will release the odorous gases above human height while preventing flies from coming down into the latrine.

#### **6.4.4 Animal Pens and Feeding Places**

The animal pen where they stay the night should be different from their feeding place. Animal droppings, urine and trodden feed remains should be collected daily and put into the compost pit or pile. If biogas is being made the cattle droppings should be put into the digester.

#### **6.4.5 The Handling and Use of Pesticides and Chemical Fertilizers**

Even though it is desirable that farmers use pesticides to protect crops and chemical fertilizers to increase production, inappropriate handling and use can result in soil and water pollution. Human health and life can also be endangered. To avoid these possibilities, it is essential that regular expert advice be made available on the handling and use of agrochemicals. Parallel with this, farmers should be taught harm-free traditional technologies so that they may be able to stop using dangerous chemicals.

#### **6.4.6 Protection of Water Bodies**

It is a fact that all organisms need water to go on living. Care should be taken to ensure that the water required for drinking, food preparation and sanitation is in sufficient amount and clean. Otherwise, damage to health from unclean water can be serious. Water for various uses is obtained from wells, springs, streams, ponds, or rain. When settlement sites are being selected, the quantity and the quality of water that can be found should be an important consideration.

#### **6.4.7 The Siting of Water Wells**

The following basic issues have to be considered when digging a well. The surrounding area has to be clean. The well has to be far from any solid or liquid waste. It has to be at least 30 meters away, and uphill and never downhill from the nearest latrine. This is to avoid the pollution of the well water.

#### **6.4.8 Protecting a Spring**

No latrine should be built, no waste should be disposed and no animals should wander near a spring, and especially above it. The spring should be protected all round by a wall so that no dirty runoff may contaminate it directly or by percolating into the soil. Trees and shrubs, especially Eucalyptus, should not be allowed to grow near the spring. This is to protect it from drying up through transpiration.



#### **6.4.9 The Management and Use of Stream Water**

Stream water can easily be polluted by both solid and liquid wastes as well as by the inappropriate use of pesticides and fertilizers. The ecological balance of the stream will then be disturbed and it will become harmful to humans and animals. But these problems can be mitigated. The part of the stream from which household water will be drawn can be protected. Bathing and laundry can be restricted to parts downstream from it. Animals can drink far enough further downstream from the laundry and bathing section so that the stream can purify the water sufficiently. The use of pesticides and chemical fertilizers in the vicinity of the stream have to be supervised by experts. This will prevent pollution and will reduce expenditure since the agrochemicals will be used economically.

#### **6.4.10 Protecting Pond Water**

Since water comes into the pond from a relatively large catchment area, the likelihood is high that pond water will be polluted. Therefore, it becomes safer for human use if the water is percolated through a bed of sand overlaying pebbles and made to flow into a well for storage awaiting use. If the climate allows, it would help purify the water if Moringa trees were planted and the seeds pounded and mixed into the water and kept for a while before use.

#### **6.4.11 Using Rain Water**

Rain water can be harvested from roofs and be directly used provided that it is kept clean. The roof gutters and drain pipes may have had dust and bird droppings and other kinds of dirt. Therefore, it is essential to allow the rain water to wash them off before starting to collect it.

#### **6.4.12 Water Purification**

When possible, the quality of water should be attested by experts before using it starts. If its cleanliness is not certain, it should be treated by experts with antibacterial agents. Such purification is needed also after any repair work that might have contaminated the water supply.

#### **6.4.13 Primary Health Service**

There should be a primary health care system to protect the population, especially the settlers who are new to the area, from new health problems and communicable diseases. It may be necessary to spray against disease vectors and to use medicated nets to make beds insect-proof before people sleep in them. It may also be necessary to clean or drain areas where disease vectors breed. All the members of the local community should be taught so that they clearly appreciate the ways that HIV is transmitted and the use and disposal of condoms to counter its spread.

## **7. Environmental Management Plan**

This section summarizes in broad terms the issue to consider in monitoring the effects of any action aimed at eliminating or reducing the negative environmental impact of any settlement plan.

### **7.1 Impact Summary**

An impact summary contains the main negative environmental and social impacts anticipated to result from the implementation of a planned activity.

