



# **National Irrigation Policy**



# **National Irrigation Policy**

2016

Prosperity Through Inrigation



Ministry of Agriculture, Irrigation and Water Development Department of Irrigation P.O. Box 30797 Lilongwe 3

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# List of Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ASWAp	Agriculture Sector Wide Approach
CAADP	Comprehensive African Agriculture Development Programme
CONGOMA	Council for Non-Governmental Organizations in Malawi
CSOs	Civil Society Organisations
Dol	Department of Irrigation
EAD	Environmental Affairs Department
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
GBI	Green-Belt Initiative
GoM	Government of Malawi
HIV	Human Immunodeficiency Virus
ICID	International Commission on Irrigation and Drainage
IF	Irrigation Fund
IMPIF	Irrigation Master Plan and Investment Framework
ISD	Irrigation Services Division
LIS	Land Information Systems
MALCID	Malawi Committee on Irrigation and Drainage
MGDS II	Malawi Growth and Development Strategy II
MIB	Malawi Irrigation Board
MIRTDC	Malawi Industrial Research and Technology Development Centre
MDG	Millennium Development Goal
MoAIWD	Ministry of Agriculture, Irrigation and Water Development

NCIC	National Construction Industry Council
NEP	National Environmental Policy
NES	National Export Strategy
NGOs	Non-Government Organizations
NIP	National Irrigation Policy
NIPDS	National Irrigation Policy and Development Strategy
NWRA	National Water Resources Authority
O&M	Operation and Maintenance
PPP	Public Private Partnership
SACCO	Savings and Credit Cooperative
ToR	Terms of Reference
WaSWAp	Water Sector Wide Approach
WUA	Water Users' Association
WUG	Water Users' Group

## Foreword

Sustainable development and management of irrigation and drainage infrastructure necessitates renewed policy direction and guidance at both national and local levels. Fundamentally, national and local policy directions need to be harmonized with policy developments at global and regional levels.

In line with the foregoing, this revised National Irrigation Policy (NIP 2016) provides guidance to all stakeholders in Malawi, for the next five years, in the implementation and provision of irrigation-related goods, works and services. This is necessary in order to attain food security, nutrition and economic growth as aspired for in the Sustainable Development Goals; the Malawi Growth and Development Strategy; the Irrigation Master Plan and Investment Framework (IMPIF); the Green-Belt Initiative (GBI); the National Export Strategy (NES); and, the Comprehensive African Agriculture Development Programme (CAADP) compact.

In Malawi, irrigation development has so far been guided by the NIPDS (2000). However, since the inception of the policy, a number of new developments have taken place including the need for strengthened irrigation Water Users Associations (WUAs) and Cooperatives; promotion of Public Private Partnerships (PPPs); shifts in natural resources (i.e. water and land) management; monitoring and evaluation. The Policy seeks to support efforts to transform farmer organizations from subsistence to commercial farming in line with the NES.

Whilst recognizing the numerous challenges facing irrigation development, the goal of this policy is to contribute to sustainable economic growth and development by enhancing irrigated agricultural production. The policy focuses on three priority areas, namely; sustainable irrigation development, sustainable irrigation management and capacity development.

It is my firm conviction that the policy will be critical in attaining economic and social development of Malawi. It is pertinent, therefore, that all sectors of the economy play their respective roles to transform Malawi by being committed to the implementation of this Policy.

<sup>t</sup>Dr. George T. Chaponda, MP Minister of Agriculture, Irrigation and Water Development

# Preface

The National Irrigation Policy (NIP, 2016) aims at addressing critical issues affecting the irrigation sector that include spatial and temporal water shortages; customary land tenure disputes; and, poor operation and maintenance of infrastructure.

The NIP attempts to provide solutions to these challenges by addressing three priority areas of sustainable irrigation development, management and capacity development. The policy acknowledges several opportunities that exist for accelerated irrigation development, namely; effects of climate change, public private partnerships, improved governance reforms in water and land management, and increasing interest by stakeholders.

The NIP is in conformity with the MGDS II, CAADP, IMPIF and the Water and Agriculture SWAps. The Policy is well anchored in the National Water Policy, Agriculture Policy, National Environmental Policy and others. The NIP emphasises that irrigation development and management should serve human needs such as food, nutrition and income. The policy has a provision for establishing an Irrigation Fund. It further strives to ensure that the environment is given due consideration in all irrigation developments.

This NIP describes broad policy objectives, development strategies and expected outcomes. It also describes institutional arrangements as well as the key roles and responsibilities of stakeholders in operationalizing the policy. The Policy also provides for a monitoring and evaluation mechanism.

The Government therefore calls upon all stakeholders to embrace the National Irrigation Policy and the Implementation, Monitoring and Evaluation Strategy in the improvement of irrigated agricultural production and productivity in Malawi.

Francia

Erica Maganga (Mrs.)

Secretary for Agriculture, Irrigation and Water Development

# **1.0 INTRODUCTION**

This policy document is the second edition of the National Irrigation Policy and Development Strategy (NIPDS) which has been in operation since the year 2000. The National Irrigation Policy (NIP) 2016 is accompanied by a separate and complementary document for implementation, monitoring and evaluation.

