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ZCCM Investments Holdings Plc

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**COPPERBELT ENVIRONMENT PROJECT
ENVIRONMENT AND RESETTLEMENT FRAMEWORK**

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Republic of Zambia

Copperbelt Environment Project
Under the Auspices of
The Ministry of Finance and National Planning

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ACRONYMS

CEMP	Consolidated Environmental Management Plan
CEP	Copperbelt Environmental project
EA	Environmental Assessment
ECZ	Environmental Council of Zambia
EMF	Environmental Management Facility
EMP	Environmental Management Plan
GRZ	Government of the Republic of Zambia
IBRD	International Bank for Reconstruction and Development
MLGH	Ministry of Local Government and Housing
MTENR	Ministry of Tourism, Environment and natural resources
MoFNP	Ministry of Finance and National Planning
NGO	Non-Governmental Organization
NSC	National Steering Committee
PAD	Project Appraisal Document
PMU	Project Management Unit
TOR	Terms of Reference
ZCCM-IH	Zambia Consolidated Copper Mines - Investment Holding Limited
ZECU	ZCCM - IH Environmental Coordination Unit
EMB	Environmental Mitigation Body
PAPs	Project Affected Persons

ENVIRONMENT AND RESETTLEMENT FRAMEWORK

This document describes a framework for addressing environmental and resettlement issues related to the environmental mitigation activities implemented through the Copperbelt Environment Project (CEP). It outlines principles and procedures that the CEP will follow to ensure compliance with relevant laws of the Republic of Zambia and applicable environmental and social safeguard policies of the World Bank.

The Environment and Resettlement Framework complements the Project Implementation Manual (PIM). PIM spells out in detail the project rationale, objectives, components, institutional arrangements, financial and procurement management, monitoring and reporting.

The World Bank will carefully supervise CEP to make sure that the safeguarding provisions required by the Zambian or World Bank policies are adequately implemented. As a result of this supervision, the procedures outlined in this document may be refined to improve compliance of sub-projects with safeguard requirements and enhance overall outcomes of the CEP.

The document is organized as follows. First, it describes the CEP and functioning of the Environmental Management Facility established by CEP to fund multiple sub-projects. It also outlines the sub-project cycle from identification to completion. Second, it describes the applicable Zambian and World Bank rules for addressing environmental and social issues, and steps toward compliance with these rules. Third, it describes the legal and methodological framework that will govern resettlement that may be associated with the project.

This document is a public document. Copies of this document are available from the ZCCM-IH Environmental Coordination Unit (ZECU) and from the World Bank InfoShop.

1. Project Background

The mining of copper and minor minerals such as lead and zinc has been the backbone of Zambia's economy for over 80 years. These mining activities though with some financial gain had without doubt many negative and sometimes harmful environmental consequences. Thus, over time there has been an accumulation of mine related environmental impacts.

ZCCM-IH retained liability for a wide range of environmental concerns which were not passed on to private investments consortia and is charged with, among other tasks, managing the remediation of the defunct mine sites and lands, as well as implementing and/or financing the obligations agreed with investors as part of specific privatization deals, such as decommissioning of defunct sites within some new Mine License Areas.

A Copperbelt Environment Project (CEP) is being implemented in the Copperbelt and Kabwe, to address environmental liabilities associated with the mining sector, following the privatization of the mining assets. The principal objectives of the plan are to:

- Protect the public health and safety;
- Reduce or prevent environmental degradation; and
- Allow a productive re-use of the land either to its pre-mining use or an acceptable alternative, where applicable.

A cornerstone of the privatizing assets of Zambia Consolidated Copper Mines Limited (ZCCM) was the provision of assurances by the Government of the Republic of Zambia (GRZ) to prospective investors that responsibility for the historical legacy of mining-related environmental degradation will, where appropriate, remain with the GRZ.

The Copperbelt Environment Project (CEP) proposes to help ZCCM – IH and GRZ to:

- i) Implement a set of environmental and social mitigation measures that have resulted from the ZCCM – IH privatization process and the closure of Kabwe Mine, in particular the liabilities related to public health and safety.
- ii) Strengthen the capacity of concerned GRZ agencies to monitor and enforce the implementation regulations applicable to the mining sector.

The project will comprise the following two components. Environmental and resettlement issues are discussed primarily in context of Component 1.

Component 1 - The Environmental Management Facility (EMF). The EMF will help GRZ and ZCCM-IH address the environmental and social problems resulting from ZCCM's operations prior to privatization, as well as the permanent obligations of GRZ and ZCCM-IH under existing Zambian environmental laws and regulations following privatization. It does so by helping to define the environmental problems and by financing the costs of their mitigation. Since EMF funding is limited, the highest priority will be given to measures that address widespread public health problems or damage to ecological functions.

One of the first activities funded under the EMF will be the preparation of a Consolidated Environmental Management Plan (CEMP), which will identify priority issues to be financed through the EMF and provide criteria for the selection of sub-projects funded through the EMF. The CEMP will be a living document, developed in consultation with investors, to be reviewed and updated after two years. More broadly, it will provide a blueprint for handling environmental issues related to mining for the Copperbelt and for Kabwe over the next 25 years, within the broader context of environmental and social sustainability.

Component 2 - Strengthening of the Environmental Regulatory Framework. This component will assist the GRZ to ensure that historical and future environmental liabilities arising from mining activities are handled in compliance with national environmental and social safeguards. This will be achieved mainly by strengthening the capacity of ECZ and the delegated authorizing agencies such as MSD, to review EIAs, negotiate EMPs with investors and with ZCCM-IH, issue pollution permits, monitor compliance, and collect fees and fines. The project will also strengthen NGOs and relevant training institutions, such as the Copperbelt University, to increase national capacity to address environmental issues associated with the mining sector.

2. Project Institutional Framework

The Ministry of Finance and National Planning will finance environmental mitigation sub-projects related to mining activities from the portion of proceeds of the IDA credit titled Environmental Management Facility. The Minister of Finance will establish an EMF Steering Committee with a measure of autonomy to review the sub-projects to be funded by

the EMF, screen them for priority ranking, appraise them to ensure compliance with IDA safeguard policies, approve them for funding, and monitor their implementation.

The EMF Steering Committee may delegate some of its responsibility to a technical subcommittee to ensure effective and timely execution of its functions. The Steering Committee will also ensure that the program of activities funded by the EMF is consistent with EMF objectives and the policies approved by GRZ and ZCCM-IH and agreed with the donors, and provide policy guidance to those involved. It will be chaired by the Secretary to the Treasury, and comprise as members the Permanent Secretaries of the Ministries of Environment, Local Government, Mines and Minerals Development, Energy and Water Development, Health, the General Manager of ZCCM-IH, the Director of ECZ and a representative each from the Mine Workers Union of Zambia, the Chamber of Commerce and Industry, the Chamber of Mines and a prominent member of the universities and of non-governmental organizations or civil society.

The decisions of the EMF Steering Committee will take into account the views and interests of all stakeholders, including inhabitants of mine townships and other members of civil society on the Copperbelt, private sector investors in the mining industry. The EMF Steering Committee will authorize funding for a sub-project proposals developed on the basis of an application prepared by their respective sponsors. The proposal will fully justify disbursements against particular works or consultant services contracts designed for the mitigation or remediation of the environmental liabilities being addressed.

For the EMF Steering Committee to operate on a day-to-day basis, it will be served by a permanent secretariat called the EMF Secretariat. The Secretariat will have a Manager with qualifications and experience acceptable to IDA, assisted by an accountant and support staff (Program Assistant and Driver), with their operating offices in the Ministry of Finance and National Planning (MoFNP). The Manager and other staff from the EMF Secretariat will be supported by a technical assistance budget from the EMF.

Prior to project effectiveness, the MoFNP will enter into a five-year Subsidiary Agreement with ZCCM-IH acceptable to IDA, for the preparation and implementation and EMF sub-projects. The agreement will cover an on-lent part of the proceeds, to carry out sub-projects addressing its environmental liabilities, as well a grant part of the proceeds, to carry out sub-projects addressing GRZ environmental liabilities. GRZ and ZCCM-IH will establish a mechanism to determine their respective environmental liabilities and to address potential disagreements on the division of liabilities.

ZCCM Investments Holdings Plc is a Government owned limited liability company that is charged amongst other tasks, with the management of: i) the defunct assets that it has retained following privatization, ii) environmental obligations agreed with investors as part of privatization deals, iii) environmental liabilities arising from mining operations prior to privatization. ZCCM-IH is accountable to the Ministry of Mines and Minerals Development (MMMD) for its operations. ZCCM-IH has designated the Environmental Services Group within ZCCM-IH, which will be named the ZCCM-IH Environmental Coordination Unit (ZECU), to be responsible for the development of detailed sub-project proposals, their implementation and their procurement. The ZECU will consist of a Manager supported by adequately qualified and experienced staff in environmental management, finance and accounting, procurement, environmental law, communications and community development. These functions are to be provided to the satisfaction of the EMF Steering Committee and of IDA. The sub-projects will be implemented through contractors supervised by ZECU. The ZECU has already managed CEP preparation and supervised the implementation of urgent mitigation measures funded through the Labor Retrenchment Program (LRP) surplus.

3. Environmental Management Facility

3.1 Objective of the EMF

The main objective of the EMF is to help ZCCM-IH address the environmental problems that are the result of its past operations and fulfill the permanent obligations that it has under existing Zambian environmental laws and regulations. It does so by helping ZCCM-IH to define the environmental problems and financing the costs of their mitigation, including the costs of overseeing the implementation of the priority mitigation measures. The environmental problem to be addressed are:

- located in some properties that were sold to investors under the condition that ZCCM-IH would assume the responsibility for remedial action for the historical damage
- outside the properties that were sold to investors, responsibility of which rests with ZCCM-IH
- arising from mining operations that have had environmental consequences the responsibility for which has not been assumed by the investors or ZCCM-IH but now rests with GRZ.

The EMF will finance the cost of priority environmental and social mitigation measures resulting from ZCCM past operation or the cost of environmental measures agreed with investors who have bought ZCCM mining assets. The EMF will allocate resources to ensure that the highest priority mitigation measures are implemented. The procedures and guidelines for the management of the EMF will have to satisfy IDA requirement.

The role of ZCCM-IH in the EMF will be to ensure, through the various management structures, that the EMF resources are targeted at priority environmental problems and are within the regulatory requirements of the ECZ. The ECZ role will be to ensure the compliance of the EMF sub-projects to Zambian environmental regulations and World Bank Safeguard policies

3.2 EMF Key Guiding Principles and Operating Policies

The following key guiding principles and policies will govern the EMF:

- **Health and Environmental Priorities**

The measures that will have the highest priority for financing by the EMF would be those dealing with problems that will lead to, or are associated with, widespread and serious health problems and/or environmental damage. A criterion for classifying the problems is discussed under project selection criteria in the following section.

- **Communication, Disclosure and Community Participation**

The CEP will to carry out several rehabilitation works in order to remove pollution hazards from some of the mine sites in various districts on the Copperbelt and in Kabwe. In order to do so effectively, it must make appropriate information about the project available to different stakeholders or social groups in different locations at appropriate times. Site users, local residents, interest groups all may have

contributions not only to preventing site misuse, but also to technical options considered in the project. The project and its contracted experts will therefore consult with the community in the project area, to record their concerns, and to develop innovative approaches and mechanisms to achieve long-term sustainable site remediation.

Community participation may involve, more specifically:

(i) Some minimal long-term maintenance (drain cleaning, preventing deforestation of re-vegetated areas, and so on) that would eventually become the responsibility of the organization or individual who takes over the site. If the site reverts to local government, capacity for even minimal maintenance is low. Therefore, the project will need to explore the possibility of encouraging interested parties to help with maintenance.

(ii) Where applicable, the use of community labor in labor intensive subprojects for remedial measures as a priority.

(iii) Providing solutions to issues such as vandalism, accident prevention and deforestation of sites.

(iv) Where a community has consented to the design and implementation of a project, a sign off on the project brief showing that they agree to obligations they may have for the site.

- **Access to Land**

Site users will not be summarily denied access to sites they use as income sources unless they are vandalizing it or causing harm to the site's stability, or exposing themselves to unacceptable level of health risk. To protect the health of site users, a risk assessment will be conducted by a toxicologist to assess risks associated with in using a site. This may result in a recommendation to deny access to part or all of a site.

3.3 Project Selection Criteria

Though the EMF will be established the number of projects requiring financing is many and hence available resources will not be enough. A project selection criteria has been established for selecting projects that will give the highest benefit to the community.

The method of selecting priority projects will be based on risk. Risk will be based on the potential impact of the issue and the likelihood of these impacts occurring. That is risk is a function of likelihood of an event to occur and the magnitude of the impact. The risk and priority can be summarized as shown in table 1 below. The higher the impact, and the higher the likelihood this impact will occur, the higher the risk.

ZECU will use a qualitative risk assessment approach based on visual observations and experience to make subjective or intuitive decisions. The qualitative approach is suitable for identifying high-risk issues so mitigation measures can start before more quantitative data is collected. A more quantitative risk analysis can be undertaken after the proposed CEMP when an extensive database is accumulated allowing for more deductive decisions.

Table 1. Risk assessment matrix

Impact ↑	Medium Risk	High Risk	Very High Risk
	Low Risk	Medium Risk	High Risk
	Very Low Risk	Low Risk	Medium Risk
	→ Likelihood		

Table 2. Results of the risk assessment can be used to allocate the EMF funds

Priority Category	Risk	Action	Additional Information
1	Very High	Immediate Funding	Accelerate process of site investigation and measures to address issue
2	High	Immediate Funding	Accelerate process of site investigation and measures to address issue
3	Medium	To be funded. Timing to take account of the other high priority actions	Complete EMP for this issue
4	Low	Funding to be assessed depending on other priorities being addressed and available funds	Complete EMP for this issue
5	Very low	Funds unlikely	Complete EMP for this issue

Value and Standards

Risks have to be prioritized based on what is being impacted. Some value standards have been suggested for this evaluation but more values will be developed during the project implementation phase. Risks associated with the loss of human life take the highest priority and those which affect habitat though very important will take sixth position when allocating resources for mitigation as depicted by the table below.

Table 3. Value and Standards

Order	Values	Standard
1	Human Life	0 loss of human life
2	Human Productivity	2 to 4 lost work days/year
3	Human Quality of Life	20% unwell days/year
4	Agriculture and Fishery	20% loss of income

5	Plant and Animal	5% loss of species
6	Habitat/Natural Resources	20% loss of habitat

3.4 EMF Sub-Project Cycle

Access to the resources of the EMF to cover the costs of mitigation measures for the sub-projects will be granted on the basis of an application that fully justifies the assistance required for a particular mitigation or remediation sub-project.

This section describes the main stages of the EMF sub-project cycle. The section also describes the approval process for accessing funds under the EMF. It should be noted that some sub-projects of an emergency nature have already been identified by ZCCM-IH. These include: Kabwe, TD 33C (Kitwe), TD 3 and 8 (Mufulira), Chonga Dam (Luanshya) and No.2 Acid Plant (Kitwe). These sub-projects will have to be addressed during the first 6 months of the operation of the EMF. In the sub-project cycle, the EMF will consider these priority sub-projects at the Final Approval stage since they have already been identified as priority sub-projects

Sub-Project Identification

The sub-project identification phase will include the following steps:

- Dissemination to stakeholders of the opportunities available to ZCCM-IH, investors and other stakeholders to identify proposals for environmental remediation.
- Dissemination of criteria for identifying sub-projects for funding under EMF.
- Completion of sub-project documents on the priority sub-projects already identified for funding under EMF. Other sub-projects, which will be identified, by ZCCM-IH, investors and stakeholders will also be required to have complete sub-project documentation. The sub-project documents should include justification for remediation intervention.

This stage will also involve sub-project environmental and social screening. The internal screening of the sub-project proposals will be done by the ZECU staff using pre-determined criteria and Zambian Regulations as well as World Bank safeguard policies. The process of initial screening will also include field verification missions and preliminary identification of potential impacts.

