

ENVIRONMENTAL CODES, LAWS AND POLICIES PERTAINING TO THE RIO CONVENTIONS IN LIBERIA

CLIMATE CHANGE



Compiled for the
**ENVIRONMENTAL PROTECTION AGENCY &
UNITED NATIONS DEVELOPMENT PROGRAMME**

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INTRODUCTION

Background

The publication is an outcome of a consultancy to produce and distribute updated environmental codes, laws and relevant texts pertaining to the Rio Conventions implementation in Liberia from 2006 to 2019. The Liberia Environmental Protection Agency (LEPA) and United Nations Development Programme (UNDP) is implementing a Global Environment Facility (GEF) funded Cross - Cutting Capacity Development (CCCD) project which aim to support the Government of Liberia strengthen national capacities to meet global environmental obligations with the framework of the sustainable development priorities.

The goal of the assessment is to improve the implementation of the three (3) Rio Conventions (United Nations Convention on Biological Diversity, United Nations Framework Convention on Climate Change, and United Nations Convention to Combat Desertification) through development of national capacities to better coordinate and generate information related to the implementation of these Conventions.

The Conventions derived from the June 1992 Earth Summit held in Rio de Janeiro and entered into force December 1993. Liberia ratified them between March 1998 and November 2002, and domesticated implementation through national policies on environment, forestry & wildlife and land management.

United Nations Convention on Biological Diversity

The Convention on Biological Diversity (CBD) is an international legally-binding treaty with three main goals: conservation of biodiversity; sustainable use of biodiversity; fair and equitable sharing of the benefits arising from the use of genetic resources. Its overall objective is to encourage actions, which will lead to a sustainable future. The Convention covers biodiversity at the ecosystems, species and genetic resources levels and also biotechnology, including through the Cartagena Protocol on Biosafety. In fact, it covers all possible domains that are directly or indirectly related to biodiversity and its role in development, ranging from science, politics and education to agriculture, business, culture and much more.

United Nations Framework Convention on Climate Change

Framework Convention on Climate Change (FCCC) is an international environmental treaty with the objective to "stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system". Preventing "dangerous" human interference with the climate system is the ultimate aim of the FCCC. The framework sets non-binding limits on greenhouse gas emissions for individual countries and contains no enforcement mechanisms, but outlines how international "protocols" or "Agreements" may be negotiated to specify further action towards the objective of the FCCC.

United Nations Convention to Combat Desertification

Convention to Combat Desertification (CCD) is the sole legally binding international agreement linking environment and development to sustainable land management. The CCD addresses specifically the arid, semi-arid and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found. The 2018-2030 Strategic Framework of the CCD is the only comprehensive global commitment to achieve Land Degradation Neutrality (LDN) in order to restore the productivity of degraded land, improve the livelihoods, and reduce the impacts of drought on vulnerable populations.

**ENVIRONMENTAL LEGISLATIONS AND POLICIES
MAINSTREAMING THE UNITED NATIONS FRAMEWORK
CONVENTION ON CLIMATE CHANGE IN LIBERIA**

AN ACT ESTABLISHING THE LIBERIA EXTRACTIVE INDUSTRIES AND TRANSPARENCY INITIATIVE

1.0 Preliminaries

1.1 This Act shall be cited as the Liberia Extractive Industries Transparency Initiative (LEITI) Act of 2009.

2.0 Establishment Of The Liberia Extractive Industries Transparency Initiative

2.1 There is hereby established an autonomous agency of the Government to be known as the Liberia Extractive Industries Transparency Initiative (hereinafter referred to throughout this Act as the "LEITI").

2.2 The LEITI shall comprise a broad coalition of stakeholders, and shall accordingly be managed as a multi-stakeholders body in keeping with the provisions of this Act. The coalition of stakeholders referred to herein shall include but not be limited to officials of government; members of Parliament, members of extractive companies; and civil society organizations including an association or union of workers in the extractive sectors.

2.3 The LEITI shall have the power to:

- a. Sue and be sued.
- b. Enter into contracts and acquire, hold and alienate movable or immovable property by whatever lawful means; provided same is done for and in the discharge of its statutory functions, as provided herein.
- c. Establish counterpart and technical relationships with similar and other agencies, institutions and organizations in Liberia and abroad, as may be necessary for the effective discharge of its functions.
- d. Encourage, facilitate, perform and/or require the doing or performance of whatever is necessary or expedient for the effective discharge of any and all of its functions and the achievement of its objectives.

3.0 OBJECTIVES

3.1 The general objective of the LEITI shall be to assist in ensuring that all benefits due the Government and people of Liberia on account of the exploitation and/or extraction of the country's minerals and other resources are (1) verifiably paid or provided (2) duly accounted for and (3) prudently utilized for the benefits of all Liberians and on the basis of equity and sustainability.

3.2 Without limiting the generality of the provisions of Section 3.1, the specific objectives of the LEITI shall include, but not be limited, to the following:

- a. To require and maintain transparency over all material payments due from and/or made by extractive companies to all agencies and levels of the Government of Liberia as well as all revenues collected from the companies by the Government.

- b. To require all companies engaged in the extraction of agriculture, forest and mineral resources in Liberia to join the LEITI.
- c. To promote the effective participation of civil society in the design, implementation, evaluation and modification of actions, activities, processes and institutional arrangements associated with resource governance in Liberia.
- d. To provide and/or serve as a platform bringing together the Government of Liberia, civil society, and relevant private companies for effective implementation of the criteria and principles of the Extractive Industries Transparency Initiative and other measures aimed at good resource governance.
- e. To promote better public understanding of the non-renewable nature of most extractive resources; the causes of resource-based conflicts; and the benefits of transparent and prudent resource governance.
- f. To promote the public disclosure of contracts and concessions bearing relationship with the extraction of forest and mineral resources.
- g. To assist, by working with other relevant institutions of Government and through independent periodic post-award audits or investigations, in ensuring that the process of awarding public concessions, contracts, licenses, permits and any other rights concerning the exploitation of diamond, gold, oil, timber, agriculture any other forest and mineral resources of Liberia is in compliance with applicable laws.
- h. To encourage and facilitate discussion and adoption of appropriate policies for fair sharing of the benefits accruing from exploitation of the natural resources of Liberia.
- i. To ensure that pursuit of the objects set forth in Section 3-2 (a-h) is sufficiently established and made an integral part of the normal operations of Government.

4.0 FUNCTIONS AND MANDATE

4.1 In pursuing its objectives, as set forth in Section 3.0 herein, the LEITI shall perform the following functions:

- a. To develop and update reporting templates to be used by all concerned agencies/levels of government and extractive companies for the regular disclosure and reporting, on a disaggregated basis, of all taxes, royalties and other fees paid to all agencies and levels of the Government and the revenues received by the Government from the Companies.
- b. To require all extractive companies and covered agencies and levels of government to disclose, at least once every year, the data of all payments made and revenues received in respect of the extraction of Liberia's forest and mineral resources.
- c. To conduct, through independent firms, a reconciliation of all payment data disclosed by extractive companies and all revenues data disclosed by all agencies and levels of Government pursuant to Section 4.1(b) hereof.
- d. To conduct, as frequently as may be necessary and through independent firms:

- i. Appropriate audits and/or investigations of the payments and revenues data submitted pursuant to Section 4.1(b) hereof in order to determine that the payments made and revenues received correspond with what ought to have been paid and/or received.
 - ii. Appropriate audits and/or investigations of the process by which each material concession, contract, license, and other right is awarded by the Government in respect of forestry, mining, oil, agriculture and other designated resource sectors of Liberia in order to determine that each concession, contract, license, and similar right was awarded in compliance with applicable Liberian laws.
- e. To promptly publish the reports of all audits, investigations, and/or reconciliations conducted pursuant to the provisions of Section 4.1(c) and Section 4.1(d) hereof, and to disseminate such published reports through widely accessible media.
- f. To serve as one of the national depositories of all concessions, contracts, and licenses and similar agreements and rights granted by the Government of Liberia to individuals and companies in respect of the logging, mining, oil, forestry, agriculture and other designated sectors; and to grant members of the public access to such concessions and agreements in keeping with their status as public documents.
- g. In furtherance of fair sharing of forest and mineral revenues, to monitor and reflect in its reports, the data (along with the transfer thereof) of all funds that belong to or are due to any community, county, group or institution based on the terms of an applicable concession, contract, or similar agreement or provision of law.
- h. To bring to the attention of the Government, as part of its EITI Report and for appropriate actions, all institutional and procedural deficiencies as well as lapses, understatements, misrepresentations, and violations of law, including tax delinquencies observed during the audits, investigations, or reconciliations of payments and revenues data submitted by all companies and the relevant agencies and levels of Government.
- i. To submit annual reports to the President and the Liberian Legislature as well as the public on its operational activities, including utilization of funds received in connection therewith.
- j. To perform and undertake any and all actions as may be necessary to achieve its statutory objectives.

5.0 SCOPE/FOCUS OF THE LEITI

- 5.1 The scope of the LEITI shall be to promote (1) revenues transparency, and (2) contract transparency in the natural resource sectors specified in Section 5.3 herein below.
- 5.2 For the purpose of this Act, revenues transparency shall mean regular disclosure, reconciliation or audit and publication of all data of material payments and revenues connected, with the extractive sectors covered by the scope of the LEITI.
- 5.3 For the purpose of this Act, contract transparency shall mean (1) Public accessibility of material concessions/licenses and agreements related to the sectors within the scope of the LEITI as per Section 5.4 hereof. (2) The post-award review and/or audit of the process by and through which

concessions, contracts, and licenses are awarded for exploration and/or exploitation of minerals, forests and other resources in order to ascertain that each award was made in compliance with applicable laws.

- 5.4 The sectors of extractive and other natural resources covered by and within the scope of the LEITI are: (1) The Mining Sector. (2) The Oil and Natural Gas Sector. (3) The Agriculture and Forestry Sectors. (4) Such other sectors as the MSG may subsequently determine with the consent of the Government.

6.0 MANAGEMENT

- 6.1 The Governing body of the LEITI shall be the Multi-stakeholders Steering Group ("MSG").

6.2 The management of the LEITI along with the implementation of all activities and programs of the LEITI shall be done by or under the authority and supervision of the MSG.

- 6.3 Without limiting the generality of the provisions of Section 6.2 hereof, the MSG shall: (1) establish a Secretariat to be responsible to carry out and/or coordinate the day-to-day operations of the LEITI (2) have the powers to adopt any and all rules necessary for the internal governance of the LEITI and (3) to adopt measures and take actions necessary for achieving the mandate and objectives of the LEITI, including, in particular:

- a. To prepare and/or approve the work plan of LEITI.
- b. To prepare and/or approve the Budget of LEITI.
- c. Authorize and/or approve the solicitation of external assistance.
- d. To recruit and dismiss the Head and the Deputy Head of the LEITI Secretariat, and to approve the recruitment of all other staff and consultants.
- e. To hire or approve the engagement of the Independent Administrator and/or Auditor to be responsible to perform any of the reconciliations, audit and investigations provided herein.
- f. To approve the commissioning of all consultancies/studies.
- g. To approve and authorize publication of the LEITI Report.
- h. To determine the sanctions to be applied against any company and/or agency government failing to submit a report required by the EITI, or otherwise comply with requirements of the LEITI.
- i. To develop and/or approve an LEITI financial and procurement policy, and any and all other policies and procedures associated with or required for effective and transparent implementation of the LEITI.
- j. To take any and all other actions necessary for achieving the objectives of LEITI.

- 6.4 The MSG shall comprise of at least fifteen (15) members to be drawn from the Government, civil society, and the private sector as follows:
- a. Government: seven (7) representatives to include the Minister of Finance; the Minister of Lands, Mines, & Energy; the Managing Director of the Forestry Development Authority; and the President/CEO of the National Oil Company of Liberia (NOCAL) or its successor as permanent members.
 - b. CIVIL Society: Four (4) representatives to include:
 - c. Publish What You Pay-Liberia or a successor organization.
 - d. A representative of a recognized association or union of workers in the extractive sectors as permanent members.
 - e. Private Sectors: Four (4) representatives to include at least one representative each from the mining, forestry and oil sectors as permanent members.
- 6.5 Members of the MSG shall be appointed by the President who shall designate one of them as the Chairperson and another as the Co-Chairperson. In the appointment of members of the MSG to represent civil society and the private sector the President shall hold appropriate consultations with members of the groups.
- 6.6 The Members of the MSG shall serve for a renewable term of three (3) years. A member of the MSG may resign his or her office at any time upon notice.
- 6.7 A member of the MSG may be removed from office for reason of conflict of interest or proved misconduct.

7.0 REPORTING

- 7.1 In keeping with its objectives and as a multi-stakeholders body, the LEITI shall report to the president and the Liberian legislature as well as to the general population.
- 7.2 The reports to be prepared, submitted and published by the LEITI shall include, but not be limited to: (1) the EITI Report of payments and revenues (2) the Report of Audit/Review of Concessions and Contracts and (3) The LEITI Annual Report of Operations. The EITI Report shall comprise of the audited and/or reconciled data of all payments made by covered extractive companies and the revenues received from the companies by all relevant agencies and levels of Government, along with the opinion and recommendations of the Auditor or Reconciler. The Report of Audit and Review of Concessions and Contract shall contain the findings and opinion of the Auditor or Investigator regarding the legal compliance of the processes and procedures applied in respect of concessions and contracts awarded during the audited period. The third and final report, the LEITI Annual Report of Operation, shall contain a detailed statement of all activities carried out by the LEITI, including appropriate financial statements.

8.0 SECTION 8. FINANCIAL MATTERS

- 8.1 The work of the LEITI shall be financed by legislative appropriations made through the national budget.
- 8.2 The LEITI may, directly and indirectly, request and receive technical assistance, donations or grants from Liberia's Development Partners and other international multilateral institutions in furtherance of its operations.
- 8.3 The LEITI shall adopt a system of sound financial management policies in conformity with financial regulations of the Government of Liberia and generally accepted international accounting principles to ensure prudent and efficient management of funds. The LEITI shall specifically cause to be kept proper books and records of accounts for funds and resources received and expenditure incurred or made.
- 8.4 The LEITI shall be subject to audit by the General Auditing Commission. The LEITI may also be audited by such other private Auditor(s) as the MSG may determine.

9.0 EFFECTIVE DATE

- 9.1 This Act shall take effect immediately upon publication in handbills.

ANY LAW TO THE CONTRARY NOT WITHSTANDING

AN ACT TO ESTABLISH THE NATIONAL DISASTER MANAGEMENT AGENCY

1 Preliminary Provisions

Section 1.1 Policy.

It is hereby declared that the policy of the Government of Liberia in all matters relating to disaster risk reduction and management shall be to:

- (a) Enhance national and local capacity to minimize vulnerability and disaster risks.
- (b) Prevent, mitigate and prepare for adverse impacts of hazards within the context of sustainable development.
- (c) Create a foundation for the development of an effective and functional legal, institutional framework and good governance.
- (d) Provide the basis for sound disaster risk management by local and national organizations, capacity enhancement and clear allocation of roles and responsibilities.
- (e) Provide overall direction for integrating disaster risk reduction into development recovery and humanitarian response policy and plans.
- (f) Contribute to national risk management applications for sustainable national development.
- (g) Strengthen disaster preparedness for effective, efficient and timely emergency response.
- (h) Establish systems for and improve risk identification, assessment, monitoring and early warning of disaster risks.
- (i) Enhance information and knowledge management for disaster risk management.
- (j) Contribute to local and national risk management applications for poverty reduction.

Section 1.2 Disaster Management Action Plan

There shall be drawn up a plan for disaster management for the Republic of Liberia to be called the Disaster Management Action Plan. It shall be prepared by the National Disaster Management Agency having regard to the National Disaster Management Policy and in consultation with government ministries and agencies, and expert bodies or organizations in the field of disaster management to be approved by the President. The Disaster Management Action Plan shall include measures to be taken for the prevention of disasters, or the mitigation of their effects, measures to be taken for preparedness and capacity building to effectively respond to any threatening disaster, and roles and responsibilities of ministries and agencies. The Disaster Management Action Plan shall be reviewed and updated periodically. Appropriate provisions shall be made for financing the measures to be carried out under the Action Plan.

Section 1.3 Declaration of State of Emergency

Pursuant to the Constitution of the Republic of Liberia, the President of the Republic of Liberia may, in consultation with the Speaker of the House of Representatives and the President Pro-temp of the Senate, the Cabinet and the National Disaster Management Agency proclaim and declare the existence of a “state

of emergency” in the Republic or any part thereof. Only the President shall declare a national state of emergency including by way of proclamation in the Government Gazette. The President’s declaration may warrant international humanitarian assistance as deemed necessary. The lifting of the state of emergency shall also be issued by the President upon the recommendation of the National Disaster Management Agency based on the results of damage assessment and needs analysis.

Section 1.4 Effectiveness

- (a) This Act shall take effect immediately upon publication in Handbills by the Ministry of Foreign Affairs.
- (b) Any and all Laws to the contrary are hereby repealed.

2 Agency Establishment and Functions

Section 2.1 Establishment of the National Disaster Management Agency

There is hereby established an autonomous Agency to be known as the National Disaster Management Agency with the purpose of implementing the National Disaster Management Policy, coordinating the national disaster management system incorporating state and non-state actors at national, county, district and chiefdom levels, and handling disaster-related issues to ensure reduced vulnerabilities to natural and human induced hazards.

Section 2.2 Existence and Authority

The Agency shall be a body corporate with perpetual succession and a common seal and shall be capable of suing and being sued in its corporate name and may borrow money, acquire and dispose of property and do all such other things as a body corporate may now or hereafter do under the laws of the Republic of Liberia. The Agency shall be governed by a Board of Directors who shall be appointed by the President. Upon the recommendation of the Board, an Executive Director shall be appointed by the President to be the chief executive officer of the Agency. The Agency shall have the authority to establish a Disaster Management Technical Committee to provide technical support to its operations, as well as establish, County, and District and Community-level’s Disaster Management Committees.

Section 2.3 Functions

- (a) The functions of the Agency shall include to ensure implementation of the National Disaster Management Action Plan for disaster preparedness and the national environmental policy, the national food security and nutrition strategy, the national health policy and other policies as relate to disaster management adopted by the Government of Liberia.
- (b) The functions of the Agency during the Non-Emergency (Pre-Disaster) Phase shall be to:
 - (i) promote institutional development to include coordinating resource mobilization for preparedness, risk and vulnerability reduction programmes among Government, Donors, NGO’s and other implementing partners, maintaining and operating an Emergency Operations Centre, and establishing and operating a Disaster Management Trust Fund;
 - (ii) review and evaluate Early Warning Reports in accordance with identified risks and vulnerabilities as well as preparedness/contingency plans from counties, and to coordinate risk and vulnerability assessment/analysis and mapping of the hazards;

- (iii) \achieve information and knowledge management including by facilitating training, research, education and public awareness campaigns on disaster risk management, maintaining inventory of national assets/resources, and undertaking capacity building for lower levels of the disaster management structures;
- (iv) ensure risk reduction applications are introduced including by advising the Disaster Management Technical Committee on the best disaster risk reduction practices, encouraging development of new technologies in risk and vulnerability reduction programmes including Early Warning Systems, and facilitate integration of disaster risk into all sectoral and national development plans such as poverty reduction strategies and Vision 2030;
- (v) take steps to establish efficient emergency response and preparedness including undertaking resource mobilization activities for timely emergency response throughout the country, procuring and maintaining critical levels of essential disaster relief items for immediate response during a disaster, and facilitating integration of risk reduction into emergency response/relief plans; and
- (vi) monitor the implementation of the Disaster Management Action Plan for Disaster Preparedness/ and policies for disaster management;

(c) The functions for the Agency during the Emergency/Disaster Phase shall be to:

- (i) Trigger response mechanism through the activation of the Disaster Management Action Plan.
- (ii) Facilitate rapid disaster assessments of the impact of a disaster within 24 hours and document impacts, produce situation reports, recommend necessary actions, and communicate information to all stakeholders.
- (iii) Set up an emergency coordination center in Monrovia and disaster affected areas manned by experienced persons with clear roles.
- (iv) Liaise with UN agencies, the donor community, non-governmental organizations and community based organizations; on possibility of partners' support for assessment and coordination.
- (v) Notify and initiate cooperation with disaster management authorities in neighboring countries in the event of a disaster that has cross-border effects.
- (vi) Hold meetings to discuss necessary interventions with Committees.
- (vii) Ensure timely delivery of relief assistance to the disaster affected communities.

(d) The functions of the Agency during the Post Disaster Phase shall be to:

- (i) Generate post disaster reports within 24 hours after official declaration to end emergency phase.
- (ii) Evaluate the disaster and relief operations.

- (iii) Secure all the government and other properties/assets used in the disaster.
- (iv) Carry out a detailed needs assessment and risk assessment rehabilitation, recovery and reconstruction activity plans and implementation.
- (v) Initiate and coordinate rehabilitation, recovery and reconstruction programmes implementation.
- (vi) Conduct a detailed training, research, education and public awareness campaign on risk reduction.
- (vii) Take necessary steps to ensure that recommended follow-up actions are undertaken within short-term, medium-term, and long-term interventions for risk reduction.

(e) The Agency also shall:

- (i) Act as the executive body of and Secretariat to the Board, and shall keep all records of the affairs and the meetings of the Board and ensure the implementation of its decisions and directives.
- (ii) Prepare and submit for Board's approval the operational principles and guidelines needed for carrying out the Agency's scope of work.
- (iii) Develop an annual operational plan and budget for the Agency.
- (iv) Negotiate and enter into contracts, with prior approval and through the Board, with experts and institutions in furtherance of the goals and objectives of the Agency.
- (v) Designate lead ministries as responsible for specific hazards or disasters, define roles and responsibilities of the donor community, development and humanitarian partners, nongovernmental and community based organizations.
- (vi) Establish a disaster risk management information system to capture, store, analyze and report information on activities related to disaster management.
- (vii) Utilize funds from the Agency's Fund and any other designated funds as approved by the Board to fulfill its mandate under this Act.
- (viii) Prepare and submit to the Board as appropriate, periodic project status and completion reports, which shall be publicly available within three months of the end of each fiscal year.
- (ix) Keep proper books of accounts and proper records in relation to those accounts. The Agency shall ensure that all monies received are properly brought to account and all payments out of its monies are correctly made and properly authorized and adequate control is maintained. The accounts, books, and records of the Agency shall be in the form prescribed by the Act in force at the time which governs the management of records.

- (x) Prepare and submit to the Board an Annual Agency Report in respect to that fiscal year, containing audited financial statements and incorporating performance indicators, a report on the activities and operations of the Agency and any other such information that the Board may direct.
- (xi) The Agency shall publish annual financial reports audited annually by the Auditor General or an independently certified financial auditor appointed by the Board and authorized by the Auditor General. Such reports shall follow an accounting standard based on generally accepted accounting principles in Liberia to account for all funds received and disbursed by the Agency. Such reports shall be publicly available within 90 days from the end of the fiscal year.
- (xii) Ensure that financial commitments of the Agency are made by signature of the Executive Director co-signed by the comptroller of the Agency.
- (xiii) Issue regulations.

Section 2.4 Immunities

- (a) An employee of the Agency shall not, in his/her personal capacity, be liable in civil or criminal proceedings in respect of any act or omission done in good faith in the performance of his/her functions under this Act.
- (b) The provisions of this Section shall not relieve the Agency of the liability to pay compensation or damages to any person for an injury to him/her, his/her property or any of his/her interests caused by the exercise of powers conferred on the Board or Agency by this Act or by any other written law or by failure, whether wholly or partially, of any works.

Section 2.5 National Disaster Response Force

- (a) There shall be constituted a National Disaster Response Force under the Agency for the purpose of specialized response to a threatening hazard situation or disaster.
- (b) The force shall be composed of officers and members of the military, police, coast guard, fire service, and emergency medical service, and other personnel as may be included by the Agency.
- (c) The general superintendence, command and control of the Force shall be vested in and exercised by the Agency.

Section 2.6 Guidelines for minimum standards of relief

The Agency shall issue guidelines for the minimum standards of relief to be provided to persons affected by disaster which shall include:

- (a) The minimum requirements to be provided in the relief camps in relation to shelter, food, safe drinking water, healthcare, care and hygiene and sanitation.
- (b) The special provisions to be made for vulnerable groups.

(c) Ex gratia assistance on account of loss of life and also assistance on account of damage to houses and for restoration of means of livelihood.

(d) Such other relief as may be necessary.

3 Organization And Structure

Section 3.1 Agency Board of Directors

(a) The Board of Directors (“the Board”) shall be the governing body of the Agency.

(b) The Board, shall, in its actions, support the achievement of the overall purpose and functions of the Agency as outlined in Sections 2.2 and 2.3 of this Act.

Section 3.2 Composition of the Board

(a) The Board shall comprise of Eleven (11) members who shall be appointed by the President and chaired by the Ministry of Internal Affairs, as follows:

i. Ministry of Internal Affairs (Chairperson)

ii. Ministry of Health

iii. Ministry of Justice

iv. Ministry of Finance

v. Ministry of Public Works

vi. Ministry of Defense

vii. Ministry of Agriculture

viii. Ministry of Lands, Mines & Energy

ix. The Liberia National Red Cross Society

x. The UN Country Team

xi. Maritime Authority

Section 3.3 Criteria and Appointment Procedure

(a) Members of the Board shall:

i. Have a strong interest in making the activities of the Board successful.

ii. Be able to mobilize institutional and public support for the activities of the Agency and Fund and have competence in disaster management issues.

iii. Not have financial interests in any project supported by the Board.

Section 3.4 Meetings and Procedures of the Board

- (a) The Board shall meet as often as necessary for the discharge of its functions but no less than once per quarter. Seven (7) members of the Board shall constitute a quorum at any meeting.
- (b) The Board may co-opt any person to participate in its deliberations, but a person so coopted shall have no right to vote.
- (c) The Executive Director of the Agency shall be responsible for arranging the business proceedings of the Board and such other duties as the Board may direct.
- (d) Members of the Board may be entitled to payment of honorarium and other allowances determined by the Executive Director and approved by the Board which shall be funded from the operational budget of the Agency.

Section 3.5 Powers and Functions of the Board

- (a) The Board shall:
 - i. Appoint the Executive Director of the Agency who shall be Secretary to the Board.
 - ii. Direct the Executive Director to furnish it with any information, reports or other documents which the Board considers necessary for the performance of its functions.
 - iii. Review and approve reports and other documents prepared by the Agency.
 - iv. Execute grant contracts in accordance with approved procedures for and on behalf of the Agency.
 - v. Source funds from within and outside the Republic of Liberia in support of the functions of the Agency.
 - vi. Oversee and monitor the administration, management and use of funds provided to the Agency.
- (b) The functions of the Board during the Pre-Disaster Phase shall be to:
 - i. Oversee formulation and updating of the national disaster management policy and Action plan.
 - ii. Direct through the Agency mobilization of resources for risk reduction activities.
 - iii. Endorse national disaster management plans and regulations.
 - iv. Submit to the President annual reports on disaster risk reduction activities in Liberia.
- (c) The functions of the Board during the Disaster Phase shall be to:
 - i. Receive and consider emergency reports and recommendations from the Agency.
 - ii. Recommend declaration of a disaster to the President.
 - iii. Make appeals for assistance from regional, continental bodies, the international community including cooperating partners for assessments and coordination.

- iv. Direct ministries/agencies of Government to take up their roles and responsibilities in response to disaster, and the Ministry of Finance to release funds for disaster response.
 - v. Consider any other matters incidental to disaster response and saving of lives, livelihoods, economic assets and the environment.
- (d) The functions of the Board during the Post Disaster Phase shall be to:
- i. Ensure compilation and submission of post disaster reports to the President.
 - ii. Receive and consider consolidated post disaster reports from the Disaster Management Agency.
 - iii. Coordinate post disaster reports for and activities of cooperating partners, regional and continental bodies.
 - iv. Consider any other matter that the National Disaster Management Agency or the Disaster Management Technical Committee may request it to do pertaining to development of programmes for recovery and risk reduction.
 - v. Ensure disaster risk reduction is integrated into preparedness and emergency response.
 - vi. Consider any other matter as the President may direct in relation to post disaster activities and development programmes for recovery and disaster risk reduction.
- (e) The Board shall have the power to regulate its own procedure and may make standing orders providing for all matters relating to the meetings of the Board and the proper conduct of its business.
- (f) The Board shall be the governing body for the Agency, administering and managing its affairs and in that respect shall:
- i. Prepare and submit periodically reports of its activities to the President.
 - ii. Direct the Executive Director to furnish it with any information, reports, accounts or other documents as may be reasonably required by the Board.
 - iii. Approve operational principles and guidelines of the Agency.
 - iv. Approve the management, performance, policies and annual operational plans and budget of the Agency.
 - v. Approve general terms and conditions of employment for employees of the Agency.
 - vi. Ensure that the remuneration of the staff of the Agency is competitive with that offered for comparable responsibilities and shall not be bound by the terms established under the Liberian Civil Service structure.

vii. Oversee and monitor the management and performance of the Agency, its staff and its financial performance.

viii. Appoint the auditor of the Agency and approve the auditor's reports.

(g) The Board as governing body for the Agency also shall:

i. Appoint a Fund Management Committee to manage the Disaster Management Trust Fund whose Chairperson shall be one of the Board members.

ii. Approve the annual budget plan of the Fund, including provisions for the operating expenses of the Agency.

iii. Appoint the auditor of the Fund, and approve the auditor's reports.

(h) The Board may delegate to any of its members its power and authority to carry out on its behalf such functions as it may determine.

Section 3.6 Appointment of Executive Director and Staff

(a) The Executive Director and Deputy Directors shall be appointed by the President upon the recommendation of the Board of Directors.

(b) The recruitment of the Executive Director and Deputy Directors shall be on the basis of a competitive selection process.

(c) The Agency shall approve recruitment of coordinators and administrators by the Executive Director which shall be based on a competitive selection process.

Section 3.7 Functions of the Executive Director

(a) Without prejudice to the generality of the foregoing, the Executive Director shall:

i. Be the chief executive officer of the Agency.

ii. Exercise the functions of the Agency provided for under this Act;

iii. Act as Secretary to the Board.

iv. Have power to hire or promote staff of the Agency.

v. Manage the budget, personnel and property of the Agency.

vi. Represent the Agency at all levels and the Fund in its dealings with third parties.

(b) The Executive Director shall keep all records of the affairs and meetings of the Board and shall ensure the implementation of its decisions and directives.

Section 3.8 National Disaster Management Technical Committee

(a) A National Disaster Management Technical Committee (NDMTC) shall be established by the Agency to provide technical support to its operations.

- (b) The committee shall further constitute itself into subcommittees responsible for different sectoral/thematic areas including food and agriculture, water and sanitation, education and women and children protection, health care, environment shelter, early recovery and infrastructure.
- (c) The National Disaster Management Technical Committee shall provide technical support to the Agency on disaster management in Liberia in.
- (d) The functions of the National Disaster Management Technical Committee during the Non-Emergency (Pre-Disaster) Phase shall be to:
 - i. Recommend disaster risk reduction policy direction to the Agency.
 - ii. Provide technical support to the implementation of decisions of the Agency pertaining to disaster risk and vulnerability reduction, utilizing its advantage of being multi-sectoral.
 - iii. Undertake disaster risk and vulnerability assessments and mapping of hazards in the country.
 - iv. Provide support to ensure respective sectors mainstream disaster risk reduction into their development plans.
 - v. Assist the Agency in resources mobilization for disaster risk reduction programmes carried out by line ministries and other agencies including those by UN agencies, Non-governmental agencies and community based organizations.
 - vi. Advise the Agency in the development of disaster risk management plans.
 - vii. Advise the Agency on information and knowledge management activities as well as risk management initiatives in different sectors to ensure disaster risk reduction is mainstreamed.
 - viii. Undertake simulation exercises among various stakeholders in disaster management.
- (e) The functions of the National Disaster Management Technical Committee during the emergency/disaster phase shall be to:
 - i. Inform the Agency of the disaster or unfolding disaster situation.
 - ii. Recommend to the Agency the need for declaration of a disaster by the President.
 - iii. Assist the Agency in soliciting international and national assistance.
 - iv. Provide support to the coordination and monitoring of multi-sectoral disaster relief, rehabilitation, recovery and reconstruction measures being undertaken.
 - v. Consider and submit disaster situation reports to certain recipients.
 - vi. Direct through the Agency the national or localized disaster relief efforts upon declaration of a disaster.

- vii. Appraise the Agency on the type and quantities of relief materials required and the disaster relief budget determined through a needs assessment.
 - viii. Provide support to making appeals for relief resources including finances to various partners as directed by the Agency.
 - ix. Support the monitoring of disaster relief programs being implemented by various line ministries/agencies and other agencies in response to the disaster.
 - x. Ensure that the Agency and its structures at local level have the capacity to respond effectively and efficiently to the disaster/emergency.
- (f) The functions of the National Disaster Management Technical Committee during the post disaster phase shall be to:
- i. Assist the production of the consolidated post disaster report by Counties and other local governance structures.
 - ii. Submit consolidated post disaster report to the Agency.
 - iii. Review national risk and vulnerability reduction plans and give technical and programmatic advice as required both to the Agency and local level structures.
 - iv. Provide support to the regulation of resource mobilization for training and public awareness for risk reduction, rehabilitation and recovery.
 - v. Provide support to development of disaster preparedness and risk reduction plans at national and local levels.
 - vi. Provide overall technical support in the implementation of disaster plans at national and local levels.

Section 3.9 County and City Disaster Management Committees (CDMCs)

- (a) There shall be established by the Agency at the County, City levels, the County and City Disaster Management Committees headed by local coordinators chaired by the County Superintendent and City Mayor.
- (b) The functions of the County and City Disaster Management Committees during the Pre-Disaster Phase shall be:
 - i. Institutional development.
 - ii. Risk identification and early warning.
 - iii. Information and knowledge management.
 - iv. Risk reduction strategies
 - v. Emergency preparedness.

- (c) The functions of the County and City Disaster Management Committees during the Disaster Phase shall be to:
- i. Activate County Contingency/Preparedness Plans and put the Disaster Management Technical Committee on standby in case the affected district requires their intervention.
 - ii. Inform the Agency immediately when a disaster situation is reported by a district/county; where necessary call for immediate assistance.
 - iii. Co-ordinate information exchange with the District Disaster Management Committee of the district where the disaster has taken place, or where a disaster situation is unfolding.
 - iv. Mobilize resources as maybe required for effective and efficient handling of the disaster at hand.
 - v. Assist the district to carry out a more detailed disaster impact assessment if the district is unable.
 - vi. To act without external assistance.
 - vii. Continue to monitor the unfolding event and inform the Agency accordingly.
 - viii. Determine the resource requirement and submit to the Agency for appropriate action or assistance.
 - ix. Liaise with all other players including the UN, NGOs and private sector in the disaster affected district and county on who is doing what and where and document and report gaps.
 - x. Co-ordinate logistical arrangement for movement of relief materials from source to end users.
 - xi. Co-ordinate information flow with the media and act as a public relations officer for briefs and debriefs on the disaster situation.
 - xii. Co-ordinate public awareness and education activities in the district where the disaster has happened.
 - xiii. Ensure that adequate measures are put in place for security/safety of the disaster victims, responders and property within the disaster area.
 - xiv. Ensure the availability of resources for the affected district to effectively deal with the disaster situation.
 - xv. Facilitate early recovery assessments, early recovery planning and coordinate implementation by all stakeholders.
- (d) The functions of the County and City Disaster Management Committee during the Post Disaster Phase shall be to:

- i. Generate a post disaster report within 24 hours upon receipt of a report from the District Disaster Management Committee.
- ii. Evaluate the disaster and relief operations.
- iii. Evaluate and update the County Disaster Risk Reduction Plan.
- iv. Ensure that all properties/equipment used during the disaster are secured and returned to the rightful owners.
- v. Collect and collate early recovery and recovery needs assessment to determine resource requirement for rehabilitation, recovery and reconstruction for the affected area(s).
- vi. Co-ordinate implementation of risk and vulnerability reduction program for the disaster prone areas, and ensure risk reduction measures are incorporated into all post disaster programs.
- vii. Co-ordinate resource mobilization, based on the lessons learnt, for training program of those involved in risk and vulnerability reduction, rehabilitation and recovery.
- viii. Take necessary steps to ensure that recommended follow-up actions are undertaken within short-term; medium-term; and long-term interventions.

Section 3.10 District Disaster Management Committee

- (a) There shall be established by the Agency at the district level, the District Disaster Management Committee (DDMC) comprising representatives of the private sector, nongovernmental and community based organizations, and religious organizations and shall be chaired by the District Superintendent or District Commissioner.
- (b) The functions of the District Disaster Management Committee during the Pre-Disaster Phase shall be:
 - i. Institutional development.
 - ii. Risk identification and early warning.
 - iii. Information and knowledge management.
 - iv. Risk reduction strategies.
 - v. Emergency preparedness.
- (c) The functions of the District Disaster Management Committee during the Disaster Phase shall be to:
 - i. Trigger response mechanism through activation of preparedness/ plans.
 - ii. Initiate a disaster impact assessment in order to determine the extent of the damage/losses as well as resource requirements.

- iii. Concurrently relay information to the County Disaster Management Committee and National Disaster Management Agency.
 - iv. Notify and initiate cooperation, where applicable, with a neighboring district for any assistance required.
 - v. Notify and seek support, where applicable, from district authorities in the neighboring county for any assistance or cooperation required, based on the signed bi-lateral or Regional protocols or Memoranda of Understanding as the case may be.
 - vi. Commence immediately disaster relief operations involving all players at district level.
 - vii. Make appeals where necessary to the County Disaster Management Committee and the Agency for more resources.
 - viii. Recommend the declaration of district, county or national disaster to the County and national level authorities.
 - ix. Continue to monitor the disaster and update the County Disaster Management Committee and the Agency.
 - x. Take necessary security measures to protect the disaster area for further investigations.
 - xi. Undertake early recovery assessments, develop early recovery plan and coordinate implementation by all stakeholders.
- (d) The functions of the District Disaster Management Committee during the Post Disaster Phase shall be to:
- i. Generate post disaster reports within 24 hours after official declaration to emergency phase.
 - ii. Evaluate the disaster and relief operations.
 - iii. Secure all the government and other properties/assets used in the disaster.
 - iv. Carry out a detailed needs assessment and risk assessment to inform rehabilitation, recovery and reconstruction activity plans and implementation.
 - v. Initiate and co-ordinate rehabilitation, recovery and reconstruction programs implementation.
 - vi. Evaluate and update the District disaster preparedness plans.
 - vii. Prepare development programs for recovery and risk reduction based on lessons learnt and submit to the Agency and the Disaster Management Technical Committee.
 - viii. Prepare and submit to the County Disaster Management Committee training plan of those involved in disaster risk reduction and recovery programs based on lessons learnt.

- ix. Conduct a detailed training, research, education and public awareness campaign on risk reduction.
- x. Take necessary steps to ensure that recommended follow-up actions are undertaken within short-term; medium-term; and long-term interventions for risk reduction.

Section 3.11 Borough, Township, Chiefdom, Clan, General Town and Locality Levels Disaster Management Committees

- (a) Locality Level Disaster Management Committee shall include Borough, Township, Chiefdom, Clan, and General Town.
- (b) Their functions shall be established as the same functions of the District Disaster Management Committee, but shall perform functions at the community level.
- (c) Such committees shall remain functional at all times, and undertake training programs provided by the Agency.

4 Disaster Management Trust Fund

Section 4.1 Establishment of Disaster Management Trust Fund

- (a) There is hereby established a Fund to be known as the Disaster Management Trust Fund to comprise the Disaster Mitigation Fund and the Disaster Response Fund.

Section 4.2 Objective of the Trust Fund

- (a) The Disaster Management Trust Funds represents the funding mechanism by which the Board shall fulfill its mandate herein and shall provide for the coordination and sustainable financing of projects and programs to strengthen disaster preparedness, emergency response and mitigation in order to implement the Disaster Management Action Plan.

Section 4.3 Establishment of the Disaster Mitigation Fund.

- (a) There is hereby established a Fund to be known as the Disaster Mitigation Fund for projects for the purpose of mitigation.
- (b) The Disaster Mitigation Fund shall be applied to projects exclusively for the purpose of mitigation in accordance with guidelines issued by the Agency and approved by the Board. Section

Section 4.4 Establishment of Disaster Response Fund

- (a) There is hereby established a Fund to be known as the Disaster Response Fund.
- (b) The Disaster Response Fund shall be made available to the Agency to be applied towards meeting the expenses for emergency response, relief and rehabilitation in accordance with guidelines issued by the Agency and approved by the Board.

Section 4.5 Funding Sources

- (b) The sources of income for the Disaster Mitigation Fund and the Disaster Response Fund shall consist of monies as may be provided:

- i. by Government (monies appropriated for the Fund by the Legislature) in an annual budgetary allocation;
 - ii. through special levies or fees as determined by the Government of the Republic of Liberia;
 - iii. through revenues from any taxes as determined by the Government of the Republic of Liberia;
 - iv. any grants, or donations made to the Fund by any natural person, body corporate, multilateral institution, organization or agency, or government of any country;
 - v. any other monies that may accrue in the course of the Agency's operations.
- (c) The monies constituting each Fund shall be placed in separate accounts named the Disaster Mitigation Fund Account, and the Disaster Response Fund Account with a bank, subject to approval by the Board.

Section 4.6 Use of the Funds

- (a) The Funds shall be made available to the Agency to be used in accordance with guidelines issued by the Agency and approved by the Board of Directors.

Section 4.7 Authority for Use of the Funds

- (a) Financial commitments from the Fund shall be made by signature of the Chairperson of the Board co-signed by the Chairperson of the Fund Management Committee and the Executive Director of the Agency.
- (b) The selection of Projects for funding and the calculation of the level of grants for Projects shall be done on the basis of published criteria approved by the Board.

Section 4.8 Management of the Funds

- (a) The Board shall be the governing body for the Funds and shall appoint a Fund Management Committee ("the Committee") that shall be responsible for oversight of the Funds.
- (b) The Agency shall make available to the Funds such facilities and services of such officers as necessary for the proper and efficient exercise of the functions of the Funds.
- (c) Where it is considered desirable to reduce risk or avert threatened loss to the Funds, the Board may take any steps it considers necessary on such terms and conditions as it may prescribe.
- (d) The Board shall from time to time in consultation with the Executive Director, fix the size of the Funds sufficient to achieve the objectives of this Act.
- (e) The Board shall be responsible for policy formulation in connection with the Funds and for governance of the Fund.
- (f) Money to be paid out of the Funds shall be so paid only with the approval of the Board.
- (g) The annual accounts of each Fund, including expenditures of the Agency, shall be audited by a competent and qualified auditor appointed by the Board.

- (h) Donors to the Funds may appoint an auditor of their own choice and at their own expense to audit the account of each Fund and the Agency if they have a provision to that effect in their agreement to contribute to the Fund.