The Government of Malawi (GoM) found it necessary to revise the NIPDS (2000) so as to have policies, strategies, plans, monitoring and evaluation systems that contribute effectively to sustainable economic growth of the country. The NIP is consistent with the aspirations of Malawians as reflected in the Malawi Growth and Development Strategy II (MGDS II); the Comprehensive African Agriculture Development Programme (CAADP); and the Sustainable Development Goals. The Policy recognises the provisions in the Constitution by encouraging participation of all gender groups, and those affected by HIV and AIDS. The policy also recognises the need for sustainable natural resources management. Above all, the Policy seeks to provide guidance to all stakeholders in the provision of irrigation goods, works and services as well as interventions that will facilitate improved food security, increased nutrition and sustainable economic growth.

The revision was based on the potential for the irrigation sector in contributing towards socio-economic growth through sustainable irrigation development, management and capacity building as major focus areas which are also outlined in the Irrigation Master Plan and Investment Framework (IMPIF).

# 1.1 Background

Malawi has a predominantly agriculture based economy. The agriculture sector is dependent almost entirely on subsistence rain-fed agriculture. The irrigation potential in the country remains, largely, unexploited. Out of the estimated potential of 407,862<sup>1</sup> hectares, only about 104,634<sup>2</sup> hectares have been developed for irrigation purposes representing 25% of the potential area. The limited area under irrigation results into low agricultural production and productivity leading to food deficits during periods of erratic rainfall patterns, dry spells, droughts and floods of which there has been increased frequency of occurrence due to climate change effects. The food deficits are exacerbated by population growth which the National Statistical Office projects to reach about 19.1 million by 2020.

<sup>1</sup> Irrigation Master Plan and Investment Framework (2015)

<sup>2</sup> Department of Irrigation Annual Report (2015)

It is for these reasons that the MGDS II recognises irrigation as one of the priority areas for reducing poverty and accelerating the country's economic growth. The NIP is well anchored in the National Water Policy (2005), National Environmental Policy (2004), Public Private Partnership Policy (2011), and Decentralisation Policy (1998) among others.

This revised NIP 2016 provides a clear statement of the Government's aspirations of developing the irrigation sector and for attaining its development objectives. The NIP also emphasizes the importance of incorporating irrigation for both food and commercial purposes. It also has a provision for establishing an Irrigation Fund and for developing linkages with other partners. It further strives to ensure that the environment is given due consideration in all irrigation developments and management as provided for in the Environmental Impact Assessment Guidelines for Irrigation and Drainage Projects (2002).

This NIP 2016 describes broad policy objectives, development strategies and expected outcomes. It also describes institutional arrangements and frameworks as well as the key stakeholder roles and responsibilities for operationalizing the policy. The Policy provides for a monitoring and evaluation mechanism. It is intended that the policy will be reviewed every five years in consultation with all stakeholders.

# 1.2 Rationale

In response to emerging issues affecting irrigation development, the NIPDS has been reviewed leading to the preparation of the NIP that incorporates new developments in the sector such as Public Private Partnerships (PPPs), matching grants, climate change and shifts in natural resources (i.e. land and water) management.

The NIP is one of the tools for adapting to climate change which allows crop production during droughts and dry spells. Current high population growth rates need to be matched with increased agricultural production and productivity by, among other things, expanding irrigated agriculture. According to the CAADP compact, the agriculture sector should be growing by, at least, 6% annually in order to attain sustainable growth and development. Considering the relative limited land and water resources in the country, irrigation provides significant technical means to increase agriculture production and productivity. Besides the above, there is also need to view irrigation in the broad context of national development so that it contributes to the socio-economic advancement of the population. Irrigation must also fit into a strategy of sustainable and environmentally appropriate natural resources development and management, especially for water and land.

There is need for careful coordination with other stakeholders to ensure that proposals for irrigation development are not contradictory or overlapping, but are mutually supportive and form a coherent policy framework. The role of the government in irrigation development and management is that of a facilitator in a market oriented economy. The Policy intends to support the migration of farmer organizations from subsistence to commercialization. The revised NIP, therefore, takes into account policies of other related sectors.

# **1.3 Related Policies**

This Policy takes cognizance of the Water Sector Wide Approach (WaSWAp) and the Agriculture Sector Wide Approaches (ASWAp) which provide priority investment programmes for irrigated agriculture development and management.

The key related policies include National Environmental Policy (2004), Malawi Nutrition Policy (2009), National Land Resources Management Policy (2000), Wildlife Policy (2000), Water Resources Policy (2005), Public Private Partnership Policy (2011), Decentralisation Policy (1998), Gender Policy (2008), Malawi National HIV/AIDS Policy (2013), Malawi Land Policy (2002) and National Youth Policy (2013).

#### 1.3.1 International Instruments

At international level, Malawi is a signatory to several agreements and protocols on sustainable water and land management. These include key agreements and protocols such as the (Revised) Protocol on Shared Watercourses in the Southern African Development Community (2000) and the CAADP 2003. The CAADP demonstrates African ownership and leadership. It calls for expanded public and private investment in agriculture and desire to build on the progress that African governments have made in advancing a vision for agricultural development in Africa.

# 2.0 BROAD POLICY DIRECTIONS

# 2.1 Policy Goal

The overall NIP goal is to contribute to sustainable national economic growth and development through enhanced irrigated agriculture production and productivity.

# 2.2 Policy Outcomes

The policy outcomes are:

- 2.2.1 Increased irrigated agriculture production and productivity for local and export use using irrigation technologies that take into account climate change
- 2.2.2 Improved national and household incomes, food and nutritional security;
- 2.2.3 Improved irrigation service delivery;
- 2.2.4 Increased employment opportunities; and
- 2.2.5 Enhanced land and water productivity through sustainable land tenure arrangements, catchment management and water harvesting.