The ZECU will then prepare sub-project briefs, application and other information for submission to the Technical Sub-committee. Sub-projects can either be rejected or approved at this stage. More guidance on environmental and social screening is given in section six.

Initial Review and Decision by EMF

The EMF shall be the authority for the approval of sub-projects. However, operationally, this responsibility may be delegated to the EMF Technical Sub-committee, which shall receive the sub-project Applications and other information from the ZECU. EMF will involve in the initial review the technical expertise necessary to adequately consider the proposed sub-projects. After the initial review, the EMF will approve the sub-projects and will inform the ZECU about their decisions and activities.

Sub-project Preparation and Detailed Design

The Investor or ZECU may carry out the detailed planning and design or Consultants can carry this out. There will be expert reviews for large and complex sub-projects that trigger safeguards or require complex engineering design. With the assistance of ECZ, the World Bank and GRZ environmental safeguards shall be included as part of the detailed feasibility studies and design. If it is deemed that a full Environmental Impact Assessment is required, the World Bank and GRZ procedures should be followed. These will be checked for compliance in the process of reviews and approvals.

The key outputs of this stage may include:

- A Feasibility Study report and recommendations
- Sub-project Brief
- An Environmental Assessment (EA) or Environmental Analysis report
- Design and cost estimates of proposed civil works for remediation and other activities (for example, community sensitization and outreach, community participation)
- Draft Bidding documents and contracts

Local residents and authorities as well as other concerned citizens will need to be involved in sub-project design from the beginning. The future roles of local citizens and authorities in the long term maintenance of reclaimed sites will need to be specified and explained at the sub-project design stage and included in the sub-project brief. The ZECU will take the detailed design of the sub-project to the EMF.

Final Review and Approval Decision by the EMF

The ZECU will present the proposed sub-projects to the EMF for consideration. The ZECU will attach to this request for approval, details of the procurement method and plan, cost estimates and expected outputs and benefits, including those that may accrue to the local community. The EMF will give final approval of the proposed sub-projects for remediation actions and also make a commitment of funds for the implementation of these sub-projects.

Tender Procedures and Award of Contracts

If the proposed sub-project will be tendered, the ZECU will prepare and seek necessary approvals for the bidding documents. Necessary approvals will be obtained from the Tender Committee for ZCCM-IH or IDA as appropriate.

Invitations for bids will be done through appropriate advertisements, locally and internationally as appropriate. Upon receipt of bids an evaluation committee will carry out bid evaluations and produce recommendations for award of contracts. This will be submitted to the ZCCM-IH Tender Committee or IDA as appropriate for approval. Upon approval being granted, contract documents will be prepared by either the ZECU Procurement Specialist or the consultants so hired. Such contracts will have to be approved by ZCCM-IH Tender Committee and/or IDA as appropriate. Contracts will then be offered to the successful bidders.

Implementation and Supervision

Once a sub-project has been approved and all agreements with contractors have been finalized, the ZECU's role will be limited to the follow-up on implementation. ECZ will also be involved in monitoring and ensuring that the sub-projects comply with World Bank

Safeguards and/or GRZ Regulations. The nature and size of the sub-project will determine the scope and depth of the follow up. In some instances, ZECU staff will have to be supported by short-term consultants/advisors. Funds should be set aside under the EMF for this purpose to be accessed by the ZECU when necessary. Feedback on progress of implementation and the lessons of experience should be systematically incorporated in the preparation of subsequent sub-projects. Progress report, updates, reviews will be produced from the supervisory and monitoring activities and will be submitted to the EMF for information. In addition to this, these reports will be disseminated to stakeholders for full public disclosure.

Sub-project Completion, Handover and Maintenance

After the works have been completed the ZECU will receive a completion report from the contractor. Early in the implementation of CEP, a study will be commissioned to review and come up with recommendations of how the long-term sustainability issues and maintenance of the remediation works will be handled. In the interim the outputs by consultants in the detailed design should include the requirement for them to explore how this should be done in the individual sub-projects.

4. Consolidated Environmental Management Plan

One of the first activities of the EMF will be to prepare a Consolidated Environmental Management Plan (CEMP). The CEMP will establish the overall management priorities taking into account the environmental and social sustainability. The preparation of the CEMP is described below.

Objectives of the CEMP

The urgent priority of the EMF will be to prepare a Consolidated Environmental Management Plan (CEMP) which will rationalize all the BMPs prepared by investors, ZCCM-IH for each privatized facility and other downstream issues and the responsibilities of GRZ. The CEMP will also determine the cumulative impact of mining activities outside the current mine license areas, including impacts on the Kafue River watershed, on critical ecological processes and on neighboring populations.

It will establish the overall environmental management priorities within the broader context of environmental and social sustainability and indicate how these liabilities are to be addressed. The CEMP will contain detailed mitigation measures that ZECU and other stakeholders will implement.

Preparation of CEMP

The steps to be followed for the process of preparing the CEMP as an activity of the EMF are summarized as follows:

- Drafting Terms of Reference for undertaking the preparation of CEMP
- Advertising globally for contractors to express interest to undertake the assignment
- Short-listing by ZCCM-IH and invitation to tender in accordance with World Bank and ZCCM-IH guidelines
- Selection and negotiations with contractors in accordance with World Bank and ZCCM-IH guidelines
- Preparation of CEMP

- Submission of CEMP to EMF Steering Committee
- Finalization of CEMP

Some sub-projects have already been implemented and funded from the LRP and PPF because such projects could not be held up until the EMF facility was established. These sub-projects include issues that required urgent intervention to prevent further worsening of environmental conditions and time bound contractual environmental obligations. The sub-projects financed under the emergency priority will still need to complete the necessary sub-project implementation, such as sub-project brief, and will include a safeguards review. Thus, the information to be included in the required documentation will include the following:

- Any negative social impact
- Expected environmental impact and risk of the mitigation measures
- Safeguards checklist
- Technical alternatives considered
- List of stakeholders consulted on the alternatives
- Site use plans specific to how residents will or will not use site
- Maintenance requirement where structures are changed and who is responsible for these

Kabwe Mine Site

The CEMP will not cover Kabwe, but ZCCM-IH will update the original (1995) Plan to take on board the current approaches and financing arrangements for ZCCM-IH and GRZ obligations. The Kabwe Mine Site will involve an extensive risk communications and will have a strong health component and will therefore, require close coordination and networking. The ZECU will manage Kabwe with the assistance of a satellite project implementation team comprising an Environmental Site Coordinator, Environmental Health Nurses and a Laboratory technician. A lead task force will be set up with the objective of setting up priorities and long term goals and sustainability of cleaning up lead impacts in Kabwe. The task force will comprise ZCCM-IH, Provincial Health Board, ECZ, MSD, Private Health Practitioners, Kabwe Municipal Public Health, Neighborhood Health Committees and other relevant stakeholders. The ECZ will require to review and revise the closure plan.

5. Zambian Environmental Legislation

Although the Copperbelt Environment Project is by design a remedy of existing environmental problems, its activities must comply with the requirements of the Zambian environmental regulations and the World Bank safeguard policies.

5.1 Zambian Environmental Protection and Pollution Control Act (EPPCA)

The Environmental Protection and Pollution Control Act (EPPCA) of 1990 is the primary environmental law that is designed to regulate all environmental issues in Zambia. This act and its subsidiary legislation have to be adhered to in the scoping, design, and implementation of the sub-project. The main Subsidiary Legislation is:

- The pesticides and toxic substances regulations SI 20 of 1994 Act No 13 of 1994
- Environmental Impact Assessment Regulations (1997)

- Air Pollution Control Regulations (1996)
- The Water Pollution Control (Effluent and Waste Water) Regulations SI 72 of 1993, 177 of 1993 Act No 13 of 1994
- The Waste Management (Licensing of Transporters and Waste Disposal Site) Regulations SI 71 of 1993

In enforcing environmental legislation in the mining industry, the ECZ collaborates with the Mines Safety Department (MSD) of the Ministry of Mines and Minerals Development (MMMD) as its authorizing agent or main lead institution. The relevant legislation for the mining industry includes:

- The Mines and Minerals Act No. 31 Cap 213 of the Laws of Zambia.
- The Mining (Mineral Resource Extraction) Regulations, Statutory Instrument No. 119 of 1994
- The Mines and Minerals (Environmental) Regulations, Statutory Instrument No. 29 of 1997
- The Mines and Minerals (Environmental Protection Fund) Regulations, Statutory Instrument No. 102 of 1998.

There are other pieces of legislation which are also to be consulted depending on the nature and type of sub-project. They are listed in Annex 6.

5.2 Administration of the Environmental Impact Assessment (EIA) in Zambia

Institutional Responsibilities

The administration of the EIA process in Zambia involves three primary stakeholder parties. These are the developer, the sectoral agencies or planning authorities and the Environmental Council of Zambia. Other parties may be involved directly or indirectly either because they are interested or affected in one way or another. This group is referred to as the Interested and Affected Parties (IAPs) and includes the general public. Each of these parties is responsible for specific administrative aspects of the EIA process.

The Developer

Administration of the EIA process starts with the developer or project proponent conceptualizing a development project. The primary objective of the developer is to bring about development either by provision of goods e.g. manufacture of cars or by providing a service e.g. construction of a road. Developer may include investors, government ministries and departments, the private sector, the local community and other community based groups, the non-governmental fraternity, politicians, traditional leaders, the general public and consultant or indeed anyone proposing a development activity.

The responsibilities of the developer include the preparation of project documents, completing the EIA, meeting management requirements resulting from EIA recommendations and meeting the expectations for the public or IAPs. In this regard the developer provides information regarding the nature and scope of the project, the expected impacts, management and mitigation measures, monitoring programs and the rehabilitation

programs. The developer also needs to inform the public on areas needing their involvement and ensure that they are agreeable to the type of project he is embarking on.

Sectoral Agencies/Planning Authorities

Sectoral or Authorizing Agencies refer to any government ministry or department, public corporation, local authority or public officer in which, or in whom any law/regulation or bye-law vests powers and functions to authorize, control or manage any aspect of a proposed or existing project. These agencies work on behalf of the public to ensure that ecological, cultural, social and economic issues are addressed in line with existing government policy and legislation. Their main responsibility is to ensure that the proposed project meets all the sectoral requirements for which the agency is mandated.

The Environmental Council of Zambia (ECZ)

The Environmental Council of Zambia is a lead agency on all matters of environment in Zambia. It is empowered by the Environmental Protection and Pollution Control Act of 1990 (Cap 204) to do all such things as are necessary to protect the environment and control pollution so as to provide for the health and welfare of persons, animals, plants and the environment. It is further empowered to identify projects, plans and policies for which environmental impact assessment are necessary and ensure that the same is done in line with the provisions of the EIA regulations. Its responsibilities include managing the EIA process, sponsoring a decision and ensuring that management occurs in accordance with the decisions made. In this regard the ECZ establishes the terms of reference for project assessments, reviews reports including the Prospectus, EIA and follow-up monitoring reports. The Council also helps the project proponent to establish a public consultation process.

The Public

The public is a very important party in the EIA process. Growing public concern for environment spells out the need for involving the public in decision making. This allow the developer to inform the public or interested and affected parties about the project and afford them an opportunity to express their concerns so as to include the same into management plans. Apart from it being a legislative requirement, public involvement helps reduce problems such as increased costs, project delays arising from public opposition to the project, bad publicity and litigation.

The responsibilities of the Public in the EIA process include:

Provision of information about the local environment, community goals and aspirations in relation to the proposed development. Other inputs include contributing to the social, cultural and economic evaluation of the project; assisting in the decision making as well as the management process.

The EIA Process

The EIA process follows three basic stages. These are:

- The project screening stage where a proposed project is screened as to whether it qualifies for an EIA process or not. The main focus here is the Project Brief.
- EIA preparation and review. The main focus here is the EIA statement

- Project implementation where the main focus is the management of mitigation measures together with post assessment environmental monitoring and auditing.

Environmental Project Brief (EPB)

Administration of the EIA process starts with the project proponent preparing a Project Brief which gives a description of the project in line with the provisions of the Environmental Impact Assessment Regulations, Statutory Instrument no. 28 of 1997 and submits the same to the ECZ. Once the ECZ has received the Project Brief it sends copies to relevant authorizing agencies for their comments. This is done within seven days of receiving the same. The authorizing agency has thirty days in which to give a feed back to the ECZ. The ECZ proceeds to make a decision basing this on its own assessment, that of the authorizing agency and that of other relevant institutions. The decision is made either to approve the project with or without conditions or to compel the project to a full EIA study. The Council makes this decision within 40 days of receiving the project brief.

Pertinent aspects of the process at this stage include:

- Screening of the project in line with the provisions of the EIA regulations to determine if the EIA process is applicable or not. If the EIA process is not applicable, the developer is informed accordingly. If the process is applicable to the particular project the Council proceeds to consider if the Project Brief contains all the required information. If some of the required information is missing, the Developer is informed accordingly. If information provided is adequate, the Council proceeds to distribute the Project Brief to other responsible authorities.
- Once information from all the relevant sources/institutions has been received the Council proceeds to compile a summary of all impacts(biophysical, ecological and social) associated with the project in a document called the project profile.
- Basing on the information contained in the project brief, the information provided by other institutions, the EIA Regulations and any other information required, the ECZ proceeds to consider if there is a risk that certain activities of the project may cause notable impacts on the environment. If the project is found to have no notable impacts on the environment, the Council recommends project approval and prepares a decision letter accordingly. If the project is found to have notable impacts on the environment, the ECZ proceeds to consider the impact mitigation plan. If the plan is satisfactory, the project is approved and if not the project is either rejected or recommended for a full EIA study.

Environmental Impact Statement

Once a project has been recommended for a full EIA study the developer proceeds to conduct the study in line with the provisions of the EIA regulations. The developer starts with a scoping exercise and proceeds to prepare the Terms of Reference (TORs) for the study. This is done within forty days of receiving communication from the ECZ. The ECZ considers and rejects or accepts the TORs within five days of receiving the same. If the TORs are accepted the developer proceeds to identify a team of experts to carry out the EIA study and submits the same to the ECZ. The ECZ considers and either rejects or accepts the study team. Once the study team has been accepted, they proceed to conduct the EIA study in line with the

TORs provided. During the process of conducting the EIA study, the team ensures that the public is adequately consulted.

Once the study has been completed the developer presents the same to the ECZ following the provisions of the EIA regulations. Once the ECZ has received the EIA statement, it circulates the same to relevant agencies for comments and at the same time proceeds to invite public views and comments on the report. Once this has been done and the comments have been received, the ECZ proceeds to consider the EIA statement paying particular attention to the need for mitigation measures and then considers if the suggested measures are acceptable or not. After this has been done, the ECZ makes a decision either approving the project with or without conditions or rejecting it all together. Once a decision has been communicated to the concerned parties (project proponent or Affected and Interested Parties are free to appeal against such a decision within ten days of communicating the decision by the ECZ.

Pertinent issues in this process include:

- Proper identification of impacts to be focused on in the conduct of the EIA study and consequently the preparation of adequate terms of reference
- Proper identification of the team to undertake the EIA study. Special attention should be paid to the inclusion of a local expert.
- Adequate consultation with the public to ensure that their views have been taken into account in the preparation of the study
- Preparation of Mitigation Measures and an Environmental Management Plan together with a follow-up of post assessment environmental monitoring and auditing.

6. World Bank Safeguard Policies

The World Bank safeguard policies are operational policies whose primary objective is to ensure that the Bank funded operations do not cause adverse social and environmental impacts and that they “do no harm”. As all other World Bank funded operation, the CEP must comply with the requirements of the safeguard policies (safeguards).

From among the ten safeguard policies, the following are expected to be triggered by a number of the activities funded under the CEP:

- Environmental Assessment (OP 4.01)
- Involuntary Resettlement (OP 4.12)
- Safety of Dams (OP 4.37)
- Physical Cultural Resources (OP 11.03)
- Natural Habitats (OP 4.04)

A brief overview of applicability and objectives of these safeguard policies follows. For full policies, see <http://www.ifc.org/enviro/EnvSoc/Safeguard/safeguard.htm>.