### **7.2 Itemization of Steps of Mitigation**

The steps to be taken to mitigate each negative impact anticipated from the implementation of a planned activity have to be itemized.

### **7.3 Implementation Action Plan**

An implementation Action Plan is prepared for the planned activity and for the mitigation steps of each negative impact anticipated from the activity. The action plan has to show in tables each step to be taken, the responsible person for it, and the time it will take to be accomplished.

### **7.4 Organization of Information and Presentation of Reports**

The Implementation Action Plan has to specify how information is to be organized, managed and distributed. It has also to show the conditions that make it necessary to submit reports in writing.

## **7.5 Monitoring and Evaluation**

It is best if the monitoring and evaluation of activities in a settlement area is carried out by a committee whose members are drawn from stakeholders. The main stakeholders that should be represented in this committee are the settler community, the receiving community, governmental institutions, farmers' associations and district (kebele) offices. It would be appropriate if this committee were to develop the monitoring system it will use and to evaluate the effectiveness of the development and environmental management activities every quarter or half year.

## **8. Relevant Legal and Policy Provisions**

For ease of reference, the main relevant provisions of the Constitution and the Environmental Policy of the Federal Democratic Republic of Ethiopia are being reproduced here.

### **8.1 The Constitution**

The Constitution of the Federal Democratic Republic of Ethiopia has many provisions that can be used to contribute to the success of the resettlement programme.

#### **8.1.1 The Right to Property**

8.1.1.1 Article 40 (1) Every Ethiopian citizen has the right to the ownership of private property. Unless prescribed otherwise by law on account of public interest, this right shall include

the right to acquire, to use and, in a manner compatible with the rights of other citizens, to dispose of such property by sale or bequest or to transfer it otherwise.

- 8.1.1.2 Article 40 (2) “Private property”, for the purpose of this Article, shall mean any tangible or intangible product which has value and is produced by the labour, creativity, enterprise or capital of an individual citizen, associations which enjoy juridical personality under the law, or in appropriate circumstances, by communities specifically empowered by law to own property in common.
- 8.1.1.3 Article 40 (3) The right to ownership of rural and urban land, as well as of all natural resources, is exclusively vested in the State and in the peoples of Ethiopia. Land is a common property of the Nations, Nationalities and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange.
- 8.1.1.4 Article 40 (4) Ethiopian peasants have right to obtain land without payment and the protection against eviction from their possession. The implementation of this provision shall be specified by law.
- 8.1.1.5 Article 40 (5) Ethiopian pastoralists have the right to free land for grazing and cultivation as well as the right not to be displaced from their own lands. The implementation shall be specified by law.

### **8.1.2 Rights to life, the Security of Person and Liberty (Article 14)**

Every person has the inviolable and inalienable right to life, the security of person and liberty.

### **8.1.3 Right to Life (Article 15)**

Every person has the right to life. No person may be deprived of his life except as a punishment for a serious criminal offence determined by law.

### **8.1.4 Freedom of Religion, Belief and Opinion**

8.1.4.1 Article 27 (1) Everyone has the right to freedom of thought, conscience and religion. This right shall include the freedom to hold or to adopt a religion or belief of his choice, and the freedom, either individually or in community with others, and in public or private, to manifest his religion or belief in worship, observance, practice and teaching.

8.1.4.2 Article 27 (2) Without prejudice to the provisions of sub-Article 2 of Article 90, [of the Constitution] believers may establish institutions of religious education and administration in order to propagate and organize their religion.

8.1.4.3 Article 27 (3) No one shall be subject to coercion or other means which would restrict or prevent his freedom to hold a belief of his choice.

8.1.4.4 Article 27 (4) Parents and legal guardians have the right to bring up their children ensuring their religious and moral education in conformity with their own convictions.

8.1.4.5 Article 27 (5) Freedom to express or manifest one's religion or belief may be subject only to such limitations as are prescribed by law and are necessary to protect public safety, peace, health, education, public morality or the fundamental rights and freedoms of others, and to ensure the independence of the state from religion.

### **8.1.5 Right of Thought, Opinion and Expression**

8.1.5.1 Article 29 (1) Everyone has the right to hold opinions without interference.

8.1.5.2 Article 29 (2) Everyone has the right to freedom of expression without any interference. This right shall include freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any media of his choice.

