


SWAZILAND  GOVERNMENT

# **NATIONAL IRRIGATION POLICY**

**<: Draft for Discussion :>**

Developed by the Ministry of Agriculture and Cooperatives,  
Relevant Ministries, Non Governmental Organisations and  
other stakeholders in collaboration with the Food and  
Agriculture Organisation

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**MINISTRY OF AGRICULTURE AND COOPERATIVES  
MBABANE, SWAZILAND**

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## **ACRONYMS AND ABBREVIATIONS**

FAO	Food and Agriculture Organisation
GDP	Gross Domestic Product
IDB	International Development Bank
IWRM	Integrated Water Resource Management
MOAC	Ministry of Agriculture and Cooperatives
NDS	National Development Strategy
NGOs	Non Governmental Organisations
RBA's	River Basin Authorities
SKPE	Swaziland Komati Project Enterprise
SNL	Swazi National Land
TDL	Title Deed Land
WAB	Water Apportioning Board

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## **POLICY STATEMENTS**

“TO PROVIDE A CLIMATE AND INFRASTRUCTURE THAT WILL PROGRESSIVELY MAXIMIZE THE QUALITY AND SECURITY OF LIFE OF THE PEOPLE OF SWAZILAND AND MAKE THE BEST USE OF THE COUNTRY’S NATURAL AND HUMAN RESOURCES” ..... 3

“..BY THE YEAR 2022, THE KINGDOM OF SWAZILAND WILL BE IN THE TOPE 10% OF THE MEDIUM HUMAN DEVELOPMENT GROUP OF COUNTRIES FOUNDED ON SUSTAINABLE ECONOMIC DEVELOPMENT, SOCIAL JUSTICE AND POLITICAL STABILITY” ..... 4

“FACILITATE AND SUPPORT THE DEVELOPMENT OF A SUSTAINABLE AND COMPETITIVE AGRICULTURAL SECTOR THAT ASSURES FOOD SECURITY AT HOUSEHOLD AND NATIONAL LEVELS, AND MAXIMIZES THE SECTOR’S CONTRIBUTION TO GROSS DOMESTIC PRODUCT.” ..... 5

“TO ENSURE THAT THE IRRIGATED AGRICULTURE SUB-SECTOR IN SWAZILAND CONTRIBUTES FULLY TO ECONOMIC GROWTH AND POVERTY ALLEVIATION IN ACCORDANCE WITH THE GOVERNMENT’S STATED STRATEGY; THE NATIONAL DEVELOPMENT GOALS, THE WATER ACT OF 2003 AND THE NEED TO USE THE COUNTRY’S LIMITED NATURAL RESOURCES IN A SUSTAINABLE FASHION.” ..... 6

“TO OPTIMIZE THE PRODUCTIVITY OF WATER IN THE COUNTRY’S AGRICULTURAL SECTOR AND BROADEN THE SCOPE FOR AGRICULTURAL INTENSIFICATION AND DIVERSIFICATION” ..... 6

“TO ESTABLISH AN IRRIGATION SECTOR INSTITUTIONAL LANDSCAPE CHARACTERISED BY TRANSPARENT REGULATION AND STRONG, PARTICIPATORY AND/OR RESPONSIVE AND ACCOUNTABLE INSTITUTIONS IN SWAZILAND” ..... 6

“ENHANCE THE STRUCTURE OF THE IRRIGATED SUB-SECTOR BY PROMOTING NEW PUBLIC AND PRIVATE INVESTMENT OPPORTUNITIES FOR EMERGING FARMERS.” ..... 7

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## **CHAPTER 1. PREAMBLE**

### **1.1. BACKGROUND AND INTRODUCTION**

#### **1.1.1. Purpose**

This document is the National Irrigation Policy of the Kingdom of Swaziland, and is intended to provide policy direction in the irrigation sub-sector. It provides clear guidance regarding the measures that must be adopted in order to increase the national irrigated area and to improve agricultural water management and existing irrigated agriculture thereby adding increased value to the productivity of labour and natural resources in Swaziland. This will lead to the promotion and development of specific irrigation practices that are contingent upon the realities of internal and external markets and development of value added food processing. The policy and its implementation strategy ensure that development is guided and facilitated within a structured and balanced framework that respects physical limits, equity concerns and institutional capacities.