# 2.3 Policy Objectives

The policy objectives are:

- 2.3.1 Increase land under sustainable irrigation farming;
- 2.3.2 Facilitate crop diversification and intensification;
- 2.3.3 Create an enabling environment for irrigated agriculture;
- 2.3.4 Optimize investment in irrigation development taking into account climate change;
- 2.3.5 Enhance capacity for irrigated agriculture; and
- 2.3.6 Promote a business culture in the small-scale irrigated agriculture sector.

# 3.0 POLICY PRIORITY AREAS

In order to achieve the overall goal, the policy will focus on three priority areas namely, Sustainable Irrigation Development, Sustainable Irrigation Management and Capacity Development.

# 3.1 Sustainable Irrigation Development

Sustainable irrigation development entails construction of new irrigation infrastructure to put more land under irrigation. The irrigated area has been growing steadily since 2006 at the rate of around 5 percent per annum and almost all of the growth has been on smallholder irrigation schemes. It is estimated that the country has 407,862 hectares of irrigation potential but only about 104,634 hectares were developed by the year 2015.

The development of irrigation has been less than the desired level due to a number of factors that include inadequate financial resource mobilisation, high development costs (i.e. US\$ 9,000 to US\$15,000 per hectare), un-harmonised irrigation development initiatives, environmental degradation, customary land disputes and limited participation of stakeholders. The policy, therefore, aims at addressing these issues so as to achieve sustainable development of irrigation infrastructure.

#### 3.1.1 Policy Statements

The policy will therefore:

- i. Support and encourage the mobilisation of financial resources for irrigation development through arrangements such as irrigation levy, PPPs and matching grants;
- ii. Facilitate the establishment of the Malawi Irrigation Board that shall advise Government and stakeholders on policy matters relating to irrigation and drainage;
- iii. Facilitate the establishment and operationalisation of the Irrigation Fund to finance irrigation development projects;
- iv. Support the implementation of the IMPIF;
- v. Support and encourage application of environmental and social impact assessments and implementation of environmental management plans as provided for in the Environment Management Act;
- vi. Facilitate, in a coordinated manner, the formalization of land tenure rights that will ensure tenure security and minimise resettlement;

- vii. Support and encourage private sector, CSOs and beneficiary community participation in irrigation development through provision of irrigation development support and extension services in such aspects as feasibility studies, design, and construction.
- viii. Facilitate development of water resources for sustaining water availability throughout the irrigation season.

# 3.2 Sustainable Irrigation Management

The management of irrigation projects is beset with a number of challenges that include degradation of catchment areas hence affecting availability of water resources; beneficiary community unwillingness or capacity limitations to operate and maintain the systems; marketing challenges; land tenure issues and inadequate irrigation extension services which cause loss of systems capacity.

The developed areas of irrigated schemes should be well managed to sustain productivity. The beneficiary community should operate and maintain the infrastructure so that the designed capacities are maintained to support desired crop production levels.

#### 3.2.1 Policy Statements

The policy will therefore:

- i. Encourage catchment management practices for the benefit of irrigating and non-irrigating communities;
- ii. Develop farmer organisations through technical and administrative empowerment to ensure effective community participation;
- iii. Explore alternatives to handling and marketing of farmers produce for maximum profitability of irrigated crops;
- iv. Facilitate, in a coordinated manner, the formalisation of land tenure rights that will ensure tenure security;
- v. Strengthen extension services for irrigated agriculture through awareness and outreach of irrigation technologies;
- vi. Support beneficiary communities where major rehabilitation, upgrading or modernisation of irrigation infrastructure are required;

# 3.3 Capacity Development

The development and management of irrigation schemes require adequate technical and administrative capacity among others. The technical competence within the public and private sectors including training institutions and beneficiary communities is critical for sustainable irrigation development and management.

The main capacity challenges include undocumented training needs for irrigation stakeholders, unavailability of national irrigation standards, code of practice and guidelines for irrigation development, inadequate availability of irrigation expertise, poor linkages between irrigation research and extension, short supply of equipment, plant and irrigation software and inadequate irrigation service providers.

## 3.3.1 Policy Statements

The policy will therefore:

- i. Develop and improve training programmes (including on the job) to address capacity gaps in the public and private institutions including training institutions;
- ii. Develop irrigation standards, code of practice and irrigation development guidelines and ensure that these are adhered to by all irrigation stakeholders;
- iii. Ensure that there is greater presence of irrigation experts at district or lower levels;
- iv. Develop and adapt irrigation technologies and best practices taking into account the financial and technical beneficiary limitations and disseminate through a robust extension system;
- v. Encourage irrigation stakeholders to acquire the necessary equipment, plant and irrigation technologies;
- vi. Encourage registration of irrigation service providers (i.e. consultants and contractors) with relevant professional bodies such as the National Construction Industry Council (NCIC)
- vii. Facilitate farmer training programmes so as to transform the mind-set of farmers from subsistence to commercial irrigation.

# 4.0 IMPLEMENTATION ARRANGEMENTS

## 4.1 Institutional Arrangements

Irrigation development shall be under the mandate of the Ministry responsible for Irrigation. Other major participants in the institutional arrangements for irrigation development and management will be relevant government ministries, departments and agencies; training institutions; the private sector; irrigators; civil society organisations (CSOs), and development partners.