Section 4.9 Members of the Fund Management Committee

- (a) The Chairperson of the Committee shall be a member of the Board especially appointed for his/her skill in financial management.
- (b) The Committee shall comprise five (5) members including the Chairperson. Maximum two (2) of the five (5) members may be members of the Board.
- (c) All members of the Committee shall have demonstrated experience and expertise in, financial management, accounting, law, and/or project or business management.
- (d) The members of the Committee shall be appointed for a period not exceeding two years. Maximum three (3) members may be re-appointed.
- (e) No member of the Committee, or family member of a Committee member, shall have any material interest that shall conflict with the goals and interests of the Committee.
- (f) To the extent that any member finds him or herself in a position of benefiting or suffering materially from the decisions of the Committee, the affected member shall identify such potential material benefit/detriment and recuse him/herself from consideration of those decisions.

Section 4.10 Functions of the Fund Management Committee

The Fund Management Committee shall:

- (a) Monitor financial transactions and oversee the balance sheet of each Fund.
- (b) Facilitate the periodic reporting and auditing of the activities of each Fund.
- (c) Assure that each Fund account is consistent with generally applicable accounting standards.

ANY ACT TO THE CONTRARY NOTWITHSTANDING.

**ACT TO AMEND AND RESTATE THE NEW PETROLEUM LAW OF LIBERIA
THEREBY ESTABLISHING THE NEW PETROLEUM LAW AND NEW PETROLEUM
EXPLORATION AND PRODUCTION) REFORM LAW OF 2014**

1 Preliminary

1.1 This Act may be cited as the Petroleum (Exploration and Production) Act, 2014.

2 Ownership of Petroleum and Petroleum Rights

2.1 In accordance with Article 22 (b) of the Constitution, the entire property in and control of petroleum in its natural condition in or on any land or under any lands or seas or waterways of the Republic of Liberia is vested in the State, notwithstanding any right of ownership or otherwise that a person may possess in the land, soil or water under or upon which petroleum is discovered or situated.

2.2 This Section 2.1 applies to all land, including land covered by water that is within the borders of Liberia, is under the territorial waters of Liberia, and forms part of the continental shelf of Liberia or forms part of the exclusive economic zone of the Republic of Liberia.

2.3 The State shall ensure that the petroleum resources of the Republic of Liberia are explored and exploited for the benefit of the people of Liberia in the most efficient and effective manner.

2.4 The right to explore for, produce and transport petroleum shall be acquired and held only in accordance with a petroleum right granted under this Act and applicable regulations.

2.5 The following petroleum rights may be acquired under this Act:

(a) A reconnaissance license.

(b) A petroleum agreement, or

(c) A license for the laying and operation of petroleum transportation systems.

2.6 The granting of a petroleum right under this Act shall not preclude the subsequent grant to another person of the right to explore and produce natural resources other than petroleum in identical or overlapping geographical areas, provided that those activities do not unreasonably interfere with the petroleum operations of the holder of such petroleum right.

2.7 Petroleum activities shall only be conducted in an area open for the development of petroleum activities under a petroleum right and in accordance with this Act and applicable laws.

2.8 For the purpose of this Act, the surface of the earth within the jurisdiction of the Republic of Liberia shall be deemed to be divided into blocks under a national grid system based on the Universal Transverse Mercator Coordinate System.

2.9 Each block on the reference map shall be given a number or a letter or both, for the purpose of identification.

- 2.10 The surface of offshore blocks constituted under this Act shall not exceed 2,000 square kilometers, and the surface of onshore blocks constituted under this Act shall not exceed 1,000 square kilometers.

3 INSTITUTIONAL ARRANGEMENTS

- 3.1 There is hereby established an administrative body of the Government to be known as the Liberia Petroleum Regulatory Authority (the "Authority"), which shall have the duties and powers conferred upon it by this Act. The Authority shall be independent of all other ministries and agencies of Government, and reports concerning its operation shall be rendered to the President and the National Legislature, in each case except as otherwise expressly provided in this Act.
- 3.2 The Authority is established for the purpose of administering this Act in accordance with the terms hereinafter set forth.
- 3.3 The Authority shall, for the performance of its functions, have the capacity to:
- (a) Exercise all powers and functions given to it under this Act.
 - (b) Own movable and immovable property.
 - (c) Enter into contracts, incur obligations and bring or defend legal actions in its own name, including the capacity to commence legal proceedings to enforce its rights or the obligations to it of third parties, to defend any claim against it and to participate and represent itself in any arbitration or similar legal proceeding.
 - (d) Open one or more bank accounts in its name for the purpose of receiving, holding and disbursing funds.
 - (e) Do all such things as are necessary for the proper performance of its functions under this Act.
- 3.4 The Authority shall be exempt from the payment of income taxes and all customs duties and charges, as well as property and capital taxes. It shall also be exempt from payment of trade or similar levies. Nothing in this paragraph limits the duty of the Authority to apply funds in its possession or control in the manner required by this Act.
- 3.5 The Authority shall be headed by a Director General, who shall be appointed by the President by and with the consent of the Senate. The Director General shall serve for a term of three years, may be reappointed for not more than two additional terms, also with the consent of the Senate, and shall be removable by the President for cause. The Director General shall be a person of high integrity and shall have qualifications and experience in geosciences, geo-engineering, natural resource management and law or taxation and finance relevant to the responsibilities of the Authority.
- 3.6 General policy oversight and direction shall be provided to the Authority by a Board consisting of three members: the Director General, who shall be ex officio, and two other members appointed by

the President. The two members shall be appointed by the President with the consent of the Senate; serve for a term of three years; may be reappointed for not more than two additional terms, and shall be removable by the President for cause (including persistent failure to participate in meetings of the Board). Each such member shall be a person of high integrity, with qualifications and experience in geosciences, engineering, management, law or taxation and finance relevant to the responsibilities of the Authority, and shall not otherwise be an officer in the public service. In addition to its responsibility for general policy oversight and direction, the Board shall have the specific responsibilities set forth elsewhere in this Act and shall also have responsibility for establishing programs for the long-term development of the Authority's capacity, approving the annual budget and staffing levels of the Authority and establishing policies and goals for the obtaining of external funding and approving the integration of any such funding into the agency's budget and expenditure programs. In carrying out its general policy oversight and direction responsibilities, the Board shall consult on a regular basis with the Minister of Lands Mines and Energy, the Minister of Finance and Development Planning, and the Executive Director of the Environmental Protection Agency. Meetings of the Board shall be governed by this Section 6.7:

- (a) The Director General shall convene meetings of the Board whenever the Board is required to exercise a function specifically set forth in this Act, or when the Director General believes a meeting to be necessary for the governance of the Authority. A Board member must receive at least four days' notice of any such meeting unless notice is waived by such member. The notice of meeting shall set forth the matters proposed to be dealt with in such meeting.
- (b) The Director General shall also convene a meeting of the Board at least quarterly in Monrovia on at least 20 days' notice, or on such lesser notice as the Board may determine, and at each such meeting the Director General shall brief the Board as to current matters concerning the Authority, including any projected bid rounds, any significant issues or controversies involving specific petroleum rights outstanding, and any other matters concerning the Authority or petroleum rights issued or proposed to be issued that could be relevant to the Board in the performance of its specific functions under the Act.
- (c) The members of the Board other than the Director General may also call meetings of the Board on at least four days' notice to the Director General unless notice is waived by the Director General, setting forth in such notice the matters proposed to be dealt with in such meeting.
- (d) A Board member may participate in a meeting by telephone or video conference if all participants in the meeting can hear each speaker. Action by the Board shall require the affirmative vote of at least two members of the Board. The Board may also act by unanimous written consent. A Board member may not appoint a proxy.

3.7 The Director General shall be responsible for the followings:

- (a) The day-to-day administration of the affairs of the Authority, including the performance of the duties and obligations of the Authority under this Act.
- (b) Making such decisions, issuing such approvals and taking such other actions as are required by the terms of this Act to be taken by the Director General.

- (c) The organization, supervision and discipline of the staff of the Authority.
 - (d) The day-to-day management of the funds, property and affairs of the Authority.
 - (e) The maintenance of such records and the preparation and publishing or submission of such reports as the Authority may be required to publish or submit by this Act, the Public Finance Management Act, the LEITI Act or other applicable law.
 - (f) Promoting and sustaining transparency in the petroleum sector, including, without limitation, publication of each annual budget and any amendments thereto promptly after approval by the Board.
- 3.8 The Director General shall be assisted by one or more deputy directors-general as may be appointed by the Board on recommendation of the Director General, provided however that there shall be no more than three deputy directors-general. All such deputy director general shall (i) Have technical and professional knowledge and experience in the field of expertise relevant to their functions (ii) Hold office at the pleasure of the Director General (iii) be subject to such terms of employment as shall be determined by the Board including remuneration and allowances which shall be at a level sufficient to attract and retain qualified professionals having equivalent technical and professional knowledge and experience, which terms may exceed those otherwise permitted under applicable civil service law and regulations.
- 3.9 The Director General with the approval of the Board may delegate authority to the deputy director generals under this Act, other than the authority to take actions under this Act that are specifically stated to be taken by the Director General. The full text of each such delegation shall be published on the Authority's website and shall be available to the public on request.
- 3.10 The Director General shall recruit employees for such positions and in such numbers as are necessary for the efficient operation of the Authority. In the case of employees whose positions require technical and professional knowledge and experience in a field of expertise relevant to their function, their terms of employment shall be at levels sufficient to attract and retain qualified professionals from the petroleum industry, taking into account the specialized nature of the work to be performed by each employee, the need to ensure financial prudence of the Authority, and the salaries paid in the private sector to individuals with equivalent responsibilities, expertise and skills, and such terms may exceed those otherwise permitted under applicable civil service law and regulations.
- 3.11 The funds of the Authority shall include:
- (a) Amounts appropriated by the National Legislature.
 - (b) Processing fees and participation fees authorized under subsection 7.14 of this Act.
 - (c) Grants from the State's development partners and other international institutions.
 - (d) Funding referred to in subsection 7.13(d) of this Act and transition funding referred to in Section 78 of this Act.

(e) Funds made available by NOCAL pursuant to subsection 7(t) of the NOCAL Act.

3.12 Budgets of the Authority shall be developed and administered on the basis set forth in this Section.

(a) Budgets of the Authority may be on a multi-year basis.

(b) When an approved Authority budget contains programs that by their nature require advance multi-year expenditure commitments, the Legislature shall make appropriations for the term of such commitments. Notwithstanding the Public Financial Management Act, such appropriation shall not lapse even if not all amounts appropriated in any fiscal year are expended in such year so long as the budget items to be funded with such appropriations continue to be included in the approved budget of the Authority for the following fiscal year or years.

(c) The Authority may not hold an aggregate amount in its bank accounts authorized under subsection 7.3(d) of this Act in excess of 110% of the unexpended amount of the Authority's approved budget for the current fiscal year plus the lesser of its total approved budget for the current fiscal year and the amount of its approved budget for the following fiscal year (if such budget then exists). Any receipts of the Authority that would result in the Authority holding an amount in excess of such limitation shall promptly be transferred first to NOCAL, in an amount not exceeding the amount by which 110% of the unexpended amount of NOCAL's approved budget for the current fiscal year plus the lesser of its total approved budget for the current fiscal year and its approved budget for the following fiscal year (if such approved following year budget then exists), and second to the Consolidated Fund. Notwithstanding the foregoing, no transfer shall be made to NOCAL under this subsection 7.13(c) after the third anniversary of the effective date of this Act unless the relevant budget or budgets of NOCAL then in effect have been approved by the Minister of Finance and Development Planning.

(d) Notwithstanding any provision of this Act requiring amounts to be paid directly into the Consolidated Fund, from and after the transfer completion date (as defined in subsection 78.1 of this Act), (a) all surface rentals payable under any petroleum agreement prior to the start of commercial production under such agreement, and (b) all bonuses payable under any petroleum agreement prior to the start of commercial production under such agreement shall be paid to the Authority for use in funding its activities and for application in accordance with subsection 7.13(c) of this Act.

3.13 The Authority may authorize by regulation and assess processing fees for the granting of licenses other than petroleum agreements, for the pre-qualification of bidders in connection with bid rounds, for the submission and evaluation of bids in a bid round, for the amendment of the terms of petroleum rights after they are granted, for the approval under petroleum agreements of appraisal programs and development and production plans and amendments thereto, for the review and approval of transfer requests under petroleum rights, and for the taking of other comparable actions at the request of a holder of petroleum rights. Such fees shall be established on the basis of assuring the availability of sufficient qualified personnel and resources for the performance of the required activities in light of the other funding sources available to the Authority.

- 3.14 In establishing regulations under Section 7.14 of this Act, the Authority shall give due regard to the capacity of Liberian-citizen-owned companies to pay fees and, in its discretion, may reduce or waive such fees for all Liberian-citizen-owned companies for the immediate five (5) years following the effective date of this Act.
- 3.15 The Authority may, directly and indirectly, request and receive technical assistance, donations or grants from Liberia's development partners and other international or multilateral institutions in furtherance of its operations.
- 3.16 The Authority shall adopt a system of sound financial management policies in conformity with the Public Financial Management Act.
- 3.17 The Authority shall be subject to audit by the General Auditing Commission.
- 3.18 The Act to Amend the Public Procurement and Concession Act, 2005 shall not apply to the granting of petroleum rights.

4 Functions of the Liberia Petroleum Regulatory Authority

- 4.1 The functions of the Authority shall be to:
 - (a) Conduct technical evaluations of areas to be opened up for petroleum operations pursuant to Section 13 of this Act.
 - (b) Manage the pre-qualification and bidding round-processes for the tendering and granting of petroleum agreements, and make recommendations to the Board in accordance with Sections 15, 16 and 17 of this Act.
 - (c) Enter into petroleum agreements and such other instruments as may be necessary or appropriate to evidence other petroleum rights granted under this Act.
 - (d) Administer petroleum rights (other than reconnaissance licenses to be administered by NOCAL under subsection 7(e) of the NOCAL Act) and ensure compliance by the holders of such rights with this Act, regulations made thereunder and with the terms of the relevant petroleum agreement or license.
 - (e) Review and approve proposed reconnaissance, exploration and appraisal work programs and budgets, development and production plans and budgets, and abandonment plans and budgets submitted by holders of petroleum rights, including any revisions thereto.
 - (f) Represent the State in operations committees established under petroleum agreements to review current and future petroleum operations.
 - (g) Monitor petroleum operations and conduct such inspections, investigations and audits as are required therefor.

- (h) Assist the LIRA in ensuring that all revenues accruing to the State under this Act and any petroleum right granted hereunder are deposited by the payer directly into the Consolidated Fund for effective monitoring and management in a transparent and accountable manner except as may be otherwise expressly permitted under this Act.
 - (i) Supervise the storage of petroleum data, maps, records, registers and other documents relating to petroleum operations, including petroleum data acquired by NOCAL in the exercise of its commercial power to enter into and administer contracts for the acquisition of seismic and other geophysical and geochemical data;
 - (j) Investigate and make recommendations by the first anniversary of the effective date of this Act as to the potential scope and structure of a petroleum revenue management law for Liberia.
 - (k) Perform such other functions as are assigned to the Authority under this Act.
- 4.2 In the exercise of its functions, the Authority shall consult and cooperate on a timely basis with ministries and agencies having duties or functions related to those of the Authority.
- 4.3 The Authority shall use the funds specified in subsection 7.12 of this Act strictly in accordance with its approved budget or with the terms of the relevant grant agreement referred to in clause (d) of such subsection, in order to:
- (a) Meet the administrative and operating costs of the Authority.
 - (b) Pay salaries, wages, fees, allowances, benefits and other remunerations to the staff of the Authority.
 - (c) Meet the costs generally incurred in connection with carrying out of any of its functions under this Act.

5 National Oil Company of Liberia

- 5.1 The primary activities of the National Oil Company of Liberia (NOCAL) shall be the ownership and management of petroleum rights acquired by NOCAL pursuant to petroleum agreements or production sharing agreements whether as the sole participant or in conjunction with others, and the conduct of such other petroleum operations on behalf of the State as may from time to time be authorized by the Authority.
- 5.2 In furtherance of Section 9.1 of this Act, NOCAL may participate in a bidding round under Section 16 of this Act to obtain in its own name petroleum rights under a petroleum agreement upon demonstrating to the Authority through a pre-qualification procedure under Section 15 of this Act that it has the financial and technical capacity, whether singularly or in conjunction with others, to conduct petroleum activities required by a petroleum agreement.
- 5.3 The Authority shall notify NOCAL of its intent to conduct any tender and the areas contemplated for tender promptly after the Board has approved the tender protocol.

- 5.4 If NOCAL acquires a participation in a petroleum agreement through its participation in a tender under Article 16 of this Act, the provisions of Section 35 of this Act shall not be applicable to that petroleum agreement, but the provisions of Section 36 of this Act shall remain applicable.

6 Petroleum Activities by the National Oil Company of Liberia

- 6.1 NOCAL shall have the following additional functions:

- (a) Manage all participation interests in petroleum agreements acquired under citizen participation provisions of any petroleum agreement or production sharing agreement.
- (b) Manage any contracts entered into by the State for the construction or operation of petroleum facilities used in petroleum operations that are to be owned by the State or required to be operated by the State.
- (c) Own or manage other assets of any kind necessary or useful in the conduct of commercial petroleum activities carried out by NOCAL pursuant to this Act and the NOCAL Act.
- (d) Lift and market the State's entitlements of petroleum on account of the State's share of production pursuant to the production sharing provisions of a petroleum agreement or production sharing agreement in the event such share is taken in kind in accordance with Section 31(1) of this Act.
- (e) Lift and market on behalf of any citizen participation interest referred to in clause (a) of this subsection 10.1 the petroleum shares accruing to such citizen participation interest.
- (f) Conduct or contract for and supervise, in compliance with Part IV of this Act, such geological, geophysical and other technical studies as it may deem useful.
- (g) Provide such technical assistance and advice as the Authority may request.

- 6.2 NOCAL may also participate in reconnaissance, exploration, development and production activities in other jurisdictions at such time as it may have the resources and funds to do so.

7 Application for and Grant of Reconnaissance License

- 7.1 A company may, upon payment of the prescribed fee, apply to the Authority for the grant of a reconnaissance license in a designated area for the conduct of surveys, excluding drilling activities, assessing the geological, geophysical, geo-chemical and geotechnical characteristics of that designated area.
- 7.2 In addition to any particulars that may be requested by the Authority, the application for a reconnaissance shall include:
- (a) The name of the company applying for the reconnaissance license.

- (b) Particulars of the incorporation or registration of the company, including the name and nationality of the directors and shareholders.
- (c) An identification of the area to which the application relates.
- (d) The period for which the license is required.
- (e) The work proposed to be carried out and the proposed budget.
- (f) An assessment of the impact which the proposed operations may have on the environment.

7.3 If the Authority is satisfied that the company has the technical capacity to carry out the proposed work within the limitations imposed by the proposed budget, the Director General may grant a reconnaissance license, subject to Section 12 of this Act, on such terms and conditions as the Board may approve for a term not exceeding two years.

8 Rights and Obligations of a Reconnaissance License Holder

8.1 Except as provided in subsection 11.2, a reconnaissance license shall confer upon the holder non-exclusive and non-transferable rights to conduct reconnaissance operations in an area specified in the license.

8.2 Notwithstanding subsection 11.1, the Director General may grant a reconnaissance license on an exclusive basis if the license is issued pursuant to a competitive bidding process conducted by the Authority. The process shall include pre-qualification of bidders in a manner consistent with the requirements of Section 15 and a contract bidding procedure that complies with the requirements of section 11.3 and 11.4 of this Act. In any such case, the principal criteria for the award of the license to a qualified bidder shall be the financial return to NOCAL and the State from the bidding process and the operation of such license. Any such license shall be administered by NOCAL on behalf of the Authority. The term of any exclusivity granted pursuant to this subsection 11.2 shall not exceed ten years.

8.3 Any bidding process under section 11.2 of this Act shall comply with the following and may include shall additional provisions or requirements as the Director General may recommend and the Board may approve as being conducive to achieving fair and open competitive bidding by qualified bidders.

- (a) The Authority shall develop a bid protocol that (i) contains the schedule for submission of bids, evaluation of bids and contract signature. (ii) sets out rules for the submission of bids (including the form of bids, required minimum bid content and any required bid guarantees), (iii) states the required minimum work program, and (iv) sets forth the objective components against which bids will be evaluated and the manner in which the overall evaluation of each bid will be determined.
- (b) The bid protocol shall be published on the Authority's website and in such international publications as are typically used in the industry for the announcement of similar bidding opportunities. The Authority shall cause a summary of the protocol to be published in at least two national newspapers, including a summary of the proposed work program, the bid

evaluation procedures and the schedule for submission of bids, evaluation of bids and contract signature.

- 8.4 The Director General shall appoint a bid evaluation panel having both technical and legal skills. The panel shall include representatives of both the Authority and VOCAL, and at least one member who is an employee of neither entity. The panel shall prepare and submit to the Director General a bid assessment report containing recommendations on the classification of the bids and provide detailed information about all of the bids. Decisions of the panel shall be recorded, including any dissenting views, and signed by the members of the panel and annexed to the bid assessment report. The Director General shall forward the report to the Board accompanied by his or her recommendations. The Board shall determine the winning bidder. If the Director General does not recommend, or the Board does not approve, the bidder given the highest ranking by the bid evaluation panel, the award must be approved by the Ministry of Justice. The report of the bid evaluation panel shall be made available of the public and notice of its available shall be published on the Authority's website
- 8.5 All original data acquired from reconnaissance operations is the property of the State and may be freely used by the State, provided that the reconnaissance license may permit the license holder to:
- (a) License but not sell the data acquired from reconnaissance operations and the profits derived from such licensing shall be shared in accordance with the terms and conditions specified in the license, or
 - (b) Exchange with third parties the results of any survey undertaken during the reconnaissance operations, in which event the State and the license holder shall have equal rights over the data received in the exchange.
- 8.6 Holder of a reconnaissance license shall promptly submit to the Authority all data obtained under the reconnaissance license in such format as shall be specified in the license.
- 8.7 A holder of a reconnaissance license shall not by virtue of the issue of the license have the right to be awarded a petroleum agreement.
- 8.8 A holder of a reconnaissance license shall not commence a reconnaissance operation unless that person has complied with
- (a) the relevant statutory requirements on environmental protection prescribed in the Environmental Protection Agency Act; and
 - (b) any other applicable laws and regulations of the State
- 8.9 The Authority, in consultation with the contractor under a petroleum agreement, may grant a reconnaissance license to a person other than such contractor for the acquisition of data in the area covered by a petroleum agreement on condition that the reconnaissance activities of the holder do not unreasonably interfere with the activities of such contractor.

- 8.10 The Authority may enter into a petroleum agreement with a third party for all or part of an area covered by a reconnaissance license. The rights of the license holder following such grant shall be as set forth in the license.
- 8.11 A contractor under a petroleum agreement may conduct reconnaissance activities in the area subject to such petroleum agreement without holding a reconnaissance license unless otherwise provided in such petroleum agreement. Subsections 11.5, 11.6 and 11 of this Act are applicable to the reconnaissance activities of such contractor, except that the contractor may not sell or license the data so obtained in accordance with clause (a) of subsection 11.5 of this Act without the prior consent of NOCAL and the Authority.

9 Opening Up of New Areas for Petroleum Operations

- 9.1 Before an area that has not previously been the subject of a petroleum agreement, a production sharing agreement or a formal bid round is opened for bidding, the President shall request the Authority to:
- (a) Conduct an evaluation of the preliminary geological, geophysical and geochemical data of the area.
 - (b) Carry out a strategic assessment of the potential economic, social and environmental impact of the conduct of petroleum operations in and around the subject area.
 - (c) Provide an opportunity for public comment on the preliminary impact assessment.
 - (d) Consult with the relevant ministries and agencies in respect of any matter covered by the impact assessment falling within the scope of the functions and responsibilities of the ministry or agency in question.
- 9.2 The opportunity for public comment on the preliminary impact assessment shall be announced on the Authority's website, in two national newspapers and on national radio, and such announcement shall include;
- (a) The location of the areas to be opened up for petroleum operations.
 - (b) A summary by the Authority of its preliminary impact assessment.
 - (c) The location where the full preliminary impact assessment report can be obtained.
 - (d) The format and manner in which comments can be made.
 - (e) The deadline for submitting comments which shall not be less than sixty days from the date of the announcement.
- 9.3 Upon expiry of the deadline for submitting comments, the Authority shall submit its final impact assessment report to the Board, including (i) a summary of the comments received and indicating the extent to which such comments have been taken into account, and (ii) a recommendation as to whether to open up the subject areas for petroleum operations and as to whether any exclusions,

restrictions or other special conditions should be imposed in connection with the opening up of the areas in question.

- 9.4 The final report shall be published on the Authority website, a summary of the report shall be published in two national newspapers, and an announcement of the publication of the report shall be made on national radio. Each publication and announcement shall also include a statement of the locations at which the report can be obtained.
- 9.5 The preliminary and final reports referred to in subsections 12.2 and 12.4 shall be made available in the county seat of each county in which areas are proposed to be or will be opened up for petroleum operations and, in respect of offshore petroleum operations, the county seat of each coastal county adjacent to the areas in question.
- 9.6 The Board shall give due consideration to the technical evaluation and impact assessment and shall recommend to the President whether to open up the subject areas for petroleum operations and whether to impose any exclusions, restrictions or other special conditions in connection with the opening up of the areas in question.
- 9.7 A decision of the President to open up an area for petroleum operations and any conditions imposed in relation thereto shall be published on the website of the Authority, in two national newspapers and shall be announced on national radio.

10 Licensing Petroleum Agreements

- 10.1 A petroleum agreement may be awarded only on the basis of an international competitive bidding process conducted in accordance with the provisions of Sections 15 through 17 of this Act.
- 10.2 A petroleum agreement shall not relate to more than one block.
- 10.3 Within one year after the transfer completion date provided for in Section 78 of this Act, the Director General shall present to the Legislature a proposal for the implementation by regulation of a mandate for Liberian participation in any reoffering of relinquished offshore blocks, and in any initial offering or any reoffering of onshore blocks.
 - (a) To ensure that the Liberian participants gain experience of the full range of issues presented in the exploration and development of petroleum resources, such proposal shall be structured to ensure that the Liberian participation remains in place at least through the earlier of the commencement of production or the relinquishment of the reoffered area.
 - (b) The proposal shall also take into account the inability of Liberian-citizen-owned businesses to bear the costs of exploration and development of petroleum resources.

11 Pre-qualification of applicants

- 11.1 A company wishing to apply for a petroleum agreement in a bidding round shall apply for pre-qualification in accordance with the pre-qualification guidelines prepared by the Authority and approved by the Board.

- 11.2 The pre-qualification guidelines shall provide, at a minimum:
- (a) The amount of the pre-qualification processing fee.
 - (b) The requirements and supporting documentation required for technical qualification.
 - (c) The requirements and supporting documentation required for economic and financial qualifications.
 - (d) The required legal documentation evidencing the good standing of the company, and the identity of its directors, shareholders and beneficial owners.
- 11.3 The guidelines will provide specific technical and financial requirements for participants and for operators, which may take into account the specific onshore or offshore environment and other specific operating conditions relevant to the block applied for or under the offer in the bidding round. The guidelines may establish differing disclosure standards in respect of shareholders and beneficial owners for privately-held companies and public companies in order to reflect the fact that publicly held companies may not be able to identify the actual holders of publicly traded shares.
- 11.4 Technical qualification shall take into account the past and current worldwide experience of the applicant, the size, nature and scope of the petroleum projects in which the applicant has been involved as an operator or participant, and the quality of its health, safety and environmental practices, provided that no applicant shall be excluded from the pre-qualification process solely on account of its size if it otherwise meets applicable standards for a participant or an operator.
- 11.5 Where the Director General is satisfied that the applicant qualifies as an operator or a participant the Director General shall issue to the applicant a notice of qualification. Qualification may be limited to a specific onshore or offshore open area or other specific operating conditions referred to in the relevant pre-qualification guidelines pursuant to which the application was made.
- 11.6 Qualification as an operator or a participant shall be valid for five (5) years from the effective date of the notice of qualification.
- 11.7 A company which holds a pre-qualification notice shall give written notice to the Director General within forty-five days of any material change, including changes in beneficial ownership from that originally reported, with respect to its technical, financial or other information submitted in connection with the pre-qualification application.
- 11.8 Within the earlier of (i) six months from the transfer completion date and (ii) the date of the issuance of the initial bid round conducted under this Act, the Board shall issue regulations as to the disclosure of beneficial ownership of companies holding interests in petroleum agreements.
- 11.9 Notwithstanding subsection 14.6 of this Act, the Authority may cancel the qualification notice issued to a company where:
- (a) there is an adverse material change in the status of the company;

- (b) the company supplies false or misleading information; or
 - (c) the company fails to supply material information, in respect of or following the application for a pre-qualification notice.
- 14.9 The Authority shall keep a register of the companies qualified as operators and participants and shall record, in respect of each such company, the grounds for the issue of a pre-qualification notice and reasons for its cancellation. The register shall include all documentation submitted to the Authority in support of an application for a pre-qualification notice or received under subsection 15.7 of this Act.

15 Bidding Rounds

- 15.1 A petroleum agreement shall only be entered into after a public bidding round and only with a pre-qualified bidder that participated in the bidding round.
- 15.2 The Board may from time to time following consultation with the President request the Authority to conduct a bidding round for the award of a petroleum agreement in respect of one or more blocks within areas opened up for petroleum activities and operations.
- 15.3 Upon the Board's request, the Authority shall prepare and submit a tender protocol setting out the procedures and requirements governing the bidding round for approval by the Board and, as to fiscal matters, by the Minister of Finance and Development Planning. The protocol shall include at a minimum:
- (a) The schedule for the bidding round announcement, presentations to interested companies, submission of bids, evaluation of bids and contract signature.
 - (b) The data package purchase requirements.
 - (c) The participation fees.
 - (d) Rules for the submission of bids including the timing, form and required bid guarantees.
 - (e) The bid components against which bids will be evaluated.
 - (f) The manner in which each bid component will be evaluated in determining the overall evaluation of each bid.
 - (g) The model petroleum agreement which the winning bidder will be required to sign.
 - (h) Whether the award may be made to the second bidder if the winning bidder fails timely to execute the model petroleum agreement.
 - (i) Whether the bid round is subject to reserves and the nature of any such reserves.
- 15.4 The bid components shall comprise one or more of the following:

- (a) minimum work program during the exploration period;
- (b) an aggregate amount of the signature bonus and other biddable contributions payable upon or promptly after the effective date of the petroleum agreement;
- (c) percentage of petroleum production allocated to recovery of the costs incurred by a contractor;
- (d) percentages of or formula for calculating the Government share of petroleum production remaining after deduction of the petroleum production allocated to cost recovery and royalties;
- (e) percentage of the State's participation in excess of the minimum stated in Section 35 of this Act; and
- (f) such other objective criteria as the Authority shall deem appropriate.

15.5 The tender protocol shall provide that:

- (a) a company may bid for more than one block provided that each block is subject to a separate bid;
- (b) an individual bid may be submitted only by companies which are pre-qualified as operators; and
- (c) bids submitted by groups of companies must designate the company within the group which shall act as the operator, which company shall be prequalified as an operator and shall hold at least the minimum percentage of the contractor specified in the tender protocol.

15.6 In preparation of the tender protocol, the Director General shall consult with the Ministry of Finance and Development Planning and with other relevant ministries or agencies in respect of any matter falling within the scope of functions and responsibilities of the ministry or agency in question.

15.7 The final tender protocol, including all of its annexes, shall be published on the Authority website and shall be announced in such international publications as are typically used in the industry for the announcement of similar bidding opportunities. A summary of the protocol shall be published in two national newspapers, and the publication of the protocol shall be announced on national radio... Such publication and announcements shall indicate where copies of the protocol may be obtained, which shall include the county seat of each county in which areas are subject to bid and, in respect of offshore petroleum operations, the county seat of each coastal county adjacent to the areas in question.

15.8 The Director General shall, in consultation with the Board and the President, appoint a bid evaluation panel, in relation to each bidding round, to review the bids and identify the winning bidder.

- 15.9 A bid evaluation panel shall consist of a minimum of six and a maximum of seven members which comprise:
- (a) at least four (4) senior Government officials, including a representative of the Authority, a representative of the Ministry of Finance and Development Planning, a representative of the Ministry of Justice, and a representative of the Ministry of Lands, Mines and Energy (to be replaced by a representative of the Ministry of Petroleum if and when established); and
 - (b) Two (2) additional individuals selected by the President, one of whom shall be an expert with experience and qualifications in the international petroleum industry.
- 15.10 The bid panel chairperson will be the representative of the Authority. The Director General may appoint outside experts and counsel to assist the bid evaluation panel.
- 15.11 A panel member shall not have a direct or indirect interest in a company participating in the bidding round within the scope of Section 73 of this Act and any regulations issued pursuant thereto. Any person solicited to become a member of a bid evaluation panel shall disclose to the Authority the nature of any such interest, whether existing at the time of appointment or thereafter arising, and the Board shall, in consultation with the Minister of Justice, decide whether the person in question should be appointed or retained on the panel. The decision of the Board concerning any such person so appointed or retained shall be recorded in writing and annexed to the bid assessment report.
- 15.12 The bid evaluation panel shall prepare and submit to the Director General a bid assessment report containing recommendations on the classification of the bids and provide detailed information about all of the bids. Decisions of the panel shall be recorded, including any dissenting views, and signed by the members of the panel and annexed to the bid assessment report. In making its recommendations, the panel may take into account the technical and fiscal capacity of a bidder that has bid for multiple blocks, if it appears to be in contention for multiple blocks. If there is no bid for a block that conforms to the minimum requirements set forth in the tender protocol (a "conforming bid"), then no award may be made for that block other than pursuant to Section 17 of this Act. The Director General shall forward the report to the Board accompanied by his or her recommendations.
- 15.13 The Board shall submit the bid assessment report to the President, including its report on its observations and recommendations on the bid assessment and bid award.
- 15.14 Upon receipt of the bid assessment report, the President shall announce the winning bidder and invite the winning bidder to sign the petroleum agreement with the Authority, or declare the terms and conditions of the winning bid to be unsatisfactory, setting forth the reasons therefor, and direct that no award be made.
- 15.15 The President's announcement of the winning bidder, together with the bid assessment report, shall be made available on the Authority website and be published in two national newspapers within twenty (20) days of the announcement.

16. Post-tender negotiations

- 16.1 If a bid evaluation panel determines that for any block on offer, (1] there are no bids from qualified bidders that conform to the terms of the tender protocol but (2] that it would be in the best interests of the State to seek to negotiate, with the qualified bidders that did submit bids, sufficient improvements to the bids to make one of them acceptable to the State, its bid assessment report shall so state. The report shall identify with specificity the non-conforming components of each bid, and the improvements, if any, that it believes should be sought with respect to each such non-conforming component.
- 16.2 The Board may elect to reject all of the bids and terminate the bid round as to that block, or may authorize the Director General to appoint a technical negotiating team to conduct concurrent negotiations with such bidders to determine whether any of such non-conforming bids can be sufficiently improved. The Director General may appoint outside experts and counsel to assist the negotiating team.
- 16.3 When the negotiations have progressed as far as the negotiation team deems possible, it shall deliver to the Board a report setting forth the status of the negotiations and its recommendations.
- 16.4 The report shall, with respect to each block with respect to which negotiations occurred,
- (a) Identify each remaining non-conforming element in each bid.
 - (c) Set forth the improvements, if any, made in the economic terms of each bid, and an economic analysis of each original bid and of each bid as it may have been improved.
 - (d) Set forth an analysis of the practical or legal impact of each other nonconforming elements of each bid, including non-conforming elements of the petroleum agreement each bidder proposes to sign.
 - (e) If multiple blocks were subject to the tender, set forth a qualitative and quantitative analysis of the strengths and weakness of each bidder, in terms of its ability to manage, technically and financially, each block for which it has bid.
 - (f) Identify a preferred bidder for each block (or recommend that no bid for such block be accepted).
- 16.5 The Board, shall, after consultation with the bid evaluation team for the bid round and the Ministry of Finance and Development Planning, the Ministry of justice, the Ministry of Lands, Mines and Energy, the Ministry of Labor and the National Investment Commission, present its own recommendations to the President together with the report and recommendations of the negotiating team and any dissenting views of any of the ministries or agencies so consulted. A separate recommendation shall be made for each block subject to the tender, indicating whether a bid for that block should be accepted or no award should be made and the block again made available for tender at a later date.

- 16.6 If the President agrees with the recommendation for a block, the President shall so notify the Authority, and the Authority shall seek to enter into a petroleum agreement reflecting the negotiated terms of the bid with the recommended bidder for such block at any time that is more than ten days after the publication of the recommendations and report on the Authority website. If the President disagrees, no award may be made for such block and it will again be subject to tender.
- 16.7 Post-tender negotiations conducted pursuant to this Section 17 may be conducted with respect to a block only if no qualified bidder submitted a complying bid or if all complying bidders have withdrawn from consideration or refused to sign a petroleum agreement. Negotiations must be conducted initially with all qualified bidders that tendered non-complying bids for that block in that bid round, but negotiations need not continue with any bidder that in the judgment of the negotiating team does not sufficiently improve its bid. Negotiations under this Section 17 must be completed and a petroleum agreement signed within nine months after the bid submission date, failing which the tender shall be treated as null and void.
- 16.8 Neither the provisions of this Section 17 nor other provisions of this Act shall be construed to permit direct negotiations for the grant of petroleum rights for any oil block other than under the conditions specified in subsection 17.1 of this Act.

17. Execution, ratification and publication

- 17.1 A petroleum agreement shall be signed by the Director General and by the Minister of Finance and Development Planning on behalf of the State.
- 17.2 A petroleum agreement shall be consistent in all respects with the provisions of this Act and the Law of General Applications.
- 17.3 A petroleum agreement shall become effective and binding on the parties thereto once it is executed by the parties, attested to by the Minister of justice, signed by the President and approved by the Legislature.
- 17.4 The approval of a petroleum agreement by the Legislature shall not give the petroleum agreement so approved the force and effect of a statute.
- 17.5 Subsections 17.1 through 17.4 of this Act shall apply to any amendment to a petroleum agreement.
- 17.6 A petroleum agreement including any appendices or annexes or amendments thereto constitutes a public document and as such shall be published on the website of the Authority within ten days of its effective date.
- 17.7 A copy of any petroleum agreement shall be made available upon request and upon payment of the prescribed cost for reproduction.

18. Production Sharing Contracts

- 18.1 Petroleum agreements shall be in the form of production sharing contracts which shall:

- (a) Authorize a contractor, at its own risk, to conduct petroleum operations in the contract area.
 - (b) Authorize the contractor, in the event of a commercial discovery of petroleum, to recover the costs incurred in the conduct of such operations from a share of production of petroleum.
 - (c) Allocate the remaining production of petroleum between the State and the contractor in accordance with a scale or formula specified in the petroleum agreement.
- 18.2 A petroleum agreement shall include provisions governing the rights, duties and obligations of contractors in accordance with the provisions of this Act and other applicable laws.
- 18.3 Where the contractor comprises more than one company, one of the companies with the required technical and financial qualifications shall be designated, subject to the approval of the Authority, as the operator responsible for the day-to-day management of the petroleum operations before the execution of a petroleum agreement. Any change of operator shall also be subject to the prior approval of the Authority.
- 18.4 Where the contractor comprises more than one company, each of the companies comprising the contractor shall be jointly and severally responsible for all obligations and liabilities of the contractor under this Act and under the petroleum agreement.
- 18.5 If the Board determines that the State would benefit from the ability to utilize a different form of petroleum agreement, it shall cause the Authority to submit to the President a proposal for an amendment to this Act to facilitate the use of such different form.

19 Rights Conferred by a Petroleum Agreement

- 19.1 A petroleum agreement while it remains in force shall confer on the contractor, subject to the provisions of this Act and to the conditions specified in the petroleum agreement:
- 19.2 The exclusive right to explore for petroleum in the contract area and to carry out such operations and execute such works as may be necessary for that purpose.
- 19.3 The exclusive right to apply for and obtain an exclusive exploitation authorization, in the event of a discovery of petroleum in the contract areas which following appraisal, has been shown to be commercial.
- 19.4 The exclusive right to carry out development and production operations in the exploitation perimeter and to transport, sell or otherwise dispose of the contractor's share of petroleum in accordance with the field development and production plan.

20 Term of Petroleum Agreement

- 20.1 The petroleum agreement shall grant the contractor an exploration authorization for a maximum period of seven years, divided into an initial phase, followed by extension periods, which shall be granted to the contractor, at the contractor's request, provided that the exploration work commitment to be carried out in the preceding phase was fulfilled.

- 20.2 Without prejudice to the provisions of subsection 21.1 and Sections 24 and 67 of this Act, (I) additional extensions of an exploration period or phase based on technical grounds may be provided in the petroleum agreement, provided that the total period is not extended by more than twelve months, and (ii) if the petroleum agreement provides for exploration in water depths exceeding 2,000 meters may provide for an additional exploration period not exceeding three years.
- 20.3 If a commercial discovery is not declared by the contractor within the latest time provided for exploration, appraisal and issuance of appraisal reports under a petroleum agreement (including any extensions of time available under this Act or pursuant to the terms of such petroleum agreement), the petroleum agreement shall terminate.
- 20.4 The duration of an exclusive exploitation authorization shall be provided in the petroleum agreement for a maximum of twenty-five years from the date of issue of such authorization. The petroleum agreement may provide that the exploitation period may be extended for an additional period of not more than ten years if a commercial exploitation of the field remains possible at the end of the initial period. A further extension may be granted upon application which may be granted at the sole discretion of the State and may be conditioned upon an amendment to the terms and conditions of the petroleum agreement.

21 Minimum Exploration Program

- 21.1 The petroleum agreement shall provide for a minimum work program which the contractor shall be required to carry out during each exploration phase and shall specify a minimum expenditure amount for each such work program. The petroleum agreement may further provide that:
- (a) Any work carried out during an exploration phase in excess of the minimum work program for the phase in question may be carried forward and treated as a credit against the minimum work commitment of the following phase.
 - (b) In the event the minimum work commitment for a phase has not been fulfilled, the contractor shall be required to pay to the State the unspent balance of the minimum expenditure commitment of the phase in question. Contractor's work commitments shall be guaranteed by a bank guarantee, performance bond or parent company guarantee in the form provided in an appendix to the petroleum agreement or otherwise approved by the Director General and the Minister of Finance and Development Planning.
- 21.2 Where the contractor fails to complete the minimum exploration work program set out in a petroleum agreement for a stipulated period and fails to pay the unspent balance to the State as provided in subsection 21.1 of this Act, the Director General may terminate the petroleum agreement and enforce the guarantee or performance bond.
- 21.3 The petroleum agreement shall provide for annual work programs, budgets and any revisions thereto, to be prepared and submitted by the contractor to the Authority for approval.

