

Review of National Water Resources Management Frameworks in Liberia: A Policy Brief

Key Recommendations

Policies and Strategies

- i. Update the agriculture, nutrition and food security policy framework with long-view policy objectives and strategies aligned with national plans for agricultural development, diversification and commercialisation.
- ii. Clearly articulate the necessary system safeguards to militate against the anticipated environmental management implications of Liberia's development agenda.
- iii. Integrate the obligations and aspirations of the SDGs; the Paris climate agreement; and the N'Gor Commitments on water security and sanitation into the policy framework.
- iv. Institute a system for periodic review and update of relevant policy and management instruments.

Institutional arrangements

- i. Enact a consolidated law on water resources management, as well as the attendant regulations.

Institutional arrangements

- i. Revitalise and update dormant institutional arrangements.
- ii. Expedite full operationalisation of all coordination structures, tools and mechanisms prescribed for land, environment and natural resources management.
- iii. Strengthen local authorities for service delivery, especially the institutional and systemic capacity for provision of extension services on soil and water management.

Donors

Introduction

A key contributing factor to the degradation of farmland, particularly in arid and semi-arid areas in Africa, is salinisation and sodification of the soils. In irrigated agriculture – especially when using methods that do not provide proper drainage – the water applied draws salts to the surface. In addition, the evaporation of the irrigation water leaves salt in its stead. In coastal farming areas, salinisation is predominantly caused by seawater intrusion. This is attributed either to groundwater resources abstraction in excess of recharge characteristics; or rising sea levels associated with climate change.

Comprehensiveness and sustainability of ongoing agricultural development initiatives in Africa make it imperative to provide mechanisms for adapting to and mitigating the challenges of salinity. A key entry point is to equip farmers with technologies and skills that can improve agricultural productivity while conserving and improving the natural resource base. These technologies and skills include:

- i. soil and water management practices that improve fertility and mitigate/avert salinisation;

- ii. low-cost, water and energy-efficient small-scale irrigation technologies;
- iii. best management practices that improve the productivity of existing cropping systems; and,
- iv. crops that are both adapted to a changing climate, and provide a high nutritional and economic value – e.g. quinoa, minor millets and legumes.

The RESADE project thus supports skills acquisition and technology transfer – as listed above – to smallholder farmers in seven participating countries. The countries are, namely: Botswana, the Gambia, Liberia, Mozambique, Namibia, Sierra Leone and Togo. The project acronym – RESADE – derives from the overarching goal of “*improving agricultural **Resilience to Salinity through **D**evelopment and **P**romotion of **pro-poor technologies in selected countries of sub-Saharan Africa**”.***

This policy brief summarises the outputs from a review of Liberia’s water resources management (WRM) frameworks within the context of the foregoing.

Water and agriculture in the context of Liberia’s development goals

In 2018, the government of Liberia published the Pro-poor Agenda for Prosperity and Development 2018 – 2023 (the PAPD) to build the nation leaving no-one behind. In line with Vision 2030, PAPD contributes to the long-term goal of raising income levels and economic status to a middle-income country. Its relevant policy objectives include:

- i. **Increasing agricultural production and productivity** as the linchpin to success in poverty eradication and ending hunger in Liberia. Development of the agriculture sector to enhance competitiveness and diversification lies squarely at the heart of the vision of attaining middle-income status by 2030. The PAPD targets agriculture sector development through, among others:
 - a. agricultural concessions and commercialisation support to smallholders;



POPULATION

Total population of 5.1 million, 47.9% of whom live in rural areas (PRB, 2021).

ECONOMY

Liberia’s average real GDP has shrunk at a rate of 0.52% per year in the period 2015-2020, dropping from an average of 6.2% over the period 2009-2014 (GoL, 2021).

AGRICULTURE IN ECONOMY

The agricultural and fisheries sector contributes about 36% of GDP, and accounts for more than 56% of export earnings. Furthermore, the livelihoods of at least 60% of the population depended on agriculture (GoL, 2019, 2021).