#### **1.1.2. Rationale**

The pressing need for an irrigation policy and strategy framework is shared by all stakeholders in both the public and private sectors and has become more acute as a result of drought conditions that started in 2001. Yet the chronic vulnerability of rain-fed agriculture to climatic events persists side by side with an already productive and resilient irrigation sector. Furthermore, a Comprehensive Agricultural Sector Policy for the country is being prepared with the goal, inter-alia, of promoting smallholder agriculture on the Swazi National Land (SNL). Furthermore, given the ongoing reform of the water sector, it is necessary that a national Irrigation Policy and strategy together:

- result in sustainable natural resource utilization and service delivery;
- guide regulation of existing commercial irrigation initiatives;
- promote uptake of smallholder irrigation initiatives; and
- are included in the Water Resources Master Plan.

The Swaziland Government recognizes the importance of attaining a broad based consensus on how irrigation development should proceed and the need for any resulting document to reflect national aspirations.

#### **1.1.3. Process followed**

This policy document was developed through a comprehensive consultative process involving all major stakeholders in the water and irrigation sub-sectors. A task team was established by the Ministry of Agriculture and Co-operatives (MOAC) to lead the process and was supported by local and international consultants mobilised in response to Government's request for support from Food and Agricultural Organization (FAO). This was done in order to benefit from FAO's expertise and worldwide experience in irrigation. Several workshops were conducted at regional and national levels to gather the views of stakeholders. In addition a number of relevant documents including policy documents

from other countries were reviewed. The process was undertaken in a manner that ensured gender balance in the views expressed. FAO and the Government of Swaziland funded the whole process.

#### **1.1.4. Key players consulted**

The key players that participated in the process included those in the public and private sector namely University of Swaziland, NGOs, FAO staff, Government ministries, extension officers and farmers.

### **1.2. PROBLEM STATEMENT**

Swaziland's agriculture sector is dualistic. A dynamic commercial sector on Title Deed Land (TDL) occupies 40 percent of the land. It holds an estimated 97 percent of irrigated agriculture and uses modern technologies to produce mainly cash crops, principally sugar cane. A traditional, communal tenure based mainly in the SNL focuses on subsistence, semi commercial smallholder agriculture with communal grazing. Maize is the dominant crop with cattle herding on communal pastures and some commercial production of sugar cane, cotton and vegetables with limited use of water.

The structural divide between large-scale Title Deed Land (TDL) and small-scale Swazi Nation Land (SNL) has been sustained, in part, by differential access to and allocation of Swaziland's water resources. The predominantly smallholder SNL (where 78 percent of the population live) is marked by low productivity, insufficient commercialization, relatively low income and widespread, abject poverty. The agricultural commercial sector in Swaziland has however, both depended on and benefited from irrigated agriculture, and by its means taken advantage of regional and international trade agreements. The regional and international economic integration is important not only for trade but also for technical cooperation.

Although diversification of industrial sectors of the economy has been slowed by changes in regional trade flows, irrigated agriculture still contributes to Swaziland's comparative advantage in key crop sectors. As international trade agreements tend toward the lifting of export subsidies, notably for sugar, it is time for Swaziland's irrigated sub-sector to be in a position to spread risks and diversify both its commercial and smallholder operations in response to these changing market conditions.

Most important, the issue of the productivity of SNL and its relation to the commercial sector needs to be addressed. In this regard, MOAC is developing smallholder irrigation projects such as the Lower Usuthu Small-Holder Irrigation Project. This project is located on the Usuthu and is managed by a parastatal which government has set up on the basis of experiences with SKPE and the Downstream Development at Maguga dam.

Unlined canals and poorly drained schemes with poor water management practices are heavily infested with water borne disease vectors. It must be ensured that health and environmental requirements are adhered to in irrigation development.

Poverty has risen steadily in the country, with predictions that it will continue to increase at its current rate. In addition food security appears to have deteriorated significantly in the last 5 years. The People's standard of living must therefore be improved, and increased agricultural productivity of water is a key achieving this. Yet in many parts of the country,

inadequate water supplies, and deteriorating soil moisture characteristics actually remain a major contribution to seriously constrained food production. Even so poverty alleviation will require reliable crop production, which relies on, among other factors, reliable access to irrigation water. Water shortages are a serious impediment to intensified and diversified agriculture and bringing new land into production; but as crop production via irrigation places a high demand on both water and human resources, a careful and strategic approach is required.