Environmental Assessment (OP 4.01)

Applicability:

The policy is triggered if a project is likely to have potential (adverse) environmental risks and impacts in its area of influence.

Objective:

The objective of the policy is to ensure that Bank-financed projects are environmentally and socially sound and sustainable, and that decision-making is improved through appropriate analysis of actions and of their likely environmental and social impacts.

The policy covers impacts on the natural environment (air, water and land); human health and safety; physical cultural resources; and transboundary and global environment concerns. EA considers natural and social aspects in an integrated way. Particular social aspects (involuntary resettlement, indigenous peoples) as well as issues of natural habitats, pest management, forestry, and safety of dams are covered by separate policies with their own requirements and procedures. However, the environmental assessment process provides insights to ascertain the applicability of other safeguard policies to specific projects. This is especially the case for the policies on natural habitats, pest management, and physical cultural resources that are typically considered within the EA process.

The policy describes an environmental assessment (EA) process for the proposed project. The breadth, depth, and type of analysis of the EA process depend on the nature, scale, and potential environmental impact of the proposed project. EA evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation. The policy favors preventive measures over mitigatory or compensatory measures, whenever feasible.

In CEP, all sub-projects will be screened in the earliest stages of their preparation to ensure compliance with the policy and ascertain whether other safeguard policies are triggered. The sub-projects will be screened not only for their direct impacts but also for indirect and cumulative impacts. Based on the screening, sub-projects will be assigned a category I, II, or III.

Category I will be assigned to sub-projects with anticipated significant adverse environmental impacts that are sensitive, diverse or unprecedented. For these sub-projects, full EA (EIA, according to Zambian law) will be required. Category II will assigned to sub-project with anticipated specific adverse environmental impacts that are less adverse than in category I. For these sub-projects, an Environmental Analysis limited to the specific environmental impacts of the sub-project will be required. Category III will be assigned to sub-projects with anticipated minimal or no adverse environmental impacts. For these projects, no further environmental review beyond environmental and social screening will be required.

Categories I, II, III should not be confused with EA categories A, B, or C defined by the OP4.01. Categories A, B or C pertain to any World Bank funded project (the entire CEP, in this case) while categories I, II and III pertain specifically to the CEP sub-projects. Through following the requirements for categories I, II and III, outlined in the Matrix of Procedural Requirements for World Bank Safeguards in EMF Funded Sub-Projects document (see next section), compliance with OP 4.01 will be ensured.

Involuntary Resettlement (OP 4.12)**Applicability:**

The policy is triggered not only physical relocation caused by the project, but by any loss of land or other assets resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets; or (iii) loss of income sources or means of livelihood, whether or not the affected people must move to another location.

The policy applies to all components of a project that result in involuntary resettlement, regardless of the source of financing. It also applies to other activities resulting in involuntary resettlement, that in the judgment of the Bank, are (a) directly and significantly related to the Bank-assisted project, (b) necessary to achieve its objectives as set forth in the project documents; and (c) carried out, or planned to be carried out, contemporaneously with the project.

Objective:

The objectives of the resettlement policy are to (i) avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs; (ii) assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them; (iii) encourage community participation in planning and implementing resettlement; and (iv) provide assistance to affected people regardless of the legality of land tenure.

The policy safeguards against impoverishment risks of involuntary resettlement that may be associated with a development projects. It addresses risks that the production systems may be dismantled; people may face impoverishment when their productive assets or income sources are lost; people may be relocated to environments where their productive skills may be less applicable and the competition for resources greater; community institutions and social networks may be weakened; kin groups may be dispersed; and cultural identity, traditional authority, and the potential for mutual help may be diminished or lost.

In CEP sub-projects, the policy will govern resettlement from legally or illegally used land that will undergo rehabilitation or be otherwise affected. Detailed application of the policy is discussed in the section on Resettlement Framework.

Safety of Dams (OP 4.37)

Applicability:

The policy is triggered by (i) a project involving construction of a large dam (15 m or higher) or a high hazard dam (e.g. dams that retain toxic materials or have special design complexities); or (ii) a project which depends upon an existing dam.

In the CEP, the policy is applicable to rehabilitation of the tailing dams.

Objectives:

For existing dams, the objective of the policy is to ensure that any dam that can influence the performance of the project is identified, a dam safety assessment is carried out, and necessary dam safety measures and remedial work are implemented. For projects involving construction of new dams, the policy objective is to ensure that experienced and competent professionals design and supervise construction and the Borrower adopts and implements dam safety measures for the dam and associated works.

In CEP, the policy will require a comprehensive safety and geo-technical evaluation of all tailing dams and implementation of necessary safety measures.

Physical Cultural Resources (OP 11.03)

Applicability:

This policy applies to physical cultural resources in all projects requiring a Category A or B Environmental Assessment under the OP4.01 on Environmental Assessment (see above). Physical cultural resources are movable or immovable objects, sites, structures, groups of

structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above ground, underground, or underwater.

Objective:

The objective of the policy is to avoid or mitigate adverse impacts of Bank financed development projects on physical cultural resources. Normally, the Bank would not finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage.

In CEP, compliance with this policy will ensure that rehabilitation activities will not cause harm to physical cultural resources that may be located in the project area of influence. The policy will be implemented through the EA process.

Natural Habitats (OP 4.04)

Applicability:

The policy is triggered by any project with the potential to cause significant conversion (loss) or degradation of natural habitats, whether directly (through construction) or indirectly (through human activities induced by the project). Natural habitats are land and water areas where ecosystems' biological communities are formed largely by native plant and animal species, and human activity has not essentially modified the area's primary ecological functions.

Objective:

The objective of the policy is to support the protection, management, and restoration of natural habitats. The Bank adheres to a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development. The conservation of natural habitats is essential to safeguard their unique biodiversity and to maintain environmental services and products for human society and for long-term sustainable development.

In CEP, the policy, implemented through the EA review process, will ensure that all direct and indirect impacts of sub-projects on natural habitats are adequately considered and mitigated. Given the number of anticipated sub-projects, it will be important to ensure attention to cumulative impacts of sub-projects as well. Should the risk of conversion be significant, CEP will need to introduce mitigation measures, e.g. providing a natural area to offset the loss from conversion or degradation.

The significance of conversion or degradation is determined on a case-by-case basis for each project, through the environmental assessment process. As an approximation, conversion or degradation is likely to be significant if it involves, cumulatively, either (i) in absolute terms, more than about 10,000 hectares of natural habitats or (ii) in relative terms, more than one percent of the remaining area of any ecosystem type within the country. To assess the significance of conversion or degradation at a sub-project level, the approximate threshold should be determined by dividing 10,000 hectares by the anticipated number of sub-projects (e.g. 500 ha if 20 sub-projects are anticipated). It is the informed expert judgment, however, rather than these approximations, that should drive the decision on significance of a sub-project on natural habitats.

Increasing Capacity for addressing World Bank Safeguard Policies

To build adequate capacity for addressing World Bank safeguard policies, CEP will implement several training, knowledge management and capacity building measures at the early stages of project implementation.

Safeguard Policy Training and Guided Practical Work

ZECU will internationally recruit a highly qualified World Bank Safeguard Policies Advisor to develop expertise of ZECU staff to carry out social and environmental screening, identify issues relevant to safeguarding natural habitats, physical cultural resources, persons affected by resettlement, and recognize sub-project activities that may trigger any other World Bank safeguard. To develop adequate expertise, the Advisor will combine theoretical safeguard training with guiding the ZECU staff in their work on handling safeguard requirements for the EMF sub-projects. The Advisor will work residually or in very close contact with ZECU until sufficient capacity for handling routine safeguard issues is developed within the unit. ZECU will retain additional experts at the recommendation of the advisor to complement his expertise as necessary. The World Bank may request ZECU to carry out an independent audit of the ZECU capacity in respect to environmental and social safeguards. The audit would be carried out before the end of the Advisor's assignment to verify that adequate safeguard capacity has been developed sufficiently to handle safeguard issues without external assistance.

Technical staff of the EMF responsible for reviewing sub-project Applications and other documents related to safeguards will also participate in the training. As a part the joint training, ZECU and environmental assessment (EA) practitioners from ECZ should identify, with the guidance of the Advisor, ways for streamlining the sub-project documentation to avoid duplicity and ensure that the safeguard documents (e.g. Environmental Assessment, resettlement plans, etc.) meet the Zambian and World Bank requirements.

Safeguard Trigger Questions Checklist

The Advisor will prepare a Safeguard Trigger Questions Checklist to aid screening of EMF sub-project for activities that are likely to trigger the safeguard policies. The checklist will guide ZECU staff during field reconnaissance and assist them to identify the safeguard issues in sub-project Application and other documents. It will also help to assure consistency and comprehensiveness of screening across various sub-projects. Based on the checklist, the Advisor and ZECU may also develop detailed guidelines for reviewing environmental and social impacts of the most common types of sub-projects (e.g. tailing dams rehabilitation).

Cumulative and Indirect Impact Guidelines

The Advisor will develop guidelines for identifying and addressing cumulative environmental impacts from the sub-projects on the main areas of concern (e.g. surface waters, soil, air, landscape, etc.). The Advisor will also develop guidelines for addressing indirect (induced) impacts of sub-projects. Adequate attention to cumulative and indirect impacts will be particularly important given the (large) number and (sometime misleadingly small) scale of EMF sub-projects.

Safeguard Knowledge Management

ZECU, in cooperation with the Advisor will design and establish a mechanism for retaining the practical knowledge gained from managing safeguard aspects of EMF sub-projects. This

may include establishment of a simple website or database (e.g. CR-ROM) with key documents (literature, legal documents, policies, guidelines, good practice, TOR, checklists, progress reports, contacts for key resource persons and consultants) that will aid ZECU staff and others, e.g. regulatory agencies, local governments, NGO's or general public, that may be involved in sub-project preparation.

To safeguard knowledge management activities will include periodic independent audits of the safeguard performance (after a sufficient number of sub-projects has been handled). The findings of the audit will serve to derive lessons for improving the safeguard capacity and as a quality assurance mechanism.

Capturing the safeguard know-how will assist ZECU in managing sub-projects, facilitate disclosure of relevant information to the public, encourage consistency throughout the sub-project portfolio, encourage safeguard dialogue with other donors and reduce disruptions potentially caused by turnover of ZECU staff.

Procedural Requirements for World Bank Safeguards in EMF Sub-Projects

The following matrix outlines procedural steps required of the key actors involved in implementing CEP. It spells out what agency will be responsible for what safeguarding steps at different stages of the EMF sub-project cycle. The matrix gives requirements for each safeguard policy known to be triggered at the time of CEP preparation. It includes disclosure and public consultation requirements that are essential to effective application of safeguard policies.

Matrix of Procedural Requirements for World Bank Safeguards in EMF Funded Sub-Projects

Environmental Assessment (EA) OP4.01

EMF Sub-Project Cycle	Key Processing Requirements and Responsible Party	Key Documents
1. Sub-Project Identification and Application	ZECU: <ol style="list-style-type: none"> 1. Ensures adequate expertise is involved in environmental and social screening and all subsequent steps in assessing and mitigating environmental and social impacts; 2. Ensures the environmental and social screening considers available information, including input from consultations with affected groups and field reconnaissance; 3. Screens by examining the type, location and scale of the proposed project as well as the nature and magnitude of its potential impacts; and 4. Assigns the sub-project a category I, II or III based on its likely environmental impacts and indicates what corresponding environmental review instrument (e.g. environmental assessment (EA) or environmental analyses is required);¹ 5. Responds to Safeguard Trigger Questions (checklist to be developed by Safeguard Specialist); 6. Outlines likely mitigation measures to address anticipated environmental and social impacts; 7. Records the above (steps 2. – 6.) in the Application and supports with available documentation and brief discussion of anticipated social and environmental impacts; 8. Advises the Bank of any sensitive issues or concerns; 	Application Existing and easily available documents on environmental and social conditions of the sub-project area and anticipated impacts
2. Initial Review and Decision	EMF: <ol style="list-style-type: none"> 1. Reviews the Application for adequate environmental and social screening, seeking independent expertise as necessary 2. Ensures the Bank has been advised of any sensitive issues or concerns 3. Approves sub-project for further processing 	Application Record of Decision
3. Sub-Project Preparation and Detailed Design	<u>Category I sub-projects</u> For category I sub-projects (requiring EA), ZECU: <ol style="list-style-type: none"> 1. Consults the stakeholders on the findings of the screening and seeks their views as an input in the EA preparation 2. Identifies the scope of EA, procedures, schedule and outline of the report, and drafts TOR 3. Submits the above to EMF for comment. 4. Retains independent qualified EA experts not affiliated with the project to carry out the EA² 	Full EA report including a an environmental mitigation plan⁵

¹ Category I is given to sub-projects with anticipated significant adverse environmental impacts that are sensitive, diverse or unprecedented. For these sub-projects, full EA is required. Category II is given to sub-project with anticipated specific adverse environmental impacts that are less adverse than in category I. For these sub-projects, an environmental analysis limited to the specific environmental impacts of the sub-project is required. Category III is given to sub-projects with anticipated minimal or no adverse environmental impacts. For these projects, no further environmental review beyond environmental and social screening is required.

	<p>5. Carries out the EA and prepares a draft EA report including an environmental mitigation plan</p> <p>6. Consults the public on the above</p> <p>7. Submits the draft EA report with an executive summary and key points from the consultations to EMF and the Bank for comment</p> <p>8. Finalizes the EA report based on feedback received and submits it to World Bank for clearance and for disclosure via the InfoShop, and posts it locally;³</p> <p>For category I sub-projects (requiring full EA), EMF:</p> <p>9. Reviews the procedural and substantive elements of the EA with ZECU and comments as necessary on TOR</p> <p>10. Ensures the adequacy of financing arrangements for preparation of the EA and implementation of the environmental mitigation plan;</p> <p>11. Reviews and comments on the draft EA;</p> <p>12. Ensures that EA findings and environmental mitigation plan recommendations are reflected in sub-project design;</p> <p>13. Ensures the adequacy of public consultation and disclosure of information;</p> <p>14. Reviews the final EA and gives no-objection;</p> <p>For category I sub-projects (requiring full EA), The Bank</p> <p>15. Assists ZECU as necessary in preparation of TOR for category I sub-projects</p> <p>16. Advises ZECU on Bank's procedures and requirements for EA, including consultation and disclosure as necessary;</p> <p><u>Category II sub-projects</u></p> <p>For category II sub-projects (requiring environmental analysis), ZECU:</p> <p>1. Consults the stakeholders on the findings of the screening and seeks their views as an input in the environmental analysis preparation</p> <p>2. Defines the specific environmental issues to examine, procedures, schedule and outline of the report, and drafts TOR for environmental analysis</p> <p>3. Submits the above for information to the EMF</p> <p>4. Retains qualified experts to carry out the environmental analysis</p> <p>5. Carries out the environmental analysis and prepares a draft environmental analysis report including recommended measures to mitigate the anticipated impacts</p>	<p>Environmental Analysis including measures to mitigate the anticipated impacts</p>
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² Consults the Bank about establishing an Independent Advisory Panel for Kabwe and other particularly risky or contentious sub-projects.

³ ZECU will post the report at a public place easily accessible to local people and NGOs, e.g. in the city council office.

⁴ See above.