### **8.1.6 Freedom of Association (Article 31)**

Every person has the right to freedom of association for any cause or purpose. Organizations formed, in violation of appropriate laws, or to illegally subvert the constitutional order, or which promote such activities are prohibited.

### **8.1.7 Freedom of Movement**

8.1.7.1 Article 32 (1) Any Ethiopian or foreign national lawfully in Ethiopia has, within the national territory, the right to liberty of movement and freedom to choose his residence, as well as the freedom to leave the country at any time he wishes to.

8.1.7.2 Article 32 (2) Any Ethiopian national has the right to return to his country.

### **8.1.8 Rights of Women**

8.1.8.1 Article 35 (1) Women shall, in the enjoyment of rights and protections provided for by this Constitution, have equal right[s] with men.

8.1.8.2 Article 35 (2) Women have equal rights with men in marriage as prescribed by this Constitution.

8.1.8.3 Article 35 (3) The historical legacy of inequality and discrimination suffered by women in Ethiopia taken into account, women, in order to remedy this legacy, are entitled to affirmative measures. The purpose of such measures shall be to provide special attention to women so as to enable them [to] compete and participate on the basis of equality with men in political, social and economic life as well as in public and private institutions.

8.1.8.4 Article 35 (4) The State shall enforce the right of women to eliminate the influences of harmful customs. Laws, customs



and practices that oppress or cause bodily or mental harm to women are prohibited.

8.1.8.5 Article 35 (5) (a) Women have the right to maternity leave with full pay. The duration of maternity leave shall be determined by law taking into account the nature of the work, the health of the mother and the well-being of the child and family.

(b) Maternity leave may, in Accordance with the provisions of law, include prenatal leave with full pay.

8.1.8.6 Article 35 (6) Women have the right to full consultation in the formulation of national development policies, the designing and execution of projects, and particularly in the case of projects affecting the interests of women.

8.1.8.7 Article 35 (7) Women have the right to acquire, administer, control, use and transfer property. In particular, they have equal rights with men with respect to use, transfer, administration and control of land. They shall also enjoy equal treatment in the inheritance of property.

8.1.8.8 Article 35 (8) Women shall have a right to equality in employment, promotion, pay, and the transfer of pension entitlements.

8.1.8.9 Article 35 (9) To prevent harm arising from pregnancy and childbirth and in order to safeguard their health, women have the right of access to family planning education, information and capacity.

### **8.1.9 Right of Access to Justice**

- 8.1.9.1 Article 37 (1) Everyone has the right to bring a justiciable matter to, and to obtain a decision or judgement by, a court of law or any other competent body with judicial power.
- 8.1.9.2 Article 37 (2) The decision of judgement referred to under sub-Article 1 of this Article [8.1.9.1] may also be sought by:
- (a) Any association representing the Collective or individual interest of its members; or
  - (b) Any group or person who is a member of, or represents a group with similar interests.

### **8.1.10 Rights of Nations, Nationalities, and Peoples**

- 8.1.10.1 Article 39 (2) Every Nation, Nationality and People in Ethiopia has the right to speak, to write and to develop its own language; to express, to develop and to promote its culture; and to preserve its history.
- 8.1.10.2 Article 39 (3) Every Nation, Nationality and People in Ethiopia has the right to a full measure of self-government which includes the right to establish institutions of government in the territory that it inhabits and to equitable representation in state and Federal governments.

### **8.1.11 Economic, Social and Cultural Rights**

- 8.1.11.1 Article 41 (1) Every Ethiopian has the right to engage freely in economic activity and to pursue a livelihood of his choice anywhere within the national territory.
- 8.1.11.2 Article 41 (2) Every Ethiopian has the right to choose his or her means of livelihood, occupation and profession.
- 8.1.11.3 Article 41 (3) Every Ethiopian national has the right to equal access to publicly funded social services.
- 8.1.11.4 Article 41 (4) The State has the obligation to allocate ever increasing resources to provide to the public health, education and other social services.
- 8.1.11.5 Article 41 (5) The State shall, within available means, allocate resources to provide rehabilitation and assistance to the physically and mentally disabled, the aged, and to children who are left without parent or guardian.
- 8.1.11.6 Article 41 (6) The State shall pursue policies which aim to expand job opportunities for the unemployed and the poor and shall accordingly undertake programmes and public works projects.
- 8.1.11.7 Article 41 (7) The State shall undertake all measures necessary to increase opportunities for citizens to find gainful employment.
- 8.1.11.8 Article 41 (8) Ethiopian farmers and pastoralists have the right to receive fair prices for their products, that would lead to improvement in their conditions of life and to enable them to obtain an equitable share of the national wealth

commensurate with their contribution. This objective shall guide the State in the formulation of economic, social and development policies.