22 Surface Relinquishments

- 22.1 A petroleum agreement shall require the contractor to surrender the contract area as follows:

- (a) At least twenty-five percent of the original contract area at the end of the initial exploration phase.
- (b) At least twenty-five percent of the original contract area at the end of the first extension.
- (c) The remainder of the contract area at the expiration of the exploration period except for such surface areas as are the subject of an appraisal authorization or an exploitation authorization which has been granted or duly applied for at the time of the expiration.
- (d) Subject to paragraph (c) above, the entire contract area if the contractor elects not to enter into the first or second extension period.

23 Discovery Notification and Appraisal

- 23.1 In the event of discovery, a contractor shall promptly inform the Authority and as soon as practicable thereafter submit a report with all particulars of the discovery.
- 23.2 A contractor who wishes to appraise a discovery shall submit a detailed appraisal work program and corresponding budget to the Authority for review and approval, as specified in the petroleum agreement. The Director General shall obtain the advice of the Authority technical staff, and determine whether to approve and issue to the contractor an exclusive appraisal authorization for an initial term as provided in the petroleum agreement (not more than two years) or such longer period as may be provided in the petroleum agreement in the event of a natural gas discovery.
- 23.3 Extensions of the appraisal authorization may be granted by the Director General, on recommendation of the Authority technical staff, for a maximum period of six months each, if the contractor has diligently performed its appraisal obligations and demonstrates that further appraisal work is justified.
- 23.4 The petroleum agreement may provide for a further extension of the appraisal authorization for up to five years in respect of a non-associated gas discovery to allow the definition of a commercially viable marker or joint development with current development reserves or future exploration prospects.
- 23.5 Within sixty days after completion of the appraisal work program, the contractor shall submit to the Authority for approval by the Director General a detailed appraisal report including all technical and economic data relevant to a determination of commerciality and a statement on whether, in the opinion of the contractor, the discovery is commercial.
- 23.6 If the contractor considers that the discovery is commercial, it shall submit to the Authority together with the appraisal report, an application for an exclusive exploitation authorization accompanied by a detailed development and production plan. Any such authorization shall be issued by the Board on recommendation of the Authority.
- 23.7 Up to two extensions to submit the development and production plan, not to exceed twelve months each, may be granted by the Board, on recommendation of the Authority technical staff, upon the contractor's request showing a technical justification for a delay.

24 Development and Production Plan

- 24.1 A development and production plan shall include particulars about the extent of the field, reserve estimates, a description of the facilities and equipment, an implementation schedule, and estimates of capital expenditures and operating costs, and shall be accompanied by:
- (a) An economic study demonstrating the commercial nature of the field.
 - (b) An environment and social impact assessment, an environment and social management plan and an abandonment plan, as set out in Section 55 of this Act.
- 24.2 Upon approval of the plan by the Director General, including any mutually agreed revisions, the Director General shall grant the contractor an exclusive exploitation authorization over an exploitation perimeter covering the field.
- 24.3 A contractor shall have the right to build, use, operate and maintain all the petroleum storage and transportation facilities which are necessary for the production, transportation and sale of petroleum produced, pursuant to the conditions specified in this Act and in the petroleum agreement.
- 24.4 Following the grant of an exclusive exploitation authorization, the contractor shall proceed diligently with the approved development and production plan.
- 24.5 A contractor shall immediately notify the Authority of any significant deviation from the assumptions and preconditions on which a development and production plan has been approved and which require any significant alteration in the design, size, cost and other specifications of the facilities.
- 24.6 Any significant alteration described in the preceding subsection and any significant amendment to the development and production plan required as a consequence thereof shall be subject to the prior written approval of the Director General given after consultation with the Minister of Finance and Development Planning as to the potential fiscal impact of the changes.

25 Prudent Operations

- 25.1 A contractor shall conduct petroleum operations in accordance with good international petroleum industry practices and sound economic principles and in a manner designed to:
- (a) ensure maximum efficient recovery of petroleum to each individual or several combined accumulations;
 - (b) minimize pollution and the effect of petroleum operations on land adjacent to the production area;
 - (c) safeguard natural resources particularly fishery resources; and
 - (d) ensure that wastage of petroleum reservoir energy is avoided.

26 Matters Relating to Natural Gas

- 26.1 All facilities shall be planned and constructed so as to avoid any natural gas flaring or venting under normal operating conditions.
- 26.2 A contractor shall not flare or vent natural gas unless it is required in order to comply with this Act or other applicable law or unless authorized by the Director General under the following circumstances:
- (a) During production testing operations.
 - (b) When necessary for the safety of operations in accordance with good international petroleum industry practices or
 - (c) When reinjection is incompatible with good reservoir or petroleum engineering practice and the Director General is satisfied that there are no other means of utilizing the natural gas.
- 26.3 In case of an emergency, a contractor may undertake flaring or venting of natural gas without the prior approval of the Director General, but the contractor shall ensure that flaring or venting is kept at the lowest possible level and shall submit to the Authority a technical report detailing the nature and circumstances that caused the emergency.
- 26.4 If the contractor elects not to develop a natural gas discovery or elects to reinject rather than utilize natural gas recovered in association with crude oil, the Authority and NOCAL shall promptly conduct a study to determine whether it would be economically beneficial to Liberia for the State or NOCAL to take on the economic responsibility for development of the field (or the utilization of such associated natural gas), including the construction and operation of appropriate gas transport and processing facilities and (in the case of such associated natural gas) the installation of such pipeline systems as may be required to bring the gas to the processing facilities.

27 Joint Development

- 27.1 Where a petroleum reservoir extends beyond the boundaries of a petroleum agreement area into one or more areas subject to other petroleum agreements, and where the Authority establishes, after consultation with the relevant contractors, that the joint development of several petroleum reservoirs would be more efficient and advantageous, the relevant contractors shall within ninety days or such longer time limit prescribed by the Authority, prepare and submit to the Director General for approval, a plan for the joint development and operation for the petroleum reservoir or accumulation in accordance with Section 25 of this Act.
- 27.2 An agreement for the joint development of a petroleum reservoir or accumulations shall be negotiated by the relevant contractors. Where the contractors fail to reach an agreement and submit a plan as provided in subsection 28.1 of this Act, the Director General may set the terms for and enforce a joint development agreement between the contractors.

28 Cross Border Operations

- 28.1 Where a petroleum reservoir extends into the territory of another state, the State shall seek to reach an agreement with that other state for the most efficient coordination of petroleum operations in connection with the petroleum reservoir and the apportionment of the petroleum reserves.
- 28.2 Where the development and production of a field requires the construction and operation of facilities extending to another state the State shall seek to reach agreement with that other state on the most efficient way of coordinating the construction, operation and use of the facilities.

29 Measurements of Petroleum

- 29.1 A contractor shall measure the volume and quality of all petroleum recovered from the contract area using the measurement appliances and procedures in accordance with good international petroleum industry practices and the relevant development and production plan.
- 29.2 A petroleum agreement shall provide: (a) the principles and procedures for the calibration of and other changes to the measurement appliances, and for the reporting and correction of errors, and (b) the right of the Authority to attend measurements and to conduct inspections and examinations of the measurement appliances and procedures.

30 Sharing of Production and National Requirements

- 30.1 A petroleum agreement shall provide that the State shall have the option to receive its share of production of petroleum described in subsection 19.1(c) of this Act in kind or in cash. The decision to receive the share of production for the State in kind or cash shall be made jointly by the Board and the Minister of Finance and Development Planning, upon recommendation of the Authority, and shall be notified to and implemented by the contractor in accordance with the provisions of the petroleum agreement.
- 30.2 All moneys due to the State on account of the State share of production (whether received in cash from the contractor or otherwise received from the sale of production taken in kind), less any fees or commissions due NOCAL, shall be deposited into the Consolidated Fund.
- 30.3 A petroleum agreement shall authorize the Minister of Finance and Development Planning, on recommendation of the Authority, to request that a quantity of the contractor's share of petroleum, not to exceed a percentage specified in the petroleum agreement, be sold by the contractor to NOCAL at fair market value to satisfy the needs of the domestic market in the event the share of petroleum of the State on account of the production sharing agreement and of the State participation is not sufficient to cover such needs.
- 30.4 In the event of war, threat of war, natural disaster or other extraordinary crisis, the Minister of Finance and Development Planning may, with the approval of the President, direct contractors to place petroleum deliveries at the disposal of the State. Any such petroleum deliveries shall be paid for as specified in the relevant petroleum agreement.

31 Cessation of Petroleum Operations

- 31.1 A petroleum agreement shall provide for the establishment and operation of an abandonment fund which shall be funded by the contractor from such time as a field shall have reached fifty percent of its productive capacity, on the basis of a revised abandonment plan and budget which the contractor shall submit to the Authority for approval by the Board.
- 31.2 The abandonment fund shall be held by a responsible international bank, acting as escrow agent, approved by the Minister of Finance and Development Planning and the contractor. Payments into the abandonment fund shall be treated as payments to the State subject to LEIT1 disclosure rules, and the Authority shall establish procedures for the regular reporting and publication on its website of such payments and of withdrawals from such fund.
- 31.3 The petroleum agreement shall specify:
- (a) The manner in which and the time at which the contractor shall make contributions to the fund.
 - (b) The manner in which such contributions shall be recovered out of production by the contractor and/or admitted as deduction in the calculation of contractor's income taxes.
 - (c) The manner in which and the time at which amounts shall be released to meet the costs and expenses of the abandonment operations.
- 31.4 Where the monies in the fund are insufficient to cover the implementation of the abandonment plan, the contractor shall be liable for the shortfall.
- 31.5 Where there is an excess in the fund following completion of decommissioning or the transfer of facilities to NOCAL, such excess shall be retained by the State.

32 Takeover of the Facilities by the State

- 32.1 Upon expiration, surrender or termination of a petroleum agreement and at the end of the exploitation of a field, the State shall have the option through NOCAL to take over the facilities and acquire all or part of the assets, movable or immovable, used for the petroleum operations, together with such user rights and licenses as are necessary for the continuation of the petroleum operations, under terms and conditions which shall be provided in the petroleum agreement and which shall take into account the contractor's recovery of costs incurred in relation to the acquisition of such assets.
- 32.2 The option provided in subsection 33.1 of this Act shall be exercised by the Authority upon recommendation of NOCAL and the approval of the Ministry of Finance and Development Planning, and carried out by NOCAL on behalf of the State. NOCAL shall thereafter enter into a petroleum agreement with the Authority substantially complying with the provisions of this Act and setting forth the terms on which NOCAL shall operate such facilities and share the revenue arising therefrom with the State.
- 32.3 Where NOCAL takes over all the facilities of a petroleum operation the funds in the abandonment fund described in Section 32 of this Act shall be transferred to an escrow account which shall be

used exclusively for the payment of the costs of later abandonment operations. Notwithstanding, NOCAL will continue to make payments into the abandonment fund until the commencement of decommissioning.

- 32.4 Where NOCAL takes over less than all of the facilities of a petroleum operation, the existing abandonment fund shall be divided equitably between NOCAL and the entity assuming responsibility for abandonment or decommissioning of the remaining facilities, but the burden of any prior failure of the contractor to fund the abandonment fund as required under the relevant petroleum agreement shall fall on the contractor.

33 Guarantees and Insurance

- 33.1 A petroleum agreement shall require the contractor to take out and cause to be taken out by its subcontractors, in relation to the petroleum operation, all insurances of the types and for such reasonable amounts as are carried pursuant to good international petroleum industry practices and applicable laws, including, without limitation, third-party liability insurance and insurance to cover damages to the facilities.
- 33.2 A petroleum agreement shall require the contractor to provide adequate security, having regard to good international petroleum industry practices, to guarantee the performance of the contractor's obligations under the petroleum agreement in all phases of the petroleum operations.

34 State Participation in Petroleum Agreements

- 34.1 The State shall have the right to acquire through NOCAL a participation in the rights and interests of a contractor under a petroleum agreement in a percentage specified in the petroleum agreement but which shall not be less than ten per cent (10%).
- 34.2 The option to participate shall be exercised by the Minister of Finance and Development Planning on recommendation of the Authority and NOCAL, by written notice to the contractor given within the time provided in the relevant petroleum agreement.
- 34.3 Any State participation acquired pursuant to this Section 35 shall be carried by the contractor until the start of commercial production, which means that (i) all exploration, appraisal and development costs shall be paid by the contractor, (ii) the State, through NOCAL, shall pay its participating interest share of all costs of carrying out production operations, and (iii) the non-State participants comprising the contractor shall be entitled to recover the State's participating interest share of all or part of the exploration, appraisal and development costs of the field in question, with or without interest thereon, all under the terms and subject to such conditions as shall be specified in the petroleum agreement.
- 34.4 Any State participation acquired pursuant to this Section 35 shall be managed by NOCAL which shall become a party to the petroleum agreement under the terms of a joint operating agreement between NOCAL and the other entity or entities comprising the contractor.

35 Citizen Participation in Revenues from Petroleum Agreements

- 35.1 In addition to the State participation provided in Section 35 of this Act, the State shall have the right to acquire a five per cent (5%) participation in the rights and interests of a contractor under a petroleum agreement for the benefit of a citizen fund which shall be established and managed in accordance with the following provisions of this Section 34.
- 35.2 The Director General shall timely exercise this right on behalf of the State by written notice to the contractor which shall be given within the time provided in the relevant petroleum agreement.
- 35.3 Any participation acquired pursuant to this Section 36 shall be carried by the contractor until the start of commercial production, which means that (i) all exploration, appraisal and development costs shall be paid by the contractor, (ii) the State shall pay its participating interest share of all costs of carrying out production operations, and (iii) the non-State participants comprising the contractor shall be entitled to recover the State's participating interest share of all or part of the exploration, appraisal and development costs of the field in question, with or without interest thereon, all under the terms and subject to such conditions as shall be specified in the petroleum agreement.
- 35.4 Any citizen participation acquired pursuant to this Section 36 shall be managed by NOCAL which shall become a party to the petroleum agreement under the terms of a joint operating agreement between NOCAL and the other entity or entities comprising the contractor.
- 35.5 The citizen participation fund shall be managed by a trustee which shall be a responsible international trust company selected by the Ministry of Finance and Development Planning in consultation with the Central Bank of Liberia, under a trust agreement that provides for the administration of the fund in accordance with the requirements of this Section and is otherwise subject to the approval of the President after consultation with the Legislature.
- 35.6 The citizen participation fund shall be used in accordance with a plan that will make the benefits broadly available as widely as practicable to all citizens from both urban and rural areas within the Republic, through one or more mechanisms that will ensure that the benefits are extended to the most needy and vulnerable groups of citizens.
- 35.7 No later than three years from the transfer completion date referred to in Section 76 of this Act,, the Minister of Finance and Development Planning shall, in consultation with the LRA, the Authority and other relevant ministries, prepare and submit to the President, and the President shall then submit to the Legislature, a draft bill for an act implementing the citizen participation fund, which may be part of an act adopting a petroleum revenue management law. Such act shall provide a citizen participation structure complying with the requirements of this Section 34 and shall, in relation to such citizen participation, regulate the administration of the fund, specify the functions and duties of the trustee and provide particulars on the uses and disbursements of moneys from the fund.

36 Fiscal and Customs Regime

- 36.1 All entities comprising the contractor under a petroleum agreement, all subcontractors of the contractor and their respective employees shall be subject to taxes, user fees and custom duties in accordance with the Revenue Code.

37 Royalties

- 37.1 A petroleum agreement shall provide for the payment of royalties on the value of total production of petroleum from the contract area, excluding such quantities as are used, reinjected or unavoidably lost in the petroleum operations, at the percentage rate(s) specified therein. Such royalties shall be payable into the Consolidated Fund.
- 37.2 A petroleum agreement shall require the contractor to pay into the Consolidated Fund the annual surface rentals per square kilometer within the relevant contract area during each exploration period, and in respect of each development and exploitation perimeter, as specified in the petroleum agreement.

38 Bonuses

- 38.1 A petroleum agreement may provide for the payment of one or more lump sum bonuses in relation to the execution of the petroleum agreement and/or upon the production of petroleum reaching specified production levels. All such bonuses shall be payable into the Consolidated Fund
- 38.2 A petroleum agreement may require the payment of contributions upon execution of the petroleum agreement on an annual basis to special government funds, including the Hydrocarbon Development Fund, the Rural Energy Fund, or other public institutions, or to fund social welfare or training programs. All such payments must be made into an appropriate subaccount of the Consolidated Fund for further credit to the relevant special fund or other designated recipient
- 39.1 The Authority and the Ministry of Finance and Development Planning shall jointly report annually to the Legislature within ninety (90) days after the end of each calendar year, setting forth the funds paid by each contractor party to a petroleum agreement under provisions authorized by subsection 41.1 of this Act (and by each contractor party to a production sharing agreement pursuant to similar provisions in such agreements) and summarizing the application of such funds. Such reports shall be published on the Authority website promptly upon filing with the Legislature.
- 39.2 Each of the Authority and the Ministry of Finance and Development Planning are hereby authorized and directed to require the recipients of such funds to provide the Authority and the Ministry of Finance and Development Planning with such information as to the application of funds as is reasonably necessary to enable them to discharge their reporting obligation under subsection 41.2 of this Act.

40 Foreign Exchange

- 40.1 A contractor shall comply with the foreign exchange control regulations, subject to the provisions of this Section 40.

- 40.2 A contractor shall have the right to retain abroad all funds arising from sales of all petroleum to which it is entitled under the petroleum agreement, and all funds acquired or borrowed abroad in relation to its operations in Liberia under a petroleum agreement and to freely dispose of such funds to the extent that they may exceed its requirements for its operations in Liberia, provided that after the approval of a development and production plan a contractor must pay Liberian suppliers and Liberia-based Liberian employees from bank accounts maintained in a bank located in Liberia.
- 40.3 No restriction shall be exercised on the importation by a contractor of funds for use in the performance of the petroleum operations.
- 40.4 A contractor shall have the right with respect to transactions relating to petroleum operations to purchase currencies of Liberia with foreign currencies, and to exchange into foreign currencies of its election any funds held by it in Liberia in excess of its local requirements, in either case at exchange rates which if directly or indirectly fixed by the State shall not be less favorable than those generally applicable to other foreign investors.
- 40.5 A contractor shall have the right to pay for services and assets for petroleum operations sourced from outside Liberia in foreign currency from accounts outside of Liberia.

41 Personnel and Training

- 41.1 A contractor and its subcontractors shall ensure that opportunities are given to qualified Liberian citizens for employment in various levels of their Liberian operations and shall implement or provide training programs for this purpose and as such shall be stipulated in the petroleum agreement.
- 41.2 A development and production plan shall include plans to train Liberian citizens in the full range of managerial and technical activities involved in the performance by the contractor of its obligations under the petroleum agreement, including without limitation engineering design, information technology, petroleum geology technology, production facility operations and maintenance, contract negotiation and contract management.
- 41.3 Neither a contractor nor any of its subcontractors may hire individuals who are not citizens of Liberia for unskilled labor positions in Liberia or on board vessels or equipment stationed in Liberian waters.

42 Preference to local goods and services

- 42.1 A contractor and its subcontractors shall give preference to enterprises, goods and services provided or supplied by Liberia citizens or business entities controlled by Liberia citizens, where conditions of price, quality, delivery time, service and terms of payment are equivalent to those from other countries or from non-Liberian sources.
- 42.2 For this purpose, a contractor shall organize its procurement procedures to give meaningful opportunity to Liberians when purchasing goods and services related to its petroleum activities. Within six months from the commencement of the exploration operations and at the time of submitting a development and production plan, a contractor shall provide the Authority, for review and approval after consultation with relevant ministries and agencies, project linkage plans which will:

- (a) Identify the potential for local suppliers, contractors and service providers to provide in support of petroleum operations goods having value-added in Liberia and services performed by Liberians.
- (b) Identify key interventions to develop the capacity of Liberian-owned enterprises to deliver goods and services to the oil and gas sector within and without Liberia.
- (c) Set out a local project purchase plan complying with the requirements of this Section 44 with clear milestones identified in terms of an increasing percentage of local purchases of goods and services and providing for bidding preferences for local suppliers, contractors and service providers (provided that such persons offer quality, terms, delivery, service, quantity and price at least comparable to those obtainable from other sources).
- (d) Set forth reasonable goals within the context of such plan, provide procedures for regular monitoring and reporting of the contractor's performance against such plan, and establish reasonable economic sanctions for failures to achieve such goals.

43 Right to Import and Export Equipment and Materials

- 43.1 A contractor shall have the right to import into Liberia, in its own name or on behalf of its subcontractors, in exemption of import duties as provided in the Revenue Code:
- (a) All the technical equipment, materials, machinery and tools, goods and supplies necessary for the proper conduct of the petroleum operations according to good international petroleum industry practices.
 - (b) The furniture, clothing, household appliances and all personal effects for the foreign employees and their families assigned to work in Liberia for the contractor or its subcontractors.
- 43.2 A contractor, its agents and subcontractors are not permitted to import the items in subsection 43.1 of this Act insofar as such items are available in Liberia under equivalent conditions of price, quality, delivery time, service and terms of payment.
- 43.3 A contractor, its agents and subcontractors shall have the right to re-export from Liberia any items imported under Section 43 of this Act that are no longer necessary for the petroleum operations unless those items have become the property of the State upon expiration, termination or surrender of the petroleum agreement or at the end of exploitation of a field under the provisions of the petroleum agreement.

44 Right to Sell Surplus Equipment and Materials

- 44.1 A contractor, its agents and subcontractors shall, provided that they inform the Ministry of Finance and Development Planning and the Authority in advance of their intent to sell and subject to the provisions of the petroleum agreement, have the right to sell in Liberia, all equipment, materials, goods and supplies which they have imported when they are considered as surplus and no longer necessary for the petroleum operations, except that they may not sell explosives, gasoline or diesel

within Liberia to third parties without the consent of the Ministry of Finance and Development Planning.

- 44.2 If any such imported equipment, materials, goods and supplies were exempted in all or in part from taxes and duties on import into Liberia, then such items are deemed imported on the date of sale and the seller must, upon their sale, pay into the Consolidated Fund those taxes and duties payable on such items under applicable laws in effect on the date of sale calculated on the actual sales price on the date of sale and fulfill all formalities required by law in connection with such sales.
- 44.3 The Ministry of Finance and Development Planning may by regulations establish the procedures for the sale of items under this Section 47 and the criteria for exemptions that may be applied.
- 44.4 During the term of the petroleum agreement, the contractor, its customers and their carriers shall have the right to export freely at the export point selected for that purpose, free of all duties and taxes and at any time, the portion of petroleum to which the contractor is entitled in accordance with the provisions of the petroleum agreement, after deduction of all deliveries made to the State.

45 License to Install and Operate Petroleum Transportation Systems

- 45.1 A petroleum transportation system shall not be installed or operated without a license granted by the Director General, unless the right to carry out such operations is part of a contractor's approved development and production under a petroleum agreement.
- 45.2 An application for a petroleum transportation license shall contain: (i) A description of the facilities, including all installations and equipment required to operate and maintain the petroleum transportation system. (ii) An environmental and social impact assessment and an environmental and social management plan prepared in accordance with the Environment Protection Law. (iii) Detailed information on all relevant issues concerning the proposed installation, including economic, technical, operational, safety, land use and environmental aspects of the project.
- 45.3 A petroleum transportation license authorizes the license holder, subject to this Act and in accordance with the conditions specified in the license, to construct and operate a petroleum transportation system of the design, construction, size and capacity specified in the license, along the route and for the term specified therein, to enable the license holder to carry out its operations and to execute all works that are necessary for or incidental to the construction and operation of a pipeline.
- 45.4 In addition to the provisions of Part 16 of this Act, the provisions of Sections 40 to 47 of this Act and of Parts 13 and 14 of this Act applicable to contractors and petroleum operations shall apply mutatis mutandis to holders of petroleum transportation licenses and to their operations.

46 Third Party Access to Transportation Systems

- 46.1 The Board may, on the recommendation of the Authority in the interest of efficient operations, direct a petroleum transportation license holder or contractor to provide access to its petroleum transportation systems to third parties on fair, transparent, non-discriminatory and competitive

terms, provided that such access shall not be detrimental to the requirements of the contractor or operator in question.

- 46.2 A transportation license holder shall have the right to charge to third parties a transportation tariff that is reasonable taking into account the capital and operating costs of the pipeline and the throughput requirements of the license holder.
- 46.3 An agreement for the use of petroleum transportation systems shall be submitted to the Authority for approval by the Director General. Where an agreement cannot be reached between the parties within a reasonable period, the Director General shall recommend to the Board for approval the tariff payable and other conditions of use after giving the parties in interest an opportunity to present their views

47 Acquisition of Land Use Rights for Petroleum Operations

- 47.1 A contractor shall have the right to acquire land located within or outside the contract area for the purposes of constructing, installing and operating petroleum production and transportation facilities and such other buildings, structures and installations as may be necessary for the conduct of petroleum operations.
- 47.2 For purpose of subsection 51.1 of this Act, the State shall make available to a contractor any land which it owns that is suitable for the activities intended to be carried out thereon' provided that use of the land does not conflict with any existing land use rights already granted to third parties or belonging to the State.
- 47.3 Rights on land held by private owners that the contractor determines to be necessary for the carrying out of the petroleum operations shall be acquired by direct agreement between the contractor and the private person or persons concerned as follows:
- (a) The contractor shall seek in good faith to reach an agreement with the person or persons concerned. If no such agreement can be reached, the contractor may request the Authority to facilitate the process of negotiation between the private owner and the contractor for the acquisition of the necessary rights with fair compensation.
 - (b) If an agreement cannot be reached, and if no other surface rights are reasonably available to the contractor for the intended purposes, the Director General will, in consultation with the Land Commission of Liberia and the Ministry of Justice, assist the contractor in obtaining appropriate rights.
 - (c) When determining the value of rights or interests in land to be acquired for use by a contractor, consideration shall be given to the cost of acquiring similar rights in property of similar size, quality and utility in reasonable proximity to the land being acquired, but no consideration shall be given to the contractor's purpose for acquiring such rights or interests.
 - (d) If the State acquires rights or interests in land for use by a contractor, such rights or interests shall be held or registered, as the case may be, in the name of the State, but the contractor shall be entitled to the use thereof for the purposes of petroleum operations during the term of the relevant petroleum agreement. Any costs incurred by the State in connection with such

acquisition of rights or interests shall be borne by the contractor and may be recovered in accordance with the provisions of the relevant petroleum agreement.

- 47.4 A contractor shall have the right to enter upon any land in the contract area to carry out temporary exploration operations as specified in the petroleum agreement, provided that a contractor may conduct such operations on land that is held by a private landowner, farmer or occupant only if the contractor has delivered to the landowner, farmer or occupant a written request for permission including an undertaking to provide full, fair and reasonable compensation for any damage to the land, or any crops or improvement thereon or any long term loss in value of the land caused by the petroleum operations and has received such permission.
- 47.5 If a landowner, farmer or occupant refuses to give a contractor reasonable temporary access to the land as provided in subsection 51.4 of this Act, the contractor may petition the Director General for relief, setting forth all relevant facts, including (1) any financial offers made to the landowner, farmer or occupant, (ii) the type and potential impact of operations to be conducted on such land, and (iii) the available alternatives, if any.
- 47.6 If the Authority is unable to persuade the parties to reach a private agreement for such temporary access, the matter shall be determined by one or more hearing officers appointed by the Director General, in accordance with procedures established by regulation consistent with the Liberia Administrative Procedure Act.

48 Other Rights and Duties of a Contractor with Respect to Land.

- 48.1 A contractor shall have the right to remove and use water, gravel, sand, clay, stone and timber from land acquired by it for use in petroleum operation to the extent necessary for the petroleum operations in accordance with generally applicable laws and regulations, provided that a contractor may not (i) take any such material from land leased from a private landowner or occupant without first obtaining the permission of such person, (ii) utilize any such material from a site to which a third party holds exploitation rights, except on terms and conditions satisfactory to such third party, (iii) deprive any person, even temporarily, of a constant and reasonable supply of usable water from a previously utilized traditional source without replacing it, or (iv) interfere with any water rights enjoyed by any user under any agreement with the State.
- 48.2 For the purposes of the petroleum operations, a contractor shall have the right to use, in accordance with applicable law, any public railroad, road, airport, landing strip, supply base, port facility, waterway and any telephone network in Liberia, whether owned by the State or by any private enterprise, subject to the payment of fees then in effect or mutually agreed upon which in the case of State-owned facilities will not be in excess of the prices and tariffs charged to third parties for similar usage.
- 48.3 The State reserves the right on reasonable notice to the contractor to construct roads, railroads, power and telephone lines within any onshore contract area or any land acquired by or for the contractor for its petroleum operations, provided that the State takes account of the reasonable concerns of the contractor and seeks to minimize any disruption in the conduct of petroleum operations.

49 General Duties of Contractors

- 49.1 A contractor shall conduct petroleum operations in a prudent manner with the view of preventing and limiting harm to the people, property and the environment and to that effect, shall comply with the laws and regulations governing health, safety and the protection of the environment and with good international petroleum industry practices.
- 49.2 A contractor shall make all reasonable efforts to ensure that its subcontractors, consultants and agents manage health, safety and environment risks in a manner consistent with the requirements of subsection 51.1 of this Act.
- 49.3 A contractor shall establish and enforce rules consistent with those generally followed in the international petroleum industry under similar circumstances concerning the control of the use of drugs, alcohol, firearms, ammunition, explosives and weapons.
- 49.4 A contractor shall ensure that any person engaged in petroleum operations shall possess the necessary qualifications to perform the work in a prudent manner.

50 Health and Safety Plans

- 50.1 A contractor shall prepare and implement, prior to the commence of any petroleum operations in Liberia or Liberian waters, a health and safety management plan setting out safety requirements, objectives and standards consistent with good international petroleum industry practices pertaining to the design, operation and maintenance of any installation or equipment used in the petroleum operations to prevent or mitigate hazards and risks to any person employed or otherwise present at or in the vicinity of any installation. Any such plan shall include regulations on hygiene and occupational safety and an emergency preparedness plan, and shall be regularly updated.
- 50.2 The contractor or operator shall submit the health and safety management plan and any revisions thereof to the Authority for approval in consultation with the Ministry of Health and Social Welfare, the Ministry of Labor and other relevant governmental agencies.
- 50.3 A contractor shall ensure that all persons present at or residing in the vicinity of each installation or site in which petroleum operations are conducted are duly informed of the potential hazards and of precautionary measures related thereto.
- 50.4 A contractor shall submit to the Authority and to the relevant ministries and government agencies such reports on health and safety performance of each installation at which, and each site on which, petroleum operations are conducted, as are required under applicable law and as may be specified in regulations issued hereunder and in the petroleum agreement.

51 Environmental Impact Assessments and Environmental Management Plans

- 51.1 The contractor shall submit to the EPA for approval (with a copy to the Authority) each Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) relating to planned petroleum operations as and when required under the Environment Protection Law, the EPA Environmental Guidelines, good international petroleum

industry environmental practice or the contractor's petroleum agreement, as and when required by applicable law or regulation or by the terms of the relevant petroleum agreement or license under this Act. The EPA shall obtain the views of the Authority and other interested ministries or agencies as to the adequacy of each such assessment or plan before taking action with respect to such assessment or plan.

- 51.2 Each ESMP must at a minimum set forth (i) detailed plans consistent with the relevant ESIA for the mitigation of environmental harm attributable to, and the restoration or remediation of the environment to the extent affected by, the implementation of the exploration, appraisal or development and production program, as the case may be, and (ii) detailed plans or procedures for limiting adverse socio-economic consequences from the exploration, appraisal or development and production program as the case may be.
- 51.3 If any aspect of the proposed petroleum operations to be covered by a particular ESIA and ESMP can reasonably be expected to require the relocation of residents or the taking of subsistence agricultural land, the socio-economic component of the ESMP must include a resettlement action plan, which shall provide at the cost of the contractor for a suitable area of resettlement with key emphasis on suitability of shelter and continuity in livelihood, full compensation and the provision of informed consent by the affected persons.
- 51.4 The ESMP for any development and production plan submitted by a contractor shall include an abandonment plan which shall address the abandonment of the facilities upon the end of the useful life of the field or fields covered by the proposed development and production plan.
- 51.5 Each abandonment plan must include an assessment of risks and any uncertainties associated with the abandonment operations, identify the alternative and the preferred abandonment options, provide an estimated cost for each of the options, summarize the reasons for the selection of the preferred abandonment options, and address the social aspects of abandonment and rehabilitation.
- 51.6 A contractor shall submit to the EPA for approval, with a copy to the Authority, amendments to the then-current ESIA, ESMP and abandonment plan whenever necessary to reflect material changes in conditions not anticipated in the assessment or plan in question or material changes in good international petroleum industry environmental practices. The EPA will comply with the last sentence of Section 55.1 of this Act as to the adequacy of each amendment before taking action with respect thereto.
- 51.7 Public hearings and public consultations in support of the ESIA and the ESMP process, including with respect in any proposed material amendment to an approved ESIA or ESMP, shall be in accordance with the Environment Protection Law and the EPA Environmental Guidelines and any more stringent requirements of the relevant petroleum agreement. The contractor shall make and publish a record of (i) the means taken to publicize the hearings, (ii) the number of persons who attended each such hearing and their affiliations, (iii) a summary of issues raised at each such hearing, and (iv) discussion of the actions taken by the contractor in response to the issues raised at such hearings. The EPA may by regulation adopted after consultation with the Authority set forth additional standards for the location, notification and conduct of such hearings.
- 51.8 A contractor shall commission periodic external environmental audits as required to ensure compliance with an ESMP. External audits will be in accordance with the Environment Protection

Law and good international petroleum industry environmental practices. The external environmental audit shall be performed or supervised by an experienced environmental engineer selected by the contractor and approved by the EPA. A contractor shall commission such periodic social audits as are required by the terms of its petroleum agreement.

- 51.9 All ESIA's and ESMPs, and any amendments thereto, shall be published on the Authority website and in accordance with EPA requirements.

52 Emergency preparedness

- 52.1 A contractor or subcontractor shall at all times maintain efficient preventative security and emergency preparedness measures to deal with emergencies and accidents in an effective manner to prevent injury, loss of life, pollution or major damage to property.
- 52.2 A contractor shall ensure that necessary measures are taken to prevent or reduce harmful effects, including the measures required in order, to the extent possible, to return the environment to the condition it had been in before the accident occurred.
- 52.3 A contractor shall initiate and maintain security measures to minimize attacks against facilities and shall at all times have contingency plans to deal with such attacks. A contractor shall place facilities at the disposal of the relevant authorities for emergency and security drills and shall where necessary participate in such drills.
- 52.4 A contractor shall cooperate with other contractors to ensure efficient emergency preparedness through the sharing of emergency resources.
- 52.5 The Director General may issue directions for the implementation of the measures referred to in this Section 56.

53 Safety Zones

- 53.1 There shall be a safety zone surrounding every facility carrying out petroleum operations, which shall be determined by the Authority after consultation with relevant agencies and ministries.
- 53.2 A person shall not carry out unauthorized activity in the safety zones and a person shall not enter or take into a safety zone a vessel or object without appropriate authorization.

54 Suspension of Petroleum Activities

- 54.1 Where an accident or an emergency referred to in Section 58 occurs, the contractor or other person responsible for the operation and use of the facility shall, to the extent necessary, suspend the petroleum activities for as long as the requirement of prudent operations warrants, and shall notify the Authority promptly of any such suspension. The contractor shall consult with the Authority as to the duration of such suspension if it determines that a suspension of more than 72 hours is necessary.
- 54.2 Where special circumstances exist, the Director General may after consultation with the Board order that petroleum activities be suspended to the extent necessary to avoid imminent and material

risks to health, safety or the environment, or may impose particular conditions permitting the continuation of petroleum activities, in each case in accordance with good international petroleum industry practices.

55 Liability for Pollution Damage

- 55.1 A contractor is liable for all direct damages and losses incurred as a result of pollution damage from its petroleum operations and for the cost of reasonable measures to avert, limit or remedy such damages or losses without regard to fault.
- 55.2 When the contractor is comprised of more than one legal entity, all legal entities are jointly and severally liable for pollution damage.
- 55.3 Where it is demonstrated that an inevitable event of nature, act of war, exercise of public authority or other circumstance constituting force majeure under Section 67 has contributed to the damage to the environment or injury sustained by the community and the circumstances were beyond the control of the contractor, the liability of the contractor may be reduced to the extent that is reasonable, taking into account the scope of the activity being carried on, the situation of the party that has sustained the damage, and the opportunity for taking out insurance by the parties.

56 Liability for Pollution Damage Caused Without a Petroleum Agreement or License

- 56.1 Where pollution damage occurs during a petroleum operation and the operation has been conducted without a petroleum agreement or license, the party that conducted the petroleum operation is liable for all damage regardless of fault.
- 56.2 The same liability rests on any other person who has taken part in the petroleum operation, and who knew, or should have known, that the operation was conducted without a petroleum agreement or license.

57 Damages

- 57.1 The liability of a contractor or licensee for pollution damage may be claimed in accordance with this Act and any other applicable laws.
- 57.2 Legal action for compensation for pollution damage may be brought before a competent court in the area where the pollution occurred, or in any court in which jurisdiction may be had over a responsible party.

58 Information, Data and Reports

- 58.1 The State shall own all data, well logs, maps, magnetic tapes, cores, cuttings, samples, and other geological and geophysical surveys obtained by a contractor in connection with petroleum operations.
- 58.2 Subject to subsection 62.1 of this Act, a contractor may use the information and data obtained by it in connection with petroleum operations for the duration of the petroleum agreement under which such operations are conducted.

- 58.3 A contractor shall furnish the Authority with such periodic and other reports about the petroleum operations as may be stipulated in the relevant petroleum agreement or in regulations issued by the Board and generally applicable to all contractors.
- 58.4 The contractor shall provide to the Authority the following reports, studies and documents acquired pursuant to petroleum operations promptly after they are prepared or obtained:
- (a) All geophysical surveys, measurements and interpretation reports, map profiles, sections or other documents related thereto, as well as, at the Authority's request, the originals or a true copy of all recorded seismic data.
 - (b) The drilling location and completion report for each well together with a complete set of recorded logs.
 - (c) All drill tests or production tests including any study relating to the flow or production of a well.
 - (d) All reports relating to core analyses.
 - (e) Production reports and forecasts, including quantities of petroleum produced, re-injected, consumed, processed and, in respect of natural gas, vented or flared.
 - (f) Price obtained and other particulars of all petroleum sales transactions.
 - (g) Profit sharing, costs, income and all other financial statements as is provided in the petroleum agreement.
- 58.5 A representative portion of the cores and cuttings removed from each well, as well as samples of fluids produced during drill tests or production tests, shall also be supplied to the Authority within a reasonable period after the materials involved become available to the contractor. Where practical, all maps, sections, profiles, logs and all other geological or geophysical documents shall be supplied to the Authority in an electronic format reasonably acceptable to the Authority.
- 58.6 A contractor shall maintain the original samples and data related to petroleum operations in its custody and shall provide access to the Authority. If such samples and data are not stored in Liberia, the cost of access shall be for the account of the contractor.
- 58.7 Upon expiration or in the event of surrender or termination of a petroleum agreement, the contractor shall provide to the Authority in Liberia all such original samples and data related to petroleum operations, to the extent not already provided to the Authority, at the cost of the contractor.
- 58.8 A contractor shall keep the Authority informed of its activities on a timely basis, in the manner provided in the relevant petroleum agreement.
- 58.9 A contractor shall keep confidential the data acquired and any existing data released by the Authority to the contractor, and shall not disclose such data to a third party without the written consent of the Authority, except as may be provided in the relevant petroleum agreement.

- 58.10 Data and information obtained by each holder of a reconnaissance license is also subject to the requirements, to the extent applicable, of subsections 62.1 through 62.9 of this Act as though they referred to reconnaissance licenses and license holders rather than to petroleum agreements and contractors, subject to the tights of the license holder to market such data as set forth in its license.
- 58.11 In addition to the delivery of technical information required by this Section 62, petroleum agreements and licenses issued under this Act shall contain provisions requiring regular reports as to the identity of directors, officers, material shareholders, material beneficial owners and controlling persons or groups.

59 Cooperation with the Liberia Extractive Industries Transparency Initiative

- 59.1 Contractors shall engage in and comply with the requirements of Liberia Extractive Industries Transparency Initiative in accordance with the LEITI Act and the directives and guidelines approved by the LEITI multi-stakeholder steering group. In particular, a contractor shall disclose to the LEITI reconcilers on an accurate and timely basis and in the required manner all payments made to the State, including any government agency and State-owned company, and shall provide said reconcilers with such information and documents as the reconcilers may reasonably require for the purposes of investigating any discrepancies and preparing the LEITI reports.

60 Availability of Information to the Public

- 60.1 Information about petroleum activities contained in Government records shall be available to the public in accordance with the Freedom of Information Act 2010.
- 60.2 The Authority shall make available to the public on the Authority website and by any other appropriate means, and shall provide to the LEITI Secretariat for publication on the LEITI website in accordance with LEITI policy all announcements of public hearing issued under this Act, as well as full copies of the following documents within twenty days from the date of signature, issue, approval or receipt:
- (a) This Act and any regulation issued hereunder.
 - (b) All petroleum rights granted under this Act, including all annexes and schedules thereto.
 - (c) All amendments, assignments and termination notices in respect of all petroleum rights.
 - (d) The then-current model petroleum agreement.
 - (e) Decisions to open up new areas for petroleum operations.
 - (f) The pre-qualification guidelines and the registry of pre-qualified applicants, the tender protocol, the bid assessment report and the winning bidder announcement, in relation to each licensing round.
 - (g) All ESIA's and ESMPs, and amendments thereto.

- (h) All joint operating agreements among entities comprising a contractor in which NOCAL or any other entity of the State is a participant, and all unitization agreements between contractors to the extent necessary to show all matters affecting the allocation of costs, revenues and production.
- (i) All other documents required to be published under the provisions of this Act.

61 Transfer, Termination and Suspension of Petroleum Rights

- 61.1 Where a holder of a petroleum right is in material default, the Director General may, with the approval of the Board and in accordance with the conditions stipulated in the petroleum agreement or license, by notice in writing served on the holder, terminate the petroleum right, provided:
- (a) The holder is first given a notice of intent to terminate stating the particulars of the default complained of and given a reasonable period to present its views on and cure the alleged default (if no such period is prescribed in the relevant petroleum agreement or license).
 - (b) The license holder has not referred the matter to dispute resolution in accordance with any dispute resolution provisions stipulated in the petroleum agreement or license.
- 61.2 Except as stipulated in the petroleum right, a sale, assignment, pledge, mortgage or other transfer of any right, title or interest in any petroleum right, whether directly or indirectly, shall not be made without the prior written consent of the Director General.
- 61.3 A sale, assignment, pledge, mortgage or other transfer which is made without the requisite consent is null and void.
- 61.4 A petroleum agreement may provide that a contractor or an entity comprising the contractor wishing to assign, sell or transfer its interest, whether in part or in whole, shall give to the State through NOCAL the right of first refusal to acquire the interest at the same price and under the same terms and conditions as agreed with the potential purchaser.

62 Indemnity of the State

- 62.1 A holder of a petroleum right shall, at all times, keep the State indemnified against all actions, claims and demands that may be brought or made against the State by reason of anything done by the holder in the conduct of petroleum operations.