INTERNAL RENEWABLE WATER RESOURCES:

Liberia’s internal renewable water resources are estimated as 200BCM per year for the period 1972-2017 (FAO, 2020)

- b. increasing local food production and processing; and,
 - c. boosting value addition in agricultural production and processing of forest products through establishment of Special Economic Zones (SEZ).
- ii. **Improving access to basic social services.** Water supply, sanitation and hygiene services provision are recognised as vital factors to improved human welfare, development and Liberia’s long-term sustainable growth. The guiding principles include ensuring equity and universal inclusion in both services provision and access.
- iii. **Improving management of natural resources, and conservation of biodiversity.** The primary objective is to engender a society that lives in harmony with its natural environment. Agriculture, being the mainstay of the population, is to be adapted

to ensure sector resilience to the impacts of climate change. The impact of agriculture on forest management is to be regulated by an approach based on corporatisation, commercialisation and certification. Similarly, strategies are in place to reduce dependency on biomass as the primary source of energy (GoL, 2013a, 2015, 2016, 2017a, 2018c, 2021).

The sectoral policy environment

Translation of the above priorities into benefits for the people of Liberia is dependent on the availability of an enabling environment for the necessary action. From the perspective of ensuring food security and environmental integrity, the state of the policy framework on water and

related resources is summarised in the table below.

Policy gaps and recommended action

The policy framework on agriculture, nutrition and social protection
The Food and Agriculture Policy and Strategy (FAPS); and the National Nutrition Policy were both adopted in 2008. The PAPD’s policy directions and ambitious targets for agricultural development, diversification and commercialisation have antiquated the strategies adopted at the time. National plans to increase palm-oil plantations by 84,000ha; reclaim wetlands for crop production; and increase effective utilisation of forests necessitate revisiting the policy thrust. Long-view policy and system safeguards are required to militate against the undoubted environmental management implications of the priorities. Similarly, the agriculture, nutrition

Key water and related resources management policies	
The policy framework on agriculture, nutrition and social protection	It comprises of four distinct policies namely: i) the Food and Agriculture Policy and Strategy (FAPS), 2008-2013; ii) the National Nutrition Policy, 2008; iii) the National Fisheries and Aquaculture Policy and Strategy, 2014; and, iv) the National Social Protection Strategy and Policy, 2013. Overall, the key policy objectives focus on: i) mechanising and diversifying agriculture; ii) increasing investments into rural infrastructure and agricultural value addition; iii) increasing aquaculture and fisheries production; and, iv) ensuring adequate nutritional intake and utilisation for all Liberians.
The policy framework on water	The policy framework on water comprises of: i) the National Integrated Water Resources Management (IWRM) policy, 2007; and, ii) the Water Supply and Sanitation (WSS) Policy, 2009. The overarching policy objective is to improve water governance and – in so doing – improving access to affordable, sustainable and equitable water services for all purposes. Transboundary water cooperation is also highlighted to strengthen effectiveness of management arrangements for Liberia’s internal and shared water resources.
The National Environmental Policy, 2002	Overall, the policy goal is to harness environmental and natural resources for livelihoods improvement now and in the future. Effective land management is regarded as the linchpin of addressing environmental problems in Liberia, including reversing degradation of wetlands by agriculture. With respect to Liberia’s water resources, priority is given to deepening knowledge on the resources to guide informed planning for their development.

and food security policy framework currently provides inadequate crucial details on:

- i. the areas of intervention to diversify agricultural production;
- ii. the policy direction and targets for irrigation development – including swamp water control systems for crop production;
- iii. strategies for aligning irrigation development and or agricultural use of swamps with the commitment to sustainable natural resources management;
- iv. agricultural water access as a success factor in increasing production and productivity from the crop, livestock, fisheries and aquaculture sub-sectors;
- v. agricultural infrastructure development strategies and action plans addressing all elements of the agriculture and food supply chain;
- vi. policy strategies and guidelines to establish Special Economic Zones (SEZ) catering to the agricultural sector; and,
- vii. strategies, approaches and mechanisms to ensure sustainability and effective soil, water and related resources conservation, including salinity control.

RECOMMENDATION:

Update the agriculture, nutrition and food security policy framework with long-view policy objectives and strategies aligned with national plans for agricultural development, diversification and commercialisation.

The policy framework on water

The IWRM and the WSS policies reference the development objectives and targets of the Millennium Development Goals (MDGs). The MDGs have long since

been superseded by the even more ambitious Sustainable Development Goals (SDGs). Furthermore, the global agenda has been adapted to Africa's unique circumstances through the N'Gor Commitments on water security and sanitation¹.