⁵ See Annex 4. and Annex 5. for contents of a typical EA and environmental mitigation plan

	<p>6. Posts the draft report for public comment 7. Submits the draft report to EMF for information 8. Finalizes the environmental analysis report based on feedback received and posts locally⁴; 9. Ensures that recommended mitigation measures of the environmental analysis are reflected in project design and contractor TOR;</p> <p>For category II sub-projects (requiring environmental analysis), EMF: 10. Reviews and comments on the TOR for environmental analysis as necessary 11. Reviews and comments on the draft environmental analysis 12. Ensures the adequacy of financing arrangements for preparation of the environmental analysis and implementation of its recommendations; 13. Ensures that environmental analysis recommendations are properly addressed in sub-project design and economic analysis; 14. Ensures the adequacy of public consultation and disclosure of information</p> <p>For category II sub-projects (requiring environmental analysis), The Bank 15. Advises ZECU on Bank's procedures and requirements for EA, including consultation and disclosure, as it deems necessary</p> <p><u>Category III sub-projects</u></p> <p>For category III sub-projects (requiring no EA or environmental analysis) ZECU: 1. Ensures adherence to good environmental practice in sub-project design, siting, construction and operation 2. Updates the environmental and social screening (prepared at the sub-project identification stage) and updates these if new information on environmental or social impacts becomes available 3. Re-classifies the sub-project based on the new information if necessary and advises EMF of re-classification</p>	<p>Necessary permits or licenses from relevant regulator agencies</p>
<p>4. Final Review/ Decision</p>	<p>EMF: 1. Reviews and approves the sub-project for funding 2. Ensures that the record of decision / legal agreement between EMF and ZCCM reflects the recommendations of the EA and associated environmental mitigation plan (for Category I) or recommendations of the environmental analysis (for Category II)</p>	<p>Legal Agreement / Record of Decision</p>
<p>5. Tender Procedures and Award of Contracts</p>	<p>ZECU: 1. Ensures that TOR and contracts are consistent with the recommendations of EA or environmental analysis</p>	<p>Technical Specifications, Contract</p>

<p>6. Implementation & Supervision</p>	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Ensures that the sub-project is supervised by staff with adequate environmental and social expertise 2. Reviews sub-project implementation against recommendations of the environmental mitigation plan or recommendations of the environmental analysis and records findings in periodic the progress reports 3. Submits the report regularly to EMF and Bank for category I sub-projects and to EMF for category (I and III sub-projects <p>EMF:</p> <ol style="list-style-type: none"> 4. Reviews progress reports from ZCCM 5. Advises the Bank of any sensitive issues or concerns that may benefit from Bank's assistance 	<p>Progress Reports</p>
<p>7. Sub-Project Completion, Handover, Maintenance,</p>	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Prepares sub-project completion report with a brief analysis of the actual environmental impacts and outlines in the report measures to address environmental impacts (their prevention, mitigation and monitoring) that would continue to manifest themselves after sub-project completion; 2. Submits the report to EMF and Bank for category I sub-projects and to EMF for category II sub-projects; 	<p>Completion Report</p>

Involuntary Resettlement OP 4.12

EMF Sub-Project Circle	Key Provisions, Requirements and Responsible Party	Key Documents
<p>1. Sub-Project Identification and Application</p>	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Assesses the nature and magnitude of the likely displacement; 2. Outlines potential design alternatives to avoid or minimize displacement; 3. Indicates whether Resettlement Action Plan (RAP) will be prepared; 	<p>Application; Existing documents on social conditions in sub-project area and anticipated resettlement issues;</p>
<p>2. Initial Review and Decision</p>	<p>EMF:</p> <ol style="list-style-type: none"> 1. Reviews the Application for adequate discussion of resettlement, seeking independent expertise as necessary; 2. Advises the Bank of any sensitive issues or concerns that may benefit from Bank's assistance; 3. Approves sub-project for further processing; 	<p>Record of Decision</p>
<p>3. Sub-Project Preparation</p>	<p>ZECU:</p>	<p>RAP</p>

⁶ ZECU will make the draft and the final RAP available at a place accessible to, and in a form, manner and language understandable to the displaced or affected people and local NGOs.

and Detailed Design	<ol style="list-style-type: none"> 1. Ensures adequate input of sub-project affected persons (PAPs) in the resettlement process; 2. Considers viable alternative sub-project designs to avoid, where feasible, or minimize displacement; 3. Prepares a draft RAP consistent with the Bank's resettlement policy, Zambian law, and CEP Environment and Resettlement Framework ensuring involvement of adequate expertise and consistency across sub-projects; 4. Posts RAP in public⁶, collects and considers public comments; 5. Makes arrangements for internal, or, if necessary, independent external monitoring and evaluation of the implementation of the RAP; 6. Submits the RAP to EMF and the Bank (for the first five RAPs); 7. Makes the RAP available publicly⁷ 	Necessary permits or licenses from relevant regulator agencies
4. Final Review/ Decision	<p>EMF:</p> <ol style="list-style-type: none"> 1. Reviews the RAP and monitoring arrangements to verify compliance with the Bank's resettlement policy and Zambian law as a condition of sub-project approval; 2. Ensures availability of adequate Government funds for resettlement; 3. Ensures ZCCM obligations to implement the RAP and monitoring measures are reflected in the record of decision/legal agreement; <p>The Bank:</p> <ol style="list-style-type: none"> 1. For the first five RAPs, reviews the RAP and monitoring arrangements and gives no objection; 	Legal Agreement or Record of Decision
5. Tender Procedures		
6. Implementation & Supervision	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Implements the approved RAP; 2. Implements the proposed monitoring and evaluation of resettlement; 3. Includes reports on RAP implementation in the regular progress reports to EMF; 4. Advises the EMF of any sensitive resettlement issues that may arise; 	Progress reports to EMF
7. Sub-Project Completion, Handover, Maintenance,	<p>ZECU:</p> <ol style="list-style-type: none"> 5. Monitors and evaluates resettlement according to the proposed monitoring and evaluation measures; 6. Advises the EMF of any sensitive resettlement issues that may arise; <p>The Bank:</p> <ol style="list-style-type: none"> 1. Monitors resettlement during periodic supervision missions; 	Completion report;

⁷ See above.

Safety of Dams OP 4.37

EMF Sub-Project Cycle	Key Processing Requirements and Responsible Party	Key Deliverables
1. Sub-Project Identification and Application	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Prepare TOR for an independent expert (IE) to advise on safety measures in tailing dams sub-projects; 2. Reviews, with the involvement of IE, the dam safety of all tailing dams in project area and outlines measure for adequately improving dam safety; 3. Describes dam safety issues in the Application; <p>The Bank:</p> <ol style="list-style-type: none"> 1. Reviews the TOR of the IE for no objection; 	Application
2. Initial Review and Decision	<p>EMF:</p> <ol style="list-style-type: none"> 1. Involves relevant dam safety expertise in reviewing the Application; 	Application Record of Decision
3. Sub-Project Preparation and Detailed Design	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Ensures that IE reviews the entire dam safety program (all dam sub-projects) and geo-technical survey, and endorses the proposed measures and their prioritization; 2. Prepares, following the IE recommendation, the following documents^a: <ul style="list-style-type: none"> • TOR for technical services for preparation of the above (for review by IE before bidding) • Draft Emergency Preparedness Plan and a cost estimate to prepare the final plan • Construction Supervision and Quality Assurance Plan; • Draft Operation and Maintenance (O&M) plan; • Instrumentation Plan; 	Draft Emergency Preparedness Plan; Construction Supervision and Quality Assurance Plan; Draft (O&M) plan; Instrumentation Plan; Necessary permits or licenses from relevant regulator agencies
4. Final Review/ Decision	<p>EMF:</p> <ol style="list-style-type: none"> 1. Reviews dam safety information and IE recommendations; 2. Ensures ZCCM obligations to implement the dam safety measures are reflected in the record of decision/legal agreement; 3. Ensures adequate funding for dam safety measures; 	Legal Agreement / Record of Decision
5. Tender Procedures and Award of Contracts	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Ensures that the IE gives no objection to dam sub-project TOR/ tech. specifications before tendering; 2. Ensures pre-qualification of bidders for dam work; 	Technical Specifications, Contract
6. Implementation & Supervision	<p>ZECU:</p> <ol style="list-style-type: none"> 1. Finalizes and implements the Emergency Preparedness Plan; 2. Finalizes and implements the O&M plan; 3. Retains written instructions for flood handling (where relevant) and emergency preparedness at accessible locations; 4. Ensures regular input from the IE during implementation including field inspections; 	Progress Reports to EMF; Emergency Preparedness Plan; O&M Plan; Flood handling instructions;

^a Some or all of these documents will be prepared when recommended by the IE based on the scope and complexity of the tailing dam rehabilitation.

	<ol style="list-style-type: none"> 5. Ensures implementation of the remedial and dam safety measures recommended by the IE; 6. Reports on dam safety issues to EMF in regular progress reports; 7. Advises the BMF and the Bank and of any sensitive dam safety issues that arise during implementation; 	
7. Sub-Project Completion, Handover, Maintenance,	ZCCM: <ol style="list-style-type: none"> 1. Ensures adequate public awareness of emergency preparedness plan and training for emergency situations; 2. Ensures periodic safety inspections are carried out after project completion and handover with findings reported to the authorities and publicly disclosed 	Completion report; Maintenance and Inspection Records

Protection of Physical Cultural Resources OPN 11.03

EMF Sub-Project Cycle	Key Processing Requirements and Steps and Responsible Party	Key Documents
1. Sub-Project Identification and Application	ZECU: <ol style="list-style-type: none"> 1. Involves adequate cultural resource management expertise in sub-project preparation; 2. During environmental and social screening (see steps for Sub-Project Identification in the matrix on Environmental Assessment), identifies possible adverse impacts on physical cultural resources (PCR) in Application, and outlines siting and design options that would avoid or minimize the impacts; 3. Outlines additional information gathering and assessment that will be carried out during detailed sub-project preparation; 	Application Existing documents on physical cultural resources in the sub-project area and anticipated impacts
2. Initial Review and Decision	EMF: <ol style="list-style-type: none"> 1. Involves adequate cultural property expertise in reviewing the Application; 	Application
3. Sub-Project Preparation and Detailed Design	ZCCM: <ol style="list-style-type: none"> 1. Consults local communities on location and use of PCR; 2. Conducts detailed physical examination of sub-project area (defines spatial and temporal boundaries), inventories cultural resources, documents their significance and identifies more comprehensively the possible adverse impacts on cultural resources; 3. Discusses design alternatives to avoid or minimize adverse impacts (direct and indirect); 4. Develops plan and measures for adequate management of PCR (including chance finds⁹) in consultation with local communities and relevant stakeholders; 5. Outlines the monitoring of implementation of the PCR management plan; 	PCR management plan included in EA or Environmental Analysis Necessary permits or licenses from relevant regulator agencies
4. Final Review	EMF:	Legal Agreement

⁹ Chance finds are uncovering of previously unknown physical cultural resources.

Decision	<ol style="list-style-type: none"> Ensures that measures for management of PCR are adequately reflected in record of decision / legal agreement with ZCCM and related bidding documents; Ensures funding for implementation of PCR management (including treatment of chance finds); 	Record of Decision
5. Tender Procedures and Award of Contracts	ZECU: <ol style="list-style-type: none"> Ensures implementation of the cultural property management plan and its incorporation in procurement documents and construction contracts; 	Contract TOR/Technical Specifications
6. Implementation & Supervision	ZECU: <ol style="list-style-type: none"> Ensures adequate monitoring of management of PCR and captures it in regular progress reports; Reports chance finds to EMF and relevant government agencies; 	Progress Reports to EMF
7. Sub-Project Completion, Handover, Maintenance,	ZCCM: <ol style="list-style-type: none"> Assesses effectiveness of cultural property management measures at the completion of the sub-project; 	Completion report

Natural Habitats OP 4.04

EMF Sub-Project Cycle	Key Processing Requirements and Steps and Responsible Party	Key Documents
1. Sub-Project Identification and Application	ZECU: <ol style="list-style-type: none"> Ensures direct, indirect and cumulative impacts (conversion or degradation) on natural habitats are adequately considered during environmental and social screening (see matrix on Environmental Assessment). Follows steps 1. - 8. for Sub-Project Identification in the matrix on Environmental Assessment 	Application Existing documents on natural habitats and anticipated impacts
2. Initial Review and Decision	EMF: <ol style="list-style-type: none"> Considers conversion or degradation of natural habitats when reviewing the Application, seeking independent expertise as necessary Follows steps 1. - 3. for Initial Review in the matrix on Environmental Assessment 	Application
3. Sub-Project Preparation and Detailed Design	ZECU: <ol style="list-style-type: none"> Ensures that conversion or degradation of natural habitats is avoided or minimized; Outlines compensatory protected areas or other mitigation measures if significant conversion or degradation of natural habitats is unavoidable; Addresses natural habitats following the steps for Sub-Project Preparation and Detailed Design in the matrix on Environmental Assessment; 	EA or Environmental Analysis

	EMF: 1. Ensures adequate consideration of impacts on natural habitats following the steps for Sub-Project Preparation and Detailed Design in the matrix on Environmental Assessment;	Necessary permits or licenses from relevant regulator agencies
4. Final Review/ Decision	EMF: 1. Reviews and approves the sub-project for funding based on the set criteria; 2. Ensures that the record of decision / legal agreement between EMF and ZCCM reflects recommendations of the EA or environmental analysis with respect to natural habitats;	Legal Agreement Record of Decision
5. Tender Procedures and Award of Contracts	ZECU: 1. Ensures that TOR and contracts are consistent with the recommendations of EA or environmental analysis on compensatory or mitigation measures with respect to natural habitats;	Technical Specifications, Contract
6. Implementation & Supervision	ZECU: 1. Implements compensatory or mitigation measures for natural habitats following steps 1. – 3. for Implementation and Supervision in the matrix on Environmental Assessment EMF: 2. Follows steps 4. – 5. for Implementation and Supervision in the matrix on Environmental Assessment	Progress Reports to EMF
7. Sub-Project Completion, Handover, Maintenance,	ZECU: 1. Includes evaluation of actual degradation or conversion of natural habitats in sub-project completion report following steps 1. - 2. for Sub-Project Completion in the Environmental Assessment matrix	Completion Report

7. ZCCM-IH Environmental Policy

ZCCM Investments Holdings is committed to implement those environmental plans that are designed to protect public health and safety and operates under a company environmental policy. There is top management support to all the plans that will be developed in the CEP. The implementation of the CEP project will be funded by a World Bank credit. This funding will be accomplished by the setting up of the Environmental Management Facility.

ZCCM-IH Plc is committed to making good in accordance with our statutory and contractual obligations all areas that have been affected by its past mining activities. Rehabilitation and decommissioning of applicable mine sites will be done professionally to meet the requirements of the Zambian safety, health and environmental standards and work to attain International Standards where economically practicable.

ZCCM-IH Plc has therefore set the following objectives in carrying out the rehabilitation and decommissioning:

- a) Protection of public health and safety
- b) Minimize the effect of our activities on the environment.
- c) Rehabilitate areas that have been affected by our past mining activities to the maximum extent economically practicable.

In meeting these objectives, ZCCM-IH Plc will:

- a) Comply with applicable laws, regulations and other legislated conditions as a minimum standard to advance environmental protection and to minimize safety, health and environmental risks.
- b) Communicate openly with appropriate government and other authorities, in particular the general public and other stakeholders, on activities of mine site rehabilitation and facilitate due consideration and respect for the views of all concerned parties.
- c) Assess and take account of safety, health and environmental as well as economic impacts prior to the implementation of rehabilitation programmes.
- d) Apply appropriate safety, health and environmental standards to each particular activity.
- e) Require Contractors to be aware of our safety, health and environmental standards and be in a position to assist in the implementation and maintenance of these standards.
- f) Set appropriate goals, objectives, targets and performance indicators for all rehabilitation activities.
- g) Conduct regular environmental audits at all the sites that are to be rehabilitated and report audit findings to the ZCCM-IH Plc Board of Directors on a regular basis.
- h) To develop the capacity to plan and oversee the environmental management and mine site rehabilitation for those facilities which will remain with us.
- i) Handover rehabilitated sites to appropriate authorities.

8. Resettlement Policy Framework

8.1 Objectives of the Resettlement Policy Framework

The purpose of the Resettlement Framework is to clarify the principles for social impact mitigation as regards compensation for loss of property, livelihood and relocation or resettlement. Based on the principles in this Resettlement Framework, for each sub-project with resettlement activity, a Resettlement Action Plan (RAP) conforming to the requirements of the Outline in Annex 1 will be prepared.