63 Force Majeure

- 63.1 Any failure on the part of a contractor or license holder or of the State to fulfill any of the conditions of a petroleum agreement or license or to meet any requirement of this act shall not constitute a breach of the petroleum agreement or license or of this Act insofar as the failure results from an act of war, hostility, insurrection, storm, flood, earthquake or such other phenomenon beyond the reasonable control of the contractor or of the State and prescribed in the petroleum agreement or license as constituting force majeure.

- 63.2 Where a contractor or license holder fails to fulfill any of the conditions of a petroleum agreement or license because of the occurrence of circumstances referred to in subsection 67.1 of this Act, the contractor or license holder shall notify the Authority, giving particulars of the failure and its cause in the manner required by the relevant petroleum agreement or license.
- 63.3 Where a contractor or license holder is prevented from exercising any of the rights or discharging any obligations under the petroleum agreement or license for any period because of the occurrence of circumstances of the kind referred to in subsection 67.1, then that period shall be added to the period during which the contractor or license holder would otherwise have been obliged to discharge those obligations.
- 63.4 This Section does not excuse a contractor or license holder from any obligations to make payments to the State.

64 Dispute Resolution

- 64.1 The State on one hand and any holder of petroleum right on the other, may include provisions in a petroleum agreement or license to the effect that the parties should seek to resolve disputes relating to such petroleum right by consultation and negotiation before commencing a formal dispute resolution process.
- 64.2 A petroleum agreement or any license issued under this Act shall include terms governing the resolution of disputes in the event that a dispute cannot be resolved through any consultation and negotiation process required by the relevant petroleum agreement, which terms may include international arbitration and, for the resolution of disputes of a technical nature, expert determination.
- 64.3 The arbitration provisions referred to in the preceding subsection may include a State waiver of all claims of sovereign immunity from the jurisdiction of, and from the enforcement of any arbitral award rendered by, any arbitral tribunal constituted pursuant to the petroleum agreement or license in question, as well as all claims of immunity for the service of process or the jurisdiction of any court in aid of the jurisdiction of such arbitral tribunal or in connection with the enforcement of any such award. Notwithstanding the foregoing, no award may be enforced against assets of the State used to maintain national security or for military or diplomatic purposes.
- 64.4 A petroleum agreement shall provide that the contractor shall first enforce any judgment or arbitral award of damages in its favor under such petroleum agreement against the assets or income of the State or NOCAL relating to the exploration, development and production of petroleum, and that such judgment or award may be enforced against other assets or income of the State only if such petroleum-related assets or income are insufficient to satisfy such judgment or award or the contractor has been prevented from recovering from, or has otherwise been unable to recover from, such assets or income the full amount of such judgment or award. A petroleum agreement shall further provide that if the contractor thereunder has recovered all development expenditures incurred under such petroleum agreement, any such judgment or award may be enforced only against the petroleum-related assets or income of the State or NOCAL. Notwithstanding the foregoing, no award may be enforced against assets of the State used to maintain national security or for military or diplomatic purposes.

65 Stability of Conditions

- 65.1 A petroleum agreement or license may provide that in the event any future law, act or regulation should modify the law or the petroleum agreement or license in force at the effective date of the petroleum agreement or license and should those modifications, individually or cumulatively, bring about a material change in the respective economic, fiscal or financial situation of the State and the contractor or licensee arising from the provisions of the petroleum agreement or license, the State and the contractor or licensee shall enter into an agreement in order to restore the economic, fiscal and financial balance of the petroleum agreement or license as existing on its effective date, provided that the economic, fiscal and financial benefits to the parties on the effective date shall not be reduced. If after discussions the parties cannot agree, then either the State or the contractor or licensee may submit the matter for dispute resolution as provided in the relevant agreement or license.
- 65.2 Additional costs resulting from changes in law which pertain to health, safety, security, labor and environment, and that are consistent with international standards and best practices and that are applied on a non-discriminatory basis, shall not be considered a change to the economic, fiscal and financial balance as provided in subsection 69.1 of this Act.

66 Inspections and Audits

- 66.1 The Authority shall be the regulator for all activities carried out pursuant to petroleum agreements or licenses and has the responsibility of monitoring the petroleum activities of a contractor to ensure compliance with this Act and the terms and conditions of the petroleum agreement or license.
- 66.2 For the purposes of subsection 70.1 of this Act, the Authority may appoint authorized representatives who shall have the right at any time, upon reasonable notice to the contractor or license holder, to:
- (a) Enter into any area, structure, platform, installation, vessel, facilities, offices or buildings used by the contractor or license holder in relation to petroleum operations.
 - (b) Inspect and test, or cause to be inspected or tested by a qualified person, any machinery or equipment used in connection with petroleum operations.
 - (c) Take or remove for the purpose of analysis or testing, or for use in evidence in connection with an offense against this Act, samples of petroleum, water or other substances from a well or any production, transportation or storage facility.
 - (d) Inspect, take extracts from or make copies of any document relating to any petroleum operations (subject to such reasonable restrictions on disclosure by the Authority of confidential or proprietary data of the contractor or license holder as may be provided in the relevant petroleum agreement or license and that do not conflict with a specific provision of this Act).

- (e) Make such other examinations and inquiries as may be necessary to ensure that the provisions of this Act, and of any directives issued, conditions imposed or orders made under this Act or under any petroleum agreement or license, are being complied with.

66.3 A holder of a petroleum right shall provide any authorized representative of the Authority with reasonable access to the facilities, including the provision of the necessary means of transport and accommodation, for the effective exercise of his or her duties under subsection 70.2 of this Act.

66.4 A petroleum agreement or license shall provide for the right of the Authority and of the Minister of Finance and Development Planning to;

- (a) Through authorized representatives, have access to and inspect the financial books and accounts of the contractor or any company comprising the contractor or license holder.
- (b) Commission an audit of such books and accounts by an internationally recognized independent auditor in accordance with international accounting and auditing standards.

67 Conduct of Petroleum Operations without a Petroleum Rights

67.1 A person who carries out petroleum operations without a petroleum right in contravention of Section 5 of this Act commits an offense and is liable on conviction to a fine not exceeding one million US dollars (US\$1,000,000) or (in the case of an individual) a term of imprisonment not exceeding three years or both.

67.2 Where a person is convicted of an offense under this Section 71, the court may also make an order for:

- (a) Forfeiture of petroleum obtained or recovered in the course of the commission of the offense.
- (b) Payment by that person to the State of an amount equal to the proceeds received of the sale of petroleum obtained or recovered.
- (c) Payment by that person to the State of the value at the wellhead, assessed by the court in respect of the quantity recovered or for the payment of such a part of that amount as the court, having regard to all the circumstances, deems fit.

68 Obstruction of Authorized Officers

68.1 A person who

- (a) without reasonable excuse, obstructs, molests or hinders an authorized public officer in the exercise of his or her powers under this Act; or
- (b) knowingly or recklessly makes a false statement or produces a document that is false or misleading in a material particular to an authorized officer engaged in carrying out his or her duties and functions under this Act;

Commits an offense and is liable on conviction to a fine not exceeding fifty thousand US dollars (US\$ 50,000) or (in the case of an individual) to a term of imprisonment not exceeding three years or both.

69 Conflict of Interest

69.1 Without limitation of the Code of Conduct of Liberia, 2014, an officer in the public service generally engaged in the implementation of this Act or who has a specific responsibility set forth in this Act shall not, in his or her private capacity, knowingly acquire, attempt to acquire or hold, directly or indirectly:

- (a) Petroleum right or an interest in a petroleum right.
- (b) Direct or indirect economic interest, participation interest or share in an entity that is authorized under this Act to carry out petroleum rights in the State or that is seeking such authorization.
- (c) Direct or indirect economic interest, participation interest or share in a company that is providing goods or services to a holder of a petroleum right under this Act.
- (d) An officer who contravenes subsection 711 of this Act commits an offense and is liable on conviction to a fine not exceeding two hundred thousand dollars (US\$ 200,000) or to a term of imprisonment not exceeding five years or both.

69.2 For the purposes of subsection 73.1 of this Act.

- (a) Any interest held by a Relative (as such term is defined in the Code of Conduct 2014 of the Republic of Liberia) is deemed held by such officer.
- (b) An "indirect" interest includes an interest in a company or other entity that holds, directly or indirectly, an ownership interest in a holder of a petroleum right or in an entity participating in a contractor under a petroleum agreement.
- (c) An "indirect" interest includes a circumstance in which the officer involved may be acting on behalf of the State (i) with respect to the granting of a petroleum right to a former private sector employer of such officer, or (ii) with respect to the administration of a petroleum right held by a former private sector employer of such officer.
- (d) "Indirect" interests do not include investments in mutual funds or other pooled investment vehicles that are not specialized to the oil and gas industry, and as to which neither the officer involved nor any Relative has any investment discretion or, individually or in the aggregate, a material investment in relation to the total size of the investment vehicle.
- (e) The Authority may, with the concurrence of the Minister of Justice, further define by regulation other circumstances that are within or are excluded from the concept of indirect interests for the purposes of this Section 73, or that expand the concept of an interest deemed held by an officer.

70 False Representations

70.1 A person who

- (a) In or in connection with any application under this Act or under a petroleum right, or in response to any invitation or requirement of the Authority or of any authorized public officer under this Act, knowingly or recklessly gives or permits to be given information which is false or misleading in a material particular.
- (b) In any report, return or affidavit submitted in accordance with this Act or a petroleum right, knowingly or recklessly includes, or permits to be included, any information which is false or misleading in a material particular,

Commits an offense and is liable on conviction (i) in the case of an individual, to a fine not exceeding one hundred thousand US dollars or imprisonment not exceeding three years or both, or (ii) in the case of a company, to a fine not exceeding one million US dollars (US\$1,000,000).

71 Regulations

71.1 The Authority may make regulations for giving effect to the provisions of this Act Each regulation made under the authority of this Act shall be approved by the Board and the President before taking effect.

71.2 Prior to making any regulation, the Authority shall consult with ministries and agencies with responsibilities relevant to the proposed regulation and shall conduct a public hearing on the subject matter of the proposed regulation, as follows:

- (a) An announcement of proposed regulations and the related public hearing shall be published on the Authority's website and in two (2) national newspapers, which shall include: (i) a summary of the provisions of the proposed regulations. (ii) In the case of the website publication, the full text of the draft regulations. (iii) The locations where the draft regulations can be obtained. (iv) The date and location of the hearing (which shall be at least thirty (30) days following the date of newspaper publication). (v) The format and manner in which comments can be made, and the deadline for submitting comments which shall not be less than 60 days from the date of the announcement.
- (b) Announcements as to the subject matter of the proposed regulations, the places where copies of the proposed regulations may be obtained, the date and location of the hearing, and the deadline for submitting comments on the proposed regulations shall be made on national public radio.
- (c) Notwithstanding the foregoing, the Authority need not hold public hearings on proposed regulations if the Board and the Ministry of justice determine that the proposed regulations will have no direct effect on the general public or on the revenues receivable by NOCAL or the State in respect of petroleum rights and will not have a significant adverse impact on the environment or on the health or safety of workers in the industry or the general public. If the Board and the Ministry of Justice make such determination, announcement of the proposed regulation must nevertheless be made in the manner provided in subsections 752(a) and 75.2(b) of this Act, setting forth the reasons for determining that no public hearing will be required.

- (d) Upon expiry of the deadline for submitting comments, and prior to proposing final regulations, the Authority shall publish on its website a summary of the comments received.
- 71.3 The Authority shall give due consideration to all comments received, including the comments of other ministries and agencies, and may prepare proposed final regulations or withdraw the proposed regulations. The recommendations of the Director General for final regulations shall be presented to the Board for approval. The Board may approve or reject the regulations. If the proposed final regulations are approved by the Board, the regulations shall be presented by the Director General to the President for final approval.
- 71.4 The final regulations, once fully approved, shall be published on the Authority's website together with the locations where copies of the final regulations can be obtained. A summary of the final regulations (the full text if the regulations are less than 2000 words) shall be published in two national newspapers together with the electronic and physical locations where copies of the final regulations can be obtained. An announcement of publication and the electronic and physical locations where copies of the final regulations may be obtained shall be made on national public radio.
- 71.5 The locations in which the draft and final regulations shall be made available pursuant to subsections 75.2(a) and 75.4 of this Act shall include the county seat of each county in which petroleum operations are conducted and, in respect of offshore petroleum operations, the county seat of each coastal county,
- 71.6 Without limiting the general effect of subsection 75.1 of this Act, or any provision of this Act specifically authorizing or directing the adoption by the Authority of regulations, the Authority may make regulations relating to:
- (a) applications for petroleum rights under this Act;
 - (b) competitive bidding procedure for petroleum agreements;
 - (c) prescribing a model petroleum agreement, and rules for dealing with exceptions raised by bidders to the provisions of the model petroleum agreement;
 - (d) the making and submission of reports, returns and programs;
 - (e) the form and content of, and conditions with respect, to applications for the grant authorizations and permits under petroleum agreements;
 - (f) the inspection of areas and facilities in which petroleum operations are carried out;
 - (g) with the concurrence of the Ministries of Labor and Internal Affairs, the health, safety and welfare of persons employed in petroleum operations, including working conditions, safety measures and emergency preparedness;
 - (h) with the concurrence of the EPA, the conservation and prevention of waste of natural resources and the prevention and control of pollution and the taking of remedial action;

- (i) reporting requirements of any gas venting and flaring;
- (j) with the concurrence of the EPA and the Ministry of Agriculture, the protection of fishing or agricultural activities within or in the vicinity of areas in which petroleum operations are being carried out;
- (k) with the concurrence of the Ministry of Internal Affairs and the Forestry Development Authority, the protection and preservation of cultural and historical heritage sites located within or in the vicinity of areas in which petroleum operations are being carried out;
- (l) the information on the petroleum operations to be made available to the public;
- (m) with the concurrence of the Liberia Maritime Authority, regulations governing the access of vessels to and use of vessels in Liberian waters in connection with the carrying out of petroleum operations, reconnaissance activities and pipeline transportation activities;
- (n) the disclosure of legal and beneficial ownership of petroleum rights;
- (o) third-party access to facilities under this Act and any safety areas established around such facilities; and
- (p) Generally, for such things as are necessary for the proper implementation of the provisions of this Act.
- (q) A regulation made under this Section 75 shall not be effective unless it is announced and published as required in subsection 75.3 of this Act and applicable law at least thirty days prior to its effective date or such lesser time (not less than five days) as the Board may determine is appropriate, with the concurrence of the Ministry of Justice, in the case of an imminent threat to health, safety or the environment intended to be ameliorated by such regulation.

71.7 If the Liberia Revenue Authority or the Ministry of Finance and Development Planning has published regulations requiring payments due under this Act or under petroleum agreements or licenses granted under this Act to be made to designated subaccounts of the Consolidated Fund any payment required to be made to the Consolidated Fund under this Act or under any such petroleum agreement or license shall be made instead to the appropriate designated subaccount of the Consolidated Fund.

72 Supremacy of this Act

72.1 Subject to the Constitution, this Act shall take precedence over all existing Acts relating to petroleum operations within the jurisdiction of the State and where there is a conflict between the provisions of this Act and any other enactment or any agreement made under this Act, the provisions of this Act shall prevail.

73 Repeals and Savings

73.1 The Act adopting the New Petroleum Law of Liberia 2002 is hereby repealed.

- 73.2 Notwithstanding subsection 75.1 of this Act and save as provided in this Section, any production sharing agreement or other contract entered into by the State or NOCAL granting a petroleum right that was in force immediately before the effective date of this Act shall continue to be in full force and effect until the expiry of such agreement according to its terms and conditions, provided that the provisions of this Act, and of the regulations issued hereunder, which are not in conflict with the provisions of such production sharing agreement or other contract, shall be applicable to the holder of such contract and the petroleum operations thereunder.
- 73.3 Save as provided in subsections 75.4 and 75.5 of this Act, any function assigned to NOCAL under any production sharing agreement that was in force immediately before the effective date of this Act shall be performed by the Authority as from the transfer completion date set out in Section 78 of this Act.
- 73.4 Any function expressly assigned under this Act to NOCAL which is also assigned to NOCAL under any production sharing agreement that was in force immediately before the effective date of this Act shall continue to be performed by NOCAL after the effective date of this Act in relation to the production sharing agreement in question.
- 73.5 Any function expressly assigned under this Act to the Authority, the Director General or the Board which is assigned to NOCAL under any production sharing agreement that was in force immediately before the effective date of this Act shall, as from the transfer completion date set forth in Section 78 of this Act, be performed by the Authority, the Director General or the Board, as the case may be. If the assignment of responsibility under this Act is unclear as to where the responsibility lies, the assignment as between the Board or the Authority shall be made by the Board.
- 73.6 Any agreement that under this Act would constitute a reconnaissance license which was in force immediately before the effective date of this Act shall continue to be administered by NOCAL but the terms of such agreement may not be materially changed or extended by an aggregate of more than one year without the consent of the Director General and any successor agreement must be in the form of a reconnaissance license under this Act.
- 73.7 All royalties, surface rentals, bonuses and special contributions payable under any production sharing agreement referred to in subsection 75.2 of this Act, and all payments to be made by a contractor under any such contract on account of petroleum sold by the contractor for the account of the State shall from and after the effective date of this Act be payable, after any deductions permitted by this Act, into the Consolidated Fund, and in the case of special contributions for further credit to the relevant special fund or other recipient.

74 Transition

- 74.1 The transfer from NOCAL to the Authority of the functions assigned to the Authority by this Act and presently carried out by NOCAL and the transfer of employees, assets and liabilities associated therewith shall be implemented according to a transfer plan prepared in accordance with the following subsections. The plan shall provide for the completion of the transfer (the "transfer completion date") no later than ninety (90) days from the approval of the transfer plan. The transfer

completion date shall be recorded in a statement issued by the Director-General, which shall be published on the Authority website and on electronic media.

- 74.2 The Director-General shall be appointed in accordance with Section 7(5) of this Act no later than one hundred twenty (120) days from the effective date of this Act and the additional Board members shall be appointed in accordance with Section 7(6) of this Act within one hundred fifty (150) of the effective date of this Act.
- 74.3 Within thirty (30) days from the consent of the Senate to the appointment of the Director General, the Director-General and the president and chief executive officer of NOCAL shall establish a transfer committee which they shall jointly chair and which shall be composed of four to six members appointed by mutual agreement or, failing their prompt agreement, by the President. The functions of the transfer committee shall be to (i) prepare the transfer plan which shall be submitted to the President and to the board of directors of NOCAL for approval; (ii) oversee and ensure the timely implementation of the transfer plan; and (iii) regularly report to the President and to the board of directors of NOCAL on the implementation. Outside experts and counsels may be appointed to assist the transfer committee, as appropriate. The costs and expenses of the work of the transfer committee shall be funded by NOCAL.
- 74.4 The transfer plan referred to in subsection 76.3 of this Act shall provide the steps and timelines for the transfer to the Authority of such employees of NOCAL as shall have the required qualifications and skills for the fulfillment of the regulatory functions of the Authority under Section 8 of this Act, together with employees of NOCAL providing such supporting services which are necessary for the performance of such functions. The plan shall provide for transfer of employees according to steps which shall ensure a smooth and effective transition while not unduly disrupting the operations of NOCAL, provided that the transfer shall be completed within the transfer completion date set out in subsection 76.1 of this Act.
- 74.5 The transfer plan shall be prepared and approved in accordance with subsection 76.3 within ninety (90) days from the date of establishment of the transfer committee.
- 74.6 In the event the President determines that the transfer plan is not likely to be completed by the transfer completion date provided in subsection 76.1 of this Act, the President shall take such measures as in the opinion of the President are appropriate to implement the transfer plan in accordance with the provisions of this Section 76. If the President deems it necessary, the President shall, by notice to the Legislature, extend the transfer completion date by a period not exceeding six months.
- 74.7 As from the transfer completion date, all assets and liabilities of NOCAL associated with or arising from the regulatory functions assigned to the Authority under Section 8 of this Act shall be vested in the Authority, and all staff of NOCAL selected by the transfer committee under the transfer plan for transfer to the Authority shall be regarded as having transferred their service to the Authority under such terms of employment, consistent with labor laws, as shall be provided in the transfer plan. NOCAL shall fund the costs and expenses of the Authority for the period ending 180 days after the transfer completion date, to the extent funding is not available to the Authority from other sources. NOCAL's obligation under this subsection 76.7 commences with the consent by the Senate to the appointment of the Director General, and shall cover the compensation of the Director General and reasonable costs and expenses (including the compensation of at least one full time

supporting staff person) incurred by the Director General in connection with the activities of the Director General contemplated by this Act prior to the transfer completion date.

- 74.8 On the date that is 360 days after an application for an exclusive exploitation authorization shall have been submitted to the Authority pursuant to Section 24(6) of this Act, the President shall submit to the Legislature a recommendation as to whether a Ministry of Petroleum should be created, and, if so, how responsibilities for petroleum matters should be allocated going forward.
- 74.9 From and after the effective date of this Act and until the transfer completion date, (i) any function described in subsection 76.3 of this Act and (ii) any function assigned to the Authority under Part IV, or V of this Act, including without limitation the granting of new or successor reconnaissance licenses in the manner provided by Part IV of this Act and new or successor petroleum agreements in the manner required by Part V of this Act shall be performed by NOCAL in accordance with the requirements of this Act, provided that the authority granted by clause (ii) of this section shall in any event lapse eighteen (18) months after the effective date of this Act.
- 74.10 From and after the consent of the Senate to the appointment of the Director-General and until the transfer completion date, any function described in subsection 76.9 shall be performed under the overall supervision of, and in accordance with directives given by, the Director-General.

75 Effective date

- 75.1 This Act shall take effect immediately upon publication in hand bills.

ANY LAW TO THE CONTRARY NOTWITHSTANDING

NATIONAL WATER, SANITATION & HYGIENE COMMISSION ACT OF 2012

Chapter 1

Establishment of National Water, Sanitation & Hygiene Commission

1. Establishment and Mandate of the Commission

1.1 There is hereby established the Liberia National Water, Sanitation & Hygiene Commission.

2. Mandate

2.1 The mandate of the Commission is to promote and regulate the development, management of water, sanitation and hygiene services and serves as the principal government entity on water, sanitation and hygiene (WASH) throughout the Republic of Liberia.

Chapter 2

Functions and Power of the Commission

3. Functions

3.1 The functions of the Commission shall include the following:

- (a) To develop, promote and encourage a national agenda on the improvement of water, sanitation and hygiene services for the health, growth and development of the people of Liberia.
- (b) To oversee implementation of this Act and the Water Supply and Sanitation Policy;
- (c) In collaboration with the Ministry of Lands Mines & Energy, Ministry of Public Works, Ministry of Health, the Liberia Water and Sewer Corporation and other relevant Government Institutions shall encourage and foster support for the governance of water, Sanitation and Hygiene (WASH) sector.
- (d) To build the capacity of local communities on sanitation and hygiene as a priority for sustainable livelihood.
- (e) To participate in the evaluation and award of WSS investment to private investor or other WSS development rights with respect to assets of the Republic to the extent from time mandated by other laws, and in any case to assist or, where authorized by law, to lead Ministers in the review and evaluation and award to investors WSS development rights with respect to assets of the state.
- (f) To be solely responsible for issuance of WSS service and development licenses to all stakeholders, in the interest of promoting private public partnership.
- (g) To engage prospective domestic and foreign investors to invest in WASH.
- (h) To provide standards, guidelines and recommendation to municipal and local authorities on the disposal of waste and other hazardous substances that affect the quality of water and sanitation.

- (i) To collect, collate and analyze data and efficiently disseminate information about WSS for the development of the sector.
- (j) To be a means through which Government equity participation in WSS provision for all is held and adequately financed.
- (k) To promote the sustainability of safe water and related sanitation services in rural communities and villages.
- (l) To engage Municipal, local authorities and local CSOs in the design, planning, construction and community management of projects related to safe water supply and related sanitation services.
- (m) To formulate strategies for the effective mobilization of resources for the execution of safe water development and related sanitation programs in rural communities and villages.
- (n) To support private sector participation in related sanitation and hygiene services in rural communities.
- (o) To provide technical support to local communities and villages in the planning and execution sanitation projects.
- (p) To collaborate with the Ministries of Education, Health and the Environmental Protection Agency and municipal authorities in providing education on sanitation and waste management

4. Powers

4.1 The Commission shall have and exercise the following powers:

- (a) To sue and be sued.
- (b) To have all powers, rights and privileges specifically granted or conferred upon public authorities by the laws of the Republic of Liberia now or hereafter in force. The powers herein enumerated are not intended to be a waiver of any of the powers rights and privileges specifically granted to or conferred upon public authorities by the laws of the Republic of Liberia now or hereafter in force. The Commission is granted the power to do any and all things legally necessary and appropriate within the confines of its mandate in carrying out its functions and powers.
- (c) To issue rules and regulations as may be necessary to effectively carryout the powers and purposes here in provided, including the plans, programs and projects of the COMMISSION.
- (d) To solicit support and funding from relevant donors and developmental partners in pursuit of the objective of this act.
- (e) To establish regional and or county offices within all parts of Liberia.
- (f) To enter and negotiate the implementation and execution of water, sanitation and hygiene contracts and/or monitor the performance of such undertakings.

Chapter 3

Composition, Appointment and Tenure of the Commission

5. Composition of the Commission

- 5.1 The Commission shall be headed by a Chairman who shall be the Chief Executive Officer and head of the Commission and shall be appointed by the President with the consent of the Senate. The Chairman shall hold office for four (4) years and may be reappointed for an additional term provided that in no instance shall the Chairman serve more than two terms whether successive or separate.

6. Functions of the Commission's Chairman

- 6.1 The Chairman shall have the following duties and functions:
- (a) Be the head of the Commission and ultimately responsible for the administrative operations of the Commission.
 - (b) Serve as the official spokesperson for the Commission.
 - (c) Preside over all meetings of the Commission.
 - (d) Represent the Commission in all conferences, except where he or she designates the Executive Director or member of the staff to represent the commission.
 - (e) To submit to the President for transmissions to the regular session of the Legislature, annual reports to include an account of all monies received and disbursed by him or her during the preceding year and make any recommendations deemed necessary for the effectual accomplishment of the purpose of the Commission.
 - (f) To specify the duties of the officers of the Commission whose functions are not stated in this Act.
 - (g) To discharge such other duties as the President may from time to time prescribe to the Commission.

7. Establishment of the Board of Directors

- 7.1 There is hereby established a Board of Directors who shall manage the business and affairs of the Commission.

8. Composition of Board

- 8.1 There shall be a Governing Board constituted by the President of the Republic of Liberia. The Governing Board shall be headed by the Minister of Public Works. Other members shall include the Minister of Lands, Mines & Energy, Liberia Water and Sewer Corporation, Minister of Health, Minister of Education, the National Public Health Institute of Liberia, Environmental Protection Agency, a Civil Society Organization (CSO) involved with WASH initiatives and a member from

the private sector. Board members serving on the Commission shall not receive remuneration for their work on the commission.

- 8.2 All members of the Board shall be citizens and residents of the Republic of Liberia.
- 8.3 They shall have demonstrated executive competence and experience in the field of Water and Sanitation. No person shall be appointed as member of the Board unless he/she is of unquestioned integrity.

9. Functions of the Board of Directors

- 9.1 It shall be the duty of the Board, within the limits of its resources:
- (a) Approve and ratify the internal policies of the Commission.
 - (b) To approve the annual and or supplemental budgets of the Commission.
 - (c) Authorize the opening bank accounts for the funds of the Authority.
 - (d) Approve the terms and conditions for the employment and emoluments of the personnel of the Authority.
 - (e) To formulate, prescribe, amend, and repeal rules and regulations to govern the conduct of the Commission.
 - (f) To do such other acts and perform such other functions as may be necessary to carry out the functions of this Act.

10. Meetings of the Board of Directors

- 10.1 The Board shall meet for the dispatch of business at such time and to such places as the chairman may determine but shall meet at least once every month.
- 10.2 The Chairman of the Board shall, upon the written request of the Chief Executive or not less than one-third of the membership of the Board, convene a special meeting of the Board.
- 10.3 The quorum of a meeting of the Board shall be five.
- 10.4 Every, meeting of the Board shall be presided over by the Chairman or in his absence by a member of the Board elected by the members present from among their number.
- 10.5 The Board may co-opt any person to act as an advisor at its meetings but no co-opted person is entitled to vote at the meeting.
- 10.6 The Chairman of the Commission shall serve as secretary to the Board during Meetings.

11. Removal of Member of the Board of Directors

- 11.1 A member of the Board of Directors may be removed from office by the President, for cause, to include but not limited to the following:
- (a) Inability to perform the functions of the office.
 - (b) Misconduct and breach of duties as a Board member.
 - (c) For fraud or dishonesty.
 - (d) Failure to timely disclose a material conflict of interest

Chapter 4

Structure and Personnel of the Commission

12. Structure of the Commission

- 12.1 The Commission shall have a secretariat, headed by an Executive Director who shall be hired through a merit based appointment procedure led by the Liberia Civil service Commission and shall serve as the principal deputy reporting directly to the Chairman.
- 12.2 He/she shall serve as Secretary to the Commission and be responsible for the daily administrative and technical operations of the Commission.
- 12.3 The Secretariat shall render technical, professional, administrative and clerical assistance to the Commission in the pursuit of its mandate.
- 12.4 There shall be established core departments/divisions/units where necessary with the advice of the Liberia Civil Service. All departments must report directly to the Executive Director.

13. Offices

- 13.1 The Principal Office of the Commission shall be located in the County of Montserrado, Republic of Liberia.
- 13.2 The Commission shall, in addition to its Principal Office, establish and maintain county or regional offices in such number as it may deem necessary within the Republic of Liberia and close or terminate any of them, and thereafter reopen and reactivate them according to its requirements.

11. Financial Accounting, Reporting and Auditing Accounting

- 11.1 The National Water and Sanitation & Hygiene Commission shall have the same fiscal year as the Government of Liberia and shall be funded by the Government of Liberia and by development partners either as direct technical assistance as grants or donations.
- 11.2 The Commission shall also develop resource mobilization strategy with the objective of sourcing funding from development partners to fund programs of the Commission.

- 11.3 All revenues of the Commission shall be required to be paid into, or shall be transferred on receipt to, the general account of the Government maintained under control of the Ministry of Finance and Development Planning in accordance with the public finance management laws of the Republic of Liberia.
- 11.4 The Commission shall participate in the budget preparation and allocation process of the Government in accordance with the budgeting and public finance management laws and regulations of the Government of Liberia.
- 11.5 The Commission shall submit such and other reports as are requested by the Legislature.
- 11.6 In furtherance of the laid down financial reporting responsibilities, the Commission shall:
- (a) Keep proper books of accounts and proper records in such form as public finance management laws may direct.
 - (b) In every respect comply with such laws as exist for public finance management and procurement for statutory corporations and Government Ministries.
 - (c) Within three (3) months of the end of every financial year, produce and publish a report on its activities during the financial year. The Commission shall also provide such additional reports as the Board may request.

12. **Auditing**

- 12.1 The accounts of the Commission shall be subject to an annual audit to be conducted by the General Auditing Commission or an independent auditing firm sanctioned the General Auditing Commission. Such audit shall occur within such period after the end of each fiscal year as shall be specified by the General Auditing Commission.

13. **Code of Conduct**

- 13.1 All information furnished to the Commission and directly related to WASH proposal shall be absolutely confidential and shall, be subject to public disclosure requirements of Government, not be disclosed by the Commission or the Secretariat.
- 13.2 It is unlawful for any member of the Commission or officer or employee of the Secretariat to accept compensation from WASH service providers or potential investor in WASH for his or her personal benefit or to suggest or arrange for compensation for the benefit of a related person in connection with the individual who does so shall be subject to such lawful sanctions as shall be recommended by the ministry of justice or the Anti-Corruption Commission for prosecution under law.
- 13.3 Any member of the Commission or officer or employee of the Secretariat who has, or who has related person who has, an economic interest in any matter as to which the Commission by law participates in the decision or as to which the interest known to the executive director of the Commission and the Director of Regulation of the Secretariat and must refuse himself or herself from participation in such matter.

14. **Employees of the Commission**

- 14.1 All employees working at the Commission shall be under the discipline, supervision and functional control of the Commission.
- 14.2 The Commission may appoint employees as may be required to carry out its functions, and the service, terms and facilities of the employees so appointed shall be as prescribed by the rules framed by the Commission.
- 14.3 The Commission shall remain adherent to the Civil Service standing orders on employees of the Government of Liberia

Chapter 5
Transitional Provision

- 15. Notwithstanding the repeal of WASH Act that may have existed, any incentives agreement executed under it shall remain in force subject to the transitional rules enacted under the Water Supply and Sanitation Policy of 2009 as an amendment.
- 16. Any application pending before the National Water & Sanitation Commission upon the entry into effect of this Act shall be deemed to be pending under this Act and shall, if eligible, receive incentives available under the Water Supply and Sanitation Policy of 2009 as amendment or any other applicable law.
- 17. The mention of particular matters in this section shall be without prejudice to the general application of the provisions of laws governing the interpretation of statutes, which relate to the effect of repeals or amendments to the Water Supply and Sanitation Policy of 2009.
- 18. Entry into Force
- 18.1 This Act shall come into force upon its passage by the House of Representatives and House of Senate and immediately upon publication in handbills.

ANY LAW TO THE CONTRARY NOT WITH STANDING

NATIONAL POLICY AND RESPONSE STRATEGY ON CLIMATE CHANGE

1. Introduction

Strategic Focus In view of Liberia's position as a Least Developed Country with high vulnerability to adverse impacts of climate change, adaptation effort is the main focus of this policy document. Accordingly, the vulnerabilities of various sectors to climate change have been highlighted and appropriate adaptation measures have been spelled out. Notwithstanding the policy and response strategy recognizes the Principle of Common but Differentiated Responsibilities in the context of the UNFCCC and Liberia's INDC commitments toward mitigation. To this end, there is also a focus on mitigation that seeks to reduce emissions, particularly from forests (REDD+), and the development of alternative clean energy sources and fuels at the lowest cost to reduce greenhouse gas emissions.

1.1 Vision

A climate resilient low carbon nation that responds to climate change while equally addressing its national development priorities in a sustainable and equitable way.

1.2 Mission

The strengthening of national institutions, communities and initiatives so that they have strong capacity for adaptation, disaster risk reduction and mitigation, which can contribute to increased resilience and achievement of national development agenda and sustainable development goals of Liberia.

1.3 Objectives

- (a) To strengthen coordination for the implementation of the national policy between the government and all stakeholders.
- (b) To create an overarching framework for the integration of climate considerations and to support the implementation of Liberia's national development strategy as well as other regional and international policies and frameworks.
- (c) To enhance pro-poor and gender sensitive adaptation while also promoting mitigation at the national and local levels, to the extent possible in a cost-effective manner amidst the challenges and constraints posed by climate change.
- (d) To provide guidance to the efforts of government in ensuring that the country achieves benefits from clean and renewable energy, energy efficiency and mitigation technologies that enhances the livelihoods of the people and promotes the national economy, while contributing to the global efforts to reduce GHG emissions and global warming.
- (e) To ensure that development at the national and local levels are environmentally sustainable.
- (f) To promote awareness on climate change and its impact on the country and to enhance the skill and institutional capacity of relevant stakeholders.
- (g) To promote the conservation of the nation's rich biodiversity and natural resources so that they benefit the present and future generations.

2. Interventions

2.1 Adaptation

Analysis of the adaptation strategies uses the Adaptation Policy Framework (APF), under which are four (4) major principles that provide the basis for integrated actions to adapt to climate change:

- Adaptation to short-term climate variability and extreme events to serve as a starting point for reducing vulnerability to longer-term climate change;
- Adaptation at different levels in society, including the local level;
- Adaptation policy and measures have been assessed in a development context; and
- The adaptation strategy and the stakeholder process by which it is implemented are given equal importance.

Based on the framework and the eight elements of adaptation strategy, key sectors identified and their corresponding adaptation policy and strategies formulated are as follows:

2.1.1 Forestry and Wildlife

Policy Statement: *Using the '3 Cs' approach' as the basis for sustainable forest management ensures that forests and wildlife be considered when planning adaptation policies and practices in areas of the economy beyond forestry and wildlife. It also defines and implement measures for reducing the negative impact of climate change on the forest and wildlife. To realize this the following strategies are put in place.*

Strategies

- a) Implement sustainable and, where applicable, alternative livelihood initiatives for forest-dependent communities, to enable them to become less reliant on forest resources or to be able to use them in a sustainable way.
- b) Promote community forests activities beyond timber extraction as a management tool for sustainable forest management, using indigenous species and knowledge.
- c) Establish a comprehensive monitoring system for forest resources by building on existing system (including non-timber forest products) to detect changes in the conditions of the ecosystem that might affect these resources and other ecosystem services provided by forests.
- d) Implement reforestation and afforestation activities to increase vegetation cover, to improve ecosystem services in degraded areas, to increase rural income, and to improve biodiversity richness including wild fauna.
- e) Enhance the management and conservation of forest biodiversity, focused on preventing perturbations such as fire, invasive species, insects and diseases through including the adoption of a strategic approach to communication that clearly outlines the cost and benefits of various actions affecting forests.
- f) Strengthen and/or implement reforestation and afforestation activities to increase vegetation cover, improve ecosystem services in degraded areas, increase rural income, and improve biodiversity richness, Identify and map for proper management water catchment areas, valuable to communities, in the forests.
- g) Promote consolidation of the protected area network by considering landscape approach and ensuring that it consists of a large spectrum of forest types across various environmental gradients to enhance connectivity between habitats and support species migration.
- h) Establish and/or strengthen coordination mechanisms with other line ministries and agencies that might be implementing activities that affect forest and wildlife and to ensure that the principle of sustainable forest and wildlife management is mainstreamed in national and sectorial policies and programs.
- i) Enforce regulations related to illicit hunting, eliminate poaching and developing and implementing an environmental 'Code of Ethics' in the wildlife sector.
- j) Put in place health facilities for wildlife in hotspot areas.

- k) Develop and implement a communication strategy to increase the awareness of relevant stakeholders, particularly forest dependent communities, about the impact of climate change and how they can take action to adapt to these changes.

2.1.2 Agriculture

Policy Statement: Reduce the vulnerability of agricultural systems to risks related to climate change through direct and indirect support to farmers, including the setting up of a robust monitoring system to detect early changes that will affect agriculture production.

Strategies

- a) Improve the effectiveness of pest, disease and weed management practices through the wider use of integrated pest and pathogen management, development, and the use of varieties and species resistant to pests and diseases, and improving quarantine capabilities and monitoring programs.
- b) Assess crops vulnerability and suitability (cropping pattern) for different Agro-ecological zones. Enhance climate proof agro-infrastructural systems (input, output, marketing, post-harvest technologies and infrastructure including storage) that strengthen the capacity of farmers to increase resilience and productivity.
- c) Build and strengthen the capacity of extension officers in new sustainable farming and livestock raising technologies, in order to enhance their support for farmers.
- d) Support communities in livestock and crop sectors through inventory and dissemination of indigenous knowledge, establishing and/or strengthening insurance scheme, early warning and early action system, vaccination campaign, disease control, etc., to cope with the stress based on climate variability.
- e) Set up seed banks to collect different varieties of crops in order to preserve local diversity and provide farmers with the opportunity of making informed choices based on suitability.
- f) Develop and introduce a diverse range of integrated soil fertility management (IFSM) techniques to farmers as a sustainable means of improving soil fertility, and intensifying agricultural production.
- g) Promote wider use of appropriate technologies and work with communities to harvest water and discourage the burning of organic residues on the soil surface, in order to prevent soil erosion, water logging and nutrients leaching in increased rainfall scenarios; and to preserve soil moisture in drier rainfall scenarios.
- h) Support farmers to diversify their income through integrating farming activities with other income generation activities such as sustainable livestock raising, bee harvesting, rabbit, poultry, guinea fowl, etc.
- i) Encourage farmers to engage adaptation measures as well as coping strategies such as intercropping, irrigation, aquaculture, and the use of climate resilient plant varieties so as to create resilience to the shocks of climate change. Ensure technologies and methodologies promoted to farmers through agricultural programs are cognizant of different socio-economic levels (e.g., pro-poor) and are gender sensitive.
- j) Develop a communication strategy to increase farmers' awareness of climate change and strengthen the coordination of existing structures and institutions that are available to help them adapt to its impact and ensuring the mainstreaming of climate change in their sectorial planning.

2.1.3 Coastal Area

Policy Statement: *Ensure the protection of Liberia's 350 miles coastline*

Strategies

- a) Develop management plan for coastal areas to ensure their continuous functioning and availability.
- b) Set up early warning systems and educational program, especially for people living along the coast.
- c) Promote disaster risk management in general (especially disaster preparedness) and protective infrastructure (e.g. seawalls and flood reservoirs) to protect against rising sea level.
- d) Support the rehabilitation and protection of wetlands and mangroves or manage retreat where it occurs for the primary purpose of buffering coastal communities from storm surge and coastal erosion.
- e) Establish mechanisms for coastal erosion control and promoting alternative sources and technologies to enhance water availability.
- f) Climate proofing and enhancing of infrastructures (roads, sewers, water supplies and other infrastructure) in coastal settlements (particularly from Robertsport to Harper) and rural areas to protect continuous access to livelihoods, health care and education.
- g) Engage with communities along the coast to participate in actions aimed at protecting the coast and ensuring its continuous viability.
- h) Investigate the suitability and, where possible, implement the living shorelines approach (LSA), which uses natural vegetation, sand and some rocks to protect shorelines and habitat.
- i) Design and implement a strategic communication action plan to inform and educate people about changes and challenges associated with coastal areas related to climate change and how they can adapt to cope with these changes and challenges.

2.1.4 Water Resources

Policy Statement: *Ensure the continuous availability of critical water resources that are important for domestic, agricultural, energy, and recreational purposes.*

Strategies

- a) Develop a management plan for water resources to ensure their continuous functioning and availability.
- b) Support the protection of river catchments and other sources of freshwater, including aquifers, to secure a steady supply of freshwater across all sectors and communities; and to facilitate and promote water recycling, reuse and efficiency for the same purpose.
- c) Conduct water resources, vulnerability assessment, mapping, documentation and dissemination of necessary information to stakeholders.
- d) Increase urban and rural domestic water supplies and urban sewage services to help combat water-borne diseases and their social and economic impacts.
- e) Mainstream climate change in all water resources (coastal water, fresh water sources including aquifers) management plans and programs to secure environmental safety and sustainable fresh water supply.
- f) Design and implement a strategic communication action plan to inform and educate people about changes and challenges associated with water resources which relate to climate change and how they can adapt to cope with these changes and challenges.