A review of Liberia's policy environment on water is thus necessary. The policy framework's underlying international context, targets and rationale should, in the least, reflect the SDGs and N'Gor Commitments. It is also imperative to renew the validity of the individual policies which is implicitly linked to 2015.

The policy review process will also provide a great opportunity to strengthen the water policy environment to include:

- i. mechanisms for institutionalising monitoring, evaluation and regular informed policy review and update;
- ii. an explicit policy direction on agricultural water utilisation commensurate with the sub-sector's water withdrawal status (57%, in GoL, 2007) and pollution hazard; and,
- iii. provisions for mitigating the impacts of climate change and climate variability on water availability, and adapting water resources management approaches.

RECOMMENDATION:

Align the water policy framework with the SDGs and N'Gor commitments.

The National Environmental Policy, 2002

Formulation of the national environmental policy was influenced in part by global trends on implementation of UN Agenda

21 for sustainable development. Without a doubt, the policy broadly addresses the key issues relating to development, economic growth and social transformation. After nearly two decades of the policy's implementation, the magnitude and gravity of the environmental challenges, as well as their drivers, have evolved. So too has the international agenda for sustainable development.

In 2015, the Sustainable Development Goals (SDGs) – Agenda 2030 – superseded Agenda 21. The SDGs, while reasserting Agenda 21 as the basis of sustainable development, raise the ambition by setting 17 goals and 169 integrated and indivisible targets.

Furthermore, proper anchorage is lacking for Liberia's policy initiatives to implement the Paris Agreement on the UN Framework Convention on Climate Change (UNFCCC). A review and update of the policy is thus long overdue to – in the least – align with the National Policy and Response Strategy on climate change, 2018. Considering Liberia's development aspirations, it is also imperative to strengthen the policy with measures on environmental and social safeguards.

RECOMMENDATION:

1. Update and align the policy with related policies on climate change.
2. Strengthen the policy with measures on environmental and social safeguards.

¹ Adopted by the African Ministers Council on Water (AMCOW) at the 4th AfricanSan Conference in Dakar, Senegal in May 2015. The vision of the commitments is to achieve universal access to adequate and sustainable sanitation and hygiene services and eliminate open defecation by 2030.

Furthermore, the policy document recommends various reforms to policies, laws, regulations and institutional structures. The reforms are intended to improve effectiveness of environment and natural resources management in Liberia. To date, though, key elements of the sector strengthening measures are yet to be implemented and or operationalised. This has major implications for efforts to guard against depletion of the natural resources base and – in turn – aspirations for economic growth and social transformation. It is, therefore, imperative that – as part of the policy review and update – an assessment of the necessary and pending reforms is carried out. The resulting information should then be used to expedite action to strengthen environment and natural resources governance in Liberia.

RECOMMENDATION:

Operationalise the stipulated technical, institutional and legal instruments.

Key legislation

The key legislation that either derive from or support the policies discussed in the foregoing are:

- i. the Executive Law, Title 12 of the revised Liberian Code of Laws, the relevant chapters and amendments to which include:
 - a. the Food Law of Liberia 2017;
 - b. the powers and functions of the Executive Branch (Part II) that includes the Ministries of Agriculture (Chapter 28), Local Government (Chapter 25), Public Works (Chapter 27) and Lands and Mines (Chapter 33);
- ii. the Public Health Law, 2017 – Title 33 of the revised Liberian Code of Laws – and attendant legal instruments including:
 - a. the COVID-19 Health Emergency Declaration, 2020;
 - b. Regulatory Instrument RI/C&E/001/02-17 of 2017 on guidelines for the operation and monitoring of drinking water production;
- iii. the National Water, Sanitation & Hygiene Commission Act of 2012;
- iv. the Public Authorities Law of 1973 – Title 30 of the revised Liberian Code of Laws, specifically:
 - a. Chapter 88 establishing the Liberia Water and Sewer Corporation;
 - b. Chapter 5, the Liberia Industrial Free Zone Authority Act (Article 10 of which stipulates low water usage as a criterion for admission to the Free Zones);
 - c. the Liberia Agriculture Commodity Regulatory Authority Act of 2014;
 - d. the National Fisheries and Aquaculture Act of 2017 establishing the National Fisheries and Aquaculture Authority
- v. the Agriculture Law, 1973 – Title 3 of the revised Liberian Code of Laws – and attendant legal instruments including:
 - a. the 1973 Act to amend the Agriculture Law to provide for the prevention of water pollution and to protect the marine life within the rivers and streams of the Republic;
- vi. the Land Rights Act of 2018;
- vii. the Land Authority Act of 2016;
- viii. the Local Government Law – Title 20 of the revised Liberian Code of Laws;
- ix. the Natural Resources Law – Title 23 of the revised Liberian Code of Laws;
- x. the Environment Protection Agency Act, 2002
- xi. the Environment Protection and Management Law, 2002;
- xii. the National Forestry Reform Law of 2006 and attendant regulations; and,
- xiii. the Fisheries and Aquaculture Management and Development Law of 2019.