#### 4.1.1 Government Ministries

# 4.1.1.1 Ministry Responsible for Agriculture, Irrigation and Water Development

- a. The Ministry shall be at the centre of irrigated agriculture development. As such, the Ministry shall be responsible for ensuring close coordination amongst various Departments such as: Agricultural Research Services, Agricultural Extension Services, Climate Change and Meteorological Services, Land Resources and Conservation; Water Resources Management; Government development initiatives on irrigation; relevant training institutions; private sector; development partners; and, CSOs. The main areas for coordination will include:
  - Promotion of irrigation development in potential areas;
  - Initial identification of farmers' interest in irrigation and their needs and subsequent follow-up;
  - Training of irrigation professionals;
  - Irrigation research and extension;
  - Sensitization and beneficiary mobilization;
  - Sectoral reform issues;
  - Farmer training and motivation;
  - Particular programs concerning cost sharing methods;
  - Irrigation water management practices.
- b. The Ministry will update existing database on irrigation development potential and ensure that it is easily accessed by all stakeholders.
- c. The Ministry will establish in-house training programmes so that professional members of staff are given exposure and practical experience through on-the-job training;

- d. The Ministry will promote irrigated agriculture in accordance with the National Environmental Policy (NEP), EIA Guidelines for Irrigation and Drainage Projects (2002) and EIA Guidelines (1997);
- e. The Ministry will promote integrated approach in the planning and design of irrigation projects factoring in resilience to climate change;
- f. The Ministry will facilitate the formulation of irrigation designs and specifications, which shall be a basis for monitoring and evaluation of irrigation works;
- g. The Ministry will manage water resources for irrigation purposes and monitor sustainable utilization of water resources;
- h. The Ministry will provide hydrological data for the design of irrigation projects and facilitate the provision of water rights for irrigation development;
- i. The Ministry will explore alternatives to handling and marketing of farmers produce in order to realize maximum possible gross margins from irrigated agriculture;
- j. The Ministry will play a catalytic role in influencing market intelligence among the farmer organizations and provide guidance through farmer training in effective negotiations on pricing of agricultural commodities;
- k. The Ministry will ensure that crops grown in irrigation schemes are based on existing demand and expected returns in order to allow diversification of irrigated crops and competitive prices;
- I. The Ministry will provide extension and research services;
- m. The Ministry will ensure that land conservation issues are addressed in irrigation schemes and catchment areas;
- n. The Ministry will facilitate prevention and control of pests and diseases;
- o. In addition, the role of the Ministry will be to:
  - Coordinate the implementation of the GBI focusing on large scale irrigation development
  - Ensure that development of large-scale irrigation farming is environmentally sustainable.

# 4.1.1.2 Ministry Responsible for Finance, Economic Planning and Development

The role of the Ministry shall be to:

- a. Mobilize and disburse financial resources for the implementation of irrigation programmes;
- b. Place increased emphasis on irrigation development, but at the same time keeping subsidies to a minimum;
- c. Monitor utilization of disbursed funds;
- d. Explore aspects of tax incentives and preferential treatment for private estate, commercial farming and service providers.
- e. Ensure that development partner support is provided and coordinated in terms of overall national programming;
- f. Assess whether the irrigation programme or project complies with the relevant sector and national policies and strategies as well as standards and guidelines set out by responsible Ministries; and
- g. Assess whether the public sector expenditures comply with the Public Sector Investment Programme priorities and allocations.

#### 4.1.1.3 Ministry Responsible for Lands

As a custodian of all land in Malawi, the role of the Ministry shall be to:

- a. Implement land reform and land tenure programmes for irrigation development, in close coordination with Ministry responsible for Irrigation;
- b. Maintain the land tenure database, and revise as necessary to assist the transfer of existing public lands to the beneficiaries and also in the identification of areas with potential for irrigation;
- c. Administer land rights and tenure; and
- d. Play a crucial role in preparing land use plans, registration and maintenance of Land Information Systems (LIS).

# 4.1.1.4 Ministry Responsible for Natural Resources, Energy and Environment

The role of the Ministry shall be to:

- a. Consolidate the conservation of forest and catchment areas to conserve soil and water for irrigation purposes;
- b. Pursue the establishment of forest reserves to rehabilitate irrigation scheme catchment areas;
- c. Advise on sustainable sources of energy for irrigation development;
- d. Administer the National Environmental Policy and legislation and facilitate the process of ESIA for all new developments and where appropriate Environmental Audits for existing projects; and
- E. Ensure that irrigated agricultural development is promoted through environmentally sound irrigated crop production, consistent with the principles of sustainable development by including the relevant strategies and measures necessary for promoting conservation, management and sustainable utilization of the natural resources.

#### 4.1.1.5 Ministry Responsible for Parks and Wildlife

The role of the Ministry shall be to:

- a. Promote conservation of catchment areas in Game Reserves and parks to ensure acceptable water quality and adequate quantities that can be used for irrigation; and
- b. Ensure that in any review of the status of protected areas, irrigated agriculture should be included as one of the options for future development and utilization of such land.
- c. Devise ways of preventing invasion of wildlife to irrigated lands.

#### 4.1.1.6 Ministry Responsible for Industry and Trade

The role of the Ministry shall be to:

a. Facilitate the formation and empowerment of farmer organisations for efficient marketing of irrigated produce; and

b. Encourage investment in irrigation farming value chain.