2.1.5 Fishery

Policy Statement: *Recognizing the importance of fishery as a major contributor to food supply, food security and livelihoods, adopt policies and programmes that maintain and protect the integrity of Liberia's fishery sector.*

Strategies

- a) Investment and support for artisanal fishery communities, including training, fishing gears and alternative livelihood.
- b) Set up a robust monitoring, reporting and verification system that captures and reports in a timely and accurate manner changes in the stock, productivity, and pressure on fisheries.
- c) Use the precautionary principle as a cue, use information from monitoring to implement adaptive management practices that set catch limits based on changes in recruitment, growth, survival and reproductive success.
- d) Conduct research to fully understand fishing pressures and adjust quotas to sustainable levels, as well as into predicting where fish populations will move; finding species resistance to salinity and temperature fluctuations for aquaculture and, where necessary, support selective breeding for increased resilience in aquaculture.
- e) Support the protection and restoration of mangroves, recognizing their role as an important habitat for aquatic species, which contributes to biodiversity and increased food product availability for household consumption and resources for local markets, as well as providing water filtration services.
- f) Identify and protect areas valuable for fisheries (e.g. deep pools in river systems that serve as spawning areas), including the setting up of marine protected areas and encouraging native aquaculture species to reduce impacts.
- g) Put in place or strengthen a system to reduce external stressors on fisheries by instituting changes in vessel or gear types in order to reduce pressure on fishery and to contribute to their sustainable harvesting, as well as instituting actions and regulatory measures to reduce land-based sources of pollution (e.g. agricultural and urban runoff) and destructive fishing practices (e.g. fishing with explosives and poisons).
- h) Integrate fisheries fully into climate change adaptation and food security policies at the national level (draft and enact where non-existent) to ensure incorporation into broader development planning.
- i) Support the diversification of the livelihood portfolio of communities that are fishery dependent. Establish improved information and communication networks for decision making and planning, as well as between fishing communities, to support information sharing about potential shocks in the system.

2.1.6 Energy

Policy Statement: *moving Liberia's economy and social sectors forward on the basis of universal access to affordable, sustainable, and environmentally friendly modern energy services.*

Strategies

- a) Promote diversification of energy sources including renewable energy sources.
- b) Promote the development and use of affordable energy-efficient technologies.
- c) Promote and implement energy plantation schemes to minimize pressure on natural forest and reduce energy stress.

- d) Introduce and promote a system for sustainable use of biomass energy.
- e) Promote and support the development and utilization of community-based off-grids/ mini-grids.
- f) Conserve water catchments for sustainable production of hydropower sources.
- g) Ensure the incorporation of renewable and low carbon energy technology promotion in sectorial and national development planning.

2.1.7 Mining

Policy Statement: *Ensure that climate change adaptation principles are integrated in the mining sector so that climate stressor scenarios on mining, as well as its exacerbation effect on climate change, will be minimized. In doing so sustainable mining which contributes to the sustainable development of the country will be promoted. To realize this the following strategies are identified.*

Strategies

- a) Put in place a mechanism to ensure new designs and engineering standards to consider the current and future changing climate and periodic review of the design basis for updated climate compatible designs to be in place.
- b) Design and implement a procedure to reinforce assets or amend design standards or the frequency of maintenance and monitoring of assets to withstand current and future climate conditions (e. g., storm surge, sea level rise, higher temperatures, and heavy rainfall incidents).
- c) Design a procedure to relocate or raise assets and operations outside of high-risk areas (e. g., flood plains, and coastal areas).
- d) Incorporate biodiversity management programs in mining sector during mining planning so as to enhance ecosystem services like water, which are critical for mining sector. Retain or restore natural buffers in coastal and river environments to increase resilience against flooding, erosion, storm surge and other extreme weather events that may cause damage on infrastructure and assets useful for the mining sector.
- e) Put in place a procedure to ensure community engagement, from planning to implementation, of mining sector to overcome and meet growing community concerns over climate change and environmental issues due to the establishment of mining projects (e. g., the use of polluting energy sources, conflict over water usage particularly in metal mining which needs abundant water).
- f) Design and implement environmental health and safety programs in the mining sector. Introduce disaster management and disease prevention policies, procedures and assessment at national and corporate level.
- g) Ensure the incorporation of climate change-related considerations into existing mining sector policies and programs, and monitoring of system components in mining sector (e.g: tracking maintenance and repair records to assess the impacts from historical extreme events or more gradual effects).

2.1.8 Industry

Policy Statement: *Incorporate climate change considerations in industrial sector planning so that the manufacturing industries sector will be resilient to climate shocks emanated from energy, resources and infrastructure needs as well as physical damage.*

Strategies

- a) Promote a policy on the use of diversified and integrated energy sources for industrial use.
- b) Incorporate a procedure for the establishment of energy management systems in industry sector.

- c) Promote appropriate spatial planning for industrial locations and zoning in the context of climate change.
- d) Introduce and promoting climate insurance schemes in industrial establishments.
- e) Promote sustainable small-scale energy installations in rural areas.
- f) Put in place a system to regularly assess vulnerability of industrial sector.
- g) Put in place integrated water resource management and planning.

2.1.9 Transport

Policy Statement: *Ensure the development of a efficient, effective and affordable transportation system that is resilient to the possible shocks of climate change and which contributes to the sustainable development of the country.*

Strategies

- a) Ensure the mainstreaming of climate change considerations in the national transport policies and programs.
- b) Establish and gradually improving systems for rapid transportation. Promote the use of mass transport facilities.
- c) Put in place a system for proper urban transport planning to facilitate efficient and low GHG modes of transportation.
- d) Promote multiple modes in public transport to include water and rail.
- e) Promote the use of non-motorized transport like bicycle.
- f) Promote fuel switch in transport facilities.

2.1.10 Tourism

Policy Statement: *Develop and implement culture and tourism development programs that are resilient and responsive to the challenges caused by climate change.*

Strategies

- a) Promote ecotourism, conservation and payment for Ecosystem Services (PES) that involve local communities targeted at biodiversity conservation, community benefit (pro-poor and gender sensitive), and that minimize illegal poaching.
- b) Promote awareness creation to build knowledge of the impact of culture and tourism, and simple procedures to adopt for adaptation (ecotourism).
- c) Develop and implementing an environmental 'Code of Ethics' in the tourism sector.
- d) Enhance vegetal cover in tourist sites through afforestation and ecosystem enrichment⁶.
- e) Establish capacity building scheme in analyzing and using weather and weather-related information as well as monitoring the effectiveness of climate change responses in the sector.
- f) Establish a system and standard to ensure that tourist infrastructures (sittings, buildings, etc.) are adaptable to extreme weather events (e.g., for hurricane force winds).
- g) Design and implementing efficient and effective disaster management and preparedness plan for tourist sites as well as redirecting clients away from impacted destinations. Put in place health facilities for human in touristic areas.

2.1.11 Infrastructure

Policy Statement: *Ensure that our infrastructure is ‘climate-proof’.*

Strategies

- a) Ensure climate resilience in the infrastructure sector, including improved use of weather and climate information in infrastructure planning and development, and research to identify and design materials that enhance the resilience of infrastructure.
- b) Amidst the increasing wave of sea erosion along the coast, higher tides and more frequent storm surge events, there is a need to redesign the coastal highways, bridges, sewer and water infrastructure so that they are made resilient.
- c) Regulations and codes should be revised or developed where necessary to account for climate change impacts.
- d) Major infrastructure projects such as roads, airports and sea ports should be subjected to climate risk screening as part of the planning process.
- e) Reduce damage to infrastructure and the environment, and lessen the risk to human health and wellbeing by developing land-use policies and emergency response measures that account for sea-level rise when planning and building infrastructure.
- f) Regulate development in coastal areas; prevent construction in areas of known vulnerability, and protect coastlines at critical sites in order to mitigate the risk to coastal communities.
- g) Employ significant investment in building coastal protection including eco-based solutions (planting of trees) and hard structures (groynes, revetments, etc) in coastal cities like Monrovia, Buchanan, Robertsport, Greenville, Harper, Cestos and Grandcress.
- h) Relocate communities that are at extreme risks due to flooding and coastal erosion.

2.1.12 Urbanization and settlement

Policy Statement: *Develop a comprehensive land-use plan to achieve sustainability in urbanization and settlement developments in order to adapt to climate.*

Strategies

- a) Conduct assessment for hazard mapping, risk reduction and vulnerability of urban settlements in erosion and flood-prone areas and sites of national economic priority.
- b) Plan and implement adaptation actions in those areas.
- c) Incorporate nationally appropriate low emission strategies and technologies having adaptation benefits and appropriate adaptive strategies in human settlement, land use planning, and urban development. Promote incentives for commercial and public buildings to use energy efficient lighting and appliances such as solar water where water heating is necessary.
- d) Develop and support for improved water supply and waste management systems for cities that include recycling facilities and landfills with methane recovery for electricity generation.
- e) Make installations of wastewater treatment plants an integral part of all sewerage schemes.
- f) Ensure separate collection, disposal and re-use of recyclable, composite and biodegradable waste preferably at source.
- g) Monitor rural-to-urban migration and develop infrastructure and support facilities in smaller agro based towns and periphery urban areas in order to reverse rural-urban migration.
- h) Develop and implement proper “spatial Land Use Planning” which considers existing and predictions of climate change, and which encourages vertical instead of horizontal expansion of urban housing projects.

- i) Regulate industrial development in urban designated areas through land use planning.
- j) Improve the management of coastal zones including the rehabilitation and conservation of vital coastal ecosystems such as wetlands and the mangroves they support through the development of an Integrated Coastal Zone Management Plan, a National Disaster Risk Management Response Plan and implement the National Environment Action Plan.

2.1.13 Health

Policy Statement: *Strengthen the capacity of the health infrastructure and systems to achieve the objectives of the National Health and Social Welfare Policy and Plan, the Public Health Law and the SDGs (good health) in the face of climate change and its risks.*

Strategies

- a) Integrate climate change considerations into existing health policies and strategies, taking into account gender-differentiated impacts and responses.
- b) Strengthen the integrated disease surveillance response systems and the emergency preparedness to prevent, mitigate, and respond to climate induced epidemics.
- c) Strengthen preventive measures to restrict preventable disease transmission.
- d) Develop early warning systems for climate-driven infectious diseases.
- e) Improved community-level health care and the dissemination of information on changing health risks to enhance the response to climate-related diseases.
- f) Increased access to safe water in order to improve disease vector control.
- g) Conduct research on health vulnerability and impact, and develop scenarios to facilitate adequate planning.
- h) In a low carbon action, promote the use of water filters that provide access to clean water while reducing demand for firewood used to boil water and therefore slowing deforestation.
- i) Conduct periodic health Impact assessments on proposed mitigation and adaptation strategies to determine impacts on vulnerable populations and cumulative health impacts.

2.2 Mitigation

This section provides the policy directions and the corresponding strategies in the identified sectors through which the government will engage its partners and citizens in mitigating the impacts of climate change. The sectors identified below in the mitigation interventions are forestry and wildlife, agriculture, energy, mining, industry, transport, tourism, and waste.

2.2.1 Forestry and Wildlife

Policy Statement: *Significantly enhance Liberia's potential for carbon sequestration by promoting conservation, sustainable forest management, community forestry and curbing, key drivers of deforestation and forest degradation, which in turn will contribute to sustainable wildlife management.*

Strategies

- a) Promote the development of REDD+ activities across Liberian forest landscapes.
- b) Provide adequate and sustainable support for conservation and engage nationally for increment in the number of areas set aside as protected areas within forested landscape.
- c) Build a national carbon registry and accounting system as well as clarify the issues of carbon rights, ownerships, and tenure.

- d) Provide adequate regulation and enforcement of current and future national forest management law and policies which address drivers of deforestation and forest degradation as well as wildlife degradation.
- e) Adopt fiscal and regulatory measures to reduce unsustainable wood utilization, particularly in constructions and charcoal production.
- f) Promote activities which enhance carbon density, such as reforestation, afforestation and agroforestry initiatives across the country, which also brings benefits to reduce the stress and pressure on natural forest and ecosystems.
- g) Develop and facilitate the adequate management of community forests by strengthening forest governance and institutions, including wildlife, to ensure better stewardship.
- h) Increase capacity building programs and monitoring capabilities to minimize degradation or impacts to forest areas and wildlife by nearby communities and other external economic agents.
- i) Ensure the sustainable use of forest and wildlife resources to contribute to the livelihoods of the rural communities as they adapt to climate change, and to contribute also to mitigation.

2.2.2 Agriculture

Policy Statement: *Move towards a sustainable agricultural system by encouraging lowland farming, investing in smallholder agriculture and allowing large-scale concessions on degraded land to avoid and reduce national emissions levels.*

Strategies

- a) Support and encourage farmers towards lowland farming by providing tools, training on soil management, integrated pest management and production of organic fertilizer, and seeds adapted for lowland farming to farmers.
- b) Reduce the traditional approach of shifting cultivation or swidden agriculture by the introduction of diverse Integrated Soil Fertility Management (ISFM) practices, inclusive of Conservation Agriculture, agroforestry,
- c) Integrated Pest Management (IPM), organic fertilizer preparation that maximize returns on labor and/or inputs (e.g. fertilizers, seeds, pesticides).
- d) Provide support and enhance farmer field school groups to ensure adequate coordination and learning of sustainable agriculture which can later be used as a base to form cooperatives.
- e) Develop measures and policies for use of degraded land by agricultural concessionaires in order to reduce impacts and pressure on forest lands, which in turns will increase the country's carbon sink potential and reduce emission level.
- f) Enhance and properly coordinate the management of agricultural wastes.
- g) Reduce the contribution of agriculture to GHG emission while improving its role as a carbon sink.

2.2.3 Energy

Policy Statement: *Improve Liberia's economy and social sectors toward universal access to affordable, sustainable, and environmentally friendly low carbon energy services.*

Strategies

- a) Promote exploration of renewable energy sources and enhance the mix of renewable energy share in the national grid and off-grid.
- b) Put in place a system to enhance off-grid power supply to rural areas with additional objective of reducing deforestation.

- c) Promote diversification of energy sources.
- d) Identify, promote and support the use of energy-efficient and low carbon as well as green energy technologies and practices, including the efficient use of domestic appliances.
- e) Put in place an incentive mechanism to strengthen the participation of private the sector in the production and use of clean energy through including public private partnership (PPP).
- f) Introduce affordable waste-to-energy technologies such as methane captured from urban waste dumps. Introduce and encourage energy conservation practices in various sectors.

2.2.4 Mining

Policy Statement: *Ensure that mining the sector in Liberia develops in an environmentally sustainable manner by gradually mixing the use of low emission energy sources and technologies.*

Strategies

- a) Put a system for introducing and enhancing cleaner production practices and technologies by gradually incorporating clean power business model in the sector.
- b) Promote diversification and integration of energy sources and hybrid technologies. Promoting the establishment of environmental and energy management systems in the sector.
- c) Explore mechanisms and affordable technologies for capture and storage of GHG so that the mining sector in Liberia will incorporate carbon management policy to be competitive in the world market.
- d) Explore and enhance adoption of appropriate and affordable energy-efficient technologies.
- e) Explore and promote best practices for methane recovery.
- f) Promote low carbon mix of power generation for local and national grid.
- g) Establish a system for promoting green mining in private sector investment.
- h) Consider a safeguard policy in mining activities around national parks and biodiversity hotspots.
- i) Ensure the use of environmentally friendly chemicals in the mining sector so as to avoid pollutions and the release of toxic chemicals that are dangerous to human health and the environment.

2.2.5 Industry

Policy Statement: *Ensure that the future of Liberian industrial base will not be locked into carbon emitting technologies but rather develop on environment-friendly, economically viable and socially acceptable basis, so that it will be competitive in domestic and world markets.*

Strategies

- a) Explore, adopt and enhance cleaner and efficient production practices and technologies.
- b) Promoting diversification of energy sources and fuel switching technologies.
- c) Put in place a system for the establishment of environmental and energy management systems.
- d) Adopt clean and energy efficient technologies.
- e) Promote low carbon mix of power generation for local and national grid¹³. Establish a system for promoting green industry in private sector investment.
- f) Establish a system to gradually increase a share of biomass and bio-fuels in the mix of energy potential decreasing costs, foreign expenditure and emissions.

2.2.6 Transport

Policy Statement: *Build the future of Liberia's transport system and associated infrastructure on a low carbon emitting bases.*

Strategies

- a) Enhance and promote the use of mass transport systems in major cities using, for example, buses.
- b) Promote the use of non-motorized transport means such as bicycles.
- c) Construct new road infrastructure and rehabilitate the existing ones to gradually avoid traffic congestion.
- d) Integrate urban and regional planning approach to the national planning in order to optimize location of facilities, so as to reduce travel time and cost.
- e) Introduce and gradually enhance the blending of domestically produced biofuels with fossil fuel to substitute imported fossil fuels for cars with domestically produced biodiesel and bioethanol.
- f) Introduce and strengthen control on the importation of used cars and stricter fuel efficiency standards.
- g) Provide fiscal and regulatory investment incentives to make water, rail and air transport in Liberia gradually develop and become safer and more accessible.
- h) Avail or put in place a system to encourage the availability of public transport for tourist destinations.

2.2.7 Tourism

Policy Statement: *Ensure the development of an environment-friendly tourism management system that contributes to the sustainable development vision of the country.*

Strategies

- a) Put in place a system to enable investment in energy-efficient and renewable technologies in tourism.
- b) Promote programs for enhancing vegetation cover in tourist sites through afforestation and ecosystem enrichment.
- c) Establish a system to incorporate energy saving techniques in tourist accommodation facilities (e.g., limiting water heating temperatures, introducing energy saving light bulbs, switch cards in rooms, etc.).

2.2.8 Waste Management

Policy Statement: *Pursue the development and implementation of a comprehensive waste management strategy that includes the development of environmentally sustainable landfills, recovery and use of methane emissions for energy generation and instituting programs at the community and national level for recycling, reduce and reuse of waste.*

Strategies

- 1) Strengthen capacity at the community and institutional level for integrated waste management.
- 2) Identify and promote the use of energy-efficient technologies and measures in the waste sector.
- 3) Develop an integrated waste management strategy and system for all types of waste, assigning priority for prevention of waste generation with nationally appropriate and low greenhouse gas emission technologies that are well managed and compatible with methane recovery, capture and use for power generation.
- 4) Promote private public partnership and other ventures that attract financing for infrastructure investments in the waste sector.

- 5) Design and implement a system to turn urban waste to inputs for agricultural production through composting of waste for use in food security programs in urban (urban agriculture) and rural areas.
- 6) Identify and develop CDM and NAMA projects in the solid waste and waste water sector.
- 7) Expand equitable access to environmentally-friendly and sustainable waste management and sewerage systems, including for the poorest and most vulnerable communities.

2.3 Cross-Cutting Themes

2.3.1 Communication, education and awareness

Policy Statement: *Promote communication, education and awareness programs to incorporate climate change issues so that a society resilient to climate change and contributing to the reduction of the global GHG can be created.*

Strategies

- a) Develop communication, education and public awareness strategies on climate change
- b) Integrate climate change and environmental education in formal, informal and non-formal education programs.
- c) Establish a system to regularly promote public awareness on climate change.
- d) Design and implement sensitization programs for decision makers on climate change.
- e) Establish mechanisms to engage stakeholders and to promote awareness on climate change issues.
- f) Use mass media (radio, television, newsletter, magazines, pamphlets, mobile phones, etc.) to disseminate climate change information to the public.
- g) Harmonize sectorial communication strategies in relation to climate change

2.3.2 Capacity development and training

Policy Statement: *Ensure that capacity development, training and capacity enhancement activities at systemic, institutional and individual level are prepared and continuously implemented to build adaptation and mitigation capacity to climate change.*

Strategies

- a) Update national capacity assessment report on climate change capacity.
- b) Design and implement capacity building programs and projects (trainings, workshops, experience exchange visit, etc.) at community, government (including the climate change focal points) and non-government organizations level to enhance climate change governance and adaptation capacity at different level.
- c) Identify, design and implement adaptation and resilience building physical projects and programs at grass root level, particularly around the vulnerable communities.
- d) Establish a system and mechanism for access to appropriate technologies and finance (including the establishment of Liberia Climate Change Trust Fund” for adaptation and mitigation to climate change.
- e) Design a system to monitor, evaluate and draw lessons from capacity building programs targeted at climate change resilience building.
- f) Establish knowledge management and research unit (as a center of excellence) at appropriate government institution to enable Liberia’s access to the latest idea and technologies on climate change.

2.3.3 Research and development

Policy Statement: *Promote research and development aimed at addressing climate change issues at the national level; and encourage cooperation and networking at the regional and international level to promote climate change research.*

Strategies

- a) Develop the research capacity of relevant organizations to make reliable predictions of climatic parameters and river flows at seasonal, inter-annual and inter-decadal levels; to assess the corresponding likely impacts on various sectors, and to develop appropriate adaptation measures.
- b) Develop climate change research and development capacities at higher institutions of learning.
- c) Strengthen Environmental units in key sector institutions such as the Ministry of Agriculture; Forestry Development Authority; Rural Renewable Energy Agency; Ministry of Lands, Mines and Energy; Ministry of Public Works and the Liberia Water & Sewer Corporation to devise adaptive strategies in coordination with the Environmental Protection Agency for projected impacts of climate change on the sectors and identify opportunities for reducing emissions.
- d) Identify local/traditional knowledge, which enhances climate change adaptation and mitigation, and incorporate it into climate change adaptation and mitigation efforts.
- e) Promote the integration of indigenous knowledge and latest technology with scientific research; and provide support to rural communities, schools and rural-based institutions through participatory training to acquire skills so as to conduct simple and appropriate methods of collecting and managing localized climate data and information.
- f) Harness and provide support to build the capacity of national institutions, NGOs and the private sector to undertake research in climate friendly technology development.

2.3.4 Technology transfer

Policy Statement: *Promote the transfer of technology that is proven to be locally adaptable, environmentally friendly, appropriate to users, culturally friendly, and manageable in a sustainable way for use in Liberia.*

Strategies

- a) Develop a technology policy that aligns with Liberia's Low Carbon Development Strategy and the long-term sustainable development vision, as well as its needs towards technology transfer for climate change mitigation and adaptation.
- b) Conduct a technology needs assessment in order to identify technology for adaptation and mitigation for various sectors.
- c) Explore technologies and best practice that are available globally; select nationally appropriate innovative technologies; disseminate and implement them to the extent possible with sound mechanisms for monitoring their effectiveness.
- d) Harness and patronize local technologies and traditional knowledge available in the relevant sectors with protection of the intellectual property rights of their sources.
- e) Establish and provide economic incentives to the private sector, including NGOs, to promote the use of technologies that address climate change.

2.3.5 Gender, HIV and AIDS

Policy Statement: *Ensure that issues of gender, HIV and AIDS are mainstreamed in all climate change mitigation and adaptation interventions across the country as a means of promoting inclusiveness, equity and adequate participation of all.*

Strategies

- a) Mainstream gender (including women, youth, children, and people with disabilities) in planning, decision making and implementation of climate change responses across the landscape of Liberia.
- b) Ensure that all climate change research data are disaggregated reflecting the significance of the impacts and response measures on gender, youth, people living with HIV/AIDS and children.
- c) Develop safeguards and other measures to ensure equity with respect to gender, people living with HIV/AIDS, youth and children towards benefit sharing related to climate change.
- d) Integrate issues relating to gender and people living with HIV/AIDS into climate change programs, interventions and actions.
- e) Assess and mitigate the impact of response measures on gender and on people with HIV and AIDS.

3. Enabling Pillars

Pillar I. Institutional Arrangement in Climate Change Governance

An effective institutional arrangement must seek to establish the political basis through which social, economic, ecological and environmental vulnerabilities associated with climate related risks are addressed. Consequently, the arrangement designed for implementation of the climate change policy focuses on enhancing risk management for extreme events such as coastal erosion, flood, pest infestation, disease outbreak, and reduced agricultural productivity. This done by considering the appropriate institutional arrangements and regulatory frameworks that might be effectively developed to meet the challenge associated with climate change. The institutional arrangement seeks to support effective response to climate change by creating a governance structure that will seek to:

- 1) Oversee the effective implementation of the climate change policy by providing leadership, coordination and political support;
- 2) Establish a centralized structure to coordinate climate change, which feeds from and into the policies of the relevant line ministries and agencies that are in sectors likely to be affected by climate change;
- 3) Clearly identify the requisite institutional policies, structures and processes that are currently in place to address climate change, creating and modifying as appropriate;
- 4) Create an information and knowledge base to identify, develop and implement effective responses to emerging climate-related issues;
- 5) Coordinate the implementation of existing and future adaptation and mitigation projects (considering the conditions under which they will work) anticipated cost and benefits, and the resources required to implement them;
- 6) Establish a process to document short, medium and long-term responses to climate change, to ensure that lessons are captured to inform the development of future projects and policies;
- 7) Ensure that gender considerations are integrated into the development of any response to climate change;
- 8) Mainstream disaster management and adaptation into long-term development planning, especially at the macro level;
- 9) Establish a process of effectively disseminating information on climate change related activities.

National Climate Change Steering Committee (NCCSC):

The primary roles of the NCCSC are as follows:

1. Validate and secure government support for the implementation of the climate change policy.
2. Supervise and provide leadership for the overall coordination and programs of activities, which accelerate the policy implementation.
3. Strengthen the capacity of the National Secretariat (NCCS) to be responsible for carrying out and coordinating the daily operations of the NCCSC;
4. Adopt measures and take appropriate actions necessary for achieving the mandate and goals of the policy, including and in particular:
 - (a) Report annually on progress made towards implementation of the climate change policy;
 - (b) Authorize and/or approve the solicitation of external assistance for activities under the policy; and
 - (c) Engage the cabinet and the legislature to secure adequate and accessible funding for the implementation of the policy.

The Environmental Protection Agency (EPA) of Liberia is the Designated National Authority (DNA) for the UNFCCC and has the mandate to regulate sustainable environmental management, including natural resources.

National Climate Change Secretariat (NCCS) is a supportive component of the NCCSC which provides coordination, monitoring and evaluation. The roles of the NCCS are as follows:

1. Track progress on implementation and alignment of international climate change programs/policies with the national climate change policy.
2. Serve as liaison between the NCCSC, the EPA, the various working groups, and other relevant national stakeholders on climate change.
3. Engage in appropriate programs to strengthen national capacity in addressing climate change.
4. Cooperate with international organizations, regional centers, institutions and experts in developing programs of action to mitigate and adapt to climate change in the region.
5. Collate, document and store data and record, and disseminate climate change information to the public and the media.
6. Maintain full records of the proceedings of the Climate Change Steering Committee, issue citations, serve as a clearing house on climate change, and inform all stakeholders on a regular basis on the progress of the policy implementation.

Environmental Sector Working Group: The Environmental Sector Working Group encompasses all sectors which are said to have stake in the policy implementation. The Group serves as a multi-stakeholder forum for knowledge sharing and collaboration. Issues proposed for discussion will focus broadly on the environment and its related natural resources, including forest, wildlife, agriculture, fisheries, land and water. The Group will also address the cross-cutting aspects of climate change that impact livelihoods, food security, health, shelter, water, education, and gender. To facilitate the smooth operations of the Working Group, sub-working groups focusing on the issues listed above should be created, as not every member of the working group will have the expertise or interest in all the issues falling with the purview of the working group.

Pillar II. Financial Mechanism

The following policy measures will be implemented to address issues of climate change in Liberia:

1. Establish the “Liberia Climate Change Trust Fund”. The fund will serve as a mechanism that allows the country to collect, blend, and manage all the incoming revenue streams, both international and national, related to climate, change into one centralized fund. The fund will mobilize national resources, including the national budget, to support climate change related activities such as disaster management, coastal protection, reforestation and afforestation; and will establish a system for tracking, monitoring and reporting on domestic and international financing directed at climate change adaptation and mitigation;
2. Further explore the available funding sources and ensure the access and effective use of international funding available for adaptation and mitigation efforts such as Global Climate Fund (GCF), Clean Development Mechanism (CDM), Adaptation Fund (AF), Global Environmental Facility (GEF), World Bank’s Forest Carbon Partnership Facility (FCPF), etc.;
3. Under the coordination of the NCCS, support specific sectors to develop proposals for the Adaptation Fund;
4. Finalize the National Adaptation Plan which will further elaborate the strategies for financing adaptation in Liberia, including up scaling the implementation of the adaptation projects of the NAPA;
5. Further engage and participate in the REDD+ (Emissions from Deforestation and Forest Degradation) system based on the outcome of the Strategic Environmental & Social Assessment, REDD+ Strategy and other relevant instruments;
6. Explore the possibilities for creating domestic and international carbon market opportunities.

Pillar III. Capacity Building and Knowledge Management

Capacity Building

Capacity building and knowledge management are critical components for ensuring the efficiency and effectiveness of this strategy. According to a study done by the EPA in 2013: Identification of Capacity Barriers, Gaps and Needs for Enabling Climate Change Mitigation Measures under the Project, Management of Environmental Services and Financing for Sustainable Development. There is a capacity deficit which accounts for low individual and institutional capacity both at the local and national level for implementing climate change related activities including adaptation and mitigation. The gaps and barriers identified to the development of Low Emission Development Strategies (LEDS), Nationally Appropriate Mitigation Actions (NAMAs) and Monitoring, Reporting and Verification Systems (MRV) include:

1. Inadequate data and information about the natural, physical, socio-economic and political environment;
2. Weak political will; Poor regulatory environment;
3. Conflicting sectorial mandates;
4. Lack of a monitoring systems and strategy that includes data collection, monitoring and the strengthening of the mandate of the M&E officers;
5. Insufficient equipment for monitoring e.g. GIS instruments.
6. A lack of standardization of MRV systems in the country;
7. Weak inter-sectorial coordination;
8. Lack of alignment and harmonization of regulations on monitoring, evaluation and reporting and lack of the tools in the key institution; and
9. Poor frequency of reporting, data and information utilization.

In September 2010, the National Climate Change Steering Committee (NCCSC) was established as a high level policy coordination committee to take charge of the overall climate change policy in Liberia. The

embodiment of the NCCSC includes the Ministers, Directors of Governmental Agencies, the National Energy & Climate Change Adviser to the President, private sector, civil society and international partners. As an advisory body, the NCCSC should serve as the policy-clearing house for all climate change related issues, including policy formulation. While the NCCSC has been dormant over the last few years, its Secretariat – the National Climate Change Secretariat (NCCS) – has been revitalized. Working along with the EPA, the NCCS is required to ensure the harmonization of climate change enabling activities under a single framework and to make Liberia compliant with all requirements of the United Nations Framework Convention on Climate Change (UNFCCC).

To overcome the capacity barriers and gaps and meet the challenge of climate change, the capacity of government institutions and experts, civil society and the private sector will be strengthened. The following actions will be pursued under this pillar:

1. Reconstitute the NCCSC through high level cabinet endorsement and support as a pivot point for directing the implementation of the climate change policy;
2. Conduct a review of institutional mandates for the purpose of harmonizing conflicting mandates and roles of climate change related institutions in order to ensure that there is a clear line of responsibility and authority for implementing specific roles;
3. Review and revise all government policies across the different sectors, where appropriate, so as to ensure that these policies take into account climate change and its impact.
4. This will include mainstreaming climate change in national, sectorial and spatial development planning to ensure that impacts on vulnerable sectors and groups including women are prioritized in the plans;
5. Build the capacity of key government climate change frontline institutions to advance climate change adaptation (e.g. Ministry of Lands, Mines & Energy, Disaster Management Agency, Ministry of Public Works, Central Agricultural Research Institute, Ministry of Health, Ministry of Gender, Children and Social Protection). This capacity building effort will focus on material and technical support; staff training and restructuring, and budgetary support for adequate motivation and knowledge sharing;
6. Establish and build the capacity of climate change focal points in relevant Government institutions including but not limited to MoA, FDA, MoLME, RREA, MoPW, MoGCSP, MoT, to incorporate climate change considerations in their planning processes;
7. Develop a criteria and approach for mainstreaming gender consideration in all climate response activities and build the capacity of gender focal points in Government institutions, to enable them participate effectively in climate change response activities;
8. Build the capacity of the NCCS and the EPA, including the Climate Change Enabling Unit to effectively lead international and regional climate change negotiations; and promote regional and international cooperation that is essential for attracting the needed support and means of implementation of the climate change policy;
9. Build the capacity of the government (e.g EPA and FDA), private sector and civil society on carbon financing to access various global climate finance mechanisms available for implementing programs on adaptation and mitigation;

Knowledge Management

In order to ensure that the strategy is effective and efficient there is a need to identify, build, dispense, and enable the adoption of insights and experiences held in individual experts or embedded in institutions as processes or practices. This policy will focus on harnessing opportunities to enhance continuity, optimize the performance of institutions, enhance the learning experience of professionals, improve communication

amongst experts and institutions, promote synergy and maintain the institutional memory of government institutions involved in dealing with climate change and its impacts.

The following actions will be pursued under this pillar:

1. Establish a unit for Research and Knowledge Management on Climate Change at LISGIS, which collaborates with the NCCS and MICAT to ensure Liberia has access to the latest ideas and technologies available globally, and ensure that data and information is widely and freely available to researchers and other end users;
2. Develop the capacity of the entities (NCCS, LISGIS, and MICAT) to effectively lead the management of climate change knowledge, including the training and setting up of dedicated unit at MICAT for Climate Change Awareness and Knowledge Management;
3. Develop training programs for high and mid-level Government official, NGOs/CBOs, private organizations and provide training in collaboration with research centers and universities; Develop and implement a mechanism for monitoring the application of climate change knowledge by policy makers and people at the frontline of climate change impacts;
4. Maintain a robust and up-to-date climate change knowledge management system;
5. Publish the Climate Change Policy and Response Strategy and ensure adequate awareness at all levels (ministries/sectors, professionals, academics, NGPs/CBOs, civil society leaders as well as the general public); and
6. Enlist the support and participation of media agencies and networks in raising awareness and disseminating information on climate change.

To achieve this focus the National Climate Change Secretariat (NCCS), working along with the Liberia Institute for Statistics & Geo-Information Services (LISGIS), and the Ministry of Information Culture Affairs & Tourism (MICAT) will serve as the framework for comprehensive climate change information retention and management.

The NCCS will collaborate with government institutions (EPA, FDA, MoT, MoLME, MoA, CARI, RIA, UL, etc.) civil society, academic and research institutions, private sector and individual researchers/experts generating climate change research work in order to regularly access the information they generate for transmission to LISGIS.

LISGIS will set up an information system for the processing and archiving of information, including GHG emissions and inventory reports, climate data and future projections, forest cover, human resource development and special programs, impacts of climate change on physical infrastructure, data on environment water and sanitation, data on agriculture and rural development, human resource development and special programs, low carbon options and their benefits.

The Ministry of Information Cultural Affairs & Tourism (MICAT) will be responsible for the climate change information flow among the government, private citizens, civil society, private sector, research institutions, individual researchers and academic institutions. It will develop a framework in tandem with the NCCS and LISGIS for identifying the potential users of the climate change knowledge and the various media for information sharing, including websites, publications and bulletins, national and community radios, etc.

The tripartite collaboration amongst the NCCS, LISGIS and MICAT will allow for organizing, refining and disseminating of climate change knowledge products for the intended beneficiaries. It will also facilitate accountability for climate change knowledge management in Liberia.

Pillar IV. Technology Innovation and Infrastructure

It is inevitable that the pressure and extreme event caused by climate change will result in stress on existing infrastructure. This pressure will force change or replacement in some infrastructure programs. The existing infrastructures may need to be reinforced or modified to cope with the current and foreseeable climate change hazards. Such climate change hazards could be rise in sea-level, higher temperature, flood, storm, change in the rainfall regime, etc. There is also a need to establish new infrastructure to satisfy the growing and high living standard need of the future generation and for this climate smart standards to be considered starting from the design stage of such infrastructure. Such consideration will have an advantage of maximizing economic return on investment. In so doing investment in the adaptation and mitigation aspect on infrastructures and human capacity building in sectors such as agriculture, energy, transport, forestry, etc. will become critical.

Liberia also needs to engage in application and investment in technology innovation of different sectors, including infrastructure, to gradually leapfrog old, destructive and polluting technologies which are both energy and resource inefficient. This approach, hence, will lead the country to follow the green path of development.

Therefore, under this pillar Liberia will:

1. Rehabilitate and repair existing infrastructure (roads, coastal wall, river embankments, erosion control walls, drainage systems and flood shelters, etc). For this purpose It will also put in place effective maintenance and operation system;
2. Put in place strategic planning of future infrastructure needs by taking into consideration future urbanization, socio-economic development as well as the predicted impact of climate change;
3. Give due attention and invest in planning, designing and construction of urgently needed new infrastructure in various sectors to cope with the changing conditions with climate change;
4. Conduct and periodically update technology need assessment (TNA) for Liberia and make use of every opportunity available for technology transfer through the Technology Mechanism agreed at COP 16, as well on COP 21 Agreement. This will help to boost the resilient and green technology access of Liberia through bilateral, multilateral as well as regional technology cooperation such as the South-South cooperation;
5. Setup a system and incentive mechanism to encourage the private sector to engage in investing in green and environment friendly technologies through sole investment as well as public-private partnership;
6. Establish/strengthen climate technology innovation center for Liberia to enable support small and medium enterprises and the private sector in providing services and support for climate resilient low carbon development;
7. Perform local research and development for climate resilient low carbon technology and infrastructural development; and
8. Establish a link and cooperation with regional and international center of excellences to access and exchange appropriate technologies.

Pillar V. Integrated Planning and Data Management

The nature of climate change being cross-cutting brings about planning and actions to be taken in an integrated way. Liberia is constrained with climate change impacts in various sectors such as agriculture, water, coastal, energy, forestry, settlements, etc. Integrated planning, hence, will help the government of Liberia to invest in the most critical and efficient way so that the economic and environmental return on the investment will be maximized while addressing sectors' priorities. Equally important is the availability of

robust data and information across the sectors for decision making. As Liberia's previous war history has resulted to the devastation of historic data across the sectors, due attention should also be given to collect, analyze and avail sectorial data so that informed decision will be given at all levels. Integrated set of analysis and decision making need to be conducted to come up with the dynamic, complex and cross sectorial issues involved in ecosystem services, energy, land use, water, etc.

To do this efficiently, handling and managing both spatial and non-spatial data in a systematic way in a central, regional, sub-regional and sectorial level is essential. This will enable to have a data set to manage resources such as land and water, other biological and physical resources, and to monitor the impact of climate change in these resources.

Therefore, under this pillar Liberia will:

- Put in place a system for recording and establishing integrated data sets based on the international standard particularly for priority sectors;
- Develop robust forecast of future vulnerability with appropriate indicators and resource demands for future climate shocks;
- Establish a system for integrated sectorial planning which addresses climate change adaptation and mitigation in an integrated manner;
- Ensure that national and sectorial planning processes are climate compatible based on climate information;
- Establish monitoring, reporting and evaluation system for ensuring integrated planning and data management relevant to climate change.

THE NATIONAL DISASTER MANAGEMENT POLICY OF LIBERIA

1. Introduction

1.1. Preamble

The imperative for disaster risk management in Liberia cannot be overestimated. Procrastination and indecision to rally efforts towards reducing risks and improving preparedness for emergency response can only result in further losses in development gains now and in the future.

Consistent with the:

- i) Government's constitutional mandate to protect the lives and assets of the Liberian people;
- ii) Paradigm shift from emergency response to total disaster risk management internationally, regional, sub-regionally and nationally;
- iii) International frameworks for disaster risk reduction, that is, the Hyogo Framework for Action – Building Resilience of Nations and Communities to disaster;
- iv) Africa Regional Strategy for Disaster Risk Reduction – to contribute to the attainment of sustainable development and poverty reduction by facilitating the integration of disaster risk reduction into development; and
- v) The Economic Community of West African States (ECOWAS) focus on disaster risk reduction and its Disaster Risk Reduction Policy framework.

In view of the:

- i) Improved understanding of climate variability and change, gender, conflict and its links to disaster risks;
- ii) Increase in frequency and severity of national and local level disasters, and the increase in disaster losses over the years;
- iii) Increase in the number of people affected, especially the poor and vulnerable living along the coast and elsewhere in Liberia;
- iv) Change in perspective (from disasters as “acts of God” to understanding the human contribution) and the high costs of disaster response versus minimizing risk;
- v) Better understanding of disaster processes, cross-cutting linkages, improvement in science and research and the social dimension;
- vi) Need to integrate disaster risk management in national and local development initiatives;
- vii) General outcry and demand from Liberians especially different ministries/agencies and development partners' representatives to a National Workshop on the Development of a National Disaster Management Action Plan for Capacity Building in DRR in October 2007;
- viii) Priorities in the National Disaster Management Action Plan for Capacity Development in DRR;
- ix) Need for consistency in developing DRM national capacity and community resilience to disasters; and,

x) Absence of legal framework for disaster risk management in Liberia;

It has become absolutely necessary for the Government of Liberia (GOL) to develop a National Policy for Disaster Management to effectively give policy direction and define parameters within which DRM is implemented by the NDMA as a specialized agency and other stakeholders within the established National Disaster Management System (NDMS). The aligning of roles and responsibilities will minimize duplication of efforts and wastage of resources. In addition, the new focus on risk management within the DRR framework will ensure that all ministries/agencies, the private sector, and other non-state actors and development partners are involved in reducing risk; hence, building national and community resilience to disasters within the context of sustainable development.

1.2. Rationale for National Disaster Management Policy

Since its independence in 1847, Liberia has witnessed various naturally triggered and human induced disasters. The most noticeable of these disasters include wars, epidemics, landslides, floods, fires, sea erosion, windstorms, and rainstorms. Unfortunately, the level of preparedness to such disasters is inadequate leaving the country highly vulnerable to the consequences of disasters. Moreover, the Liberia Disaster Relief Plan developed in 1976, establishing and empowering the National Disaster Relief Commission (NDRC) for relief response to disasters, does not seem to reflect strategies that address present day realities of complicated disaster cases. The lack of a policy to effectively address disasters management and risks issues further compound the already volatile situation faced by Liberia.

The principle of achieving and maintaining sustainable development must underpin all policies, programmes and projects undertaken within Liberia. In particular, the mainstreaming of disaster risk management (DRM) into development planning and together with the protection of development gains must be for the benefit of both present and future generations.

Disaster loss is on the rise with grave consequences for the survival, dignity and livelihood of individuals, particularly the poor and development gains. This, compounded by increasing vulnerabilities related to changing demographics, technological and socio-economic conditions, unplanned urbanization, development within high-risk zones, under-development, environmental degradation, climate variability, climate change, geological hazards, competition for scarce resources, and the impact of epidemics such as cholera, points to a future where disasters could increasingly threaten the national economy, and its population and the sustainable development of developing countries.

1.3. Policy Statement, Goals, Objectives And Strategies

1.3.1 Policy statement

To define the National Policy for Disaster Management in order to enhance capacities required for reducing risks and building community resilience to disasters in Liberia.

1.3.2 Policy goal

The overarching goal of the National Policy for Disaster Risk Management is:

To enhance national and local capacity to minimize vulnerability and disaster risks, prevent, mitigate and prepare for adverse impacts of hazards within the context of sustainable development.