The framework is valid for all subproject operations of ZCCM-IH, whether or not financed under the World Bank supported project. The operational objective of the framework is to provide guidelines to stakeholders participating in the mitigation of adverse social impacts of the project, including rehabilitation / resettlement operations, in order to ensure that project affected persons (PAPs) will not be impoverished by the adverse social impacts of the project.

Accordingly, the ZCCM-IH has set out three overriding objectives to guide the resettlement work: avoidance, compensation and replacement. These objectives are described in more detail below.

Avoidance

Resettlement would be the least desired but necessary option within a site specific remediation package financed by the EMF. Resettlement will not be the traditional result of a project activity but should be seen as one of the options that will be chosen in order to improve the living conditions of people in the project area. It will be a solution of last resort, when abatement is not feasible for technical, financial or legal reasons and when other options to protect human health and safety have been exhausted.

Compensation

Compensation for loss of and access to land

ZCCM-IH is in possession of land which will be used for resettlement purpose and therefore Provincial Planning Office of the Ministry of Local Government and Housing will coordinate the land issue with ZCCM-IH.

Land for land compensation will be applied for PAPs who might lose their land in the process of determination of areas which are unhealthy and unsafe for human habitation.

The compensation will take into account:

- i. The legal status of the land to be compensated although both those with land titles and without will be entitled to compensation.
- ii. The quality of the land as regard to its utilisation, and
- iii. The quantity and the number of people using the land as main source of income.

The project will pay for PAPs to be provided with land in accordance with the legal status of the land that they previously cultivated or exploited, i.e. they would be given alternate land but not necessarily with titles. Economically marginalized PAPs with reduced access to land

will be given particular attention by providing them with more land in order to enhance the sources of their livelihood. Also, home gardens for women will be restored with equivalent facilities in terms of access to sources of water.

Compensation for loss of property

The CEP will compensate PAPs who might lose their property in the process of determination of areas which are unhealthy and unsafe for human habitation. The Zambian Constitution (Chapter 1, Article 16 as well as the Land's Acquisition Act (Chapter 189) recognizes compensation for loss of property due to implementation of development projects. The law includes houses, crops and trees. Zambian law states that compensation for loss of property will be paid at market value determined by market valuation and agreed with Government Valuation.

Compensation for loss of income

There is no legislation in Zambia which provides for compensation for loss of income (unless the loss of income is related to loss of land or loss of property where compensation is made, land for land and compensation at market value). In the absence of national legislation, again the World Bank policy 4.12 will be precedent.

8.2 Resettlement Planning Principle and Process

In the event that resettlement is recommended under the EMP/CEMP process, ZCCM-IH would be responsible for preparation, planning, implementation and follow-up of a RAP (and other required processes as detailed in this Framework). At launching of each subproject, stakeholders will be consulted to establish planning principles and work arrangements aimed at identifying and mitigating adverse social impacts induced by sub-project operations. Baseline surveys and valuation of properties will be effected ahead of the commencement of works. Payment of compensation will be affected at the time of relocation. Progressively, all PAPs will be consulted in the process, be it in the context of resettlement / compensation, in the context of mitigating adverse project related environmental or social impacts.

Likewise, prior to project launching, appropriate government agencies will be consulted by the ZECU. The proposed RAP would be reviewed and approved by the ECZ with requisite disclosure and consultation with stakeholders.

The Project Steering Committee (PSC) will provide overall monitoring of the process, and will be required to approve the RAP. For expediency and to ensure the continuity of EMF operations, a Technical Sub-committee of the PSC will be formed to expedite matters requiring approval of the PSC. The main task of this Technical Sub-Committee will be to approve sub-projects to be funded under the EMF. The Technical Sub-Committee will report to the PSC.

Documentation for each proposed sub-activity, including EMPs, RAPs or other documents, would be submitted to the WB for approval before inclusion in the program of WB-financed activities.

8.3 Legal Framework for Compensation

Zambia Expropriation Laws

While a specific law pertaining to issues of involuntary resettlement does not exist, there are various pieces of legislation that provide guidance regarding legal provisions for expropriation of land. Tabulated below are legal statutes that have provisions pertaining to land and property:-

i) **Constitution of Zambia, Chapter 1 of the Laws of Zambia, Article 16 of the Constitution provides for the fundamental right to property and protects persons from the deprivation of property. It states that a person cannot be deprived of property compulsorily except under the Authority of an Act of Parliament, which provides for adequate payment of compensation. The Article further provides that the Act of Parliament under reference shall provide that in default of agreement on the amount of compensation payable, a court of competent jurisdiction shall determine the amount of compensation.**

ii) **Lands Acquisition Act Chapter 189 of the Laws of Zambia**

Section three of the Lands Acquisition Act empowers the President of the Republic to compulsorily acquire property. Sections 5 to 7 of the Act provides for the issuing of notices to show the intention to acquire, notice to yield up property and to take up possession. Section 10 of the Act provides for compensation as consisting of such moneys as may be agreed from moneys appropriated for the purpose by Parliament. Furthermore, this section provides that where the property to be compulsorily acquired is land, the President, with the consent of the person entitled to compensation shall make in lieu or in addition to any compensation payable under the section, grant other land not exceeding in value of the land acquired. Section 11 of the Lands Acquisition Act provides for the resettlement of the disputes relating to the amount of compensation to the High Court.

In conclusion, under the Lands Acquisition Act, the principles of compensation are pivoted on the basis that the value of the property for the purposes of compensation shall be the value of the amount which the property might be expected to realize if sold on the open market by a willing seller at the time of the publication of the notice to yield up possession of the property.

iii) **Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations 1997 (No. 28 of 1997, promulgated under the Environmental Protection and Pollution Control Act Chapter 204 of the Laws of Zambia).**

Regulation 3 of the Regulations specifies which types of developments require a project brief in the First Schedule.

Regulation 10 provides for public consultation by the developer before submitting the environmental impact statement to the Council by seeking the views of the people in the communities, which will be affected by the project shall:-

- o Publicize the intended project, its effects and benefits in the mass media in a language understood by the community for a period of not less than fifteen days and thereafter at regular intervals throughout the project implementation schedule;
- o After the expiration of fifteen days referred to above, hold meetings with affected communities in order to present information on the project and obtain views of those concerned.

Regulation 11 provides for the contents of environmental impact statements to include:

- The social economic impact of the project, such as resettlement of affected people;
- Socio-economic and cultural considerations such as effects on generation or reduction of employment in the area, social cohesion or resettlement, local economic impacts;
- Effect on land uses and land potential in the project area and surrounding areas.

iv) **The Town and Country Planning Chapter 283**

The Act provides for the preparation, approval and revocation of development plans, for the control of development and subdivision of land, for the assessment and payment of compensation in respect of planning decisions, for the preparation, approval and revocation or modification of regional plans.

Under the Act, any change of land use requires the consent of the local authority and approval by the lands department.

v) **The Zambia Wildlife Act No. 12 of 1998**

Section 32 of the Zambia Wildlife Act provides that any activity or plan which is likely to have an adverse effect on any wildlife species or community in a National Park, Game Management Area or Open Area shall be subjected to a wildlife impact assessment as required by the Zambia Wildlife Authority where resettlement would have or is likely to have an impact on wildlife, a wildlife impact assessment would be required under this Act.

World Bank Operational Policy on Involuntary Resettlement (OP 4.12)

In addition to applicable local laws, the standards of the World Bank's Operational Policy 4.12 (Involuntary Resettlement) will apply to the project. The applicable standards will be the more stringent of the two sources of policy and implementation requirements. The major objectives of the policy are as follows:

- a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

8.4 Resettlement Procedures

Organizational Procedures

The ZECU, its Steering Committee (PSC) and Project Management Unit (PMU) will be responsible for the organizational procedures for the delivery of entitlements. This will be done in coordination with experts having experience on the project. The ZECU / PSC / PMU will also be responsible for financial disbursements, if they occur.

Implementation Process

The process for implementing the mitigation measures is:

- a) To determine if resettlement is required.
- b) To draw up a detailed list of all persons affected (PAPs).
- c) To determine what each PAP stands to lose (valuation of houses, land, crops and other properties).
- d) To determine what the timeframe is for compensation.
- e) To determine what the preferred compensation is (participatory process).
- f) To offer compensation (kind or cash).

Grievance Redress Mechanism

The PAPs will be given opportunities to present complaints and grievances through the resettlement process. The mechanisms for redressing the grievances of the affected populations will be through consultation. Written submission of the grievance, for each subproject, will be received by ZECU. ZECU will have a conflict resolution committee which will review each grievance case. The committee shall comprise of two representatives of the PAPs (one female and one male), one Community Based NGO selected by the PAPs, one representative of ZECU, one Ward Councilor, one representative from Resident Development Committee, and one local government representative (e.g. Town Planner or Community Development Officer).

First, compensation committees including representatives of PAPs, will agree to the compensation rates in accordance with government and World Bank policies. Second, compensation will be paid to individual PAPs only after a written consent of the PAPs, including both husband and wife. Should a PAP, refuse the compensation suggested, the committee will draft its conclusions and submit them to the Technical Subcommittee for deliberation in the aim to settle the differences. Should grievance prevail, a civil court will settle the litigation. Each individual PAP has the right to refuse the compensation rate proposed and take his case to the court when other grievance redress measures have failed.

Arrangements for Funding

The arrangements for funding will include either the facilities to relocate or the cash equivalent. The source for funding will be from the EMF.

Operational Procedures

Institutional Framework

The ZECU via the Project Management Unit (PMU) and Project Steering Committee (PSC) will have overall responsibility for the activities of the project, specifically coordination responsibilities such as monitoring and evaluation.

Project operations regarding resettlement / rehabilitation will be coordinated and monitored by the ZECU office. The Government Valuation Department will be contracted to carry out the valuation of land, houses and trees. A committee to deal with resettlement issues, in parallel to issues of access to resource and conflict resolution will be constituted for each sub-project. The committee shall comprise of two representatives of the PAPs (one female and one male), one Community Based NGO selected by the PAPs, one representative of ZECU, one Ward Councilor, one representative from Resident Development Committee, and one local government representative (e.g. Town Planner or Community Development Officer).

The exact responsibility of each resettlement committee will vary between subprojects, and will be absent if resettlement is not an issue.

Social Assessment at Project Launching

At project launching, an assessment of the social impacts of the subproject will be conducted. For any sub-project not included in the social assessment at the launch, ZECU will carry out a social assessment as soon as the sub-project will be identified. The major objective of the social assessment is to identify the social development issues so as to facilitate the targeting of project benefits. This is done by focusing on the definition of the institutional and participatory framework so as to enhance participation in decision-making processes. At the same time the study team should identify the impact on populations and also prepare for adequate mitigating actions. It is important social impact monitoring be incorporated throughout the life cycle of the project to ensure that benefits from the project are received in a sustainable way and therefore a development of a methodology of monitoring and evaluation is also part of a social assessment.

The social impact assessment will need to focus on data related to social, economic and political structures. Key issues to be addressed are the following:

- (i) the social situation of the people affected by the subproject (social groupings, locality, uniformity or diversity of background, degree of identification with the locality in question, etc.
- (ii) socio-economic diversity (income sources, agriculture, commerce, markets, public services, transports, inter-commercial zone relationships, trading, exchange
- (iii) identify formal and informal agencies in public and private sectors (members of local communities, NGO's, donors, government agencies, private enterprises)
- (iv) define the role and participation of the different stakeholders in the implementation of the project (in management of resources, in the decision-making processes, in general being negatively affected or benefiting from project)

- (v) define the impact of project activities on the different stakeholders and the activities that will be planned and implemented in order to enhance or mitigate these impacts.
- (vi) Specify the different impact categories per stakeholder (household)
- (vii) define the institutional mechanisms that will ensure that local communities and other stakeholders participates in planning, implementation and monitoring of resettlement
- (viii) design the participatory processes for involving stakeholders in planning, implementation and follow-up of project activities.
- (ix) Identify the specific benefit-related activities that will increase stakeholder's profits from project activities and therefore enhance the success potential of the resettlement activity.

A key task to be conducted under this process is listing of all PAPs and general household data such as: family size, gender and age information; education; occupation; land ownership, tenure arrangements, inheritance regulations; sources of income and so forth. The survey of household is necessary in order to avoid an influx of people trying to take advantage of the compensation and rehabilitation. A cut off date will be proclaimed. That means, a date from which eligibility for compensation will be terminated. New inhabitants coming to the project affected areas will not be considered for compensation.

The process for preparation and approval of resettlement plan(s)

ZCCM-IH will contract resettlement specialists who will, in collaboration with national specialists, prepare the resettlement plan(s). Once a draft is available and found satisfactory to ZCCM-IH and the government, it will be sent by the government to the World Bank who will review and approve or disapprove of the resettlement plan. If the draft plan is approved, the resettlement process can continue to proceed but if it is found unsatisfactory, the necessary revisions will need to be made and the new draft will need to be re-submitted to the World Bank.

8.5 Criteria and Eligibility for Compensation

The compensation and rehabilitation will be provided for all affected people under the following conditions:

- a) if their land area or income source will be removed due to land acquisition because it is considered too hazardous to remain living/cultivating on that land;
- b) if their houses (or residential plots) will need to be demolished (same reasons as above), and;
- c) if their other properties (crops, trees, and other facilities) or access to these properties will be cut off and the properties destroyed because of health and safety reasons.

All affected people, regardless of their legal status, will be provided compensation and rehabilitation based on the policies adopted by the project. Lack of legal paper of their customary rights of occupancy certificates shall not be an obstacle for obtaining compensation for them. The resettlement policy should apply to all components under the

project regardless (whether or not they are directly funded by the Bank and in cases where other donors are involved). It should also cover resettlement resulting from complementary activities that are not part of the Bank assisted investment projects, but are necessary to achieve its objectives as set forth in the project documents. The policy applies to all affected and/or displaced persons regardless of the total number affected or the severity of impact. Particular attention is to be paid to the needs of vulnerable groups among those displaced, especially those below the poverty line, the elderly, women and children.

The compensation envisaged under this project is not a recognition of/and does not in anyway confer any legal status or any rights on the affected PAPs with regard to their entitlement to the land from which they are being relocated. However, to the fullest extent possible, informal tenure will be regularized under project auspices through usual government procedures.

People involved in illegal and destructive activities at sites within the project area, such as those who have entered the area to strip materials from mining structures, and those who may enter once a cut-off date is established for a given site, will not be considered as PAPs, and will therefore not be considered for compensation.

Project Implementation

The ZECU will consult with the stakeholders to assess presumed adverse social impacts of project operations and plan for the expropriation / compensation / resettlement operations to be executed. Once the resettlement plan is prepared, reviewed and approved by the government and the World Bank, implementation of the expropriation / compensation and resettlement / relocation operations should be completed as soon as possible.

The implementation procedures will be carried out by the contracted specialists in line with the approved resettlement plan.

8.6 *Methods for Valuing Affected Assets*

Organizational Procedures for Delivery of Entitlements

The actual valuation exercise of all impact on PAPs, including valuation of property, will be carried out by the "Government Valuation Department" of the Republic of Zambia.

With regard to land and structures, "replacement costs" is defined as follows:

- for agricultural land, it is the pre-project or pre-displacement, whichever is higher, market value of land of equal productive potential or use located in the vicinity of the affected land, plus the cost of land preparation to levels similar to those of the affected land, plus the cost of any registration and transfer taxes;
- for land in urban areas, it is the pre displacement market value of land of equal size and use, with similar or improved public infrastructure facilities and services and located in the vicinity of the affected land, plus the cost of any registration and transfer taxes;
- for houses and other structures, it is the market cost of the materials to build a replacement structure with an area and quality similar to or better than those of the affected structure, or to repair a partially affected structure, plus the cost of transporting building materials to the construction site, plus the cost of any labour and contractor's fees, plus the cost of any registration and transfer taxes.

In determining the replacement cost, depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived from the project deducted from the valuation of an affected asset. Where Zambia law does not meet the standard of compensation at full replacement cost, World Bank guidelines and technical specifications for compensation at replacement cost will be applied.

Method and Basis of Valuation

Two methods can be used to conduct the valuation of property for PAPs. These are replacement cost and compensation value³ (see also Annex 3).