8.1.11.9 Article 41 (9) The State has the responsibility to protect and preserve historical and cultural legacies, and to contribute to the promotion of the arts and sport.

### **8.1.12 The Right to Development**

8.1.12.1 Article 43 (1) The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia in particular have the right to improved living standards and to sustainable development.

8.1.12.2 Article 43 (2) Nationals have the right to participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community.

8.1.12.3 Article 43 (3) All international agreements and relations concluded, established or conducted by the State shall protect and ensure Ethiopia's right to sustainable development.

8.1.12.4 Article 43 (4) The basic aim of development activities shall be to enhance the capacity of citizens for development and to meet their basic needs.

### **8.1.13 Environmental Rights**

8.1.13.1 Article 44 (1) All persons have the right to a clean and healthy environment.

8.1.13.2 Article 44 (2) All persons who have been displaced or whose livelihoods have been adversely affected as a result of State programmes have the right to commensurate monetary or alternative means of compensation, including relocation with adequate State assistance.

## **8.2 Environmental Policy**

The Environmental Policy of Ethiopia contains sections on soil husbandry and sustainable agriculture; on forest, woodland and tree resources; on genetic, species and ecosystem biodiversity; on water resources; on cultural and natural heritage; as well as on community participation. Following are the policy provisos given under these main headings.

### **8.2.1 Soil Husbandry and Sustainable Agriculture**

8.2.1.1 Article 3.1.a. To foster a feeling of assured, uninterrupted and continuing access to the same land and natural resources on the part of farmers and pastoralists so as to remove the existing artificial constraints to the widespread adoption of, and investment in, sustainable land management technologies;

8.2.1.2 Article 3.1.c. To promote the use of appropriate organic matter and nutrient management for improving soil

structure, nutrient status and microbiology in improving soil conservation and land husbandry;

- 8.2.1.3 Article 3.1.d. To safeguard the integrity of the soil and to protect its physical and biological properties, through management practices for the production of crops and livestock which pay particular attention to the proper balance in amounts of chemical and organic fertilizers, including green manures, farm yard manures and compost;
- 8.2.1.4 Article 3.1.e. To promote effective ground cover as one of the most important factors in soil erosion control, taking advantage of the wide range of sustainable agronomic, pastoral and silvicultural approaches used in various areas of Ethiopia as potentially flexible alternatives to mechanical soil conservation systems;
- 8.2.1.5 Article 3.1.f. To institute the stall feeding of domesticated animals through a combination of providing agricultural residues, on-farm produced forage and fodder as well as the cutting and carrying of grass and browse from meadows and hillsides in order to encourage revegetation of grazing lands and the reduction of soil erosion;
- 8.2.1.6 Article 3.1.g. To develop forestry on the farm, around the homestead and on eroding and/or eroded hillsides in order to increase the stock of trees for fuelwood, construction material, implements and crafts, for forage and for other tree products;

## **8.2.2 Forest, Woodland and Tree Resources**

- 8.2.2.1 Article 3.2.a To recognize the complementary roles of communities, private entrepreneurs and the state in forestry development;
- 8.2.2.2 Article 3.2.c. To ensure that forestry development strategies integrate the development, management and conservation of forest resources with those of land and water resources, energy resources, ecosystems and genetic resources, as well as with crop and livestock production;
- 8.2.2.3 Article 3.2.e. To assist the natural process of afforestation of uncultivable areas by controlling felling and grazing and by planting judiciously selected local species, as well as by other affordable interventions.
- 8.2.2.4 Article 3.2.f. To adhere to the principle that "sustainable forest management" is achieved when social acceptability and economic viability have been achieved and the volume of wood harvested in a given period is about equal to the net growth that the forest is capable of generating;
- 8.2.2.5 Article 3.2.g. To pursue agricultural and other policies and programmes that will reduce pressure on fragile woodland resources and ecosystems;
- 8.2.2.6 Article 3.2.h. To promote changes in agricultural and natural resource management systems which will limit the need for free grazing of animals in protected forest areas.