1.3.3 Policy objectives

- i. To create a foundation for the development of an effective and functional legal, institutional framework and good governance for DM, by getting the National Legislature to pass an Act into Law creating the NDMA as an autonomous body (*see aspects of good governance in Box 1 below*);
- ii. To provide the basis for sound disaster risk management by local and national organization, capacity enhancement and clear allocation of roles and responsibilities;
- iii. To provide overall direction for integrating disaster risk reduction into development, recovery and humanitarian response policy and plans;
- iv. To contribute to national risk management applications for sustainable national development; and
- v. To strengthen disaster preparedness for effective, efficient and timely emergency response.

1.3.4 Policy strategies

The policy is a framework for supporting five broad strategies:

- i) To establish effective, efficient, timely and functional legal and institutional system for DRM;
- ii) To strengthen disaster preparedness for effective, efficient and timely emergency response;
- iii) To establish systems for and improve risk identification, assessment, monitoring and early warning of disaster risks;
- iv) To enhance information and knowledge management for disaster risk management, and
- v) To contribute to local and national risk management applications for poverty reduction.

1.4. Background and Situation Analysis

1.4.1 Vulnerability in Liberia

Liberia vulnerability template is therefore driven by the following:

- The civil war of 1989 to 2003 devastated the social, environmental, economic and political landscape of Liberia. Fighting and looting displaced nearly one million Liberians, destroyed the country's infrastructure and wiped out health and education systems. The agricultural system was disrupted by the displacement of farming communities. The war was devastating for the economy and left the country with an enormous task ahead to address the challenges of recovery.
- The systems of governance are weak with very low capacity to provide services to the public. This leaves the people vulnerable and hence unable to cope with any shock be it internal or external.
- During the years of the crisis, poverty levels rose steadily reaching 76% and 52% in absolute and extreme poverty terms. Unemployment levels in formal sector reached 85%. Even today there is glaring poverty [assets, services, education, water and sanitation (WATSAN), food insecurity] for both urban and rural people, especially those displaced by war and now returnees. Female headed

households, Orphans and vulnerable children, youth, elderly and disabled are amongst the most vulnerable people in Liberia.

- Physical infrastructure was heavily affected by the war– the majority of Liberians have no formal education and there are few functional schools and basic health facilities. Those in the farming business, face huge market infrastructure constraints. Likewise, at national level only 58.5% and 3.7% have access to improved water and sanitation facilities respectively. In rural Liberia, only 40% of the households have access to improved water sources compared to 84% in urban Liberia. Access to improved sanitation is no better either as only 19% of the rural households have access to improved sanitation-with the overwhelming majority (74%) of households defecating in the open. In urban Liberia, 62% report usage of improved sanitation, which is very low for an urban set up.
- There are reasonable concerns that, with the potential (but yet to be ascertained) impact of the HIV/AIDS pandemic and the very high dependency ratio (9:1), the social indicators and poverty levels could only have deteriorated further. And, with an annual growth rate of 2.1% (as per the 2008 population and housing census report), Liberia could easily remain one of the countries with the fastest growing proportion of poor people.

All these factors explain why many people are unable to withstand the impact of a hazard irrespective of its size, frequency and geographical coverage. The risk of economic, social and environmental losses is high, also given the high pressure on resources in areas like Monrovia with a high concentration of population. Of concern too is the high risk of death due to hydro-meteorological, geological and biological hazards.

1.4.2 Prevalence of disasters and their impact

There are a number of hazards affecting Liberia. When these encounter the vulnerable elements (human, environment and economic assets) and fragile environment created by years of conflicts and poverty of the Liberian population; either local or national disasters easily occur. The most common hazards are as follows: epidemics, floods, tropical storms, fire, tidal abnormalities, erosion, and possibility of droughts in future.

There are also human-induced disasters resulting from war, refugees, internally displaced people (IDP), chemical and harmful elements. In future, meteorological hazards such as floods and droughts are likely to increase due to global warming. Industrial development might further lead to oil spills and other toxic waste disasters.

- i) **Epidemics:** The World Health Organization defines an epidemic as "an unusually large or unexpected increase in the number of cases of the disease for a given time, place or period." Human epidemics in Liberia include cholera, measles, yellow fever, and Lassa fever. There are also livestock diseases including bird flu that need close monitoring. According to EM-DAT, over 600 people have been killed by different epidemics in the last ten years.
- ii) **Environmental Degradation:** Environmental degradation, which occurs mostly as land degradation, is a serious problem in some parts of the country. Human activities, such as mining, population pressure for example in Monrovia, soil erosion and deforestation, has led to some big tracts of land being so seriously degraded that it can no longer support plant life. Sea erosion has become a major problem in the coastal areas in Liberia and this is mainly exacerbated by changing weather conditions and human

activities. The result being that populations are being displaced and infrastructure lost due to high sea erosion.

- iii) Floods: A flood is a high flow of water, which exceeds either the natural or artificial banks of a river or area of land. Floods induce disasters when human settlements have an overflow of water beyond the normal confines and humans are unable to cope with the calamity, or when they result in the destruction of crops, social and economic infrastructures. In 2007, floods affected over 22,000 in Liberia. In 1982, landslides killed 42 people in Grand Cape Mount County.
- iv) Drought: Drought is defined as a period of abnormally dry weather that persists long enough to produce a serious imbalance, (for example; crop damage, water supply shortage, etc). The severity of the drought depends upon the degree of moisture deficiency, the duration, period of occurrence and the size of the affected area.

The definition of drought is confined to three main types prevalent in the country:

- Meteorological drought is a measure of negative departure of precipitation from normal.
 - Hydrological drought is a period when the flows in rivers, lakes and ground water aquifers are below normal levels; and
 - Agricultural drought refers to reduction in moisture availability below the optimum level required by a crop during different stages of its growth cycle and resulting in reduced yields.
- v) Pests: A pest is an animal, insect or plant that causes damage to crop plants or animals by feeding on them. Ticks, larger grain borer, the caterpillars, tsetse fly, locusts and rodents are problematic in different parts of Liberia.
 - vi) Refugees and internally displaced people/populations (IDPs): A sudden influx of refugees and IDPs can be described as a disaster because of the exceptional measures that are required to be put in place in order to manage the situation. Some refugees may have travelled long distances from their usual place of residence. Having left their usual area of residence IDPs and refugees need to be guaranteed protection and provided with basic needs such as shelter, water, sanitary and health amenities.

2. Policy Framework

2.1 Introduction

The National Disaster Management Policy for Liberia is set against a background of phenomenal increase in disasters internationally and regionally as well as their impact on economic and human development over the last two decades. Global warming is increasing the severity of storms and floods even in countries like Liberia. Changes in climate patterns and resultant disasters have a devastating impact on poor people's ability to farm and therefore their access to food, and in the overall development of a nation.

Cultivating a culture of prevention rather than cure, the Liberia NDM Policy is geared towards reducing disaster risks and impacts within the context of sustainable development. This shall contribute to achievement of the national strategy - to achieve visible progress that reaches significant number of people,

consolidate support and establish the foundation for sustained economic development, as outlined by the President. The disaster risk reduction framework forms the basis of this policy

A disaster is a devastating event that seriously disrupts the functioning of a community or society and causes human, material, economic or environmental losses that exceed the community's or society's ability to cope using its own resources. For a disaster to be entered into the database of the UN's International Strategy for Disaster Reduction (ISDR), at least one of the following criteria must be met:

- a report of 10 or more people killed
- a report of 100 people affected
- a declaration of a state of emergency by the relevant government
- a request by the national government for international assistance

However, for the Liberian situation, the first two criteria stated above should be:

- a report of 5 or more people killed
- a report of 50 people affected

Though often caused by nature, disasters can have human origins and are often triggered by hazards. The combination of hazards, vulnerability and inability to reduce the potential negative consequences of risk results in disaster.

2.2 Understanding Terms and the Policy Framework

2.2.1 Hazards, vulnerability and capacity

- i) Hazards are inherent in human society and only need to interact with human vulnerability to increase the risk of disaster occurrence. A hazard is a potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. There are different origins of hazards: natural (geological, hydro-meteorological and biological). Geological hazards such as earthquakes and volcanic eruptions are however not common in Liberia. Human-induced hazards include environmental degradation and technological hazards (e.g. transportation and industrial accidents, oil and chemical spills).
- ii) Vulnerability is a set of conditions and processes rooted in conditions of physical, social, economic and environmental factors which increase the susceptibility of an individual or community to the impact of hazards. Vulnerability to the hazards mentioned above results from poverty, exclusion, marginalization, and inequalities in material consumption and it is generated by social, economic and political processes. The level of vulnerability of an individual or group depends on levels of access to services and alternative coping options for example before, during and after wild fire, storm and flooding. In a country like Liberia where sections of the population suffer from chronic levels of poverty, vulnerability to hazards is much higher, exacerbating disaster risk.

- Physical vulnerability: susceptibilities of location and the built environment determined by aspects such as population density levels, remoteness of a settlement, the site, design and materials used for critical infrastructure and for housing.
 - Social vulnerability: linked to the level of wellbeing of individuals, communities and society. It includes aspects related to levels of literacy and education, the existence of peace and security, access to basic human rights, systems of good governance, social equity, positive traditional values, customs and ideological beliefs and overall collective organizational systems.
 - Economic vulnerability: Levels of vulnerability are highly dependent upon the economic status (income earnings) of individuals, communities and nations. Economic vulnerability includes levels of individual, community and national economic reserves, levels of debt and the degree of access to credit, loans and insurance. An economy lacking in diversity is generally more vulnerable. Similarly, inadequate access to critical and basic socio-economic infrastructure, including communication networks, utilities and supplies, transportation, water, sewage and health care facilities; increases people's exposure to risk.
 - Environmental vulnerability: includes the extent of natural resource depletion and the state of resource degradation. Environmental vulnerability includes loss of resilience of the ecological systems (degraded land, polluted water and air and resultant food insecurity and access to water, etc.). Loss of biodiversity and exposure to toxic and hazardous pollutants are also important elements that shape environmental vulnerability.
- iii) Capacity is a combination of all the strengths and resources available within a community, society, organization or Government that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personnel or collective attributes such as leadership and management. Capacity also includes functional integrated disaster risk management systems with ability and skills to conduct risk assessment, maintenance of functional early warning systems, and availability of updated contingency plans, emergency preparedness and response plans as well as resources that can be quickly mobilized. An effective disaster risk management system requires an enabling environment for DRR guided by national policies and legislation.

2.2.2 Framework for Disaster Risk Reduction

Disaster Risk Management (DRM): refers to integrated multi-sectoral and multidisciplinary administrative, organizational and operational planning processes and capacities aimed at lessening the impacts of natural and human induced hazards and related environmental, biological and technological disasters.

In disaster management, the damages are all too evident and the needs all too clear. The risk factors that led to the disaster, on the other hand, are very often hidden – largely invisible to policy-makers and the general public, and even to disaster and development professionals.

Disaster Risk Management offers an alternative to disaster management. Risk management seeks to address the root causes of disasters, reducing the exposure and vulnerability of people and economic assets in order to reduce losses. Cost Effective Risk Management (CERM) requires being able to identify where hazards are most likely to strike, who or what will be exposed, and what vulnerabilities will lead to those assets being damaged or destroyed. Risk management, therefore, depends not on identifying the consequences of

disasters but rather the causes. These causes need to be made visible and real so that the risks can be perceived, understood and reduced.

Disaster Risk Reduction is defined as a framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (reduction, or mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development. The goal of disaster risk reduction is to contribute to sustainable development through reducing the burden of disasters on the poor and most vulnerable. This is achieved by reducing vulnerability of the poor through building capacity and livelihood resilience to disaster risk.

3. EVOLUTION OF DISASTER MANAGEMENT IN LIBERIA

3.1. Establishment of the National Disaster Relief Commission

In 1976, an Executive Order by the late President William R. Tolbert, Jr., established the National Disaster Relief Commission (NDRC) for the following reasons: a) to cater to disaster victims; b) to review regularly different disaster prevention, preparedness, relief and rehabilitation measures and to coordinate them; c) for planning; and d) to establish and maintain liaison with the representatives of the UN agencies, donors which have disaster relief related programs within the country.

The NDRC setup comprises several line ministries and government agencies as well as local and international non-governmental partners. The UN agencies serve as co-opted members of the NDRC. For decision-making purposes the following composition of the Commission makes decision:

- Ministry of Internal Affairs – Chairman
- Ministry of Health & Social Welfare – Vice-Chairman
- Ministry of Finance – Treasurer
- Deputy Minister of Operation, Ministry of Internal Affairs – Executive Secretary
- Director of the NDRC – Assistant Executive Secretary

The secretariat of the NDRC is located at the Ministry of Internal Affairs and serves as the coordinating agency of the Commission. The Secretariat is headed by the Director who runs its day-to-day activities. This executive order is to be replaced by legislation creating the DMA to be enacted

3.2. National Disaster Relief Plan

The primary objective of the NDRC was to prevent disaster, assist victims of disaster, reconstruct, protect, and safeguard life, property, public health and welfare of the people. A National Disaster Relief ‘Plan’ was developed to guide the activities of the Commission. The Plan outlined the types of disasters to be addressed in Liberia, composition of the National Disaster Relief Commission with amendments made in May 1987, Functions of the Commission before, during and after a disaster and the roles of the National Red Cross and Disaster Preparedness Units.

Although prevention of disasters was mentioned in the NDRC’s main objective, as well as in the National Disaster Relief Plan, the NDRC remained a purely emergency response/relief oriented organization. Since 1976, the Commission has been involved in delivering relief assistance to victims of fire, flood, rainstorm, sea erosion, landslide and other assistance to Liberia. The major challenge the commission faced was

capacity, mainly human and financial resource constraints. On its own, the Commission has therefore not been sufficiently able to coordinate humanitarian or disaster management activities. Added to this, there was no effective policy or legislation to fall back on. The new legislation to be enacted replaces the National Disaster Relief Plan with the National Disaster Management Plan.

3.3. NDRC and Disaster Risk Management Activities

There has been an international, regional and sub-regional paradigm shift from response to pro-activeness, increased frequency and severity of hazards, increased disaster losses and number of persons affected and erosion of development gains influenced the NDRC to focus its attention on disaster risk reduction. This ‘new thinking’ resulted in recognizing the essential public value of sustained efforts to reduce the social, economic and environmental costs of natural and human induced hazards. Disaster risk management therefore replaced emergency response practice since 2012.

In October 2007, the Government of Liberia commissioned a Capacity Needs Assessment (CNA) for disaster risk reduction. Summarized in a country report and a National Disaster Management Action Plan for capacity development in DRR, the CNA made explicit recommendations for capacity development in the following areas:

- i) Governance for DRR (Legal and institutional system)
- ii) Preparedness and Emergency Response
- iii) Risk identification and early warning
- iv) Knowledge and information management
- v) Risk management applications.

One key recommendation was the development of a policy and legislation for disaster risk reduction. The National Disaster Management Action Plan for capacity development in DRR contains key priority actions under the above five themes, consistent with the Africa Strategy for Disaster Risk Reduction and focus of the Hyogo Framework of Action – *Building the Resilience of Nations and Communities to Disaster*. Under institutional and legal systems, policy development is listed as the first priority activity, followed by legislation and ongoing capacity development of the National Disaster Relief System.

In response to the CNA recommendations, the Government of Liberia with UN financial and technical assistance, and through Policy Development Working Groups as well as task forces members from MIA, MOJ, LNRCS, WFP, UNMIL, UNDP, WHO, WB and Child Fund reviewed and developed this National Disaster Management Policy. In addition, a name change was suggested and approved for the NDMA. Henceforth, under the new legislation the National Disaster Relief Commission is now called the National Disaster Management Agency. The whole National Disaster Management System after the passage of the legislation consists of the committees and structures outlined in *Fig 1: National Disaster Management System in Liberia*.

3.4. Vision and Mission of National Disaster Management System

The following outlines the mandate of the National Disaster Management System in Liberia:

Vision: By the year 2030 Liberia has established measures to effectively prevent, and reduce the impact of and recover from human induced and natural disasters.

Mission: To apply and effectively implement all legal and institutional frameworks and innovative technological approaches to reduce national and local community vulnerabilities and disaster risks within the context of sustainable development

Core Values: All the National Disaster Management structures will always abide by the following:

- Pro-activeness: the Motto is *prevention before cure*
- Impartiality: equity, neutrality, fairness, even handedness, objectivity and unbiased
- Efficiency and effectiveness;
- Integrity: accountability, transparency, honesty and confidence
- Innovation: creativity, visionary, energetic and inspirational
- Professionalism: high quality, reliability, flexibility and timeliness
- Participation: value ideas, inclusive, non-judgmental.

4. POLICY PRINCIPLES

The objectives and strategies of the National Disaster Management Policy shall be supported by fundamental principles described below.

4.1. Fundamental Rights

Consistent with the Constitution of the Republic of Liberia, the National Disaster Management policy will seek to reduce disaster risks at national, regional and local levels irrespective of gender, creed or race. The policy will be implemented in full compliance and respect of fundamental human rights and freedoms of Liberian people as enshrined in the following articles:

Article 13 & 15: Protection of fundamental rights

Article 14: Protection of freedom; and all other Articles as deemed appropriate for the successful implementation of this policy. By so doing implementation of the policy is also consistent with the United Nations Humanitarian Charter.

4.2. Gender And Disaster Risk Management

This policy recognizes the important role played by women in development and the burden they carry and suffer during disasters. Consequently, all activities implemented by the government and all its partners before, during and after disasters, will proactively and consciously include participation of women and other vulnerable groups.

Benefits shall be seen accruing to women, children, People Living With HIV/AIDS, the elderly, disabled and other vulnerable people at national, county, district and community/chiefdom levels. It is important that all disaster and recovery needs assessments results show gender disaggregated data/information. In addition, all DRR plans including contingency/preparedness plans shall have a gender strategy for emergency response informed by the needs at that particular level of the plan.

The following shall be observed in terms of gender in DRR including emergency response:

- i) *Strengthen Women's Security in Crisis:* Government and implementing partners shall work to end personal and institutional violence against women during disasters. All activities shall reflect this principle.
- ii) *Expand Women's Participation and Leadership:* Build women's skills and confidence. Support women's representation in emergency response operations. This shall also include the development of women's networks and institutions for conflict prevention during disasters, disaster risk reduction, and post-disaster reconstruction.
- iii) *Promote Gender Equality in DRR:* Incorporate gender analysis in the assessment of disaster risks, impacts and needs. Address women's unique needs and value women's knowledge in disaster reduction and recovery policies, plans and programmes. Strengthen women's networks and organizations to facilitate women's active engagement.
- iv) *Ensure Gender-Responsive Recovery:* Infuse gender analysis into all post-disaster planning tools and processes. Ensure recovery efforts provide equal economic opportunities for women including access to assets, such as land and credit. Promote social protection and sustainable livelihoods. Prioritize women's needs in key sectors such as transportation, shelter and health care during and after disasters.
- v) *Develop Capacities for Social Change before, during and after disasters:* Build the skills and the will of men and women to: reduce vulnerability to natural hazards; achieve equitable post-disaster reconstruction; and build social cohesion.

All government ministries/agencies and other humanitarian and development agencies will endeavor to mainstream other cross cutting issues during implementation of DRR in Liberia. Some of these cross cutting issues in addition to gender are HIV/AIDS, human rights and recovery issues.

4.3. Sustainable Development

The shift towards disaster reduction: The NDMA's motto of 'prevention is better than cure' underlines the paradigm shift from emergence response to risk reduction. The NDMA should be strengthened not as a reactive but proactive system from national to local institutions. At all levels, policies and strategies need to be implemented with a twofold aim: to enable communities to be resilient to natural hazards and ensuring that development efforts do not increase vulnerability to hazards. This shift in emphasis and strategies is consistent with the objectives of both the Africa Regional Strategy for Disaster Risk Reduction and Hyogo Framework for Action of which Liberia is a signatory.

Protecting sustainable development gains of Liberia by integrating disaster risk management into development: To protect and enhance development gains for prosperity and industrialization, it is important to integrate disaster risk management into development policies, strategies and programmes.

Disaster relief/humanitarian assistance sub-serves the goals of national development: While humanitarian assistance/relief is important, the focus should be to contribute to sustainable development and not to make people dependent on handouts. Humanitarian assistance programmes should therefore be implemented within the sustainable development framework/agenda of the country.

Integrated climate risk management: Climate related risk, aggravated by processes of global economic and climate change poses a central unresolved development issue for many countries. In line with NDMA motto: 'Prevention is better than cure', it is recognized that developing capacities that deal with existing disaster risk is an effective way to generate capacity to deal with future climate change risk.

The government shall ensure complementarity between DRM and climate change initiatives. Efforts shall be made to link and /or integrate disaster risk management into climate change adaptation activities throughout the country.

Disaster risk management is a multi-sectoral and multi-disciplinary issue: It is important that the reduction of risks is viewed as a continuous series of endeavors pursued across social, economic, governmental and professional sectors of activity. Instead of being understood as a specialization of security, emergency services or experts, comprehensive DRM needs to involve many segments of society – starting with those members of the public who are themselves most exposed to anticipated hazards. This understanding is essential if communities are to become more resilient to the effects of hazards so that disaster losses can be reduced in coming years.

HIV/AIDS and Disaster Risk Management: The debilitating impacts of HIV/AIDS on human development shall be recognized as a long term problem in Liberia. The National DM Policy treats HIV/AIDS both as a hazard and a disaster. Mainstreaming HIV/AIDS into risk management initiatives is regarded a fundamental principle of the policy.

4.4. Capacity Development, National Ownership and Stakeholders' Participation

Capacity development is a prerequisite for successful disaster risk reduction: Capacity objectives and outcomes need therefore to be an explicit part of DRM strategies and plans. Capacity development is more than training and organizational strengthening. Key challenges (obstacles and opportunities) lie within the enabling environment and concern policy and governance. These demand different interventions and responses than those traditional found in the capacity development toolbox, and is as much about building ownership, changing systems, and creating an enabling environment in which DRM can occur, as it is about technology transfer, skills development and organizational strengthening.

Participation and ownership of disaster management strategies: Popular active participation is a principle for sustainable livelihood security. Disaster risk management implementation requires full participation of everyone and full ownership of the activities aimed at reducing risk in the short and long term.

Public-Private Partnership: Good disaster risk reduction strategies incorporate strong public private sector partnerships. This might require macroeconomic policies and regulatory reforms being reviewed to enhance the private sector role. A positive enabling environment for doing business that enhances domestic enterprises and foreign investors is paramount. An environment of increased financial, corporate transparency and conditions that promote competition are required for private sector partners to play a positive role and not a destabilizing role that can increase risk.

Involvement of other development agencies including UN agencies, donors and nongovernmental organizations: In implementing this policy the government shall work closely with donor and development agencies in terms of provision of technical, financial and material support in DRM. Many donors, UN and other development agencies have experience in DRM in other countries; such experience shall assist in developing programmes that effectively enhance community resilience to disasters in the long term.

Funding for disaster risk management: The Liberian Government has the primary responsibility to protect people and their properties before, during and after any disaster. It is vital to give priority to DRM in national policy and resource allocation and mobilization.

5. KEY POLICY PRIORITY AREAS

5.1. Key Policy Priority Area 1: To Establish Effective and Functional Legal and Institutional System for Disaster Risk Management

The process of decision making to formulate legislation, policies and national plans is critical for the success of DRM in Liberia. Systems for policy development and implementation should be established. This requires the existence of well-functioning institutions/organizations at the central, county, district and local levels. Characteristics of good governance – participation, rule of law, transparency, equity, effectiveness, efficiency, accountability and strategic vision – are key for sustainable development and disaster risk management.

Long term institutional development will require effective distribution and decentralization of DRM powers, structures of decision making and accountability, and participation of communities. Complete national ownership and women’s full participation are required for all processes of legal and institutional building. In particular, it is important to ensure that policies and institutions have the mandate to strengthen women’s security in crisis, and seek to prevent and stop all violence against women during crisis.

5.1.1 Priority activities

- i) Developing gender sensitive National DM Policies, strategies and plans, and ensure that organizations/institutions have clear DRM policies and strengthening the security of women’s and vulnerable groups such as children and disabled in crisis; in particular preventing any violence against them.
- ii) Developing and recommending enactment of an environmental, industrial and agricultural and gender sensitive NDM Act with a clear link to climate change adaptation and /or climate risk management.
- iii) Integrating NDM policy in other local, national and sectoral policies in order to ensure better cooperation, coordination and partnership.
- iv) Strengthening existing institutional structures at national and local levels including involvement of women and youth in decision making positions.
- v) Reviewing and strengthening operational and implementation capacity for DM at county and district levels.
- vi) Designing and implementing activities aimed at empowering women in disaster risk management.
- vii) Ensuring and enhancing political advocacy and commitment to disaster risk management.
- viii) Developing national DM plans at national, county, district and community levels with gender needs clearly addressed.
- ix) Strengthening coordination and decentralizing DM structures and operations with a strong agenda for women’s empowerment.

5.1.2 Important requirements to be fulfilled:

- i) Gender sensitive policy on DM developed and enacted by the legislature.

- ii) Strengthened institutions for DM with full participation/involvement of women, youth and disabled as well as those marginalized in society.
- iii) A National Disaster Management Action Plan (NDMAP) for Capacity Development in DM shall be developed with full participation of government ministries/agencies, NGOs, UN Agencies, private sector including county, district and community stakeholders. The National Disaster Management Action Plan will serve as a road map for DM in Liberia. The NDMAP shall have gender mainstreamed in every DRR activity.
- iv) All counties and districts are required to develop their own annual work plans for capacity development in DM based on the DRR National Disaster Management Action Plan. The county and district plans will be shared and discussed with NDMA for technical support and advice. The county and district work plans and budgets will be funded as part of the decentralized budget for county, district and community's operations.
- v) Based on the county, district and community plans, and the NDMAP, the NDMA will develop its national annual work plan year by year. The annual work plan will be developed with full participation of DM stakeholders in the capital. It is important that the annual national DRM work plan be shared with counties, districts and communities. NDMA budget will be presented to the Ministry of Planning for onward submission to the Bureau of the Budget (BOB).
- vi) A monitoring system for risk assessment, information sharing and policy implementation shall be set up by the NDMA Progress reports will be produced twice per year at all levels.
- vii) Government shall place climate change adaptation at the top of its priority, and commitment shall be made to ensure effective implementation of climate risk management activities.

5.2. Key Policy Priority Area 2: Strengthen Risk Identification Mechanisms in the Country

DRR shall be informed by a reliable disaster risk assessment that provides insights into the frequency, seasonality, severity and geographic distribution and extent of recurrent threats/hazards.

Generally risk assessment shall be undertaken to:

- Anticipate and plan for known hazards or disasters to prevent losses and limit endangering impacts at all levels including urban areas
- Ensure that development initiatives maximize their vulnerability assessment outcomes.

The case for risk management as alternative to emergency management is made by mounting disaster losses. Losses could be stemmed if the causal factors that lead to disasters were more systematically identified and preventive actions taken. Consequently, Liberia shall assess and monitor disaster risks that will inform disaster risk management planning and DRR undertaken by various agencies, government ministries/agencies and other role players.

Disaster risk assessment shall form the first step in planning an effective DRM programme. The assessment will include an examination of likelihood and outcomes of expected disaster events. Related hazards and conditions of vulnerability that increase chances of loss shall be investigated. Planning of disaster risk

assessment will require identification of key stakeholders as well as consultations with them about the design and/or implementation of the assessment and the interpretation and application of findings.

5.2.1 Priority activities

- i) Undertaking comprehensive multi-hazard risk, vulnerability and capacity assessments at all levels – national, county, district and chiefdom levels, including urban areas (to enable urban risk management). This will include both hazard and vulnerability mapping.
- ii) Managing and disseminating knowledge on risk in particular the risk to women and children, elders and handicapped in both rural and urban areas utilizing community enabling process.
- iii) Establishing effective early warning systems for all major hazards at national and local levels.
- iv) Communicating and raising awareness on hazard threats, and early warning mechanisms.
- v) Mainstreaming risk identification/assessment in the development planning.
- vi) Designing and implementing activities aimed at empowering decision makers in disaster risk identification and assessment. Focus shall also be on urban and rural risk management
- vii) Setting up, through sector working groups, an annual disaster risk assessment team to gather data on potential and assumed disaster from industrial, agricultural, settlement, and natural conditions to inform planning and targets of affected population or environment.
- viii) Establishing an inter-institutional framework to support and coordinate activities that will promote improvement and application of risk information.
- ix) Strengthening existing institutional structures at national and local levels including involvement of women, youth, elderly and disabled in decision making for disaster risk identification, assessment and early warning. Institutions for urban and rural risk management shall also be strengthened.

The risk identification activities could be linked to ongoing poverty assessments in the country. The risk identification and analysis will also inform decision makers on where to prioritize risk management efforts and how to design projects and programs that will effectively reduce the impacts of potential disaster events.

5.2.2 Important requirements to be fulfilled

- i) Ensure the setting up of a national data base system on disasters in Liberia within the NDMA that will provide the baseline for disaster risk identification and assessment for design and implementation of preventive and mitigation measures.
- ii) Provide national and county level DM group information for early warning, preventive action and decision making.
- iii) Sectoral risk assessment teams that include local leaders are set up and guidelines for disaster risk identification and assessment provided.
- iv) Provide equipment and trained personnel within the NDMA to manage data and information collected on potential and occurring disaster in both rural and urban areas as well as establishing a reporting and information sharing structure and platform.

- v) Produce bi-annual information in local vernaculars to enhance disaster prevention and risk mitigation.
- vi) In conducting risk identification ensure that there is agreement on the following:
- The outcome(s) of which the risks are being evaluated;
 - The methodology and data which must be theoretically sound identifying causal factors (the degree to which a set of identified socio-economically valuable assets are exposed to natural hazards; and, the vulnerability of those assets to the hazards to which they are exposed);
 - How to make the connection between the analysis and risk management decision-making. Institutions/organizations including government ministries/agencies shall develop clear plans on how to use the results of the risk assessment.
 - The multidisciplinary composition of the Disaster Risk Assessment Team with participation of women, elderly, youth and disabled. Each key ministry/sector will be represented in this team. This will ensure that capacity for risk assessment is developed within each sector/ministry and that results of risk assessments/analysis are filtered by each sector as appropriate and used for decision-making in development planning. In addition lead agencies for risk identification shall be identified and their capacity in risk identification continuously developed. Universities and research institutions shall also play a role as repositories for risk information, complementing the work of other agencies.
- vii) Early Warning Systems (EWS) containing the following five essential elements are developed at national and local levels; including urban areas:
- an institutional structure for organizing and managing the system;
 - a warning sub-system for monitoring and forecasting hazards involving the production and communication of information on potential hazards (through technical identification, detection and modeling of hazard threats) to disaster management authorities;
 - a risk information sub-system for disaster management authorities to generate scenarios of potential impacts of imminent risks targeted at specific vulnerable groups, sectors and areas of society,
 - a preparedness sub-system for developing strategic actions through relevant Government Ministries to be taken to avoid or reduce potential hazard loss or damage,
 - an education and communication sub-system for empowering vulnerable groups through information dissemination and awareness creation on potential threats, risk scenarios and recommended preparedness strategies for effective mitigating measures in vulnerable areas.

5.3. Key Policy Priority Area 3: Enhance Information and Knowledge Management for Disaster Risk Management

Disasters can be substantially reduced if people are well informed and motivated towards a culture of disaster prevention and resilience, which in turn requires the collection, compilation and dissemination of relevant knowledge and information on hazards, vulnerabilities and capacities. DRM planning and implementation involves all government ministries/agencies, NGOs, private sector, development partners, a wide range of capacity building partners and communities. Knowledge and information management cuts across all Performance Areas and should be regarded as thus.

5.1.1 Priority Activities:

- i) Promoting women as leaders of disaster risk reduction advocacy, awareness campaigns and overall implementation.
- ii) Setting up information management system on disasters risk including hazards and vulnerabilities for knowledge and information sharing in fast growing urban and rural areas.
- iii) Setting up of an information and research unit within the NDMA for the design and implementation of robust national and local levels public awareness campaigns on disaster risk management.
- iv) Providing information on disaster risk, protection options and actions to reduce risks and building resilience to citizens in high-risk areas, ensuring that women's needs are considered.
- v) Strengthening and improve networks, dialogue and cooperation among scientific communities, practitioners, planners including women and other vulnerable groups in developing risk reduction plans and in capacity building initiatives.
- vi) Promoting the integration of DRR knowledge in the school curricula at all levels and the training and learning programmes for development planners, emergency managers and local government officials.
- vii) Promoting and strengthen scientific, research and technical capacity in DRR.
- viii) Promoting the use and application of appropriate information and communication technology (ICT), space-based technologies and related services to support DRR for training and information dissemination.
- ix) Acquiring, sort, store, analyses, disseminate and maintain an integrated DRM database with gender and age aggregated information.
- x) Promoting the engagement of the media and women, youth and vulnerable groups to stimulate a culture of disaster resilience and strong community involvement through sustained public education and consultations.

5.1.2 Important requirements to be fulfilled

- i) An integrated information management and communication system is designed and implemented to support aspects in all other four Performance Areas, including information on funding mechanisms and financial controls. This will also require that:

- Data collection and capturing methodologies are developed and implemented.
 - Agreements with data custodians are negotiated to ensure availability, quality validity and reliability of data. The system will be established at national and local levels. The county, district and community level systems will be fully compatible with the national system.
- ii) Development of curricula for DRM for schools and colleges. Mechanisms for standards, accreditation and registration will be developed as part of the process of teaching DRM in schools and other institutions. All DRM education and training will comply with the country's Education Act as well as highlighting the imperative for women and girls and vulnerable groups' empowerment in crisis situation.
 - iii) DRM information is accessible for all at no additional charge
 - iv) Wide spread community-based DRM training (in line with national training standards) is taking place.
 - v) Media, women and vulnerable groups/networks are involved in DRM awareness and education of population.
 - vi) DRM research contributes to technology development and implementation.

5.4. Reduce the Underlying Risk and Vulnerability Factors by Improving Risk Management Applications at all Levels

Sector development planning and programmes as well as post disaster situations address disaster risks related to changing social, economic, environmental conditions and land use, and the impact of hazards associated with geological events, weather, water, climate variability and climate change. Reducing vulnerability centers on understanding and addressing underlying processes of impoverishment, including events and processes associated with asset depletion and destitution. A key element is to make livelihoods⁹ disaster resilient.

Reducing vulnerability also means building resilience through simple but effective innovation for example domestic rainwater harvesting, livestock management and perennial crop cultivation. In the country, reducing vulnerability to disasters and other shocks requires efforts to tackle food insecurity. This means a move away from emergency relief towards budgeted national safety nets that deliver timely, adequate, predictable and guaranteed transfers¹⁰.

5.4.1 Priority activities

- i) Developing an integrated approach to environmental and natural resource management that involve all relevant sectors with each taking respective and appropriate roles and responsibilities.
- ii) Promoting food security as an important factor in ensuring the resilience of communities to hazards, particularly in areas prone to floods and other hazards that can weaken agriculture-based livelihoods.
- iii) Protecting and strengthening critical public facilities and physical infrastructure, particularly schools, clinics, hospitals, water and power plants, communications and transport lifelines, and culturally

important lands and structures through proper design, retrofitting and re-building, in order to render them adequately resilient to hazards.

- iv) Applying and enforcing zoning laws and building codes in line with government's approved requirements for construction of public facilities and private homes.
- v) Incorporating DRM measures into post-disaster recovery, rehabilitation processes, development policies, plans and strategies, and using opportunities during the recovery phase to develop capacities that reduce disaster risk in the long term, including through the sharing of expertise, knowledge and lessons learned.
- vi) Endeavoring to ensure, as appropriate, that programmes for displaced persons do not increase risk and vulnerability to hazards.
- vii) Promoting diversified income options for populations in high-risk areas to reduce their vulnerability to hazards, and ensure that their income and assets are not undermined by development policy and processes that increase their vulnerability to disasters.
- viii) Promote the development of financial risk-sharing mechanisms, particularly insurance and reinsurance against disasters.
- ix) Promoting the establishment of public-private partnerships to better engage the private sector in DRR activities; encourage the private sector to foster a culture of disaster prevention, putting greater emphasis on, and allocating resources to, pre-disaster activities such as risk assessments and EWS.
- x) Incorporating disaster risk assessments and measures into the urban and rural planning and management of disaster-prone human settlements, in particular highly populated areas and quickly urbanizing settlements.

5.4.2 Important requirements to be fulfilled:

- i) Guidelines for mainstreaming DRR in development programmes, sectors and themes have been consultatively developed, disseminated and implemented. In addition lead agencies for mainstreaming DRR are identified and capacity developed for mainstreaming DRR into development.
- ii) Harmonized approach in identification of underlying risk and vulnerability factors put in place and EWS for DRR in disasters prone locations setup.
- iii) Organized public-private partnerships established to collaboratively promote and foster DRR activities including culture of disaster prevention.
- iv) Disaster risk assessments incorporated and integrated into land-use planning with emphasis on urban planning and management of disaster prone human settlements.
- v) Financial risk-sharing mechanisms developed for reinsurance against disasters.
- vi) Diversified income options for populations in urban and all other high-risk areas promoted to reduce their vulnerability to hazards, and ensure that their income and assets are not undermined by development policy and processes that increase their vulnerability to disasters.

5.5. Key Policy Priority Area 5: Strengthen Disaster Preparedness, Emergency Response and Recovery Practices

The process of strengthening disaster preparedness, emergency response and recovery practices are very crucial and critical to the successful implementation of DRM. At times of disaster, impacts and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and ready to act and are equipped with the knowledge and capacities for effective disaster management. This requires the development and setting up of an effective EWS within the NDMA that will from time to time forecast and forewarn vulnerable communities about pending disasters and impacts associated. The mechanisms put in place will outline plans of action and systematic procedures communities and individuals need to know and follow in preparing for pending disasters as well as coping mechanisms when and if the disaster occurs.

5.5.1 Priority activities

- i. Preparing or reviewing and periodically updating disaster preparedness and contingency plans and guidelines at all levels, with a particular focus on the most vulnerable areas and groups. Strengthening technical and institutional capacities in national and local disaster preparedness and response including those related to technology, training, financial and human and material resources.
- ii. Promoting and supporting discussion, exchange of information and coordination among early warning, disaster risk reduction, disaster response, development and other relevant agencies and institutions at national and local levels, with the aim of fostering a holistic approach towards disaster risk reduction and prevention.
- iii. Strengthening and developing national and local coordinated approaches, and create or upgrade national policies and community regulations, operational mechanisms, plans and communication systems to prepare for and ensure rapid and effective disaster response and early recovery.
- iv. Promoting regular disaster preparedness exercises, including evacuation drills, with a view to ensuring rapid and effective disaster response and access to essential food and non-food relief supplies, as appropriate, to local needs.
- v. Establishing emergency trust funds with 1% support of income tax from all employed citizens and residents of the Republic of Liberia where and as appropriate, to support response, recovery and preparedness measures. The trust funds should be properly maintained and accounted for.
- vi. Developing specific mechanisms (i.e. capacity building) to engage the active participation and ownership of relevant stakeholders, including women, youth and the disabled for rapid and effective disaster response to cater to their needs.
- vii. Building the capacities of all stakeholders including women and encouraging their voluntary participation in preparedness exercises for rapid and effective disaster response to their needs.

5.5.2 Important requirements to be fulfilled:

- i) A uniform approach to the dissemination of early warnings is implemented
- ii) Potential impact to personal injury, health, loss of life, property, infrastructure, environments and government services are averted or reduced.

- iii) Immediate integrated and appropriate response and relief measures are implemented when significant events or disasters occur or are threatening to occur.
- iv) All rehabilitation and reconstruction strategies following a disaster are implemented in an integrated and developmental manner.
- v) Effective and appropriate early warning strategies have been developed and implemented and information communicated to stakeholders to enable appropriate response.
- vi) The stakeholders/sectors which must bear responsibility for contingency planning and the coordination of known hazards have been identified and allocated such responsibility. In particular contingency plans have been developed and implemented as required.
- vii) A national standard response management system and operation procedures have been developed and are reviewed and updated annually.
- viii) Regulations and directives for the management of disaster response and recovery operations have been developed and gazette or published.
- ix) Post disaster teams for early recovery, rehabilitation and reconstruction have been established and operate effectively.
- x) Early recovery assessments lead to development of early recovery frameworks and early recovery plans – either sectoral or national.
- xi) Mechanisms for the monitoring of rehabilitation and reconstruction projects have been established and regular progress reports are submitted to the NDMA.

6. IMPLEMENTATION FRAMEWORK

6.1. Declaration of State Of Emergency

6.1.1 President

Pursuant to the Constitution of the Republic Of Liberia, The President of the Republic of Liberia may, in consultation with the Speaker of the House of Representatives and the President of the Senate, proclaim and declare the existence of a ‘state of emergency’ in the Republic or any part thereof. Acting pursuant thereto, the President may suspend or affect certain rights, freedoms and guarantees contained in this Constitution and exercise such other emergency powers as may be necessary and appropriate to take care of the emergency. Only the President shall declare a national state of emergency by way of proclamation in the Government Gazette.

The President of the Republic of Liberia and by authority vested in him/her by the Constitution of the Republic shall declare a national disaster or national emergency based on the recommendations of the National Disaster Management Agency (NDMA). The NDMA shall base its recommendations on the level of overall economic, social and human losses resulting from the impact of the hazard.

In this policy a disaster shall be defined as a serious disruption of the functioning of the country, the county, the city, administrative district, the borough, the clan, the general town and/or locality causing widespread human, material, economic or environmental losses which exceed the ability of the country, county, district and community to cope using its own resources. A disaster can therefore be at the national (country) or local level (county, district or community) specific.

6.1.2 National Legislature

The President shall, immediately upon the declaration of a state of emergency, but not later than seven days thereafter, lay before the Legislature at its regular session or at a specially convened session, the facts and circumstances leading to such declaration. The Legislature shall within seventy-two hours, by joint resolution voted by two-thirds of the membership of each house, decide whether the proclamation of a state of emergency is justified or whether the measures taken thereunder are appropriate. If the two-thirds vote is not obtained, the emergency automatically shall be revoked. Where the Legislature shall deem it necessary to revoke the state of emergency or to modify the measures taken thereunder, the President shall act accordingly and immediately carry out the decisions of the Legislature.

6.1.3 Cabinet

The President on the advice of and concurrence with the cabinet shall declare a state of national disaster after receiving recommendations from the NDMA. The Cabinet shall ensure that the principles of DRM shall be upheld to ensure reduced vulnerabilities to natural and human induced hazards.

6.1.4 National Disaster Management Agency Board of Directors

The National Disaster Management Agency Board of Directors shall ensure that the principles of DRR are upheld to ensure reduced vulnerabilities to natural and human induced hazards. The Chairperson of the NDMA Board shall convene a meeting of the Board Members at any time. On the advice of the National Disaster Management Agency (NDMA), the NDMA Board will recommend the declaration of the State of National Disaster by the President.