#### 4.1.1.7 Ministry Responsible for Local Government

a. Facilitate public awareness and mobilize communities for irrigation development;

b. Plan and coordinate the implementation of irrigation development at local council; and

c. Assist in the settlement of disputes in irrigated areas.

#### 4.1.1.8 Ministry Responsible for Education

The role of the Ministry shall be to:

a. Include irrigation principles and practices in curricula for primary, secondary and tertiary education institutions; and

b. Train future irrigation personnel.

#### 4.1.1.9 Ministry Responsible for Health

The role of the Ministry shall be to:

a. Provide appropriate interventions such as the promotion of hygiene and sanitation education to prevent water related diseases; and

b. Mainstream HIV and AIDS in the irrigation sector.

#### 4.1.1.10 Ministry Responsible for Gender Affairs

The role of the Ministry shall be to ensure that gender issues and involvement of vulnerable groups are mainstreamed in irrigation programmes.

#### 4.1.1.11 Ministry Responsible for Nutrition, HIV and AIDS

The role of the Ministry shall be to ensure that Nutrition, HIV and AIDS issues are mainstreamed in irrigation programmes.

#### 4.1.1.12 Ministry Responsible for Labour, Youth and Manpower Development

The role of the Ministry shall be to:

- a. Provide appropriate interventions such as the promotion of hygiene and sanitation education to prevent water related diseases; and
- b. Mainstream HIV and AIDS in the irrigation sector.

#### 4.1.2 Government Agencies

#### 4.1.2.1 Public Private Partnership Commission

The role of the Commission will be to:

- a. Advise on PPPs arrangements and engagements in irrigation development and management; and
- b. Promote investment in irrigation.

#### 4.1.2.2 Office of the Director of Public Procurement

The role of this office shall include:

- a. Advise on planning and coordination of procurement;
- b. Advise on preparation of invitations to bid and bidding documents;
- c. Publication and distribution of invitations to bid;
- d. Advise on the administering implementation of contracts

#### 4.1.2.3 National Audit Office

The role of this agency will be to:

- a. Provide an independent assessment of irrigation programmes, policy, operation and results
- b. Undertake performance audit of the irrigation sector
- c. Advise on public resources management in order to achieve intended results in irrigation development.

#### 4.1.2.4 National Commission for Science and Technology

The role of this agency will be to support the irrigation sector in the generation of irrigation technologies for sustainable irrigation development and management.

#### 4.1.3 Irrigation and Water Institutions

#### 4.1.3.1 Malawi Irrigation Board (MIB);

The Irrigation Act 2001 provides for the establishment of the Malawi Irrigation Board to manage the Irrigation Fund. The main role of the Board is to monitor the progress of irrigation development and management at the national level in compliance with irrigation standards and guidelines.

In addition, the Board will ensure irrigation development programmes are in line with national demands and priorities and that companies or individuals involved in irrigation development are suitably qualified and registered to ensure sustainability and accountability of services provided.

The roles and responsibilities of the MIB shall be to:

- a. Monitor the progress of irrigation development and management at the national level in compliance with irrigation standards and guidelines; and
- b. Ensure that irrigation development programmes are in line with national demands and priorities and that companies or individuals involved in irrigation development are suitably qualified and registered to ensure the sustainability and accountability of services provided.
- c. Manage the Irrigation Fund.

#### 4.1.3.2 Malawi Committee on Irrigation and Drainage (MALCID)

The role of MALCID shall be to provide a forum for exchange of ideas in irrigation development within Malawi. MALCID shall be affiliated to the International Commission on Irrigation and Drainage (ICID) for ease of accessing irrigation technologies.

#### 4.1.3.3 National Water Resources Authority (NWRA)

The Water Resources Act of 2013 provides for the establishment of National Water Resources Authority (NWRA). The main objective of the NWRA is to create an independent quasi-government organization which is a principal source of policy, control and protect (i.e. manage) the country's water resources.

NWRA shall be responsible for reviewing applications and issuing of water rights. It shall also monitor water abstractions and effluent discharges.

#### 4.1.4 Training Institutions

- a. Training institutions will be encouraged to formulate programs that can build and maintain capacity in the irrigation sector at all levels;
- b. The curricula of the formal training institutions (i.e. Lilongwe University of Agriculture and Natural Resources, The University of Malawi, etc.) will be upgraded and improved to meet the emerging demands;
- c. Ensure broad based training that shall include aspects of irrigation in their curricula;
- d. Supplement all formal courses in irrigation with on-the-job training that shall take place at DoI, ISD, and District levels; and
- e. All projects in irrigation sector will include components for training and institutional capacity building.

# 4.1.5 Private Sector

#### 4.1.5.1 Consultants and Contractors

- a. The capacity in planning, designing and implementation of irrigation projects in the private sector shall be improved through contractual services;
- b. The private sector shall become more involved in irrigation activities that shall include carrying out studies, surveys, design and construction works;
- c. Consultants (both national and international) will be engaged with clear terms of reference (ToRs). No foreign consultant shall work in the irrigation sector without partnering with national consultants who are registered with NCIC i.e. at least 30% of key personnel shall be Malawian nationals; and
- d. Contractors registered with NCIC will be engaged after detailed designs and engineering works are completed together with their costing and implementation timeframes. Foreign contractors shall be encouraged to form joint venture with local contractors.