Replacement Cost

The replacement cost approach is based on the premise that the costs of replacing productive assets that have been damaged because of project operations. These costs are taken as a minimum estimate of the value of measures that will reduce the damage or improve on-site management practices and thereby prevent damage. The approach involves direct replacement of expropriated assets and covers an amount that is sufficient for asset replacement, moving expenses and other transaction costs. This minimum value is then compared to the cost of the new measures. This is arrived at, by analyzing current construction costs relative to design, materials employed, workmanship and final finish of the subject properties.

The basis of the valuation is Gross Current Replacement Cost (GCRC). Gross Current Replacement Cost is defined as the estimated cost of erecting a new building having the same gross external areas that of the existing one, with the site works and services on a similar piece of land. The valuation process will also consider the use of "compensation value" for affected properties.

Compensation

Compensation value is defined as an amount which is above the gross current replacement cost, including the costs for the inconvenience caused to the PAP by relocation, and to enable the same PAP to build slightly better houses than what they currently occupy.

Compensation for land, structures, business, fixed improvements and other temporary assets will be based on market valuation, productivity valuation, negotiated settlements, material and labour valuation, position of salvage materials and other fees paid. It should be noted that lack of title, license or permit will not be a bar to compensation. Because, even squatters have construction costs relative to design, materials employed, workmanship and final finish. If relocation of business becomes necessary, access to customers and suppliers will be taken into account. In addition, workers losing employment in the process of relocating should be entitled to transitional income support.

PAPs who lose wages or other income during the process of relocation should be compensated for their losses. PAPs for specific sites will include plans to compensate people during periods of employment training if such training is included as a necessary element of the restoration of their incomes. In preparing the valuation, average costs will have to be assumed. It should be noted that costs of construction vary from one locality to the other.

Compensation Procedures and Civil Work Schedule

A social assessment will be used to determine the number of PAPs in a subproject area. The staff of the ZECU, the local government/ consultants will conduct the assessment. Works

anticipated to be carried out under the CEP will predominantly consist of remediation civil works aimed at mitigating environment liabilities of ZCCM/GRZ. These works will involve environmental cleaning up, maintenance of tailing dams, rehabilitation of dumps, works associated with resettlement of people and any related compensation.

These works are in two categories as follows:

- a) Emergency works, and;
- b) Works identified from the EMPs from ZCCM and investors. Others works will be identified by stakeholders such as NGO.

Some of these works have already been identified and should be ready for procurement immediately after project approval.

Compensation will be paid at replacement cost. Expropriation and compensation committees will be established for PAPs in each of the operations following the social impact assessment. The committees will be constituted as defined in section 5. Together they will conduct the registration of affected PAPs and properties. Likewise, they will establish the compensation rates, taking into account, World Bank requirements. RAPs will establish a timetable for payment of compensation. Some advance payments may be needed to enable people to be ready for their move, or retraining, while all payments for structures and lands must be completed before the actual move is made.

Compensation procedures will include three steps:

- a) Establishment of compensation committees;
- b) Assessment of replacement values of identified assets; and,
- c) Establishment of compensation rates for all assets to be expropriated.

For instance, compensation for trees will take into account the distinction between various types of trees and their economic values; fruit trees versus non-fruit trees etc. Fruit trees will be compensated for the value of lost production until another tree comes to the same stage of productivity.

Sources of Funding

Resettlement for PAPs as well as for necessary studies will be funded like any other activity eligible under the EMF and the same procedures will be applicable as for any other project activity.¹⁰

Consultation and Participation

Relocating or compensating people implies communication or dialogue with the stakeholders. The consultation and participation process will include four phases:

- i) data collecting;

¹⁰ The Bank does not disburse against cash compensation and other resettlement assistance paid in cash, or against the cost of land (including compensation for land acquisition). However, it may finance the cost of land improvement associated with resettlement activities.

- ii) preparation and planning of operations;
- iii) implementation of operations, and;
- iv) monitoring and evaluation.

The ZECU will coordinate all four operations.

Data Collecting Phase

The data collecting phase will include consultations with PAPs, the authorities and other relevant stakeholders. The data collected will serve as instruments for the monitoring of the social mitigation measures applied. PAPs will be consulted to participate in the data-collecting phase by providing socio-economic information about their livelihoods. Also, PAPs will be consulted through "town hall" meetings at the municipalities and other local government facilities to share information about the project, discuss the social impacts of project operations and the mitigation measures suggested. The contributions of the PAPs will be integrated into the subproject implementation process, from planning to evaluation. Furthermore, data about the social impacts of the subprojects and the mitigation measures suggested will be provided to local newspapers and radio stations.

The data-collecting phase includes three major processes:

- i) Preparation of the resettlement / rehabilitation policy framework;
- ii) Execution of the social impact assessment (to be initiated / completed at project launching), and;
- iii) Preparation of the presumed RAP (to be initiated / completed before civil works).

Planning Phase

ZECU, PAPs (planning inputs, sounding board and advice-giving) and representatives of local communities will be responsible for the planning phase.

Planning and coordination of the tasks of the various stakeholders is the key to a successful implementation of the expropriation / compensation arrangements. The objective of the planning is to ensure that all affected people are compensated in full for their losses, and where appropriate, enabled to improve their standards of living, income earning capacity, and production levels, or at least to restore them. Workshops will be organised with PAPs, representatives of local communities and relevant government agencies, at project launching and at the commencement of every subproject identified to have adverse social impacts.

The different stakeholders will be requested to participate in the decision making process and provide inputs in the area of their expertise in order to establish a coherent work plan. Also, PAPs will be consulted in the aim to obtain their positions on issues at stake. The requirements of their work programs / businesses activities will be incorporated into the expropriation / compensation plans.

The work will focus on:

- a) taking stock of the legal framework for compensation;
- b) settle institutional arrangements and mechanisms for payment of compensation;
- c) define tasks and responsibilities of each stakeholder, and;
- d) establish a work plan.

Implementation Phase

The execution of the expropriation / compensation operations will be conducted by ZECU, contracted specialist and other government agencies. PAPs will be consulted about the compensation arrangements prepared. Cash compensation amount and size of land offered for compensation will be presented to each eligible PAP (husband and wife) for consideration and endorsement before cash payment or land for land compensation can be effected.

The timetables for resettlement will be coordinated with those of any civil works to ensure that both activities can proceed without disruption or undue harm.

Monitoring and Evaluation Phase

The ZECU will organize project completion workshops with government agencies, NGOs and representatives of PAPs after completion of the expropriation / compensation operations but prior to the closure of the mitigation measures. The aim of that exercise is to assess progress in the operations executed, suggest corrective measures where needed and solve pending issues.

After completion of all expropriation / compensation operations, PAPs will be consulted in a household survey. The aim of that survey is to assess the impacts of the social mitigation measures implemented. Likewise, rural communities with PAPs will be consulted to provide their assessments of the impacts of the social mitigation measures applied.

The findings of the survey and the workshops will be presented in the project completion report, which will be established by the ZECU.

8.7 Approach to Monitoring and Evaluation

Monitoring Principles

For each subproject which will include resettlement, a monitoring and an evaluation plan of the mitigation measures will be established. The scope of the plan will take into account the size of the social impacts to be mitigated while respecting the basic monitoring principles. The plans will describe:

- The internal monitoring process;
- Key monitoring indicators (provide a list of monitoring indicators, which would be used for internal monitoring);
- Institutional (including financial) arrangements;
- Frequency of reporting and content for internal monitoring, process for integrating feedback from internal monitoring into implementation;
- Financial arrangements for external monitoring and evaluation, including process for awarding and maintenance of contracts for the duration of resettlement;
- Methodology for external monitoring;
- Key indicators for external monitoring, focusing on outputs and impacts;

- **Frequency of reporting, content for external monitoring and process for integrating feedback from external monitoring into implementation.**

Internal Monitoring and Evaluation

Monitoring and evaluation will be a continuous process. Internal monitoring will be conducted by the ZECU, following the plan described. The ZECU will continuously take stock of all expropriation / compensation reports and discuss their outcomes in its technical meetings. The CEMP's procurement/financial will directly monitor compensation costs. ZECU progress reports will include a section on progress made regarding mitigation of adverse social impacts. The steering committee will review project activities, including social mitigation measures and provide guidance.

External Monitoring and Evaluation

External monitoring will be conducted through World Bank supervision missions. World Bank supervision mission (twice a year) will, however, not be sufficient to monitor progress in the mitigation of adverse social impacts. Given the limited resettlement capacity in Zambia, World Bank supervision missions should be coupled with capacity building inputs from an international resettlement expert. This would ensure; progress on the ground; strengthen analytical capacity and safeguard proper documentation of operations executed and the progress made.

Before closure of the mitigation of adverse social impacts, the ZECU will consult with a local NGO to conduct an evaluation of the mitigation measures executed. The sociology and anthropology departments at Zambian universities may also be consulted. The evaluation report will be used as a planning instrument to correct pending issues and suggest a post-project monitoring period in the aim to ensure that PAPs have not been subject to impoverishment induced by project operations.

Annexes

Annex 1. Outline of a Resettlement Plan

Individual RAPs may refer to this policy framework if subjects to be covered are included in the framework.

Introduction - Project Background

- Brief introduction about the project
- List of project components
- Description of project components causing land acquisition and resettlement.

Overall estimates of land acquisition and resettlement.

- Minimizing resettlement
- Describe efforts made for minimizing resettlement
- Describe the result of these efforts

Census and Socio-economic Surveys

- Identify all categories of impacts (loss of property and assets; loss of livelihood; impacts on groups and communities)
- Give formats and tables for census surveys
- Provide outlines for socio-economic survey
- Summarize process for consultations on the results of the census surveys
- Describe need and mechanism to conduct updates, if necessary

Resettlement Policy and Legal Framework

- Identify areas of conflict between local laws and World Bank policies, and project-specific mechanisms to address conflicts
- Provide a definition of project affected persons
- Describe entitlement categories for each category of impact
- Describe method of evaluation used for affected structures, land, trees and other assets
- Provide entitlement matrix

Resettlement Sites

- Does the project need community relocation? Have these been approved by the PAPs?
- Give layouts and designs of residential sites
- Have the PAPs agreed to the strategy for housing replacement?
- Have the selected sites been explicitly approved by the PAPs describe the specific process of showing the sites to the PAPs and obtaining their opinion on them.
- Describe the technical and feasibility studies conducted to determine the suitability of the proposed sites.
- Is the land quality/area adequate for allocation to all of the PAPs eligible for allocation of agricultural land?

- Give calculations relating to site requirements and availability.
- Describe mechanisms for (i) procuring, (ii) developing and (iii) allotting resettlement sites
- Provide detailed description of the arrangements for site development for agriculture, including funding of development costs.

Institutional Arrangements

- Identify and discuss the institutions responsible for delivery of each item/activity in the entitlement policy
- Describe the project resettlement unit - functions and organizational structure of the unit and coordination relationship
- State how coordination issues will be addressed in cases where resettlement is spread over a number of jurisdictions.
- Identify who will coordinate all agencies-with the necessary mandate
- State when the project resettlement unit will be staffed.
- Describe plans for training and development of staff in the resettlement unit/local agencies.
- Discuss initiatives taken to improve the long term capacity or resettlement institutions

Income Restoration

- Briefly spell out the main restoration strategies for each category of impacts, and describe the institutional, financial and technical aspects.
- Describe the process of consultation with project affected persons (PAPs) to finalize strategies for income restoration
- How do these strategies vary with the area/locality of impact?
- Are the compensation entitlements sufficient to restore income streams for each category of impact? What additional economic rehabilitation measures are necessary?
- Does income restoration require change in livelihoods, development of alternative farmlands, etc., or involve some other activities, which require a substantial amount of time for preparation and implementation?
- How does the action plan propose to address impoverishment risks?
- Are choices and options built into the entitlements? If so, what is the mechanism for risk and benefit analysis of each option? What is the process of ensuring that PAPs have knowledge about alternatives and can make informed decisions? Is there a mechanism to encourage vulnerable groups among PAPs to choose lower risk options such as support in kind rather than cash?
- What are the main institutional and other risks for the smooth implementation of the resettlement programs?

Implementation Schedule

- List and briefly describe the chronological steps in implementation of the resettlement, including identification of agencies responsible for each step of the program.
- Prepare a month-wise implementation schedule of activities to be undertaken as part of the resettlement implementation (Gantt chart)

- Describe the linkages between resettlement implementation and initiation of civil works for each of the project components.

Costs and Budget

- Clear statement of financial responsibility and authority.
- Ensure that the cost of resettlement is included in the overall project costs.
- Identify components, if any, to be funded by donors such as the World Bank, JICA, NORAD, DANIDA, etc.
- Resettlement costs should be a part of annual involvement plans.
- Prepare a cost-wise, item-wise budget estimate for the entire duration of resettlement implementation, including administrative expense, monitoring and evaluation and contingencies.
- List the sources of funds and describe the flow of funds.
- Describe the specific mechanisms to adjust cost estimates by the inflation factor.
- Describe provisions to account for physical and price contingencies.

Participation and Consultation

- Describe the process of consultation/participation in resettlement preparation and planning.
- Describe the various stakeholders.
- Describe the plan for disseminating information to project affected persons (PAPs), such as provisions for a booklet to inform PAPs and other stakeholders.
- Describe examples of outcomes of participation and consultation, such as how local beneficiaries' views have influenced the design process, entitlements and support mechanisms, or other issues.
- Have workshops been conducted, or are they planned? Who are the participants, and what are the expected outcomes?

Grievance Redress

- Describe the step-by-step process for registering and addressing grievances
- Provide specific details regarding registering complaints, response time, communication modes, etc.
- Describe the mechanism for appeal
- Describe the provisions to approach civil courts in case other provisions fail.

Monitoring and evaluation

- Describe the internal monitoring process
- Define key monitoring indicators. Provide a list of monitoring indicators, which would be used for internal monitoring.
- Describe institutional (including financial) arrangements.
- Describe frequency of reporting and content for internal monitoring.
- Describe process for integrating feedback from internal monitoring into implementation.

- Describe financial arrangements for external monitoring and evaluation, including process for awarding and maintenance of contracts for the duration of resettlement.
- Describe methodology for external monitoring.
- Define key indicators for external monitoring, focussing on outputs and impacts.
- Describe frequency of reporting and content for external monitoring.
- Describe process for integrating feedback from external monitoring into implementation.

Annex 2. World Bank Operational Policy 4.12

This directive was prepared for the guidance of staff of the World Bank and is not necessarily a complete treatment of the subjects covered.

OP 4.12 Involuntary Resettlement

Introduction

1. This directive describes Bank¹ policy and procedures on involuntary resettlement, as well as the conditions that borrowers are expected to meet in operations involving involuntary resettlement.² Planning and financing resettlement components or free-standing projects are an integral part of preparation for projects that cause involuntary displacement. Any operation that involves land acquisition or is screened as a Category A or B project for environmental assessment purposes³ should be reviewed for potential resettlement requirements early in the project cycle (para. 20).
2. Development projects that displace people involuntarily⁴ generally give rise to severe economic, social, and environmental problems: production systems are dismantled; productive assets and income sources are lost; people are relocated to environments where their productive skills may be less applicable and the competition for resources greater; community structures and social networks are weakened; kin groups are dispersed; and cultural identity, traditional authority, and the potential for mutual help are diminished. Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out.⁵

Policy Objectives

3. The objective of the Bank's resettlement policy is to ensure that the population displaced by a project receives benefits from it. Involuntary resettlement is an integral part of project design and should be dealt with from the earliest stages of project preparation (Para. 28), taking into account the following policy considerations:
 - (a) Involuntary resettlement should be avoided or minimized where feasible, exploring all viable alternative project designs. For example, realignment of roads or reductions in dam height may significantly reduce resettlement needs.
 - (b) Where displacement is unavoidable, resettlement plans should be developed. All involuntary resettlement should be conceived and executed as development programs, with resettlers provided sufficient investment resources and opportunities to share in project benefits. Displaced persons should be
 - (i) compensated for their losses at full replacement cost prior to the actual move;
 - (ii) assisted with the move and supported during the transition period in the resettlement site; and
 - (iii) assisted in their efforts to improve their former living standards, income earning capacity, and production levels, or at least to restore them. Particular attention should be paid to the needs of the poorest groups to be resettled.