The need for an international appeal and the types of assistance needed shall be determined by the NDMA Board on the basis of the recommendation of the NDMA and National Disaster Management Technical Committees (NDMTC). The NDMA Board shall periodically review policy issues regarding international appeals. Policies regarding the soliciting, acceptance and use of international assistance, including international personnel shall be established and reviewed case by case by the NDMA Board. These reviews shall include specifications on the kinds of personnel, the kinds of food and other commodities, which are appropriate and acceptable as donation and those which are not.

6.2. The National Disaster Management System

6.2.1 National structure

A National Disaster Management System (NDMS) shall exist at all time in Liberia. The system shall incorporate state and non-state actors at national, county, district and chiefdom levels. Capacity development of all the structures within the NDMS shall be the cornerstone of a national disaster risk management strategy or National Disaster Management Action Plan.

Based on the existing structures and resources, DRM responsibilities shall be integrated into the routine activities of the various sectors and disciplines within the relevant organs of state and their sub-structures. These responsibilities must be reflected in the job descriptions of the relevant lead players and appropriate

key priority indicators must be elaborated. Therefore, the policy spells out a clear organizational structure at all administrative levels and sectors to ensure its proper implementation with clear delineation of tasks and responsibilities.

This policy also ensures the establishment of strong coordinating and regulatory bodies with proper authority at all levels and defines relationships between coordinating bodies and sector offices.

This Policy details mechanisms for vertical and horizontal coordination, accountability, and integration of all parties involved in DRM.

6.2.2 National Disaster Management Agency Board

Effective implementation of disaster/emergency preparedness and response mainly depends on the institutional arrangements and individual, organizational and system capacities. The NDMA board shall consist of eleven membership chair by the Ministry of Internal Affairs and consists of the following representation:

- Ministry of health & Social welfare
- Ministry of Justice
- Ministry of Finance
- Ministry of Public Works
- Ministry of Defense
- Ministry of Agriculture
- Ministry of Lands, Mines & Energy
- The Liberian National red Cross Society
- The UN Country Team
- Maritime Authority

6.2.3 National Disaster Management Agency

The National Disaster Management Agency (NDMA) shall be established as an independent/autonomous body that will handle all disaster-related issues on a day-to-day basis. The NDMA shall be strengthened with a qualified and experienced Executive Director at its helm, two Deputy Directors (Operations and Administration), four DRR Coordinators responsible for (i) Emergency and Recovery; ii) Policy and Planning; iii) Risk Analysis and Early Warning; and, iv) Information Management, and an Administrator responsible for Administration and Accounting.

The NDMA Executive Director reports to the President through the Board of Directors of the Agency. The LNRCS shall appoint a senior member to provide advisory, technical and programmatic support to the NDMA. In addition, a special advisor shall be appointed to assist in developing DRM capacity of the NDMA as required.

From time to time, the LNRCS will be invited to attend planning meetings of the NDMA. The LNRCS is a key member of all other DRM structures at county, district, chiefdom, and community layers of governance.

The NDMA shall recruit at least three Disaster Reduction Coordinators based in disaster prone counties. Each coordinator shall be responsible for assisting the Superintendents to coordinate and implement DRR activities in at least four to five Counties. *Fig. 2 shows an indicative organigram of the NDMA which may be reviewed according to evolving country needs.*

6.2.4 National Disaster Management Technical Committee

A National Disaster Management Technical Committee (NDMTC) shall also be established. The NDMTC shall be part of the Agency who coordinates its operations. The committee shall further constitute itself into subcommittees responsible for different sectoral/thematic areas including the following: food and agriculture, water and sanitation, education and child protection, health services, environment, shelter and refugees, early recovery and infrastructure.

At each one time five standing sectoral subcommittee responsible for strengthening of capacity in institutional and legal systems, risk identification and early warning, information and knowledge management, risk management applications, and emergency response and preparedness are operational. Each technical group will be led by a government line ministry or agency supported by a UN agency and or NGOs/Private Sector. UN agencies, NGOs/CSOs, private sector and donor representatives are members of the NDMTC. The NDMTC is convened by the Agency and therefore led by NDMA Director. It might be chaired or led by the Deputy Minister or Minister in times of emergency as the situation dictates.

The NDMA shall assume overall coordination of disaster response in Liberia in close consultation with the NDMTC and its sub-committees.

However, lead agencies on specific hazards shall be identified. These are agencies whose sectoral mandate is within the context of that particular hazard. They will provide information, conduct surveys and research, prepare recommendations and take all necessary measures that could assist the NDMA and the NDMTC in organizing DRR programs. These lead agencies work with UN agencies, NGOs and private sector in their day to day activities.

The lead government agencies will primarily be responsible for organizing and conducting training programs in their specific fields and in preparing and implementing a program of intervention based on previously prepared sectoral DRM plans. The sectoral DRM plans are components of the National Disaster Management Plan.

6.2.5 County and other Local Level Committees

At the county level a similar local level County Disaster Management Committee (CDMC) headed by a local coordinator with its local board chaired by the County Superintendent shall be established. At least three counties shall recruit/appoint a Regional Disaster Risk Management Coordinator with matrixes gathering of information from local county coordinator and reporting to the NDMA. The Regional Coordinator reports directly to the NDMA Director on emergency /disaster related issues. He/she works with other line ministries/agencies' staff, UN agencies, NGO and private sector representatives at county level constituted as the County Disaster Management Technical Committee.

At lower levels (district, city, chiefdom, township, borough, clan, general town and locality) similar structures shall be established. It is important that the disaster management structures are part of existing

committees at county and lower levels. These could be subcommittees of County or District Development Committees etc. This is meant to ensure that disaster risk reduction is implemented within the context of sustainable development, and that it is integrated into development plans, policies and projects/programmes.

6.3. Roles and Responsibilities of other Stakeholders

In appreciating that DRM is a broader concept which would require a multi-disciplinary approach in order to implement a comprehensive DRM system, the policy recognizes that meaningful relationship is necessary with stakeholders and development partners. The development partners shall include the UN system, local and international NGOs, donors, the private sectors, the religious groups and the community. Stakeholders and development partners programmes related to DRM should be guided by the fundamental principles and objectives of this policy.

The NDMA shall play a coordinating role of the inputs of the different stakeholders before, during and after emergencies. Stakeholders and development partners shall collaborate with NDMA in respect to the implementation of their DRM work plans, programmes and activities.

United Nations Agencies and other Development Partners: UN agencies and development partners shall continue to play a pivotal role to support government efforts in the area of strengthening capacities for DRM and supplementing efforts in mobilizing resources for DRM. The collaborative relationship shall be carried out comprehensively at various levels.

The UN agencies shall also assist Liberia in its efforts to achieve sustainable human development through building capacity to design and carry out development programmes. This will be achieved through UN agencies' programs and activities in the area of DRR stemming from overlapping concerns with other development priorities, which are poverty reduction, sustainable development, women's empowerment, natural resource management and good governance. In order to achieve the MDGs by 2015 and other development goals, UN agencies shall ensure that DRR is integrated in all development plans, policies and programmes. *See Appendix 3 for details of roles of Specialist UN agencies.*

Red Cross Movement: The Liberian National Red Cross Society (LNRCS) shall continue to play its role to support the government social welfare programme in the areas of strengthening capacities for DRM. In times of emergency, the LNRCS receives support from its movement partners and Participating National Societies' (PNS) with financial, material and human resources for immediate intervention. The Red Cross Movement has global and regional tools, such as Field Assessment Coordination Team (FACT), Emergency Response Unit (ERU) and the Regional Disaster Response Team (RDRT) that can be deployed within 48 hours during emergency. The LNRCS through the International Federation of Red Cross and Red Crescent Societies (IFRC) can mobilize funds through its Disaster Relief Emergency Fund (DREF).

International Non-Governmental Organizations: Cooperation with INGOs is crucial to strengthening capacities for disaster risk management. It is therefore important to adopt an inter-agency approach integrating the individual mandates of the INGOs in implementing DRM in Liberia. The policy recognizes the need to coordinate the influx of international NGOs in the country in times of emergencies in order to effect a fair distribution of capacities and resources to have an optimum input in disaster risk management.

The INGOs shall provide high end policy advice, technical and programmatic and financial resource management support to the government.

National Non-Governmental Organizations, Civil Society Organizations and Community Based Organizations: The role of NGOs, CSOs and CBOs is paramount in the achievement of DRM activities in

the country. NGOs can make an important contribution at the grass roots level particularly in remote areas as they are flexible, rapid, effective and appropriate to respond to the urgent needs of the community.

These organizations form part of the National Disaster Management System and are active members in committees at national and local levels. In addition, they are key stakeholders in implementing DRM activities at national and local levels. They are the government's key technical and resource mobilization partner. They shall complement government programmes and policies on DRM as well as fill in the gaps left due to low capacity within government. During emergencies, UN agencies will co-lead/co-chair sectors/clusters in support for emergency response and early recovery.

Private Sector and Institutions: Within the overall context of the public/private sector partnership, the private sector plays a vital role in addressing DRM, especially through the availing of resource mobilization and technical input, implementing safe work practices, conducting risk and vulnerability assessment as well as mainstreaming DRR into all new development projects. For example, logistics private companies can assist in developing capacity to ease airport logistics in crises while telecommunications firms can support in field-based emergency communications.

7. Relationship With National Plans, Policies, Strategies And Legislation

The National Disaster Management Policy provides an overall framework for disaster management in Liberia. The policy is supported and compliments other national plans, policies and legislations related to DRM. In addition the NDM Policy provides a platform for the harmonization of all DRM strategies/policies.

In particular the DRM policy also aims to:

- Integrate risk reduction as appropriate into development policies and planning at all levels of government, including poverty reduction strategies sectors, and multi sector policies and plans;
- Adopt or modify where necessary legislation to support NDM Policy including regulations and mechanisms that encourage compliance and that promote incentives for undertaking risk reduction and mitigation activities; and
- Recognize the importance and specificity of local risk patterns and trends, and decentralize responsibilities and resources for DRM to relevant regional or local authorities.

The following are some of the plans, policy, strategy and legislations that complement this NDM policy. The main priority shall be to review some of these in order to mainstream DRM and ensure resilience to disasters across sectors.

7.1. National Environmental Policy

The overall policy goal of the National Environmental Policy (NEP) is to promote sustainable development and conservation of the environment on a long-term basis for the betterment of present generations without compromising the ability of future generations to meet their needs. Particularly, the policy provides for:

- Integration of environmental considerations in sectoral, structural, regional, and socio-economic planning at all levels;
- Sound management of the environment and natural resources;

- Protection and maintenance of human habitats, the ecosystems, and ecological processes essential for the functions of the biosphere;
- Guidance for National Disaster Management Action Plan and for healthy environmental practices on the national development effort;
- Sustainable development; and
- Common approach to environmental issues.

According to the Policy, environmental issues of relevance to the Liberian environment that were considered during the formulation of the environmental policy include the following:

- Water Resources;
- Forestry and Wildlife;
- Land Management/Resources;
- Mining;
- Marine and Coastal Ecosystems;
- Solid and Liquid Waste, and Industrial Waste;
- Human Settlements;
- Hazardous Chemicals;
- Air and Noise Pollution;
- Cultural heritage and Tribal Reserves; and
- Public Education and Awareness

These environmental issues show that there is a link between environment and disasters. Disaster risk reduction shall be seen as cross cutting in environmental management. In some sectors such as mining and hazardous chemicals, there is need to ensure that hazard specific contingency plans are put in place. Overall, it is important that the primary aims of the policy be pursued and achieved through harmonization with other policies and enforcement of relevant laws on environment protection. A coordinated approach is required in the implementation of the National DM Policy and NEP.

7.2. National Food Security and Nutrition Strategy

The key objectives of the National Food Security and Nutrition Strategy are to make certain that all Liberians have reliable access to the food they need and are able to utilize that food to live active and healthy lives. As such, ensuring food security and good nutrition is not a policy choice of government that it can decide to accept or reject, but a right of the citizens of Liberia which the government is obligated to respect, promote, and protect.

Although the strategy encompasses the food security and nutritional needs of all Liberians, it prioritizes the needs of food-insecure and nutritionally vulnerable groups in society, including the elderly who have little support, female-headed households, orphans, and HIV-affected households. In addressing the needs of nutritionally vulnerable households and in working to safeguard the food security and good nutritional status of others, it is important to ensure that disasters do not undermine these plans and initiatives.

This and other similar strategies shall integrate DRR at the national and local levels. Issues of governance for food security, natural disaster risk identification and application of disaster proof risk management initiatives within the food security agenda shall be considered key priorities. Risk transfer and risk sharing initiatives shall be implemented in partnership with the private sector or insurance companies.

7.3. National Health Policy

The health sector faces two huge, competing *challenges*:

- a) *Expanding access to basic health care of acceptable quality.* This will be possible only by:
 - Attracting additional investments in infrastructure, human resource development, and management systems, and resources to fund recurrent expenditures.
 - Reducing systemic inefficiencies and improving operations management.
- b) *Establishing the building blocks of an equitable, effective, efficient, responsive, and sustainable health care delivery system.*

The mission of the Ministry of Health and Social Welfare (MoHSW) is therefore to reform the sector to effectively deliver quality health and social welfare services to the people of Liberia. The MOHSW is dedicated to equitable, accessible and sustainable health promotion and protection and the provision of comprehensive and affordable health care and social welfare services.

The scope and rationale of the health policy may be articulated as follows: *To improve the health status of an increasing number of citizens, on an equal basis through expanded access to effective basic health care, backed by adequate referral services and resources.*

Strong, structured partnerships around shared objectives and approaches, within and outside the health sector, will be required to improve health status. DRR shall be mainstreamed in the health sector policy implementation. For example, disaster risk identification shall be conducted during building of infrastructure and building codes followed to ensure all health sector structures are resistant to disasters such as floods, windstorms or cyclones. Each sector shall develop disaster specific contingency and preparedness plans. For example, contingency plans for malaria shall always be in place.

7.4. National Rural Renewable Energy Efficiency Policy

Given the constraints posed by the use of conventional energy source (fossil fuel) and the inefficient use of traditional biomass, the vision for the renewable energy sub-sector is to ensure secure, reliable, adequate, affordable, efficient sustainable and market oriented energy services for all Liberians through renewable sources.

The planned widespread use of wind, solar, hydropower and biomass to generate and build domestic energy reserves is to be done within the context of sustainable development. As such the objectives of NDM policy and that of the energy policy sub-serve the goals of sustainable development of Liberia. However, development of the energy policy shall not create or enhance risks to the Liberian population. A risk

identification process shall form part of the overall feasibility studies for establishing the different power stations as well as the overall implementation of this policy.

The Ministry of Land, Mines and Energy shall closely liaise with the NDMA for support in risk analysis, contingency and preparedness planning and DRM applications in the implementation of this policy.

7.5. Legislation to Establish the NDMA

Efforts have been made by a task force set-up by the MIA to draft legislation entitled the Act to establish “Disaster Management Agency” which sets-up the legal framework for implementation of the NDMA. The legislation is completed and ready for submission to the legislature.

7.6. Other National Plans, Policies and Strategies

Other national plans, policies and strategies not mentioned here shall also integrate DRR. Where required the NDMA shall provide technical support in mainstreaming disaster risk reduction into development, recovery and humanitarian plans and policies.

8. Relationship With International, Regional Protocols And Conventions

NDM policy recognizes the Hyogo Framework for Action which offers guiding principles, priorities for action and practical means for achieving disaster resilience for vulnerable communities. These priorities for actions include:

- making disaster risk reduction a priority;
- knowing the risks and taking action;
- building understanding and awareness;
- reducing risks;
- preparedness and response

In addition the NDM policy is equally informed by and committed to the Africa Regional Strategy for disaster risk reduction which aims to contribute to the attainment of sustainable development and poverty eradication by facilitating the integration of DRR into development.

The ECOWAS DRR Policy provides positive impetus to the NDM policy which is designed to reduce vulnerability and build resilience of communities.

9. RESOURCE MOBILISATION AND MONITORING

11.10 Finance and Resource Mobilization

The Government of the Republic of Liberia shall allocate sufficient funds for disaster risk reduction. The line ministries/agencies responsible for specific disaster shall budget for DRR every fiscal year and this shall be done in conjunction with the NDMA. During the disaster times, the government through the NDMA in collaboration with line ministries/agencies shall use National Disaster Management Fund (NDMF) to cover both the operational cost and major damage caused by the disaster operation.

The Government of Liberia shall engage into bilateral agreements with donor agencies for DRR. Ministries and agencies are urged to develop appropriate projects proposal to be submitted to potential donor agency for funding. This can be achieved through mainstreaming DRR measures appropriately into multilateral

and bilateral development assistance programmes including those related to poverty reductions, natural resources management, urban and rural development and adaptation to climate change.

The government shall engage the private sector and NGOs in participating in both prevention and response of disaster. It shall also inform them about the importance and what they can benefit from participating in DRR activities. All the government institutions are expected to avail required resources before, during and after disasters.

The National Disaster Risk Management policy shall also explore developing partnerships to implement schemes that spread out risk, reduce insurance premiums, expand insurance coverage and thereby increasing financing for post disaster re-construction and rehabilitation including through private and public partnerships.

The management of resources shall adhere to the country's financial regulations, Ministry of Finance instructions and to regulations made there from.

11.11 Monitoring and Evaluation

The DRM policy dictates that roles and responsibilities of DRM practitioners shall be translated into an operational guide and a legal framework to facilitate the implementation, monitoring and evaluation of DRM processes and activities. As part of monitoring and evaluation system, the following will be in place or undertaken:

- i) The NDMA shall facilitate the development of an integrated DRM National Disaster Management Action Plan as a five year strategy based on the climatic condition and with clear performance and impact indicators.
- ii) Each ministry/sector and all counties and districts are required to integrate DRR into their annual work plans so that DRM becomes part of their development activities.
- iii) The NDMA shall compile national semiannual and annual progress reports on DRM achievements. The national report shall be compiled based on reports provided to NDMA by different ministries/sectors, regions and constituencies.

The NDMTC shall meet at least quarterly and in time of emergency to discuss plans and progress in achieving the objectives of the policy using key priority areas as benchmark and guidance.

NATIONAL INTEGRATED WATER RESOURCES MANAGEMENT POLICY

Introduction

Liberia is endowed with abundant water resources, but the proper management and planning of these remain crucial to meeting the national priorities and goals and reducing conflicts between competitive uses. This problem is further compounded by various administrative, technical and political problems, particularly the poor state of the Liberian economy after 14 years of civil strife.

Water governance in Liberia has been fragmented between several agencies and there is no coordination across these agencies. The absence of a solid framework for water resources management is one of the reasons why significant water issues are occurring. Water quality is considered to be decreasing.

The development of a framework for water resources management in Liberia is starting with this National Integrated Water Resources Management Policy, which comprises of a set of high level political decisions on how water resources shall be managed, how priorities shall be set and which mandates the relevant agencies shall be given. The national Integrated Water Resources Management Policy is needed to expand on the constitutional principles of national water resources management and to provide good water governance. It is part of the enabling environment facilitating efficient public and private sector initiatives and interventions.

The National Integrated Water Resources Management Policy adopts an integrated approach and encourages the participation and support of all stakeholders in the water sector. The effective management of water resources constitutes a key factor in the efforts to improve the economic and social conditions within the country.

The National Integrated Water Resources Management Policy is intended to assist decision-makers and resource users in determining the roles in water resources management, "who does what and how", and in making priorities at the national level as well as at the private sector, local community and individual levels.

The present document starts with a brief on the Liberian policy development context with a focus on the key issues to be addressed by the policy. The brief is followed by a series of policy elements including a vision, policy objectives, guiding principles and strategies. The Water resources management framework is then outlined in sections regarding management functions and structures.

Domestic water supply is a key area for improvement in Liberia and policy decisions in relation to water use, service levels and technologies are given. The chapter is followed by considerations regarding water for agriculture, water for industry and for other purposes.

Policies regarding water allocation and discharges are given next with clear guidance for priority setting. The need for monitoring, assessment and research to ensure that the policy has the intended impact is outlined. Policy implementation areas and actions are given in the last chapter.

Policy Development Context

Climate and water resources

Liberia is situated on the southwestern corner of the West Coast of Africa. It has a surface area of about 111,400 sq. km. out of which 14% is covered by water. Liberia borders Sierra Leone to the west, Guinea to the north, Côte d'Ivoire to the east and the Atlantic Ocean is found to the south.

Liberia has a tropical climate with relatively small variations between day and night and between seasons. Temperatures never exceed 37 degrees C. There are two seasons - the wet season from May to October and

the dry season from November to April. The annual rainfall averages 4,320mm inland. The average humidity in the coastal belt is 78% during the wet season, but it is liable to drop to 30% from December to March when the Harmattan winds blow from the Sahara.

There are several important rivers in Liberia. The longest is the Cavalla River shared between Liberia and Cote D'Ivoire while the Mano River is shared between Liberia and Sierra Leone. St. Paul River is the second longest river feeding Mt. Coffee hydro-electric plant and providing the bulk of the raw water for Monrovia.

There are only two major lakes in Liberia – Lake Shepherd in Maryland County and Lake Piso in Grand Cape Mount County, with Piso being larger of the two. Both of them are situated along the Atlantic Ocean, with Lake Piso characterized by a vast expanse of wetlands and lowland forest vegetation.

Generally, groundwater is available and can be exploited in most parts of the country in amounts needed for rural water supply, which relies on dug wells and to some extent on drilled boreholes. Data from the rural water supply program indicate that the depth to the water table in shallow wells can be less than one meter. Drilled boreholes can be as deep as 100 meters. Reliable data on boreholes and yields are, however, scarce.

Data on water quality both from surface and groundwater are scarce. Domestic sewage, however, causes many problems as the only conventional sewerage system, which was already poorly functioning before the civil crisis, is out of operation. Some sewage water is collected by vacuum trucks and disposed of into lagoons and other water bodies. In some areas there are indications that water quality is deteriorating due to mining, logging, farming and industrial activities.

Socio-Economics

Liberia's population is approximately 3.3 million people (2003) with an annual growth rate of 1.7%. The 2003 figure corresponds to an average density of 30 persons/sq. km. Monrovia is the largest city with a population of 480,000 (1999 estimate). The distribution of urban to rural population was 45/55 in 2001.

Liberia is presently divided into 15 major administrative subdivisions called counties. Each of these subdivisions is headed by a superintendent who serves as the vice juror to the President of Liberia. An assistant superintendent for development is concerned with the development aspects of the county. There are 16 major ethnic groups in Liberia.

During the 1950s, Liberia was among the highest achievers in terms of economic growth with a real annual growth rate of 12%. This high growth rate was fueled principally by the buoyant world market prices of the country's principal exports of iron ore, rubber, timber, cocoa and coffee. There was also significant production of food crops. It is notable that Liberia adopted an "open door" policy to external investment, which resulted in considerable success in attracting foreign investment in mineral and rubber production. However, the 1970s and 1980s saw negative growth rates.

The unequal pattern of Liberia's growth and development process and declining livelihood opportunities for an increasing proportion of the population, combined with a prolonged period of poor governance, were the primary underlying causes of the civil war that erupted in late 1989. The dramatic effects of the war aggravated the policy and structural deficiencies of the economy, thereby accelerating the long-term social and economic decline. Foreign trade, which historically served as the main impetus for growth, was disrupted.

Civil war and mismanagement have destroyed much of Liberia's economy, especially the country's infrastructures while international sanctions on diamonds and timber exports limited growth prospects for almost half of a decade (2000 – 2007?). Many businessmen have fled the country, taking capital and

expertise with them. The reconstruction of infrastructure and rising of incomes in the ravaged economy will largely depend on financial support and technical assistance from donor countries.

Legal Framework

Presently, there is no concrete comprehensive legal framework governing water resources in Liberia. Neither has there been an effective National Integrated Water Resources Management Policy guiding the water resources development, use, protection and conservation. Nevertheless, the Public Health Law of the code of 1956 revised in 1975 into Title 33, the Act Establishing the New Public Health Law of Liberia Chapter 24 contained the Liberia's first Water Pollution Control laws. The key objective of Chapter 24 was to protect the water resources of Liberia.

The Environment Protection and Management Law of the Republic of Liberia was approved November, 2002 with the key objective to ensure a sound management of environmental and natural resources.

International Commitments

Liberia belongs to the Mano River Basin Organization known as the Mano River Union (MRU), comprising Sierra Leone, Liberia, and Guinea. The Mano River Union Agreement was signed by representatives of the three countries in 1973. The Union's secretariat has established a fruitful collaboration with development partners.

The Government is committed to working towards achieving the aims and objectives of the Millennium Development Goals. Liberia's post-war Interim Poverty Reduction Strategy (iPRS) strongly supports 'providing water and sanitation'. The strategy overall objective 'is to increase safe drinking water and improve sanitation (healthy environment) for all in urban and rural areas' (iPRS, 2006 p.78). Furthermore, the Government has endorsed the general objectives of the International Drinking Water Supply and Sanitation Decade (IDWSSD) since its inception in 1980.

In addition, the declarations and guiding principles emanating from international fora on water resources management, which culminated in the UN Conference on Environment and Development (UNCED) in Rio de Janeiro (June 1992), especially Agenda 21 chapter 18 on freshwater resources have been endorsed by the Government.

Institutional Framework

General situation

The water resources management responsibilities are fragmented across several government agencies. The absence of a water policy, legal framework and a strong coordination mechanism led to the decreasing water quantity and quality even though Liberia potentially has substantial water resources. With the introduction of Integrated Water Resources Management (IWRM) in Liberia, a comprehensive framework of policy and environmental laws is now a key objective.

Coordinating Bodies

National Water Resources and Sanitation Board (NWRSB)

A National Water Resources Board was formed in 1980 in recognition of the need to adopt a coordinated approach to water development especially in lieu of the International Drinking Water and Sanitation Decade. The Ministry of Lands, Mines and Energy served as the Chairman while the Liberian Hydrological Services served as the Secretariat. The board worked on coordination of all activities in water resources development, reviewing of sectoral regulations and drafting of Water Legislation and Policy. The board has stopped operating, but is not formally dissolved. This board prepared Liberia's first water and sanitation

Action Plan covering 12 years (1985 – 1997) in response to the International Drinking Water and Sanitation Decade.

National Public Health Committee

Established in 1986, the committee coordinated the water and sanitation affairs in the absence of the NWRSB. This committee was an Ad-Hoc committee constituted to spearhead the mitigation of serious garbage problems in the City of Monrovia as the result of the NWRSB inability to function effectively.

WATSAN

Later, the Water and Sanitation Coordinating Committee (WATSAN) was established in 1992 and tasked with coordination of the activities of the water sector institutions in the country. WATSAN produced a working guideline for the institutions. Among others, they were required to present an annual monitoring and evaluation report to the Committee.

International Partners

The following are International Development Partners offer for support to the development of water resources and implementation of sanitation projects:

UNICEF, UNDP, EU, UNEP, USAID, DFID, AFDB (AFW), and WRCU (ECOWAS)

Other key stakeholders

Non- Governmental Organizations (NGOs)

In addition to the government agencies, several Non-Governmental Organizations (NGOs) are involved in the water and sanitation sector in Liberia. Others are Coalition of Environmental NGOs, OXFAM, SCF-UK, etc.

Ministry of Lands, Mines and Energy

Ministry of Lands, Mines and Energy has the overall responsibility for water resources management and granting of water permits with the Liberian Hydrological Service Bureau of the Ministry serving as the Secretariat. The Secretariat also serves as the focal point for hydrological data collection and storage. It provides technical support to other government agencies, and provides basic information on all aspects of water resources development, including water quality issues. The Ministry through the Liberian Hydrological Service had monitored over 40 hydrometric networks prior to the inception of the civil crisis. The hydrometric networks monitored included rain gauges, staff gauges and discharge measuring units.

Ministry of Rural Development

Ministry of Rural Development was charged with the responsibility for providing water supply and sanitation services to the rural population. This ministry provided boreholes, hand dug wells, spring boxes and VIP Latrines thus serving numerous rural inhabitants. This ministry is now paused to be incorporated into the Ministry of Public Works.

Ministry of Health and Social Welfare

Ministry of Health and Social Welfare is concerned primarily with health care delivery and is mandated in the water sector to make water quality assessments, in particular for domestic water supplies. The ministry sets standards of water quality and environmental health.

Ministry of Agriculture

The Ministry of Agriculture has been involved in the provision of safe and adequate water supply to their respective agricultural project localities.

Ministry of Transport

Ministry of Transport regulates the use of inland waterways.

The Liberia Water and Sewage Corporation

The Liberia Water and Sewage Corporation", was established in 1973 and mandated to provide safe drinking water for both the urban and rural population of Liberia. It operates on a commercial basis, although it provides basic water requirements to the urban poor at no cost.

Environmental Protection Agency

The Environmental Protection Agency (EPA) has the mandate to promote environment awareness and develop a national environmental policy for the country. The agency was established in 2003. EPA is responsible for coordinating, integrating and harmonizing the implementation of environmental policy and law under the guidance of the Environmental Council.

Key Issues in Water Resources Management

Water resources are under increased pressure from population growth, uncontrolled disposal of waste, agricultural activities, mining, logging, aquaculture and activities in other economic sectors. Upstream-downstream issues in terms of decreased water quality occur more and more frequently and urbanized areas contribute to the degradation. The degraded water quality leads to health risks as reliable water supply and sewerage infrastructures are lacking and as domestic water often are taken directly from surface water bodies. The vast and valuable productivity of the ecosystems of coastal lagoons, estuaries, deltas and mangroves needs to be maintained, not least because they are a rich source of fish protein.

Urban population 'explosion' due to movement of people from rural to urban centers, the lack of human capacities to manage the resources, and other factors impede the achievement of the MDGs. The key issues which are to be addressed to conform to the Integrated Management of Water Resources are:

- Population growth In Urban Areas. The population in most urban cities in Liberia is exponentially growing with overwhelming effects on social amenities, such as water supply and safe means of sanitation. The population growth in these cases exerts enormous pressure on the water resources. Addressing this trend is one major key issue to water resources management.
- Inadequacy of Human Resource Capacities. The shortage of adequately trained water resources practitioners especially due to 'brain drain' in third world countries, with Liberia been no exception, hinders the management of water resources. Training opportunities are readily not available.
- Uncontrolled disposal of waste. The indiscriminate disposal of wastes poses serious challenges in to the management of water resources. Most of these wastes are eminent sources of pollution and impairment of drainage systems.
- Water activities fragmented amongst ministries and institutions.
- Level of Development of Water Resources for various activities (Agricultural, mining, logging, aquaculture and activities in other economic sectors).

- Human encroachment on ecosystems of coastal lagoons, estuaries, deltas and mangroves.
- International cooperation and Riparian (shared) rivers.

Integrated Water Resources Management Policy

General

The Integrated Water Resources Management Policy promotes a new integrated approach to manage the water resources in ways that are sustainable and most beneficial to the people. This new approach is based on the continued recognition of the social value of water, while at the same time giving due attention to its economic value. Thus, allocation in water resources development, shall aim at achieving the maximum net benefit to Liberia.

Although the State is the ultimate custodian of the water resources, the aim of the policy is to achieve a public sense of ownership thus mobilizing the people's resources to assist management, protection and conservation of this natural resource. The policy is designed to be a broad-based charter, which must be recognized by all concerned sector institutions, and be taken into account by all projects and programs, both public and private.

The policy covers two broad areas:

- Water resources management: Covers the management framework including policy objectives, principles and strategies for the monitoring, assessment, allocation and protection of the resources.
- The Ministry of Lands, Mines and Energy shall have the overall responsibility for water resources management, regulation and coordination activities.
- Water resources use: Covers the policy objectives, principles and strategies for the development and use of water for people [domestic water supply], water for Food Security [agriculture], water for industry and other water uses such as hydropower, recreation, Non-Revenue-Water (fire hydrants and trucks) and water for maintenance of productive ecosystems.
- Water reservoirs should be located in every community for supplementary use.
- The water policy shall be a dynamic instrument. It will be re-assessed from time to time to ensure that it is effectively responding to new experiences and changed circumstances.

Vision

It is the vision of the Government and people of Liberia that by the year 2015 the country's water resources will be developed integrally with land and other natural resources and managed in an efficient, environmentally sound, equitable and responsible manner, with due consideration to all varied and conflicting or competing uses at national, county, district, clan and village/community levels, in order to satisfy present societal needs and demands for water, water related goods and services, and to preserve the ecological functions of water resources; without compromising the ability of future generations to satisfy those same needs.

The fundamental component of the Integrated Water Resources Management (IWRM) process is the establishment of a comprehensive water policy, to reform and develop institutions and to put integrated water resources management into practice. Liberia has set its vision, but the crucial aspect is to create both public and political awareness and commitment to start on the road towards the Vision.

Goals

The Goal is to use the principle of Integrated Water Resources Management (IWRM) and adopt a strategy to achieve the vision of development efficiency and effectively manage a system for the sustainable development of water resources in Liberia:

- To ensure full socio-economic benefits for present and future generations
- To ensure access to safe and adequate water for people (i.e. domestic water supply)
- To ensure the availability of adequate quantity and quality of water for the environment and ecology (i.e. nature)
- To ensure the availability of sufficient quantity and quality water for food security (i.e.: food production)
- To ensure availability of water for other uses (i.e.: hydropower generation, industrial use, water transport, recreation and firefighting).

Objectives

The policy is intended to guide Liberia towards the following:

- To foster our vision of efficiently integrating and managing Liberia's water resources for sustainability and development.
- To increase access to safe sanitation to meet the MDG by 2015.
- To create a governing body for sustained water and sanitation management in Liberia to ensure full social and economic benefits.
- To ensure capacity building for water resources management and execution of the unified state policy on use and protection of water resources both at the national and international levels.
- To eliminate cross-cutting mandates and ensuring a centralized strategic planning, implementation and monitoring Mechanisms.
- To create Local Water Coordination Units (WACUs) at the county, district, and community levels under the auspices of the Ministry of Lands, Mines and Energy.
- To ensure the training and capacity building of the local WACUs.
- Empowerment of local WACUs.
- To establish National water and ecological Information Center.
- Mitigation of natural disasters and the effects of climate change.

Guiding Principles

Liberia has adopted the guiding principles for water resources management that emanated from the International Drinking Water and Sanitation Decade Dublin-Rio de Janeiro (UNCED) process and Agenda 21's Chapter 18 on freshwater resources.

These guiding principles recognize:

- Freshwater as a finite and vulnerable resource, essential to sustain life, development and the environment.
- Management of water resources to take place at the lowest appropriate levels.
- The role of Government as an enabler in a participatory, demand-driven approach to development.
- Water as a social and economic good.
- Integration of water and land use management.
- The essential role of women in the provision, management and safeguarding of water.
- The important role of the private sector in water management.

Strategies

- To ensure proper land resources planning and management.
- To decentralize economic incentives.
- To ensure efficient and proper disposal of solid and liquid wastes.
- To establish appropriate bodies responsible for water resources management.
- To develop and enhance human resources and national technological capacities to foster international cooperation in the management of shared river basins, ensuring the efficient means of Domestic Water supply in Liberia.
- Integrated and sustainable development and management of water resources for all sectors to guarantee socio-economic growth.
- The protection of all water resources (e.g.: Wetlands).
- Sustainable allocation of water resources and but not limited to prevention of natural disasters and the effects of Climate Change.

The key strategies leading towards the Enabling Environment are:

- Government to assume the role as an enabler in a participatory and demand driven approach to development and use of the national water resources.
- Legislation and policy to support national and riparian countries initiatives.
- Regulatory controls to be developed in response to needs and at enforceable levels.

- Regulatory controls to be combined with economic incentives.
- Earlier coordinating body, the defunct National Water Resources and Sanitation Board (NWRSB) shall be revitalized and given new mandates in line with IWRM principles.

The key strategies guiding the institutional roles are to:

- Establish a coordinating mechanism with NWRSB as the lead coordinating body.
- Delegate management functions to the lowest appropriate level.
- Involve the private sector to an appropriate level.
- Increase rural gender balanced participation in decision making in water resources management.
- Develop water resources management capacities and capabilities at all levels.

The key strategies with planning, prioritization and management instruments are:

- Water demands to be given priority in the following order and shall be based on economic, social and environmental values of the water determinants:
 1. Drinking water
 2. Water for urban and rural sanitation
 3. Water for Food security
 4. Water for other uses (industries, hydro-power, beautifications, firefighting, etc.)
- Holistic and sustainable approaches to be used in water resources management, development and use.
- Environmental impact assessment to be used as a planning tool.
- The "polluter pays principle" to be enforced.
- Economic incentives to be applied along with regulatory instruments to avoid water wastage and minimize pollution.
- International cooperation to be pursued for shared water resources
- Creation of awareness on the protection of wetlands as an integral part of water resources.

WATER RESOURCES MANAGEMENT FRAMEWORK

Liberia has one of the highest precipitation (4,000 to 5000 mm/year) in the world and its capital supply of water amounts to 71,000km³/year, while the total renewable water amounts to 232km³/year. The Total water withdrawal in 2000 was estimated at 106.8 million m³, of which agriculture took 57%, and followed by the domestic sector with 28 % and industry with 15% (FAO, 2005).

There are six major river basins which are shared and national in nature. Their management requires the establishment of individual management structures.

International Shared Water Resources

A strategy regarding cooperation on international water resources issues shall be developed, in particular related to the utilization of the Mano River Basin and safeguarding of the water quality of the lakes. The Mano River Union was established by Liberia, Sierra Leone and Guinea to coordinate technical cooperation for the management of the Mano River Basin between the three countries. As the need for reconstruction and development is increasing, including the construction of dams, potable water supply and hydro-electric power, the Mano River Union Agreement between the three countries has now become a necessity in particular in relation to trans-boundary pollution and sedimentation.

Similar unions shall be established for other trans-boundary rivers in response to emerging water resources issues.

Management Functions

The management of water resources shall be prioritized as elaborated below:

Assessment and monitoring

Monitoring and assessment of the amounts of surface- and groundwater and of the inherent water quality shall be done to detect overall trends and possible effects of climate changes. Likewise, identified hotspots will be monitored with the purpose of identifying the effects of interventions and monitoring results shall be used in cooperation with, for instance, industries and others influencing the water quantity or quality. Bio-monitoring shall be one of the monitoring tools. The central authority will be responsible for the monitoring, the assessment of the short and longer term impacts and take initiatives to mitigate negative effects. Monitoring data shall be disseminated to the relevant agencies and the public shall be given an annual status of the water resources of Liberia.

Data and information

Data and information are keys to the rational and optimal management and use of the water resources. All developers and operators in the water sector shall provide data and information such as abstraction records, discharge records and drilling logs. The Government shall, through Liberian Hydrological Service (LHS), collect, analyze, archive and disseminate such information and data for public use and management of water resources. Data collected by other water sector institutions shall likewise be made available to all stakeholders.

Capacity building

There is a serious lack of skilled manpower and thus a need for a massive training and capacity building programs to be implemented at all levels to upgrade the professional, mid-level, and technician skills. Efficient integrated water resources management now requires skilled and motivated personnel, well managed operations, maintenance funds and the provision of appropriate material, tools and spares for operation of monitoring networks. The central agency shall motivate and facilitate a continued capacity building starting with orientation training at all levels. Capacity building will, at the starting point, depend on technical assistance to strengthen the professional capabilities in the water sector, through formal lectures and on-the-job training. The goal is that the central agencies become capable of accomplishing the task of reform and reconstruction of the water sector.

Policy making, planning and coordination

The integrated management of water resources and land-related issues requires policies and plans to be made both at the national and county levels. At the national level, policies will be formulated, regulations prepared, national drinking water quality standards set, and project activities in the sector coordinated. Based on guidelines from the relevant sector agencies, the counties shall set local priorities, by-laws and annual action plans regarding the use of water resources in aquaculture, irrigation, livestock watering and rural and urban domestic water supplies. Major uses like hydropower generation and other uses with trans-county and or trans-boundary implications shall be dealt with at the national level but with full participation of all the stakeholders. When required, catchments shall be used as planning units. Local level groups, within the framework of national and county policies, shall manage the use of the resources, through local decision-making bodies such as the Village and Sub County Committees. The full participation of the communities shall be promoted and ensured.

Regulations

Water abstraction regulation

Regulations which deal with water allocation through water rights and permits shall be developed and issued. The regulations shall set out steps relating to permit applications, the decision criteria for allocation, obligations of the permit holder and the return of excess flow. Monitoring of abstraction and reporting schedules shall be set out. The regulations shall set out a suitable duration of the permit and give circumstances under which reviews can be made. Generic rules for charging for permits or for withdrawal of water shall be part of the regulations, which are supported by other pieces of the legislation. Compliance and enforcement shall also be prescribed in the regulation. Allocation is a decision that has to be made at central level following the regulations, until a point in time where decentralized institutions have the necessary capacity to make such decision in a rational manner.

Waste discharge regulation

Regulations which deal with waste discharge through permits shall be developed and issued. The regulations shall set out the steps relating to discharge permit applications, the criteria for granting of permits, obligations of the permit holder, standards for effluent quality, actions in case of spills or accidental discharge and handling of non-point pollution. Principles for charges for wastewater discharge shall be set out and the regulations shall be supported by other pieces of legislation. Monitoring and recording shall be prescribed as well as compliance and enforcement.

Clearance to undertake water resources management

All institutions accredited and with clearance to undertake development, rehabilitation emergency and relief activities in the water sector shall attend regular and duly called meetings of the stakeholders. They shall present their activities report during said meetings. Any institution failing to attend meetings and to present activities report for a period of three months will result in the withdrawal of the clearance and accreditation, based on the recommendation of the stakeholders to the Ministry of Lands, Mines and Energy which is the lead agency in the sector.

Enforcement

Enforcement of standards, regulations and by-laws shall be undertaken by the (NWRSB). The existing laws such as Public Health Laws, chapter 24 of Title 33 of the revised Public Health Law and relevant sections of the Environmental Protection and Management Law shall strictly be enforced.

Conflict prevention and resolution

For the purpose of mediation, the community structures, county authorities and the (NWRSB) shall be used to settle disputes between individuals and groups pertaining to the use, conservation and protection of the available water resources. Water disputes at the local and national levels shall be settled by the (NWRSB) and the county development councils in collaboration with the water sector stakeholders

Management Structure

The existing institutional structure and management arrangements are not adequate to address the water resources issues in the country given its trans-boundary nature, the demand on the resources for development activities, the increasing pollution threats and the need for decentralization and devolution of powers to lower levels of Government. Therefore arrangements for water resources management shall have a multi-level structure as follows:

National level

A National Water Resources and Sanitation Board with a broad representation from key stakeholders will advise on the above functions and coordinate sector ministries' plans, programs and projects affecting water resources. The board shall comprise representatives from relevant government ministries and agencies, the private sector, water users, women groups and NGOs; with International organizations and external support agencies as observers. The board shall be chaired by the national institution in charge of water resources management.

County level

County Water Resources and Sanitation Committees shall be created as subcommittees of the existing County Development Committees. The committees shall comprise representatives from relevant government ministries and agencies, chieftaincy, the private sector, water users, women groups and NGOs; the committees shall be chaired by the national institution in charge of water resources management. The functions of Government ministries and agencies shall be decentralized to ensure operational presence at the county levels.