#### 4.1.5.2 Equipment and Spare Parts Suppliers

- a. The private sector and CSOs will be encouraged to increase stocks of new equipment and spare parts of acceptable standards and provide training to farmers and communities who purchase equipment; and
- b. Pricing mechanism of equipment, spare parts and services will ensure affordability by the smallholder farmers.

#### 4.1.5.3 Credit and Banking Institutions

- a. Credit institutions will be encouraged to respond to the needs of small-scale irrigation beneficiaries, by providing affordable credit facilities for agricultural inputs acquisition through their legal community organizations; and
- b. Banking institutions will be encouraged to recognize the local community organizations for purposes of providing credit for capital development using terms that are affordable to the small-scale irrigation farmers.

#### 4.1.5.4 Commercial Farming Sector

- a. The commercial farming sector will be encouraged to share their experience in irrigated agriculture for the benefit of the smallholder farming communities;
- b. Contract farming will be one of the alternatives to absorb the extra labour and also provide estates with alternative land management;
- c. Estate owners will take on the added responsibility of acting as centers where the surrounding community can access farm inputs, provide storage and/or processing facilities of farm produce, and as marketing outlets of farm produce; and
- d. Estates will be encouraged to invest more in irrigated agriculture.

#### 4.1.6 Irrigators

- a. Smallholder farmers will form organizations, which shall facilitate liaison with technical officers in the planning and design of irrigation schemes, as well as participation in the implementation of irrigation development programmes; and
- b. The farmers will undertake to meet the financial costs of the operation and maintenance of their schemes and also to re-organize their village operations to enable them to take over greater responsibilities;
- c. Vulnerable groups (including the youth, elderly, women, disabled, HIV and AIDS affected) in irrigated agriculture will need special consideration in the acquisition of farm inputs;
- d. Irrigated agriculture will cater for the interest of women farmers based on socio-cultural norms of the rural areas. Specifically, the irrigation sector shall cater for the following areas:

- Design of irrigation systems in terms of water conveyance channels shall take cognizance of the ability of women to manage and work with such channels and also avoid the danger of children drowning in such systems; and
- Local communities shall be assessed in their ability to encourage participation of vulnerable groups, such as female and child headed households in their local committees.

#### 4.1.7 Civil Society

- a. Efforts will be made to promote CSOs-development partner collaboration, and encourage the private sector and CSOs to provide services, equipment and materials for development of irrigated agriculture. Their involvement shall encompass community level support including;
  - Group formation and capacity building;
  - Demonstration of irrigated agriculture;
  - Implementation of small-scale irrigation projects;
  - Networking for the transfer of irrigation technology;
  - Promotion and management of labour saving technologies; and
  - Assistance to the Ministry responsible for Agriculture, Irrigation and Water Development in the distribution of agricultural inputs.
- b. A platform for dialogue with CSOs will be established and an enabling environment created for these to operate effectively through involvement in irrigated agriculture programmes. In addition, cooperation shall be established with CSOs to avoid duplication of effort and to encourage them to participate in the implementation of the national program for irrigation development; and
- c. The Council for Non-Governmental Organizations in Malawi (CONGOMA) will be encouraged to support the pilot programmes and shall encourage greater support to CSOs through the Government and donor funding. All CSOs embarking in the development of irrigation projects shall have to pass their plans through the DoI, to ensure adherence to standards and specifications, and their work shall be subject to monitoring and evaluation by DoI.
- d. All CSOs involved in irrigation will be required to participate in the sector planning and review of the irrigation sub sector for effective information sharing.

#### 4.1.8 Development Partners

- a. The support from development partners for development of irrigation will be directed by the policies and strategies outlined in this policy;
- b. The Government of Malawi will indicate areas of priority for funding to development partners, at the same time they shall have to outline their areas of interest in order to harmonize national needs with preferred areas of support;
- c. Development partners will have to coordinate, among themselves, support rendered to the irrigation sector, and to this effect there shall be need to elect a coordinator for purposes of irrigation funding in Malawi;
- d. Irrigation Fund (IF) will be set up for effective investment in irrigation development with contributions from Government of Malawi and development partners; and
- e. MIB will be responsible for managing the fund by directing irrigation investment programmes.

# 4.2 Implementation Plan

The Ministry responsible for Irrigation will coordinate and facilitate the implementation of the Policy with relevant stakeholders having varying responsibilities in the implementation plan. Irrigation development and management will be promoted and facilitated to support smallholder and commercial farmers. Development of irrigation schemes will ensure full participation of the farmer beneficiaries from identification to operation and maintenance to ensure sustainability.

# 4.3 Monitoring and Evaluation

The implementation of the policy will be monitored through a monitoring and evaluation system with necessary feedback mechanism so as to effectively track sector performance indicators. Joint Sector Review meetings will be used for information sharing and effective engagement of stakeholders in irrigation development. The lessons learnt in the projects will be incorporated in future project as part of evaluation. The Ministry responsible for irrigation will coordinate and lead the monitoring and evaluation process of the Policy and ensure timely reporting and dissemination of results. An Irrigation Monitoring and Evaluation Systems Report will be prepared annually. All agencies implementing programmes relating to this Policy will report periodically to their respective coordinating bodies. The Monitoring and Evaluation Systems results will be used to inform all irrigation stakeholders to influence programme planning and design processes as well as resource management.