Despite several initiatives and programs by the MOAC, the existing land tenure and water administration systems tend to hinder smallholder development and the transition from subsistence to emergent commercial farmers. This much needed transition is also severely compromised by the impact of HIV/Aids on the agriculturally productive population. Such constraints can only be tackled through comprehensive sector-wide policies that take account of changing market pulls and the evolution of population structures in rural areas. But an irrigation policy in Swaziland has to be clear about the room for manoeuvre. There is intensifying competition for the renewable water resource base and land that is available and suitable for irrigation. Equally the experience of publicly managed irrigation in Swaziland has, in common with many other areas of the world, shown desultory performance.

Accordingly, the lack of clear policy guidelines with regard to irrigation threatens to constrain the sub-sector in achieving the national economic growth and poverty alleviation priorities. In particular, there is a need to balance the cash crop dominated irrigation sub-sector with enhanced opportunities in well distributed small scale irrigated production and improved soil moisture conservation to boost local food security and promote diversification into changing regional markets.

### **1.3. INSTITUTIONAL ARRANGEMENTS**

Official responsibility for irrigation in Swaziland is vested in the Irrigation Section of the Ministry of Agriculture and Cooperatives. As such, the Irrigation Section is the one responsible for the promotion and development of irrigation schemes in the country particularly on the SNL in collaboration mainly with the Land Use Planning Section, Land Development Section and Agricultural Extension Service.

### **1.4. DEVELOPMENT CONTEXT**

#### **1.4.1. National Development Goals**

All policies in Swaziland should be relevant to the Government's stated vision, which is as follows:

**“to provide a climate and infrastructure that will progressively maximize the quality and security of life of the people of Swaziland and make the best use of the country's natural and human resources”**

To this end, the National Development Strategy (NDS) 1999 includes a subsidiary Vision and Mission Statement which is intended to inspire socio-economic development for 25 years (from 1997) and to provide a guide for the formulation of development plans and for the equitable allocation of resources:

**“..by the year 2022, the Kingdom of Swaziland will be in the top 10% of the medium human development group of countries founded on sustainable economic development, social justice and political stability”**

The NDS was designed to strengthen the Government’s development planning and management capacities and to result in a national consensus on the direction of future developments in the country. It addresses the issue of water resources development and gives several recommendations among which are:

- the development of an overall policy to cover all water uses, the expansion of smallholder irrigation within a national irrigation development strategy;
- the encouragement of farmers to utilize all available water to intensify and diversify their production; and
- the planning and construction of small to medium sized dams to provide a reliable source of water for irrigation, livestock, fisheries and domestic use.

#### **1.4.2. Policy and Legislative Framework**

Overall management of water resources hitherto has been on an ad-hoc basis through several uncoordinated pieces of legislation, spread amongst a number of Ministries as well as other institutions outside government.

These Acts included the Protection of Freshwater Fish Act of 1938, the Swaziland Electricity Act of 1963, the **Water Act of 1967**, the Water Services Act of 1992, the Komati River Basin Water Resources Development and Utilization Act of 1992, the Joint Water Commission Act of 1992, the **Swaziland Environmental Authority Act of 1992**, the **Swaziland Administrative Order of 1998** and the Borehole Act (year) of the Geological Surveys and Mines, to name a few. However, a groundbreaking Water Act promulgated in 2003 is intended to harmonize the management of water resources in the country.

The provisions of the Water Act 2003, include the establishment of a National Water Authority, an interim Water Apportionment Board and River Basin Authorities together with Irrigation Districts and Water User Associations.

The Water Apportionment Board is intended to be dissolved when the last of the five river basin authorities becomes established. The Act introduces a water permit based system for water allocation that will be administered first by the proposed Water Apportionment Board and later the River Basin Authorities. The Authority will have to prepare and adopt a Water Resources Master Plan and recommend incorporation of irrigation districts. The Department of Water Affairs will be established and be the Secretariat for the Authority.

The **Swaziland Environmental Authority Act, 1992** addresses the issues of water for the environment and pollution control and provides for the establishment of standards and guidelines related to the pollution of air, water and land, as well as for the control of all forms of environmental pollution including pollution caused by the discharge of toxic wastes into the air, water and land.