District level and municipalities

District Water Resources and Sanitation Committees shall be created as subcommittees of the existing District Development Committees. The committees shall comprise representatives from relevant government ministries and agencies, chieftaincy, the private sector, water users, women groups and NGOs. The committees shall be chaired by the national institution in charge of water resources management.

Clan level

Clan Water Resources and Sanitation Committees shall be created as sub-committees of the existing District Development Committees. The committees shall comprise representatives from relevant government ministries and agencies, chieftaincy, the private sector, water users, women groups and NGOs. The committees shall be chaired by the national institution in charge of water resources management. The functions of Government ministries and agencies shall be decentralized to ensure operational presence at the clan levels.

Village/Community level

Village/Community 'WATSAN' Committees shall be created to manage community water resources and maintain a healthy sanitary environment. The WATSAN committees shall comprise members selected by the communities; with technical support from the committees from the Clan, district and County levels.

River Basin Level

At this level, there shall be two-tier management structures 1) international level and 2) national level.

International Level

International River Basin Authorities (IRBA) shall be created jointly with the neighboring countries and agreements regarding cooperation and the resolution of conflicts in the use of shared river basins shall be developed. The International River Basin Authorities shall comprise members as shall be stipulated in the respective agreements and Liberia's representation thereto shall be determined by NWRSB.

National Level

National River Basin Management Units shall be created as decentralized functionaries of the national institution in charge of water resources. Additionally, national river basin management committees (RBMC) shall be established to ensure local participation at the county, district and clan levels.

The RBMC shall comprise representatives from relevant government ministries and agencies, the county, district and clan water resources and sanitation committees. The chairmanship of the RBMC shall be determined by its members but limited to entities other than the Government institution in charge of water resources.

WATER FOR PEOPLE

Context

Water is essential to sustain life. Water is vital for human survival, health and dignity and the fundamental resource for human development. Without safe and adequate drinking water cases of cholera and diarrhea which are already endemic will be on the rise. Therefore water of the highest quality and in sufficient quantity shall be provided for drinking. Presently, it is estimated that only 28 % of the population of Liberia has access to safe drinking water.

Additionally, water is also needed for effective disposal system for both the urban and rural sanitation. At present the Monrovia Sewerage System is chronically clogged with sewage, insufficient water for about 10 – 15 years, being one of the contributing factors. Consequently, the system is not functioning properly and sewage is overflowing at many places within the city. Presently, it is estimated that 17% of the urban population of Monrovia has access to safe means of excreta disposal while the exact sanitation coverage of other urban centers is known to be critically low.

Thus, Liberia has one of the lowest access to safe water and sanitation facilities in the world. Meeting the Millennium Development Goals and targets requires substantial investments.

Policy objective

Liberia has ratified and adopted all international conventions on the provision of safe water supply and adequate sanitation for the people. This policy with respect to water supply and sanitation is to enable the government to meet the target set in the Liberian Poverty Reduction Strategy (2008 – 2010) and the Millennium Development Goals (MDGs) for 2015: “To halve the proportion of people who are unable to reach or afford safe drinking water by 2015 and increase the access significantly from the present 28% to 64%.”

PRIORITY ACTIONS

The key priority actions for water for people shall be:

- Health impacts for urban resource management.
- Institutional reform to improve the efficiency of personnel in relevant Government Ministries and Agencies, partners-in-progress and communities.
- Development of institutional framework which brings water utilities, partners’ in-progress, the private sector, and community groups to exchange views, contribute skills and take decisions on water supply and sanitation projects.

- Supportive of inter-sectoral planning at administrative levels.
- Availability of affordable high quality and adequate domestic supplies to meet the needs of the very poor.
- Protection against depletion and degradation of water resources.
- Empowering local Community-Based Organizations (CBOs).
- Enhance access to water, sanitation and waste disposal.
- Resource mobilization.
- Efficient and equitable allocation of water resources.

The multi-level management structure mentioned above shall be the basis for this institutional reform process. Specific actions to be taken shall include but not limited to:

- a) Initiating capacity building programmes to establish institutional and legislative frameworks for water management and pollution protection, especially for integrated water resources planning and land use management; developing and applying regulatory and economic instruments; and undertaking monitoring and surveillance.
- b) Developing institutional frameworks which bring together water utilities, NGOs, the private sector and community groups to exchange views, contribute skills and take decisions on water supply and sanitation projects.
- c) Training and retaining staff at all levels with skills in community involvement, low cost technologies, and financial management and for undertaking hygiene education programmes, with a focus on women and children.
- d) Undertaking international collaboration and information exchange in support of institutional reforms.

As demand grows and resources diminish, priorities shall be established which balance health improvements, desires for food security, environmental protection and economic growth. The economic social and environmental priorities shall take into account the availability and long-term sustainability of water resources, ensuring, as a top priority, the availability of sufficient, affordable domestic supplies and providing for meeting the needs of the very poor. The specific actions shall include but not be limited to:

- a) Providing technical and financial support at all levels for assessment and monitoring to help safeguard the availability and quality of surface and ground water resources and reduce pollution load by sector.
- b) Informing public opinion and encouraging the development of priorities according to economic criteria for the allocation of water resources to achieve long-term sustainability.
- c) Strengthening institutional capacity, especially at the local level, and providing technical support for the introduction and application of water charges and pollution penalties which reflect the marginal and opportunity cost of water.

- d) Foster water conservation and recycling through all available means, including economic and regulatory incentives and technical devices. Providing incentives for efficient use of water, recycling and pollution prevention.
- e) Making available affordable supplies for meeting the basic needs of the poor who lacks services at present.

The protection of health and the environment and to make the most economic use of available water resources, present pollution trends should be reversed to progressively improve water quality. Specific actions which are essential in this direction shall be but not limited to:

- a) Using scientifically established guidelines and setting objectives for the protection of all river systems and groundwater resources; translating the objectives into discharge quality and reusing standards for upstream municipal and industrial effluents.
- b) Decentralization of the water sector responsibilities.
- c) Liberalizing the water sector for broader participation of the public and private sectors.

Strategies

Water Supply Service Levels

In primary urban centers, criteria for domestic water supply service levels vary between 75 l/capita/day and upwards, depending on living standards in the area, while the criteria for the service level in secondary urban centers starts at a minimum of 38 l/capita/day. The preferred sources of domestic water supply are groundwater (shallow wells and boreholes) and treated surface water (rivers, springs and creeks...) and rainwater.

In rural areas, the criteria for domestic water supply service levels is minimum 19 l/capita/day and the preferred sources are protected springs, shallow wells and boreholes. A demand – driven balanced approach should in each case lead to a specific level of service chosen with due consideration of walking distance, number of users per outlet, access to alternative water sources, cost as well as social practices. A shallow well or spring box should generally not serve more than 150 persons and a borehole not more than 300 people. A 200 meter walking distance from household to a water point is a maximum and the difference in elevation from a household to a water point should not exceed 100 meters.

Water Supply Technology

Technologies selected for acceptable quality water supply should be low cost, appropriate technology offering good opportunities for participation of the community in all aspects of planning and physical implementation of the project. This also involves operation and maintenance of the facilities.

In urban areas, only submersible pumps should be used for household and community-piped water supply systems in areas with availability of regular power and trained manpower for operation and maintenance.

In rural and sparsely populated peri-urban areas, technologies shall include spring boxes, shallow wells equipped with hand pumps, boreholes and gravity – fed piped systems. All water supply source construction must follow the Technical Guideline for the Construction of Wells and Latrines. According to the findings from the Technical Guideline Workshop, 2004 the following hand pumps were selected to be used in Liberia Afridev, Consallen, Vergret and Kardia. A spare part organization should be in place at all times for community maintenance. Maintenance costs should be recovered through an efficient and transparent mechanism.

Drinking Water Quality Standards

World Health Organization (WHO) drinking water standards guideline should be used until one is produced according to section 35 of the Environmental Protection and Management Law of the Republic of Liberia. Due consideration shall be given to specific local conditions and water use habits which may dictate a local relaxation of these standards.

Sanitation and Sewage Treatment Technology

Assessment of the need for sanitation facilities and drainage of excess water should be made in connection with provision of water supply. When found necessary such facilities should be part of water supply programs. The appropriate sanitation and sewage facilities shall be planned and implemented with community participation to meet the needs of the people and ensure cultural and financial acceptability. In rural areas technology options and construction methods shall follow the recommendations in the technical Guidelines for the Construction of Wells and Latrines. Construction of septic tanks should follow the Liberian Building Codes. Solid waste management and storm water drainage systems and their link to sanitation shall be taken into account in densely populated areas.

Health and Hygiene Education

Health and hygiene education shall be integrated in all water and sanitation projects in order to draw out the clear correlation between safe drinking water, water related diseases and improved sanitation.

Financing, Tariffs and Subsidies

Financial viability of public utilities should be assured. In urban areas, sustainable services for the poorest sections of the community shall be ensured. Tariff structures with cross-subsidies where appropriate, shall guarantee that services can be reliably maintained including public stand posts or other facilities for the urban poor. However, subsidies should only be regarded as temporary measures and targeted for either behavioral changes or to give the disadvantaged sections of the community access to basic services and improvements in their quality of life.

The tariff structure in larger urban schemes (utility-operated water supplies) shall be designed to cover repayment of construction loans, depreciation of technical installations i.e. replacement costs, and full cost of operation and maintenance. Water tariffs should ensure a basic minimum consumption at reduced rates, and larger consumption at increased rates, in order to discourage wastage and excessive consumption especially in densely populated communities and industrial zones.

In rural and small town water supplies, the communities shall contribute (cash or kind) towards investment cost, for instance an agreed percentage of construction cost. The funds shall be raised by the community before construction starts. In these areas, operation and maintenance costs shall be fully covered by the consumers, unless unreasonably high cost of supply, necessitate an outside subsidy. Subsidies to low-cost latrines to the poorest communities shall be considered at the same time; while still encouraging commercial latrine construction.

Role of the Private Sector

The concept of public control and private management of water utilities is adopted, but needs to be clearly described in each case. Private management of water supply and sewerage systems has been successful in some cases.

In some cases, when profits and lack of regulations or control become the operating principles, marginalization of the poor is prominent. The role of the government is to oversee the process and protect

the right of these poorer populations through legislation and decentralized governance with appropriate participation.

Private resources should be brought in for capital resource mobilization and improved management of the water resources. The private sector cannot and should not be expected to subsidize and provide water for the poor. The responsibility of control on bulk water, its distribution, control and ownership should remain with the government. The private sector should concentrate on effectively meeting demand.

It is very important to encourage the active participation of the private sector and other major groups to strengthen partnerships within the water sector. The encouragement is needed to provide targeted investments to address water education, research, skills training and information dissemination services in a holistic and integrated manner.

WATER FOR FOOD SECURITY

Context

Water is essential for the production of crops, livestock and fishery (marine, aquaculture and inland). For Liberia, crops are generally grown under rain-fed condition. However, rainfall is unevenly distributed with the least rainfall in the central belt and the most along the coast.

The total water withdrawal in 2000 was estimated at 106.8 million m³, of which agriculture took 57% (60.9 million m³) (FAO, 2005).

Irrigation is sometimes applied to supplement rainfall, to improve crop yields and quality especially in upland crops production. This provides the total water needs of the crops.

Other major land resources base for agriculture includes the following: 9.8 million ha of land of which 4.6 million ha are arable. 600,000 ha of inland valley swamps are suitable for crop production and 40,000 ha of mangrove swamps suitable for food and aquaculture production,

Liberian agriculture is mainly subsistence, relying predominantly on rain-fed and rudimentary tools and implements. This does not provide adequate food to meet current population growth as well as poverty reduction, which is one of the Ministry of Agriculture objectives. The farming system is shifting cultivation, with reported fallow period of between 9-10 years. The farming method is slash, burn and plant. Post war population increase could put pressure on the land & water resources, requiring more water & farmlands and hence leading to the reduction of the fallow period if this is not managed well. Agriculture contributes between 10 and 50 % to the GDP, providing jobs to nearly 70 % of the labour force.

Irrigation potential is estimated at about 600,000 ha but only about 1,000 ha can be described as a surface irrigation facility. Total water managed area in 1987, including swamp rice water control, is estimated at about 20,100 ha (FAO, 2005). These include equipped lowlands (2,000 ha) and non-equipped cultivated swamps (18,000 ha). Irrigation infrastructure is limited because of abundant water resources (about 4,000 mm/annual) in the country. Water control structures for swamp rice production are extensive. Areas with good water control and having the possibility of 2 crops per year are also limited. There are also peri-urban irrigation activities around Monrovia but the method of irrigation is predominantly by hand.

Livestock has been the least developed sub-sector. According to UASID (1999), the 1980 estimated animal census figures stood at: cattle (39,000), sheep (400,000), pig (103,000) and poultry (2,620,000). Prior to the war, many Liberians were engaged in livestock farming to provide alternative sources of income and protein but the civil conflict led to the entire stock of livestock (cattle, goats, sheep, pigs) being looted.

Fisheries and aquaculture are an important sub-sector of the economy, accounting for 3.2% of GDP. This sub-sector has an estimated potential of 800,000mt of marine fishery yield, 7,000mt of inland waters yield and an average annual fish yield of 15,000mt of aquaculture production.

Liberia has a coastline of 570 km, a continental shelf averaging about 34 km in width, affording an area of about 20,000 km² of fishing ground extending to 200 nautical miles into the deep sea,

If coastal surveillance system is developed and monitored well, fish catch in the marine fishery can be enormous.

Policy Objective

The policy objectives of water resources for food security are to:

- Put in place an efficient utilization and conservation of the water resources;
- Foster the vision of efficiently integrating and managing water resources for sustainable agriculture development and
- To ensure food security to meet current and future population growth as well as poverty reduction, and bring new land under cultivation through farm mechanization and value addition.

Guiding Principles (Priority Actions)

The key priority actions for water for agriculture shall be:

- The allocation of water for rain-fed crop production, irrigated crop production, livestock production, aquaculture as well as water for crop processing and value addition. All aspects of water allocation shall be done considering the economic, social and environmental value of the water as well as other demands from other sectors.
- To sustain through the full participation of the users who should manage, operate and maintain the infrastructure and services for irrigation, fishery (inland and aquaculture) and livestock developments.
- The design, construction and maintenance irrigation schemes and water systems for livestock and aquaculture production should be planned in such a manner so as to mitigate water borne diseases. Irrigation practices and livestock production under water management systems shall be addressed at the planning and construction stages to mitigate water borne diseases such as schistosomiasis- a disease transmitted by snails living in stagnant or slow flowing water, onchocerciasis or river blindness which is transmitted by simulium flies (buffalognats), these breed in rapidly flowing water. Others include bilharzias, malaria and guinea worm,
- To consider upland and slopes water managements as critical issues in the farming community. The upland soils are generally acidic, with low fertility, low water holding capacity and prone to soil erosion. Rain-fed agriculture has seen, in recent years, lateness of the onset of the rains. Rainfall patterns maybe changing due to general land use practices. Soil and water conservation practices on upland, slopes and as well as lowland agriculture production should be encouraged so as to preserve and protect the environment.

- To encourage private sector participation in Capacity building, Feasibility study, scheme design & construction, farmer training, Geophysical study and well design, Well construction; pump and accessories procurement; Farmers Development Association (FDA) or Farmer Base Organizations (FBOs) shall strongly be encouraged to handle operation and maintenance of infrastructure for irrigation schemes and hydraulic structures, livestock, water supplies and aquaculture development
- To consider water as a limited and costly resource and shall be used with great care to avoid wastage and long-term problems such as soil erosion and salinity by applying the right amount of water to the right plant at the right time.

Strategies

In order to achieve the objectives of agricultural water resources management, Government shall:

- Ensure that water remains a fundamental human right, essential to human life to which every person, rich or poor, man or woman, child or adult is entitled;
- Ensure private sector participation in capacity building, feasibility study, scheme design & construction of irrigation, livestock water supplies and aquaculture development;
- Ensure that water conservation practices on uplands slopes and as well as in lowland crops production are prioritized to preserve and protect the environment for future generation;
- Ensure efficient and proper use of agricultural chemicals to prevent pollution of water bodies;
- Ensure proper land and water resources planning and management;
- Ensure the protection of watersheds and Wetlands;
- Ensure that irrigation costs are affordable by poor and vulnerable farmers;
- Ensure full participation of women in irrigation and promote their meaningful roles in Decision-making processes;
- Ensure equity within irrigation systems to support poverty reduction and efficiency through sustainable and equitable cost-sharing mechanisms;
- Ensure regulatory controls in response to needs and at enforceable levels;
- Enforce the “polluter- pay principle”
- Ensure the training and capacity building of the water users association (WUA) and
- To establish National water and ecological Information Center.

WATER FOR INDUSTRY

Context

The industrial growth of Liberia in the manufacturing, mining and processing industries shall undoubtedly play a key part in the sustainable development of the nation. It is therefore necessary to institutionalize policies and regulations that will guide the achievement of this goal.

Best management practices shall be employed throughout the life of an industrial activity to reduce water pollutants generated by the industrial sector. Relevant agencies of Government shall ensure that all environmental, health, safety and sanitation laws of the nation are applied in the industry.

Policy Objective

The objective is to develop water resources for sustainable industrial use and to limit waste discharges to acceptable levels with the ultimate goal of supporting national development.

Guiding Principles

The fundamental principles guiding the planning and allocation of water resources for water for industry are:

- After the first priority allocations for domestic use have been made, allocation of water for industry shall be done considering the economic, social and environmental value of the water as well as other demands from other sectors.
- The ‘Polluter Pays Principle’ shall be followed and any violator who illegally dumps or discharges industrial waste shall be held responsible
- The roles of all line agencies and ministries involved with water quality management, monitoring and enforcement shall be designated, and water quality sub-agencies shall be established in the rural areas.
- The assimilative capacity of surface water shall be taken into account and stream standards shall be defined according to Environmental Protection Agency guidelines. Guidelines will set out effluent standards and monitoring requirements.
- A National Pollutant Discharge Elimination System Permitting Process shall be established by the appropriate agency in accordance with EPA guidelines on point source pollution. All significant point discharges must have a permit
- Industries implement self-monitoring and notify the Environmental Protection Agency of effluents discharge
- A register of pollutants and their effects on human health and the environment shall be established in collaboration with relevant agencies and private research institutions.

Other water resource uses

While water for domestic purposes, agriculture and industry are off-stream uses, there are also in-stream use such as hydropower and fisheries and on-stream use such as river and lake transport.

The overall policy is to keep flows, water levels and water quality within ranges that respond to a holistic, integrated approach to development of water for human activities and water for nature, taking into account equitable use and protection of the available water resource. At the same time international obligations regarding use of shared water shall be honored.

WATER ALLOCATION PRINCIPLES

Key Aspects

The allocation of water in Liberia shall be controlled by the Government through the Ministry of Mines and Energy. Waste discharge permits are within the responsibilities of the Environmental Protection Agency

(EPA), but the Ministry of Lands, Mines and Energy shall control the technical aspects in order to better coordinate and monitor the abstraction and the discharge permits.

Water is vested in the state for protection and for management of its use as a common good. There shall be no permanent water rights but these should be renewable at selected intervals.

A socio-economic approach to water allocation shall be applied. This will be a practical application of the principle of "water as a social and economic good". The water available to be allocated in this manner is determined based on understanding of the available yield in a catchment and allocations reserved for domestic needs and for ecosystem maintenance. The various steps in this approach will be taken with stakeholder involvement, emphasizing the continued security of existing allocations.

Provisions for domestic needs

First priority in water allocation is to meet the domestic water demand. Therefore water allocation for the domestic needs of the society shall be reserved within the total amount available from each water resource.

Provisions for resource management and environment

Allocations shall be reserved to ensure the continued viability of the resource and for the conservation of the environment. Some water bodies (such as wetlands, creeks, rivers, etc.) shall maintain a minimum flow to protect water quality and aquatic ecosystem.

Provisions for production and other uses

Allocations for productive use shall consider the socio-economic value of the use and an optimized development of the potentials (e.g. hydropower schemes) as well as the impact on the water resource. Provisions for production and other uses can be made from the remaining water resource when water for domestic needs and for the environmental needs has been reserved.

Response to emergencies (droughts and floods)

A detailed strategy for response to emergency situations, such as floods and droughts shall be formulated. In the case of droughts such a strategy may involve limiting total allocations or reducing the allocations to selected categories of users during the critical period in consultation with the relevant sectors. In the case of floods that strategy may involve controlled inundations, evacuations and other emergency measures.

Crises such as drought and floods shall be managed and coordinated on an interdepartmental basis because multiple efforts are needed to support affected communities. The Government, through the Disaster Relief Commission, shall disseminate information and data on threatening emergency situations and public safety awareness.

Monitoring, Assessment and Research

Monitoring, assessment and research activities are important for understanding the occurrence and availability of water resources (surface and underground) and the impact on the resource caused by either natural phenomena or human activities. Monitoring and assessment shall be continuous activities, and the data generated shall be quality assured and made available for water resources management and development activities. The data covering quantity and quality shall be made available for users.

Many of the conventional technologies need to be examined critically and selection made of those most appropriate to Liberian needs. Also through research feasible technological alternatives shall be identified to suit the future needs and the ability/capability of both Government agencies and communities in different parts of the country.

The research and development activities shall be sanctioned by the appropriate authority. Measures shall be put in place to strengthen the existing water research related institutions both public and private, to carry out the necessary research and water resources assessment activities to foster sound management, protection and utilization of the nation's water resources.

The meteorology section within the Liberian Hydrological Service Bureau of the Ministry of Lands, Mines and Energy shall be adequately funded to play its vital role in monitoring, assessment and research in order to provide timely and accurate data. The Department of Meteorology shall be adequately funded to play its vital role in monitoring, assessment and research in order to provide timely and accurate data.

Policy Implementation

Water Legislation

To support implementation of the National Integrated Water Resources Management Policy appropriate legislation and regulations shall be enacted. Legislation comprises the legal instruments that govern the management, use, protection and conservation of the nation's water resources.

The state is the custodian of the nation's water resources and has the power to investigate, manage, allocate, control and use the water resources of Liberia. More specifically, the objectives of a new water legislation are to ensure:

- Rational management and use of the water resources of Liberia
- Provision of a clean, safe and sufficient supply of water for domestic purposes to all persons
- A sustained aquatic ecology
- Devolution of water supply and sewerage undertakings
- Orderly development and use of water resources for purposes other than domestic use, such as the watering of livestock, irrigation for agriculture, industrial, commercial and mining uses, the generation of hydroelectric energy, navigation, fishing, preservation of flora and fauna, and recreation in ways which minimize harmful effects to the environment, and
- Control of pollution and safe storage, treatment, discharge and disposal of waste, which may pollute waters or otherwise harm the environment and human health.
- The Water Law shall be accompanied by a set of supporting regulations, which makes the legislation operational. These will include as a minimum a Water Resources Regulation, a Water Supply Regulation, a sewerage regulation and a wastewater discharge regulation.

Priority Action Programs and Plans

Water resources management

Three main components are needed to achieve the policy goal of sustainable water resources management:

- An enabling environment, which is a framework of national legislation, regulations and local by-laws for promoting sound management of the water resources and constraining potentially harmful practices,

- An institutional framework that allows for close interaction between national, county, district and village-community levels, cross-sectoral coordination and stakeholder involvement.
- Planning and prioritization capabilities that will enable decision-makers to make choices between alternative actions based on agreed policies, available resources, environmental impacts, and the social and economic consequences.

Water supply and sanitation

The Ministry of Lands, Mines and Energy in close co-operation with other line ministries and relevant donor agencies, NGOs and the local authorities, shall develop a comprehensive strategy and action plan for a sustainable provision of water and sanitation services, incorporating on-going programmes and correcting existing imbalances and gaps. The plan, which shall be dynamic and regularly updated, shall provide a broad water sector vision and shall have institutional capacity building and human resource development as its cornerstones.

Sectoral water use policies and plans

The concerned ministries of Government will develop specific and detailed policies e.g. for agricultural production, energy (hydropower generation) and forestry, which must be consistent and compatible with this policy.

Monitoring of policy implementation

An important function of the Ministry of Lands, Mines and Energy, shall be the implementation of Water Resources Management to the lowest appropriate levels and further to ensure that what happens at these levels meet the required standards and are in conformity with stated objectives and strategies.

The policy is aimed at opening up the arena for a large number of stakeholders to engage in the tasks of managing water resources and developing basic water and sanitation services. For this to be effective, it will be necessary to monitor and regulate their actions and performance.

Furthermore, to know and assess the impact of the policies and strategies, it is important that a monitoring and evaluation mechanisms are established and well-functioning. The key monitoring agent shall be the Liberian Hydrological Service within the Ministry of Lands, Mines and Energy.

The objective of monitoring and performance auditing shall be supportive and ensure that goals are met through assistance and cooperation. To fulfill its monitoring and evaluation role the Liberian Hydrological Service must define a set of performance indicators to be able to gauge progress and effectiveness of the various policies and strategies.

ENVIRONMENTAL IMPACT ASSESSMENT PROCEDURAL GUIDELINES

1. Introduction

- 1.1 This manual is a result of the joint effort of the Environmental Protection Agency and the national stakeholders including line ministries/agencies and the private sectors. The intention is to provide the EPA, sector agencies, private sectors, NGOs, members of the public and consultants a set of approved guidelines for the conduct and review of Environmental Impact Assessments (EIA) in Liberia. The need to have clear guidance on the EIA process has been evident since the establishment of the EPA. EIA is a means of identifying and planning for the avoidance or minimization of negative environmental impacts that may arise from development and exploitation of resources, and ensuring sustainable development. It will also be customized to reflect issues that are relevant and specific to projects. While not exhaustive, the guidelines are meant to complement other sectoral EIA guidelines which may be produced by the EPA from time to time. The Environmental Protection and Management Law (EPML) provides for a wide ranging responsibility for environmental management by the EPA. One of the most prominent issues is the need for development of administrative procedures for the preparation of EIA to ensure effective environmental governance. The required administrative procedures and how they are arranged to reflect the intent of the law is the subject of the following guidelines. These Guidelines will be reviewed periodically and updated when necessary.
- 1.2 Environmental impact assessment (EIA) is a systematic process to identify, predict and evaluate the environmental effects of proposed projects, plans or policies. This process is applied prior to major decisions and commitments being made. The EIA process helps to provide stakeholders with information about the likely environmental impacts of projects. In some cases the outcome of the EIA processes may require a developer to alter or in extreme cases abandon a project. Although the EIA processes may result in delays and added costs, these will be out-weighed by the overall benefits that accrue from EIA application.
- 1.3 Operating Stages of Environmental Impact Assessment
 - (a) Applications for EIA permit
 - (b) Submission of Project Brief
 - (c) Screening
 - (d) Notice of Intent
 - (e) Scoping
 - (f) Impact analysis
 - (g) Evaluation of significance
 - (h) Mitigation and impact management

- (i) Preparation of an environmental impact statement (report)
- (j) Review of the environmental impact statement
- (k) Decision making
- (l) Follow up

2 EIA PROCESS

2.1 Prior to the commencement of works, a proponent whose project or activity falls under the prescribed by the Environment Protection and Management Law of Liberia (EMPL) is required to submit an application for EIA permit or license along with a project brief. If the EPA considers the project brief to be complete, a copy of the project brief will be transmitted to individual relevant line ministry/agency ten days after its submission, for comments. The project brief must contain the following information:

- (a) The nature of the project;
- (b) The location of the project and the county under whose jurisdiction it is situated and reasons for proposing the project in the area;
- (c) The activities that shall be undertaken during and after the development of the project;
- (d) The design of the project;
- (e) The materials to be used in the project, including during construction;
- (f) The possible products or by-products anticipated and their environmental consequences including the potential mitigation methods and measures;
- (g) The number of people the project shall employ;
- (h) The projected areas of land, air and water that may be affected; and
- (i) Any other pertinent evidence and analysis which the Agency may require for decision making.

2.2 A proponent whose undertaking requires an EIA must prepare and publish a Notice of Intent that provides information to enable stakeholders to identify their interest in the proposed project. Information in the Notice of Intent must include:

- (a) The nature of the project.
- (b) County, district, and community where the project or activity is to be carried out, or is likely to have a significant environmental impact.
- (c) The activities that shall be undertaken.

(d) The proposed timeframe for the project or activity.

(e) Notice that copy of the application is available for inspection at the Registry of the Agency

2.3 The EPA will evaluate the project brief and transmit a copy with comments to relevant line ministries/agencies. The sector agencies/ministries in turn shall review the document and submit to the EPA their comments on the project brief within 10 days of receiving copies of the project brief. After receiving comments on the Project brief, the EPA will communicate its decision on the project to the proponent 25 days from date of its submission. The decision will take into account comments from relevant sector agencies/ministries. The following determination may be made from the screening process:

- A certificate of approval may be issued to the applicant where the EPA considers that the project / activity will not have or is unlikely to have a significant environmental impact; or that the project discloses sufficient mitigation measures to ensure the acceptability of the anticipated impacts.
- Where further study is necessary to determine the level of EIA required, the applicant will need to prepare an environmental review/ initial environmental examination or evaluation.
- The proponent or applicant will be required to prepare an environmental impact study in accordance with Section 14 of the EMPL if the project /activity will have or is likely to have a significant impact on the environment.

2.4 If an EIA is required the proponent will be requested to carry out a public consultation termed scoping. The scoping exercises will identify what possible impacts there may be from the project and from alternatives considered. This process will also lead to the identification of terms of reference for preparation of Environmental Impact Statement of the proposed project. The Terms of Reference must take into account issues contained in Annex- C and the results of the consultations. The EPA must approve the TOR prior to commencement of the EIA study. Consultants for EIA must also meet the qualification criteria set by the Agency, and be in its Registry. The scoping report must include the following:

- An overview or profile of the proposal, the environment and community and the community that is likely to be affected.
- Description of the scoping process used.
- Possible alternatives.
- Range of potential impacts.
- Mitigation measures for identified impacts.
- Geographical areas(s) and the timeframe(s) for the impact analysis.
- The policy and institutional frameworks under which the EIA will be conducted.
- Existing information sources, gaps, and constraints on methodology.
- The scheduling of the EIA study, and the allocation of resources and responsibility.
- Identification of all the authorities involved in the project or activities.
- The identification of interested and affected persons.
- Terms of reference developed.

- 2.5 Where EIA is required, the applicant will prepare an EIA report that includes Environmental Impact Statement (EIS) and Environmental Management Plan (EMP) in line with the Terms of Reference approved by the EPA. The report contents must take into account Sections 14 and 15 of the EMPL. Ten hard copies and an electronic version (pdf) of the report are required for submission to the EPA.
- 2.6 Mitigation strategies and implementation time frame must be agreed upon by the proponent/management and the Agency in consultation with line ministries.
- 2.7 The EPA will study the report to ensure that it is of standard and addresses the scope of work outlined in the terms of reference. If the report is satisfactory in these respects, the Agency will distribute copies of it to relevant line ministry/agency and other relevant public agencies, and communities for comments. Comments from the public will be received within 30 days of the publication of notice in respect of the report. If deemed appropriate, on consideration of comments from public and sector agencies/ministries the EPA may determine the need for a public hearing to be held at a location suitable to persons who are likely to be affected by the project. After receiving comments from stakeholders on the report, the EPA will constitute a Committee (Environmental Assessment Committee) to review the report. The committee will comprise technical experts from the Agency and sector agencies /ministries, a representative from the project, and also a representative from the project area. The body will give its opinions to the Agency for consideration.
- 2.8 Following the review of the EIA Report and considering comments received during the review period, the EPA will make a decision on the proposed project. In Pursuance of Section 21 of the EMPL, the Agency may:
- (a) Approve the project unconditionally;
 - (b) Approve the application conditionally;
 - (c) Request for further study and/or submission of additional detail;
 - (d) Reject the application if the project is likely to cause significant or irreversible damage to the environment.
- 2.9 The issuance of EIA permit/ license will be made within the time period specified below for different categories of projects:
- (a) For project not requiring EIA, 15 days from the date of decision indicated in communication to the applicant.
 - (b) For projects requiring EIA, three months following receipt of the EIA Report.

3 Description of EIA Components

- 3.1 The Environmental Impact Statement is the document produced after studying the potential environmental impacts of a proposed project. The EIS will provide all relevant details on the project and its effect on the environment. This document should provide a summary level of detail adequate to allow the average reader to make an informed decision on the project. This document will include a broad range of data including information on the developer, schedule, and the detailed description of the project, regulatory framework, and review of alternatives, environmental management plans,

socioeconomic factors, environmental impacts, mitigation, monitoring and reclamation. The completion of the EIS requires gathering necessary resource information, conducting field investigations, and using scientific methods to evaluate potential interactions between the environment and activities associated with the undertaking.

The EIS would be accompanied by supporting appendices, the baseline study report and the environmental assessment that will provide technical detail on specific issues, assumptions and modeling projections. These supporting documents would be more technical.

An Environmental Impact Statement must be written by an experienced professional with expertise in environmental issues of specific concern to the undertaking. It is the proponent's responsibility for preparing the Environmental Impact Statement and any associated costs involved with the study. The Environmental Impact Statement should be a well-organized document in order to provide reviewers with enough information to understand what is being proposed and the environment in which the project is to be located. The Environmental Impact Statement could be prepared by an independent consulting firm chosen by and paid for by the proponent. The proponent can be provided with a list of reliable and unanimous consulting firms that will act as a third party without prior intentions or unintended biasness.

3.2 The EIA report should contain a brief introduction explaining the need for the conduct of the project. There may be other applicable criteria of the project that may have to be reviewed. However, in order to avoid delay in the review process, the proponent should ensure that all sections listed below are included in the report:

- Executive summary
- Introduction or overview of the project
- Policy, legal and administrative framework
- Detailed project description
- Description of the potentially affected Environment including specific information necessary for identifying and assessing the environmental effect of the proposed project of activities
- Impact Prediction and Evaluation
- Socio-economic analysis of project impacts
- Economic Information regarding the project
- Environmental Management Plan and Mitigation Measures
- Identification of Alternatives
- Environmental Management and Training

- Monitoring Program
- Public Participation
- A statement of the degree of irreversible damage and an explanation
- A description of the best available technology
- An emergency response plan
- An indication of any difficulty encountered in the EIA
- Conclusion and Recommendations
- List of References
- Annexes

3.2.1 The executive summary presents the most important findings of the report in a very concise and non-technical manner that is particularly suited for decision-makers in order to facilitate the comprehension of the study and corresponding decision-making. It will include the following:

- **Project Description:** covering description of the proposed project and how environmental impacts will be resolved.
- **Consultant Information:** clearly indicated in a list of qualifications of individuals who have worked or will work the project.
- **Findings:** including assessed environmental impacts, recommended mitigation measures, and recommended monitoring program. Significant environmental impacts will also be highlighted.

3.2.2 Introduction-overview of the project: This section will cover data regarding the EIA scope including:

- **EIA Objective and Scope;**
- **Project Rationale:** describing the principle of the project along with a review of similar projects and methods used therein to identify, predict and evaluate impacts.

3.2.3 Policy, legal and administrative framework: This section of the EIA report sets the policy, administrative and legal basis within which the project may be implemented. Regulations and standards applicable to the project should be referred to.

3.2.4 Detailed project description: This is a detailed statement of all the critical activities which will be involved in the proposed project including construction phase, start-up and commissioning through to operational phase of the facilities. This should include:

- Statement of need
- Concept and phases
- Location, scale, and scheduling of activities
-
- Building plans
- Project status and construction phase
- dimensions of building (if applicable)
- description of present land use of the project area and the area contiguous to it
- project size and production rates
- activities associated with development stages from construction to closure
- alternatives considered
- staffing and employment
- emission characteristics
- By-products from the process (i.e. sewage, water supply, waste management, wastewater, waste disposal, etc.)
- Additional projects required as a result of the project (i.e. treatment plants, road intersections, etc.).

3.2.4.1 Most development projects involve two stages-construction and operation:

- (a) Project Construction Phase: The construction activities associated with the proposed project should be described in this section of the Environmental Impact Assessment.
- (b) Project Operational Phase: This section of the Environmental Impact Statement should discuss the environmental issues related to the operation of the project. For example, the waste management strategy of the project should be dealt with in this section. The report should discuss the expected lifespan of the project and any planned updates to the facility over that time frame.

3.2.5 Description of the Environment: The environment in which the project is to be located should be described in this section. The type of information and level of detail provided in each part of the Description of the Environment section will vary according to the project, its location, and the

natural features that may be impacted. This section should include description of the biological environment, physical environment, and human environment.

- 3.2.5.1 Biological Environment: This section should describe vegetation at and around the project site, presence of flora, fauna rare and endangered species; endemic flora and fauna; and sensitive ecological habitats and ecological balance. Specific data may be required on aquatic animals, endangered species and diversity; plankton; spawning sites; mercury levels; aquatic plants, wetlands, mangroves and salt marshes; and terrestrial plants and animals. Occurrences of rare species (plants and animals) and habitat suitable for rare species should be identified, particularly where the project will affect uncultivated areas. Field evaluations may be required to supplement existing information.
 - 3.2.5.2 Physical Environment: Geology, topography, runoff characteristics and soil types, climate and meteorology; ambient air quality; noise; surface and groundwater hydrology; surface and groundwater quality; seasonal changes; sediment quality; seismology; and coastal and marine parameters such as currents, bathymetry, sedimentation and erosion.
 - 3.2.5.3 Human Environment: The Environmental Impact Statement should address land use including parks, reserves, local zoning, protected areas, residential and community features, commercial, agriculture and industrial at and around the project area including information concerning existing infrastructure (roads, utilities), significant cultural/historic or heritages status, etc. If there is known contamination of other disturbances identified on the property, this should also be described.
- 3.2.6 Impact identification is a critical step in EIA. First an exhaustive list of all impacts including minor, short term, moderate, direct and indirect, is drawn up. Then the manageable, significant impacts are selected, based on magnitude, significance, extent and special sensitivity for further study.

The Environmental Impact Assessment should describe the positive and negative effects which the project may have on the environmental features. The level of evaluation on particular subjects will vary according to project complexity and potential for interaction with particular environmental components. Other impacts may relate to animal or plants species and could include issues such as: (i) Air quality (ii) Sewage disposal (iii) Sludge and wastewater management (iv) groundwater impacts and servicing (v) Surface water (vi) Proximity and impact on environmental features (vii) Waste management.

The process usually consists of two stages. Magnitude refers to the amount of change to be created by the impact. For some impacts magnitude is calculated by computer modelling. Significance refers to the actual effects. It looks beyond magnitude. Extent refers to the area to be affected. Quantification of impacts is a difficult technical aspect of an EIA. For some impacts the theoretical basis for computing the magnitude does not exist. Such impacts may have to be addressed in a qualitative way. In identifying possible impacts, use of an impact identification matrix should be adopted as it is the most useful.

- 3.2.7 Socio-economic analysis of project impacts: The socio-economic characteristic of the existing location should be identified. The impacts of the proposed project on the socio-economic environment should then be analyzed. The analysis should include the use of land, the main economic

activities e.g. tourism, agriculture, the social level within nearby communities, employment levels and the existence of archaeological or historical sites.

Impacts should be categorized in terms of positive and negative. Examples of negative impacts are conflicts between existing businesses and new project workers, potential pollutants discharge that have an adverse effect on a waterbody of economic importance, and creation of increase in fees to be charged for services which used to be free. Positive impacts include creation of jobs, decrease public health risks, upgrading of physical infrastructure, and trading of worker.

3.2.8 Economic Information includes financial statements, budgets, etc. This may be submitted as a separate document to preserve confidentiality.

3.2.9 The following issues should be addressed in an EMP Report:

- Summary of Impacts: The predicted adverse environmental and social impacts for which mitigations is required should be identified and briefly summarized. Cross-referencing to the EIA report or other documentation is recommended.
- Description of mitigation measures: Each mitigation measures should be briefly described with reference to the impact to which it relates and the conditions under which it is required(for example, continuously or in the event of contingencies). This should be accompanied by, or referenced to, project design and operating procedures which elaborate on the technical aspects of implementing the various measures
- Description of monitoring programmes: The monitoring program should clearly indicate the linkages between impacts identified in the EIA report, measurement indicators, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
- Assignment of responsibilities for plan implementation: Responsibilities for mitigation and monitoring should be clearly defined, including arrangements for coordination between the various actors responsible for mitigation.
- An impact management strategy to correct larger than predicted changes: In addition to the identified actions that can be undertaken to minimize the negative impacts or changes, the mitigation measures should take into consideration the likelihood of occurrence of larger impacts and set necessary mitigation measures.
- Implementation and Reporting procedures: The timing, frequency and duration of mitigation measures should be specified in an implementation schedule, showing links with overall project implementation. Procedures to provide information on the progress and results of mitigation and monitoring measures should be clearly specified.
- An estimate of cost of carrying out mitigation measures and sources of funds: These should be specified for both the initial investment and recurring expenses for implementing all measures contained in the EMP, integrated into the total project costs, and factored into loan negotiations.

- Proven efficacy of the mitigation measures: The proposed mitigation measures should be proven effective and successful in previously established projects.
- 3.2.10 The EIA will assist decision-makers in selecting optimum alternatives whether related to the materials, process/technology or selected sites. All the alternatives taken into account in developing the project should be documented. For example, if the project were to be sited elsewhere, the impacts associated should be reviewed and the associated mitigation action and costs defined. The long-term viability of the project would form the crux of this section. The investigation of alternative mitigation measures through assessment of operation is an integral part of the EIA process. Each alternative should be evaluated in respect of its potential environmental losses and gains must be combined with economic costs and benefits to give the full picture for each alternative. Different options will be ranked in view of selecting the most suitable ones to meet the objectives of the project in a sustainable manner. An analysis of the “no action” alternative should be included.
- 3.2.11 A detailed environmental monitoring programme/plan should be defined to identify the necessary monitoring activities to ensure proper process and performance efficiency of the project. The reasons for the costs associated with the monitoring activities should be covered. Institutional arrangements to ensure the proper implementation of the EMP will also be identified.
- It should be noted that some details presented may change depending on the final designs after the EIA preparation and review. These changes must be submitted to and approved by the EPA. The monitoring programme should clearly state:
- Compliance with mitigation measures including information on location, time schedule, periodic reporting, audit/review results, implementation of mitigation measures.
 - Residual impacts including indicators, standards, methodology, location, schedule, responsibilities and cost.
- 3.2.12 An important part of the Environmental Impact Assessment process is the public consultation that is carried out by the proponent. The proponent’s plans for public consultation should be detailed in this section of the Environmental Impact Statement.
- 3.2.13 A description of the best available Technology. Details in this section depend on the type of project; however, it is necessary to describe and list the specifications of the technology used. For example, if an EIA is to be conducted for the use of incinerator, a full description should be provided in terms of specifications, internal structure, operating conditions, etc.
- 3.2.14 The consultant or report writer must make a conclusion or recommendation on whether the project should proceed as described in the Environmental Impact Assessment report. It is important to have this statement, as it provides the readers with a conclusion to assess. The Conclusion Statement must be concise and incorporate the mitigation measures that are planned for the project.
- 3.2.15 Annexes should include: reference documents, unpublished data, term of references, consulting team composition, and notes on public consultation sessions.

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