This Policy will be reviewed based on a five-year cycle as established in the policy formulation process. However, this Policy or parts of it may be amended if there are significant changes in the operating environment in the course of its implementation. The review of the Policy will be coordinated by the Ministry responsible for irrigation.

#### IMPLEMENTATION, MONITORING AND EVALUATION STRATEGY FOR THE NATIONAL IRRIGATION POLICY

#### **1.0 INTRODUCTION**

This annex document outlines the key strategies for achieving objectives of the irrigation policy priority areas of sustainable irrigation development, sustainable irrigation management and capacity development. It also details, in a matrix format, an implementation plan for these strategies and a monitoring and evaluation matrix so as to track progress made towards achieving the stated objectives of the policy.

# 2.0 STRATEGIES FOR POLICY PRIORITY AREAS

The Irrigation Policy priority areas, specific objectives and strategies are as follows:

#### 2.1 Policy Priority Area 1: Sustainable Irrigation Development

#### Objective1: Increase land under sustainable irrigation farming

- Strategy 1: Identify areas with potential for irrigated agriculture
- Strategy 2: Conduct feasibility studies including ESIAs and environmental audits for designs of new irrigation schemes and rehabilitations
- Strategy 3: Develop climate resilient irrigation infrastructure
- Strategy 4: Rehabilitate infrastructure for irrigation
- Strategy 5: Develop water harvesting infrastructure

#### **Objective 2: Optimize investment in irrigation development**

- Strategy 1: Establish and operationalize the Irrigation Fund
- Strategy 2: Encourage public private partnership arrangements

#### Policy Priority Area 2: Sustainable Irrigation Management

#### **Objective1:** Encourage crop diversification and intensification

- Strategy 1: Encourage smallholder farmers to grow non-traditional crops through provision of extension services and linkages to market outlets
- Strategy 2: Create awareness among smallholder farmers on practicing all year round irrigated cropping

# Objective2: Encourage stakeholder participation in irrigation management

- Strategy 1 Develop and empower farmer organisations for effective participation in irrigation management
- Strategy 2 Adopt participatory approaches in the management of irrigation schemes to ensure that relevant stakeholders play their rightful roles
- Strategy 3 Intensify irrigation extension and advisory services so that irrigators are supported with appropriate technologies
- Strategy 4 Encourage private sector investment in irrigated agriculture value chain
- Strategy 5 Encourage utilisation of matching grants for effective operation and maintenance of smallholder irrigation schemes

# 2.3: Policy Priority Area 3: Capacity Development

#### **Objective 1: Enhance capacity for irrigated agriculture**

- Strategy 1: Develop training programmes which address capacity gaps in the public and private sector.
- Strategy 2: Develop and adapt irrigation technologies and best practices taking into account the financial and technical beneficiary limitations.
- Strategy 3: Encourage stakeholder adherence to irrigation standards, code of practice and irrigation development guidelines.
- Strategy 4: Improve service delivery through greater presence of irrigation experts at district and area levels
- Strategy 5: Establish and operationalise the Malawi Irrigation Board
- Strategy 6: Facilitate farmer training programmes so as to transform the mind-set from subsistence to commercial irrigation

# **3.0 IMPLEMENTATION PLAN**

#### **Policy Priority Area 1: Sustainable Irrigation Development**

#### **Policy Statements :**

- i. Encourage the mobilisation of financial resources for irrigation development through arrangements such as PPPs and matching grants;
- ii. Facilitate the establishment of the Irrigation Fund to finance irrigation development projects;
- iii. Support and encourage the development and implementation of the Irrigation Master Plan and Investment Framework;
- iv. Encourage application of environmental and social impact assessments and implementation of environmental management plans as provided for in Environmental Management Act;
- v. Facilitate the formalization of land tenure rights that will ensure tenure security;
- vi. Encourage private sector, CSOs and beneficiary community participation in irrigation development through provision of irrigation development support and extension services in such aspects as feasibility studies, design, and construction, operation and maintenance.

Objective	Strategy	Responsibility	Timeframe
Increase land under sustainable irrigation farming	Identify areas with potential for irrigated agriculture	Dol/MIB, Ministry responsible for Land Affairs, National Water Resources Authority, Private sector,	On going
	Conduct feasibility studies and prepare designs for irrigation schemes	Dol/MIB, Ministry of Finance, Private sector, Development Partners	On going
	Develop infrastructure for irrigation	Dol/MIB, Ministry of Finance, Private sector, Development Partners	On going
	Rehabilitate infrastructure for irrigation	Dol/MIB, Ministry of Finance, Private sector, Development Partners	On going
	Develop water harvesting infrastructure	Dol/Department of Water Resources/National Water Resources Authority	On going

Optimize investment in irrigation	Establish and operationalize the Irrigation Fund	Dol/MIB, Ministry of Finance, Private sector, Development Partners	2016
development	Encourage public private partnership arrangements	Dol/MIB, Ministry of Finance, Private sector, Development Partners, PPPC	On going

#### **Priority Area 2 : Sustainable Irrigation Management**

#### **Policy Statements**

- i. Ensure that catchment conservation measures are vigorously pursued;
- ii. Development of farmer organisations and technical and administrative empowerment are an integral part of ensuring community participation;
- iii. Alternatives to handling and marketing of farmers produce are explored for maximum profitability of irrigated crops;
- iv. Extension services for irrigated agriculture are strengthened;
- v. Beneficiary communities are supported where major rehabilitation or upgrading of irrigation infrastructure are required;