- (c) Community participation in planning and implementing resettlement should be encouraged. Appropriate patterns of social organization should be established, and existing social and cultural institutions of resettlers and their hosts⁶ should be supported and used to the greatest extent possible.
- (d) Resettlers should be integrated socially and economically into host communities so that adverse impacts on host communities are minimized. The best way of achieving this integration is for resettlement to be planned in areas benefiting from the project and through consultation with the future hosts.
- (e) Land, housing, infrastructure, and other compensation should be provided to the adversely affected population, indigenous groups,⁷ ethnic minorities, and pastoralists who may have usufruct or customary rights to the land or other resources taken for the project. The absence of legal title to land by such groups should not be a bar to compensation.

Resettlement Planning

- 4. Where large-scale⁸ population displacement is unavoidable, a detailed resettlement plan, timetable, and budget are required. Resettlement plans should be built around a development strategy and package aimed at improving or at least restoring the economic base for those relocated. Experience indicates that cash compensation alone is normally inadequate. Voluntary settlement may form part of a resettlement plan, provided measures to address the special circumstances of involuntary resettlers are included. Preference should be given to land-based resettlement strategies for people dislocated from agricultural settings. If suitable land is unavailable, nonland-based strategies built around opportunities for employment or self-employment may be used.

Plan Content

- 5. The content and level of detail of resettlement plans, which will vary with circumstances, especially the magnitude of resettlement, should normally include a statement of objectives and policies, an executive summary, and provision for the following:
 - (a) Organizational responsibilities (para. 6);
 - (b) Community participation and integration with host populations (paras. 7-10);
 - (c) Socioeconomic survey (para. 11);
 - (d) Legal framework (para. 12),
 - (e) Alternative sites and selection (para. 13);
 - (f) Valuation of and compensation for lost assets (paras. 14-16);
 - (g) Land tenure, acquisition, and transfer (para. 17);
 - (h) Access to training, employment, and credit (para. 18);
 - (i) shelter, infrastructure, and social services (para. 19);
 - (j) Environmental protection and management (para. 20); and
 - (k) Implementation schedule, monitoring, and evaluation (paras. 21-22).

Cost estimates should be prepared for these activities, and they should be budgeted and scheduled in coordination with the physical works of the main investment project.

Organizational Responsibilities

6. The responsibility for resettlement rests with the borrower. The organizational framework for managing resettlement must be developed during preparation and adequate resources provided to the responsible institutions. The organization responsible for resettlement should be strengthened when entities executing infrastructure or other sector-specific projects lack the experience and outlook needed to design and implement resettlement. One alternative is to create a special resettlement unit within the project entity: this can facilitate the involvement of other line agencies. Another alternative is to entrust resettlement to the regional or town administration that knows the population and area, can mobilize local expertise, speaks the resettlers' language, and will ultimately be responsible for the integration of resettlers into the host population and area. There also may be considerable scope for involving nongovernmental organizations (NGOs) in planning, implementing, and monitoring resettlement.⁹

Community Participation and Integration with Host Population

7. Most displaced people prefer to move as part of a pre-existing community, neighbourhood, or kinship group. The acceptability of a resettlement plan can be increased and the disruption caused by resettlement can be cushioned by moving people in groups, reducing dispersion, sustaining existing patterns of group organization, and retaining access to cultural property¹⁰ (temples, pilgrimage centres, etc.), if necessary, through the relocation of the property.
8. The involvement of involuntary resettlers and hosts in planning prior to the move is critical. Initial resistance to the idea of involuntary resettlement is to be expected. To obtain cooperation, participation, and feedback, the affected hosts and resettlers need to be systematically informed and consulted during preparation of the resettlement plan about their options and rights. They should also be able to choose from a number of acceptable resettlement alternatives. These steps can be taken directly or through formal and informal leaders and representatives. Experience has shown that local NGOs can often provide valuable assistance and ensure viable community participation. Moreover, institutionalized arrangements, such as regular meetings between project officials and communities, should be provided for resettlers and hosts to communicate their concerns about the resettlement program to project staff throughout planning and implementation.¹¹ Particular attention must be given to ensure that vulnerable groups such as indigenous people, ethnic minorities, the landless, and women are represented adequately in such arrangements.
9. The plan should address and mitigate resettlement's impact on host populations. Host communities and local governments should be informed and consulted. Any payment due the hosts for land or other assets provided to resettlers should be promptly rendered. Conflicts between hosts and resettlers may develop as increased demands are placed on land, water, forests, services, etc., or if the resettlers are provided services and housing superior to that of the hosts. Conditions and services in host communities should improve, or at least not deteriorate. Providing improved education, water, health, and production services to both groups fosters a better social climate for their integration. In the long run, the extra investment will help prevent conflicts and secure the project's aims.
10. Successful resettlement requires a timely transfer of responsibility from settlement agencies to the settlers themselves. Otherwise, a dependency relationship may arise, and agency resources may become tied up in a limited number of continually supervised schemes. Local leadership must be encouraged to assume responsibility for environmental management and infrastructure maintenance.

Socioeconomic Survey

11. Resettlement plans should be based on recent information about the scale and impact of resettlement on the displaced population. In addition to describing standard household characteristics, socioeconomic surveys should describe
- (a) the magnitude of displacement;
 - (b) information on the full resource base of the affected population, including income derived from informal sector and non farm activities, and from common property;
 - (c) the extent to which groups will experience total or partial loss of assets;
 - (d) public infrastructure and social services that will be affected;
 - (e) formal and informal institutions (such as community organizations, ritual groups, etc.) that can assist with designing and implementing the resettlement programs; and
 - (f) attitudes on resettlement options. Socioeconomic surveys, recording the names of affected families, should be conducted as early as possible to prevent inflows of population ineligible for compensation.

Legal Framework

12. A clear understanding of the legal issues involved in resettlement is needed to design a feasible resettlement plan. An analysis should be made to determine the nature of the legal framework for the resettlement envisaged, including
- (a) The scope of the power of eminent domain, the nature of compensation associated with it, both in terms of the valuation methodology and the timing of payment;
 - (b) The legal and administrative procedures applicable, including the appeals process and the normal time-frame for such procedures;
 - (c) Land titling and registration procedures; and,
 - (d) Laws and regulations relating to the agencies responsible for implementing resettlement and those related to land compensation, consolidation, land use, environment, water use, and social welfare.

Alternative Sites and Selection

13. The identification of several possible relocation sites and the demarcation of selected sites is a critical step for both rural and urban resettlement. For land-based resettlement, the new site's productive potential and location advantages should be at least equivalent to those of the old site. The Bank encourages "land for land" approaches, providing replacement land at least equivalent to the lost land. For rural settlers, irrigation, land reclamation, tree crop development, intensification of production, and other innovations often can provide adequate production potential on limited amounts of land to resettle agriculturalists, even in countries with high population densities. In selecting sites, attention must be paid to the availability of sources of off-farm income (fishing, gathering forest products, and seasonal wage employment) to complement farm income. For urban resettlers, the new site should ensure comparable access to employment, infrastructure, services, and production opportunities. For both rural and urban resettlement, the borrower needs to
- (a) Develop institutional and technical arrangements for identifying and preparing relocation sites, e.g., pooling together small plots, wasteland reclamation, land levelling, and terracing;
 - (b) Draw up timetables and budgets for site preparation and transfer;
 - (c) Make legal arrangements for transferring titles to resettlers; and,
 - (d) Consider, when necessary, a temporary freeze on land transactions within the relocation area to prevent land speculation. Though the Bank does not normally disburse against land acquisition, it can finance land improvement to accommodate resettlers.

Valuation of and Compensation for Lost Assets

14. Valuation of lost assets should be made at their replacement cost. Compensation is facilitated by
- (a) paying special attention to the adequacy of the legal arrangements concerning land title, registration, and site occupation;
 - (b) publicizing among people to be displaced the laws and regulations on valuation and compensation;
 - (c) establishing criteria for determining the resettlement eligibility of affected households, e.g., house-holds that have only partially lost their assets but are no longer economically viable should be entitled to full resettlement; and
 - (d) developing mechanisms to prevent illegal encroachers and squatters, including an influx of non-residents entering to take advantage of such benefits, from participating in the compensation arrangements, by an early recording of the numbers and names of affected populations entitled to compensation/ rehabilitation.
15. Some types of loss, such as access to
- (a) public services;
 - (b) customers and suppliers; and
 - (c) fishing, grazing, or forest areas, cannot easily be evaluated or compensated for in monetary terms. Attempts must therefore be made to establish access to equivalent and culturally acceptable resources and earning opportunities.
16. Vulnerable groups at particular risk are indigenous people, the landless and semi landless, and households headed by females who, though displaced, may not be protected through national land compensation legislation. The resettlement plan must include land allocation or culturally acceptable alternative income-earning strategies to protect the livelihood of these people.

Land Tenure, Acquisition, and Transfer

17. Resettlement plans should review the main land tenure and transfer systems, including common property and nontitle-based usufruct systems governed by locally recognized land allocation mechanisms. The objective is to treat customary and formal rights as equally as possible in devising compensation rules and procedures. The plan should address the issues raised by the different tenure systems found in a project area, including
- (a) The compensation eligibility of land-dependent populations;
 - (b) The valuation procedures applicable to different tenure types; and,
 - (c) The grievance procedures available for disputes over land acquisition. Plans should contain provisions for conducting land surveys and regularizing land tenure in the earliest stages of project development. Planning should also anticipate the approximate time needed to acquire and transfer land.

Access to Training, Employment, and Credit

18. Normally, general economic growth cannot be relied upon to protect the welfare of the project-affected population. Thus, alternative employment strategies are needed for non-agricultural displaced people, or where the land that can be made available is not sufficient to accommodate all the displaced farmers. The resettlement plan should, where feasible, exploit new economic activities made possible by the main investment requiring the displacement. Vocational training, employment counselling, transportation to jobs, employment in the main investment project or in resettlement activities, establishment of industries, incentives for

firms to locate in the area, credit and extension for small businesses or reservoir aquaculture, and preference in public sector employment should all be considered where appropriate.

Shelter, Infrastructure, and Social Services

19. To ensure the economic and social viability of the relocated communities, adequate resources should be allocated to provide shelter, infrastructure (e.g., water supply, feeder roads), and social services (e.g., schools, health care centres).¹² Site development, engineering, and architectural designs should be prepared for shelter, infrastructure, and social services. Since community or self-built houses are often better accepted and more tailored to the resettlers' needs than contractor-built housing, provision of a building site with suitable infrastructure, model plans, building materials, technical assistance, and "construction allowances" (for income foregone while resettlers build their houses) is an option communities should be offered. Planning for shelter, infrastructure, and services should take into account population growth.

Environmental Protection and Management

20. The screening process for an environmental assessment (EA) normally classifies projects involving involuntary resettlement as Category A.¹³ The EA of the main investment requiring the resettlement should thus cover the potential environmental impacts of the resettlement. The resettlement plan must be developed in coordination with the EA and define the boundaries of the relocation area, and calculate incremental population density per land unit. In agricultural projects (involving, for example, relocation to the catchment surrounding a reservoir, or to a downstream command area), if the incoming resettled population is large in relation to the host population, such environmental issues as deforestation, overgrazing, soil erosion, sanitation, and pollution are likely to become serious and plans should either include appropriate mitigating measures, including training of oustees, or else should allow for alternative sites to be selected. Urban resettlement raises other density-related issues (e.g., transportation capacity, access to potable water, sanitation systems, health facilities, etc.). Constructive environmental management, provided through the EA's mitigation plan,¹⁴ may provide good opportunities and benefits to resettlers and host populations alike (e.g., project-financed compensatory forestation not only replaces the forests submerged by reservoirs but also offers gainful employment). If the likely consequences on the environment are unacceptable, alternative and/or additional relocation sites must be found.

Implementation Schedule, Monitoring, and Evaluation

21. The timing of resettlement should be coordinated with the implementation of the main investment component of the project requiring the resettlement. All resettlement plans should include an implementation schedule for each activity covering initial baseline and preparation, actual relocation, and post-relocation economic and social activities. The plan should include a target date when the expected benefits to resettlers and hosts would be achieved.
22. Arrangements for monitoring implementation of resettlement and evaluating its impact should be developed by the borrower during project preparation and used during supervision.¹⁵ Monitoring provides both a warning system for project managers and a channel for the resettlers to make known their needs and their reactions to resettlement execution. Monitoring and evaluation units should be adequately funded and staffed by specialists in resettlement. In-house monitoring by the implementing agency may need to be supplemented by independent monitors to ensure complete and objective information. Annual and midterm reviews are desirable for large-scale resettlement. The borrower should be required to continue impact evaluation for a reasonable period after all resettlement and related development activities have been completed. The borrower should also be required to inform the Bank about the findings.

Bank Role and Project Options

23. The Bank supports borrowers' efforts through:
 - (a) Assistance in designing and assessing resettlement policy, strategies, laws, regulations, and specific plans;
 - (b) Financing technical assistance to strengthen the capacity of agencies responsible for resettlement; and
 - (c) Direct financing of the investment costs of resettlement. The Bank may sometimes finance resettlement even though it has not financed the main investment that made displacement and resettlement necessary (para. 26).
24. The task manager (TM) should inform the borrower of the Bank's resettlement policy. Starting early in the project cycle, the TM with the support of Bank operational, research, and legal staff should assess government policies, experiences, institutions, and the legal framework covering resettlement. In particular, the TM needs to ensure that involuntary resettlement is avoided or minimized, that laws and regulations concerning displaced people provide compensation sufficient to replace all lost assets, and that displaced persons are assisted to improve, or at least restore, their former living standards, income earning capacity, and production levels.
25. The adequacy of the resettlement plan should be reviewed by appropriate social, technical, and legal experts. Resettlement specialists should visit the possible resettlement sites and review their suitability. In the case of large-scale relocation, such experts should be included in independent technical or environmental review boards.¹⁶

26. Bank financing of resettlement can be provided as follows:
- (a) As a component of the main investment project causing displacement and requiring resettlement.
 - (b) If large enough, as a freestanding resettlement project with appropriate cross-conditionalities, processed and implemented in parallel with the investment project that causes the displacement. The latter approach may better focus country and Bank attention on the effective resolution of resettlement issues.
 - (c) As a sector investment loan.¹⁷ Where the specific resettlement needs of each subproject are not known in advance, the borrower would need to agree to resettlement policies, planning principles, institutional arrangements, and design criteria that meet Bank policy and requirements as a condition of the loan. An estimate should be provided of total population to be displaced and overall resettlement costs, as well as an evaluation of proposed resettlement sites. Subprojects in sector investment loans should be screened by the implementing agency to ensure consistency with this directive, and approved individually by the Bank. For countries with a series of operations requiring resettlement, efforts to improve the policy, institutional, and legal framework for resettlement should form part of the Bank's ongoing country and sector dialogue with the government. These efforts should be appropriately reflected in economic and sector work and in country strategy papers and briefs.

Processing and Documentation

27. The Regional Vice President (RVP) should be kept informed of major resettlement issues, and his guidance sought where necessary. The Regional Environment Division (RED), the Legal Department (LEG), and settlement specialists in Sector Policy and Research (PRS) should be consulted or included as necessary in peer reviews on involuntary resettlement issues throughout the project cycle.

Identification

28. The possibility of involuntary resettlement should be determined as early as possible and described in all project documents. The TM should
- (a) Briefly summarize in the Initial Executive Project Summary (Initial EPS)¹⁸ the magnitude, strategy, and timing of the resettlement;
 - (b) Inform borrowers of the Bank's resettlement policy;
 - (c) Review past borrower experience with similar operations;
 - (d) Invite agencies responsible for resettlement to discuss their policies, plans, and institutional, consultative, and legal arrangements for resettlement, and;
 - (e) Where appropriate, ensure that technical assistance is provided early to borrowers. Such assistance should include the use of project preparation facility (PPF) resources¹⁹ for planning resettlement and building institutional capacity.