Legislative gaps and recommended action

A key weakness in the legislative environment for WRM is the absence of a consolidated law to implement the integrated water resources management (IWRM) policy. Whereas the WASH Commission Act provides for overseeing implementation of the WSS policy, the upstream functions for assuring water availability are not legislated. In turn, this creates a limitation to realisation of the PAPD's ambitious targets of increased economic activity; and universal access to water and sanitation services. Without the necessary legal platform, it is unlikely that international best practice for sustainable water resources development and utilisation can be adopted.

Furthermore, WRM functions are scattered across various pieces of legislation, including:

- i. the Environment Protection and Management Law, 2002;
- ii. the Agriculture Law, Title 3;
- iii. the Natural Resources Law, Title 23; and,
- iv. the Public Health Law, title 33.

These circumstances create an environment for overlaps, gaps and inadvertent competition. In turn this undermines effectiveness of the arrangements for water resources governance and management. It is, therefore, imperative to enact a consolidated law on water resources management.

RECOMMENDATION:

Enact a consolidated law on water resources management.

In the same vein, and as earlier noted, the IWRM Policy is antiquated. This also has implications for the legal environment. Attendant regulations and related legal instruments are, thus, required to:

- i. fully operationalise the technical arrangements and institutional structures stipulated in the IWRM policy, especially the prescribed coordinating bodies;
- ii. address weaknesses in existing frameworks for groundwater monitoring and management;
- iii. create an enabling environment for implementation of climate change adaptation and mitigation measures in the water and environment sector; and,
- iv. introduce functional measures for agricultural water management and salinity control.

RECOMMENDATION:

Operationalise stipulated IWRM coordinating bodies.

Institutional challenges and recommended action

The institutional challenges relating to water resources management manifest in two dimensions, namely:

- i. weaknesses in the functionality of existing institutional arrangements which is demonstrated by the fragmentation of water resources management responsibilities across several government agencies (GoL, 2007, 2009); and,

- ii. inadequate level of operationalisation of the coordinating bodies and mechanisms stipulated by the IWRM and WASH policies.

Consequently, the roles and responsibilities of all stakeholders in the decision-making processes for water management are not definitively clear and or fulfilled. In turn, the effectiveness and efficiency of government efforts to sustainably utilise Liberia's natural resources base to deliver economic growth and social transformation is undermined.

RECOMMENDATION:

Revitalise and update dormant institutional arrangements.

It is thus imperative to expedite processes to fully operationalise all prescribed sector coordination structures, tools and mechanisms. Such actions should be piggybacked to the PAPD prioritised interventions to expand public sector capacity and delivery. The entry points include planned, if not ongoing, PAPD interventions to:

- i. progressively introduce multi-sectoralism in formulating sector policies and strategic plans;
- ii. deconcentrate fiscal and administrative functions to local authorities as part of efforts to develop local level capacity for service delivery;
- iii. empower local administrative structures through enactment of the provisions of the Local Government Law;
- iv. implement the public-sector modernisation project;
- v. reform and revitalise State-Owned Enterprises (SOEs), including:
 - a. formulating policy framework strategies on

- b. establishing and implementing a government-wide results-based Monitoring and Evaluation (M&E) system
- vi. strengthen land tenure security through consolidation of land related functions as part of the mandate of the Liberia Land Authority; and,
- vii. harmonise the legal instruments relating to land, environment and natural resources management.

RECOMMENDATION:

Expedite full operationalisation of all coordination structures, tools and mechanisms prescribed for land, environment and natural resources management

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