8.2.2.7 Article 3.2.i. To find substitutes for construction and fuel wood whenever capabilities and other conditions allow, in order to reduce pressure on forests.

### **8.2.3 Genetic, Species and Ecosystem Biodiversity**

8.2.3.1 Article 3.3.a. To promote in situ systems (i.e. conservation in a nature reserve, farmer's fields, etc.) as the primary target for conserving both wild and domesticated biological diversity; but also promote ex situ systems (i.e. conservation outside the original or natural habitat) in gene banks, farms, botanical gardens, ranches and zoos as supplementary to in situ conservation;

8.2.3.2 Article 3.3.b. To promote in situ conservation of crop and domestic animal biological diversity as well as other human made and managed ecosystems through the conscious conservation of samples of such ecosystems, even when change as a whole is taking place;

8.2.3.3 Article 3.3.f. To promote the involvement of local communities inside and outside protected areas in the planning and management of such areas;

8.2.3.4 Article 3.3.j. To ensure that park, forest and wildlife conservation and management programmes which conserve biological diversity on behalf of the country allow for a major part of any economic benefits deriving therefrom to be



channelled to local communities affected by such programmes;

8.2.3.5 Article 3.3.k. To recognize that certain animal and plant species are vermin or pests or may be a reservoir of disease to humans, crops and livestock, and to control them.

#### **8.2.4 Water Resources**

8.2.4.1 Article 3.4.b. To recognize that natural ecosystems, particularly wetlands and upstream forests, are fundamental in regulating water quality and quantity and to integrate their rehabilitation and protection into the conservation, development and management of water resources;

8.2.4.2 Article 3.4.c. To ensure that any proposed introduction of exotic species into water ecosystems be subject to detailed ecological studies and environmental impact assessment;

8.2.4.3 Article 3.4.d. To promote the protection of the interface between water bodies and land (e.g. lake shores, river banks and wetlands);

8.2.4.4 Article 3.4.f. To involve water resource users, particularly women and animal herders, in the planning, design, implementation and follow up in their localities of water policies, programmes and projects so as to carry them out without affecting the ecological balance;

8.2.4.5 Article 3.4.i. To promote, to the extent possible, viable measures to artificially recharge ground and surface water resources;

8.2.4.6 Article 3.4.j. To recycle waste water when it has been found to be safe for health and the environment or when it has been made safe without entailing high cost.

### **8.2.5 Cultural and Natural Heritage**

8.2.5.1 Article 3.10.a. To promote the perception of heritage conservation as part of, and integrated with, Ethiopia's general social and economic development;

8.2.5.2 Article 3.10.b. To recognize that the country's heritage conservation should not be seen as the responsibility of government alone and to encourage communities to play a leading role in assessing and nominating places or items of heritage significance and in conserving them;

8.2.5.3 Article 3.10.d. To ensure that the environment of heritage sites is so managed as to protect the landscape, the monuments, and the artifacts or the fossils as the case may be.

### **8.2.6 Community Participation and the Environment**

8.2.6.1 Article 4.2.a. To ensure that all phases of environmental and resource development and management, from project conception to planning and implementation to monitoring and evaluation are undertaken based on the decisions of the resource users and managers;

8.2.6.2 Article 4.2.b. To reorient management professionals employed in natural resource and environmental extension

programmes to embrace participatory development, and to strengthen their communication skills so as to more effectively disseminate both the results of scientific research and the practical experience of local farmers;

8.2.6.3 Article 4.2.c. To develop effective methods of popular participation in the planning and implementation of environmental and resource use and management projects and programmes;

8.2.6.4 Article 4.2.e. To authorize all levels of organization to raise funds locally from the use of natural resources to fund the development, management and sustainable use of those resources;

8.2.6.5 Article 4.2.g. To ensure information flow among all levels of organization including the Federal and Regional States and the people at the grassroots level by developing a two way mechanism for data collection and dissemination.