Preparation

29. During project preparation, the feasibility of resettlement must be established, a strategy agreed upon, the resettlement plan drafted, and budget estimates prepared.²⁰ The full costs of resettlement should be identified and included in the total cost of the main investment project, regardless of financing source. The costs of resettlement should also be treated as a charge against the economic benefits of the investment project that causes the relocation. Any net benefits to resettles (as compared to the "without project" circumstances) should be added to the benefit stream of the main investment. While the resettlement component or freestanding project need not be economically viable on its own, it should be the least-cost approach consistent with the policies laid out above.

Appraisal and Negotiation

30. Submission to the Bank of a time-bound resettlement plan and budget that conforms to Bank policy is a condition of appraisal for projects involving resettlement, except for sector investment loans as discussed in para. 26. All final EPSs should confirm that this requirement has been met. The appraisal mission should ascertain
- (a) The extent that involuntary resettlement and human hardship will be minimized and whether borrowers can manage the process;
 - (b) The adequacy of the plan, including the timetable and budget for resettlement and compensation;
 - (c) The soundness of the economic and financial analysis;
 - (d) The availability and adequacy of sites and funding for all resettlement activities;
 - (e) The feasibility of the implementation arrangements; and
 - (f) The extent of involvement of beneficiaries. At negotiations, the borrower and the Bank should agree on the resettlement plan. The resettlement plan and the borrower's obligation to carry it out should be reflected in the legal documents. Other necessary resettlement-related actions must be covenanted. The Staff Appraisal Report and the Memorandum and Recommendation of the President should summarize the plan and state that it meets Bank policy requirements.

Implementation and Supervision

- 31 Resettlement components should be supervised throughout implementation.²¹ Supervision that is sporadic or left until late in implementation invariably jeopardizes the success of resettlement. Bank supervision missions should be staffed with the requisite social, economic, and technical expertise. Annual reviews of large-scale resettlement and in-depth Bank reviews of midterm progress are highly desirable. These reviews should be planned from the outset to allow the Bank and the borrower to make necessary adjustments in project implementation. Complete recovery from resettlement can be protracted and can often make it necessary to continue Bank supervision until well after populations have been relocated, sometimes even after a project has been closed.

Ex Post Evaluation

32. The project completion report²² submitted to the Operations Evaluation Department should evaluate resettlement and its impact on the standards of living of the resettles and the host population.

1. "Bank" includes IDA, and "loans" includes credits.
2. See also Involuntary Resettlement in Development Projects, World Bank Technical Paper No. 80 (Washington, D.C.: The World Bank, 1988).
3. OD 4.00, Annex A, Environmental Assessment, para. 18.
4. Such projects may include construction or establishment of (a) dams, (b) new towns or ports, (c) housing and urban infrastructure, (d) mines, (e) large industrial plants, (f) railways or highways, (g) irrigation canals, and (h) national parks or protected areas. Refugees from natural disasters, war, or civil strife are also involuntary resettlers, but they are not discussed in this directive (see OP/BP/GP 8.50, Emergency Recovery Assistance).
5. OD 4.00, Annex A, Environmental Assessment, para. 2, and Annex A3.
6. Host communities are those receiving resettlers.
7. See OD 4.20, Indigenous Peoples.
8. Where only a few people (e.g., less than 100-200 individuals) are to be relocated, appropriate compensation for assets, logistical support for moving, and a relocation grant may be the only requirements. However, the principles on which compensation is to be based are the same as for larger groups.
9. See GP 14.70, Involving Nongovernmental Organizations in Bank-Supported Activities.
10. See OPN 11.03, Management of Cultural Property in Bank-Financed Projects, to be reissued as OP/BP 4.11, Cultural Property.
11. Disputes of varying kinds may arise in the process of implementation of the agreed resettlement plan. These conflicts could take the form of appeals related to the compensation payable to affected persons, conflicts between the displaced persons and the host population, appeals to the agency charged with the implementation of the resettlement with regard to services promised, etc. It is therefore important to devise schemes for conflict resolution for all resettlement plans. Such schemes should, as far as possible, take into account existing procedures for settling disputes in the country or area concerned.
12. Health care services, particularly for pregnant women, infants, and the elderly, may be important during and after relocation to prevent increases in morbidity and mortality due to malnutrition, the stress of being uprooted, and the usually increased risk of water-borne diseases.
13. See OD 4.00, Annex A, Environmental Assessment, and Annex B, Environmental Policy for Dam and Reservoir Projects. The environmental implications of involuntary resettlement will be further discussed under para 6.0. "Special Issues in Environmental Assessment," in Environmental Assessment Sourcebook, (Washington, D.C.: The World Bank, to be issued).
14. See Annex A1, para. 2, in OD 4.00, Annex A, Environmental Assessment.
15. See OD 10.70, Project Monitoring and Evaluation.
16. See OD 4.00, Annex B, Environmental Policy for Dam and Reservoir Projects.
17. See OP/BP 10.00, Investment Lending: Identification to Board Presentation.
18. See OP/BP 8.10, Project Preparation Facility.
19. Detailed guidelines for preparing and appraising resettlement plans are provided in Involuntary Resettlement in Development Projects, World Bank Technical Paper No. 80, Annex 1 (Washington, D.C.: The World Bank, 1988). Pro forma cost tables and guidelines for economic and financial analysis are provided in Annex 2.
20. See OD 13.05, Project Supervision, particularly paras. 44-47.
21. See OP/BP/ 13.55, Implementation Completion Reporting

Annex 3. Methods of Valuation Structures, Land, Trees and Other Assets

Compensation Rates for Loss of Crops and Trees

Cash compensation will be paid for loss of crops and trees that are found on land to be expropriated. In accordance with Zambia expropriation/compensation procedures, compensation rates will be established by the office of studies and planning at the ministry of agriculture. Compensation rates for loss of crops and trees will be based on market values and cover a cash value of the loss estimated until the new crop or tree comes to maturity. The compensation rates for trees will not only be based on the age of the tree, but also, on the variety of the species. For instance, the compensation of 5 years old mango tree will be based on the age of the tree and on the variety of the mango. Some varieties produce more, others less.

Compensation Rates for Loss of Houses

Likewise, compensation procedures for loss of houses will be established in consultations between concerned sectoral offices and with the project. The office of housing and public works at the ministry of social infrastructure (?) will establish the rates. The office conducts yearly market survey to monitor changes in building material costs in order to update the expropriation/compensation rates. The rates will be established at market value. As in the case of expropriation/compensation for loss of crops and trees, each administrative decision in the process, will be documented. Also, each individual PAP will have the right to refuse the rate proposed and take his case to the court should he disagree with the compensation rates proposed.

Annex 4. Contents of a typical EA**Executive Summary**

Highlight of the main findings and recommended actions related to the operation's environmental and social feasibility.

Project Description

A concise description of the proposed operation, including maps of the project site and area of influence.

Policy, Institutional and Legal Framework

A discussion of the policy, institutional and legal, environmental and social framework associated with the project, including any project specific legal or other requirements.

Environmental and Social Baseline Data

A description of the existing environmental and social conditions that are relevant to project decision making, both at the proposed project site(s) and within the area of influence.

Environmental and Social Impacts

An analysis of direct and indirect environmental and relevant social impacts and risks, including benefits. Evaluation of the quality of available data and key data gaps.

Analysis of Alternatives

A summary description and evaluation of the alternatives considered, the rationale for selecting the proposed alternative and a description of its impacts.

Environmental Mitigation Plan

(see below)

Public Participation

A record of the process and a summary of the results of consultation with affected groups.

Annex 5. Contents of typical Environmental Mitigation Plan

NOTE: If resettlement is a significant issue then it is common practice to prepare an Environmental Management Plan (EMP) and also a Resettlement Action Plan (RAP) as a separate document. (For other issues, further specific Plans may be appropriate.)

Mitigation and Management.

Options and recommendations to prevent, avoid, reduce, mitigate, eliminate or compensate for any adverse impacts of the selected alternative. This includes the schedule, assignment of responsibility and budgets for the environmental and social impact management measures.

Provisions for capacity building.

Where institutional capacity is not sufficient to carry out the key activities, provisions for capacity building should be incorporated into the management plan.

Monitoring.

The monitoring, reporting and evaluation of requirements during the execution of the operation and thereafter. The way these requirements fit within the overall Monitoring & Evaluation efforts of the project submitted to EIA should be specified for maximum effectiveness.

Annex. 6 Zambian Environmental Legislation**LEGISLATION COVERING ENVIRONMENTAL PROTECTION IN ZAMBIA**

Zambia is adequately covered with legislation relating to the protection of the environment. Presently about 28 pieces of legislation relate to the environment and they are all worth considering in EIA decision making. These include:

1. The Environmental Protection and Pollution Control Act (EPPCA)

Passed in 1990 this is the principal Act on environment in Zambia. The Act provides for the establishment of an Environment Council whose main functions constitutes the protection of the environment and control of pollution in particular so as to provide for the health and welfare of persons, animals, plants and the environment in general

2. The Natural Resources Conservation Act

Enacted in 1970, the Act provides for the establishment of the Natural Resources Advisory Board whose main functions are to ensure the proper use, conservation and improvement of natural resources. Some of the provisions of the Act have since been repealed with the coming into force of the EPPCA. This includes the abolition of the Natural Resources Advisory Board.

3. The Town and Country Planning Act

The Act came into force in 1962 and provides for the appointment of planning authorities whose main responsibilities are the preparation, approval and revocation of development plans. It also provides for the control of development and subdivision of land. The Act does not however apply to Trust Land and land in Reserve and Mining Areas which fall under regional plans.

4. The Water Act

The Act came into force in 1949 and provides for the control, ownership and use of water excluding that of the Zambezi, Luapula and Luangwa rivers which form borders with other countries. The Act establishes the Water Board and regulates the use of public water including protection against pollution.

5. The Fisheries Act

Enacted in 1974, the Act provides for the development of commercial fishing, control of fishing and the registration of fishermen and boats

6. The National Parks and Wildlife Service

Passed in 1991, the Act provides for the establishment, control and management of National Parks; conservation and protection of wildlife and objects of interest in National Parks; the establishment of Game Management Areas; the licensing of hunting; control of possession of trophies and control of bush fires.

7. Public Health Act

Passed in 1930 the Act has been ammended from time to time. The Act provides for the prevention and suppression of diseases and general regulation of all matters connected with public health in the country.

8. Local Government Act

The Act came into force in 1991 and provides for the establishment of Councils in districts, the functions of local authorities and the local government system. Some of these functions relate to pollution control and the protection of the environment in general.

9. The Local Administration (Trade Effluent) Regulations (Statutory Instrument no. 161 of 1985

The regulation provides for the control of medical, trade and industrial effluent disposal.

10. Ionising Radiation Act

Passed in 1975, the Act provides for the protection of public workers from dangers arising from the use of devises or materials capable of producing ionising radiation

11. Mines and Minerals Act

Passed in 1995, the Act provides for the granting of, renewal and termination of mining rights. It also provides for the control of mining activities with regard to environmental protection.

12. Agricultural Lands Act

This Act was passed in 1960 and provides for the protection and alienation of land for agricultural purposes only.

13. The Factories Act

Enacted in 1967, the Act regulates the conditions of employment in factories and other places of work as regards the safety, health and welfare of persons employed there in. The Act also provides for the examination and inspection of certain plant and machinery in order to ensure safety.

14. The Investment Act

Passed in 1993, the Act provides a legal framework for investment in Zambia. The Act relates to environment indirectly by providing incentives for tree planting, soil and water conservation activities. The Act further recognises the role of sectoral agencies including those responsible for environmental protection in authorising specific projects.

15. The Tourism Act

Enacted in 1979, and ammended in 1985, the Act provides for the control of tourism enterprises. The Act though making no direct reference to environmental protection does provide for appeals against authorisation of tourism projects which are deemed to negatively affect Zambian tourism which is basically natural resource based.

16. Land Conversion of Titles Act

The Land Conversion of Titles Act was enacted in 1975 and ammended in 1990. The Act provides for the alienation, transfer, disposition and charge of land. Although the Act does not refer to matters of conservation this Act is important in that land is one of the basic natural resources. The Act also provides for compulsory acquisition of land by the president

whenever he is of the opinion that it is desirable or expedient to do so in the interest of the republic.

17. State Lands, Reserves and trust Lands Act

The Act provides for the protection of rights to land ownership and exploitation by specifying exclusive conditions for acquisition and exploitation of different categories of land.

18. National Heritage Conservation Commission Act

Enacted in 1989, the Act provides for the conservation of ancient, cultural and natural heritage, relics and other objects of aesthetic, historical, pre-historical, archeological or scientific interest.

19. Action for Smoke Damage Act

Enacted in 1959, the Act provided for the protection of mine operators against any action, legal or otherwise for polluting areas declared as smoke areas. The Act has since been repealed.

20. Noxious Weeds Act

Enacted in 1953, the Act provides for the declaration and eradication of noxious weeds.

21. International Game Park and Wildlife Act

The Act was enacted in 1971 to provide for the establishment of International Game Parks.

22. The Agriculture, (Fertilisers and Feeds) Act

The Act became effective in 1990 and provides for the regulation and control of the manufacture, processing, importation and sale of fertilisers and feeds. It also provides for ensuring minimum standards of effectiveness of fertilisers and feeds.

23. Plumage Birds Protection Act

Passed in 1915, the Act prohibits dealing in plumage of wild birds except for scientific or educational purposes.

24. The Forest Act

Enacted in 1974, the Act repealed the Forest Act (Cap 311) of the laws of Zambia. It provides for the establishment and management of National and Local forests, conservation and protection of forests and trees, and licensing and sale of forest products.

25. Petroleum (Exploration and Production) Act

The Act was enacted in 1985 to regulate the exploration, development and production of petroleum products in Zambia

26. The Petroleum Act

The Act came into force in 1924 and provides for the regulation of the importation, conveyance and storage of petroleum and other inflammable oils and liquids for the protection of the public and the environment.

27. The Explosives Act

The Act came into force in 1974 and provides for the regulation and control of the manufacture, use, possession, storage, importation and destruction of explosives. It also

provides for the abandonment of explosive factories as well as the discharge of effluent from any treatment process involving explosives.

28. The Zambezi River Authority Act

Signed in 1987, the Act provides for the interstate agreement between Zambia and Zimbabwe relating to the utilisation of the Zambezi river

29. International and Regional Conventions

Zambia is also party to a number of international and regional conventions signed for addressing common environmental concerns. These include:

- Convention of World Meteorological Organisations
- Statutes for the International Union for the Conservation of Nature and Natural Resources
- Convention on the Conservation of Migratory Species of Wild Animals
- International Plant Protection Convention
- Statutes of the International Atomic Energy
- International Convention for the Safety of Life at Sea
- Convention on the African Migratory Locust
- Treaty Banning Nuclear Weapons Tests in the Atmosphere, in outer space and Under Water
- Treaty on Principles Governing the Activities of States in Exploration of and use of Outer Space including the moon and other celestial bodies
- African Convention on the Conservation of Nature and Natural Resources
- Vienna Convention of the Law for Treaties
- Convention concerning Protection Against Hazards of Poisoning arising from Benzene
- Convention on Wetlands of International Importance especially as waterfowl habitat
- Convention on International liability for Damage caused by Space objects
- Convention concerning the Protection of the World Cultural and Natural Heritage
- Convention on International Trade in Endangered Species of Wild Fauna and Flora
- Convention concerning the Protection of Workers against Occupational Hazards in the working Environment due to Air Pollution and Noise Vibrations
- UN convention on Law of the Sea
- Vienna Convention for the Protection of the Ozone Layer
- Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System
- Montreal Protocol on Substances that Deplete the Ozone Layer
- Convention on Biological Diversity
- Basel Convention on the Control of Transboundary movement of hazardous waste
- United Nations Framework Convention on Climate Change
- United Nations Convention to Combat Desertification

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