Objective	Strategy	Responsibility	Timeframe
Encourage crop diversification and intensification	Encourage smallholder farmers to grow non- traditional crops through provision of extension services and linkages to market outlets	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, Department of Agriculture Extension Services (DAES)	On going
	Create awareness among smallholder farmers on prac- ticing all year round irrigated cropping	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES	On going
Encourage stakeholder participation in irrigation	Develop and empower farmer organisations for effective participation in irrigation management	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES	On going
management	Adopt participatory approaches in the management of irrigation schemes to ensure that relevant stakeholders play their rightful roles	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES	On going
	Intensify irrigation extension and advisory services so that irrigators are supported with appropriate technologies	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES	On going
	Encourage private sector investment in irrigated produce value chain	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES, Ministry of Finance, PPPC	On going

matching	utilisation of grants for effective and maintenance Ider irrigation	Dol/MIB, Ministry responsible for Industry and Trade, CSOs, DAES, Ministry of Finance	On going
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#### **Priority Area 3: Capacity Development**

#### Policy Statements:

- i. Training programmes (including on the job) are developed or improved to address capacity gaps in the public and private sectors including training institutions;
- ii. Irrigation standards, code of practice and irrigation development guidelines are adhered to by all irrigation stakeholders;
- iii. There is greater presence of irrigation experts at district or lower levels.
- iv. Irrigation technologies and best practices are developed or adapted taking into account the financial and technical beneficiary limitations and disseminated through a robust extension system;
- v. Irrigation stakeholders are encouraged to acquire the necessary equipment, plant and irrigation software;
- vi. Irrigation service providers (i.e. consultants and contractors) are registered with relevant professional bodies such as NCIC.

Objective	Strategy	Responsibility	Timeframe
Enhance capacity for irrigated agriculture	Develop training programmes which address capacity gaps in the public and private sector.	Dol/MIB, CSOs, Ministry responsible for Agriculture, Training Institutions	On going
	Develop and adapt irrigation technologies and best practices taking into account the financial and technical beneficiary limitations.	Dol/MIB, CSOs, Ministry responsible for Agriculture, Training Institutions	On going
	Encourage stakeholder adherence to irrigation standards, code of practice and irrigation development guidelines.	Dol/MIB, CSOs, Ministry responsible for Agriculture, Training Institutions	On going
	Improve service delivery through greater presence of irrigation experts at district and local levels	Ministry of Finance, OPC, CSOs, PPPC Training Institutions, Ministry of Local Government and Rural Development	On going
	Establish and operationalise the Malawi Irrigation Board	Ministry of Finance, Ministry of Justice, OPC, Dol	2016

Policy Priority Area 1: Sustainabl	a 1: Sustainable Irrigation Development	nent				
Outcome: Increase	Outcome: Increased irrigated agricultural production and productivity	and productivity				
Objective	Output	Performance Indicator Target	Target	Baseline	Verification source	Verification Assumptions/Risks source
Increase land under sustainable	Areas with potential for irrigated agriculture identified	Inventory of areas with irrigable potential land	407,862 ha	104,000 ha	Annual reports	Land tenure system is favorable
irrigation farming	ducted and schemes	Feasibility and design reports	20,000 ha	6,000 ha	Annual reports	Beneficiaries willing to engage in irrigation; there is capacity to conduct studies and prepare designs
	Infrastructure for irrigation developed and utilized	Additional area under irrigation	20,000 ha	104,000 ha	Annual reports	Adequate capacity to carry out works contracts
	lrrigation infrastructure rehabilitated	Area rehabilitated	1,100 ha	2,300 ha	Annual reports	

# 4.0 MONITORING AND EVALUATION PLAN

Policy Priority Area 2: Sustainab	a 2: Sustainable Irrigation Management	nent				
Outcome: Improve	Outcome: Improved national and household incomes, food and nutritional security	, food and nutritional secu	rity			
Encourage crop Production of no diversification and crops promoted	Production of non- traditional crops promoted	Number of crops grown per season	3	2	Annual reports	Efficient extension service
intensification	Farmers sensitized on all year round irrigated cropping	Area under all year round irrigated cropping	80,000 ha	60,000 ha	Annual reports	Water resources available
Encourage stakeholder participation in irrigation	Farmer organizations developed and empowered	Number of farmer organizations developed and empowered	100	63	Annual reports	
management	Irrigation extension and advisory services intensified	Area served with extension services	124,000 ha	104,000 ha Annual reports	Annual reports	
	Private sector investment in irrigated value chain encouraged	Area served by private sector institutions	124,000 ha	104,000 ha	Annual reports	
	Matching grants utilized for operation and maintenance of smallholder irrigation schemes	Number of matching grants	30	0	Annual reports	Famers ability to contribute

Policy Priority Area	Policy Priority Area 3: Capacity Development					
Outcome: Improve	Outcome: Improved irrigation service delivery					
	Training programmes developed	Training programmes 5 developed	5	1	Annual reports	
	Irrigation technologies and best practices developed and adapted	Sets of technologies or practices	c,	<del></del>	Annual reports	Standards remain relevant
	Stakeholder adherence to standards, code of practice and guidelines encouraged	Sets of stakeholders compliant with standards, code of practice and guidelines	e	0	Annual reports	Willingness of the youth to join the sector
	Presence of irrigation experts improved	Vacancy rates	50	70	Annual reports	Government commitment



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