The **Swaziland Administration Order of 1998** can be used as a tool in management of water resources in communal land. The issues it addresses include, amongst others:

- pollution of the water in, or injury to, any dam, stream, watercourse, well, borehole, or other water suppliers and to prevent the obstruction of any stream or watercourse for the construction, improvement or maintenance of communal water supplies;
- proper sanitation and housing; and
- the provision, maintenance and use of communal water supplies.

## **CHAPTER 2. SCOPE AND OBJECTIVES OF THE IRRIGATION POLICY**

### **2.1. SCOPE**

Any irrigation policy is primarily a response to national agricultural objectives and opportunities. The national agriculture development objective is to:

**“Facilitate and support the development of a sustainable and competitive agricultural sector that assures food security at household and national levels, and maximizes the sector’s contribution to Gross Domestic Product.”**

In particular it is targeted at ensuring food security, maintaining the existing agricultural resource base, generating income and employment, contributing to industrial development and increasing agricultural exports. While the irrigation policy and strategy document cannot be expected to address all constraints it will provide, together with other statutory instruments and sectoral policies, the fundamental and requisite framework to guide the development of commercial activities; stimulate accelerated investment in smallholder irrigation initiatives and engender the sustainable use of irrigation facilities and wise use of the country’s fragile natural resources.

The policy will do this by facilitating and regulating irrigation sub-sector activities while creating the conditions to attract public and private sector investment and donor assistance. Specifically the irrigation policy recommendations and strategy will provide the essential framework that will:

- Guide future irrigation development and the allocation of water for irrigation purposes within the framework of the Water Act 2003
- Strengthen the national capacity in planning, implementation and management of smallholder irrigation development
- Improve current management and operation of existing irrigation schemes
- Facilitate the empowerment of smallholder irrigators on Swazi National Land
- Create an enabling environment for, and stimulate increasing investment in the irrigation sub-sector

And thereby raise the contribution of the agricultural sector to GDP.

These objectives will be achieved with the full participation of the relevant stakeholder groups, notably the private sector, local leaders and farmer groups on SNL lands. Recommendations will need to establish a clear direction for irrigated agriculture within the National Agriculture Policy. This will depend very much upon achieving a balanced approach to increased macro-economic growth and poverty alleviation and hence an appropriate mix of irrigation practices.

Accordingly, any strategy for implementing this policy must be based on a thorough and pragmatic diagnosis of the existing status of irrigated agriculture; the underlying trends (including market trends) and convincing projections for water use in agriculture, Furthermore, these issues must be analyzed in comparison with other sector trends to establish the nature and extent of competition for water that is currently experienced and which can be anticipated in the medium to long term. Decisions on the scale and styles of irrigation to be promoted will be contingent upon this analysis.

## **2.2. OBJECTIVES**

### **2.2.1. Overall Objective**

The overall goal of this policy is:

**“To ensure that the irrigated agriculture sub-sector in Swaziland contributes fully to economic growth and poverty alleviation in accordance with the Government’s Stated Strategy; the National Development Goals, the Water Act of 2003 and the need to use the country’s limited natural resources in a sustainable fashion.”**

### **2.2.2. Specific Objectives**

To address the problems identified in Section 1.2 in a way that is consistent with the development context of the country as described in section 1.4, the Irrigation Policy has three specific objectives.

The first reflects the need for equitable, sustainable and productive use of water in the Swaziland agricultural sector. For this, the specific objective is:

**“To optimize the productivity of water in the country’s agricultural sector and broaden the scope for agricultural intensification and diversification”**

The second reflects the need for strong and accountable institutions that facilitate and regulate the development of the sector while ensuring that its assets are used sustainability and for the benefit of the nation at large. For this the specific objective is:

**“To establish an irrigation sector institutional landscape characterised by transparent regulation and strong, participatory and/or responsive and accountable institutions in Swaziland”**

The third reflects the pressing need to increase the number of irrigating farmers in the country particularly, but not exclusively, the poor farmers in the SNL. For this, the specific objective is:

**“Enhance the structure of the irrigated sub-sector by promoting new public and private investment opportunities for emerging farmers.”**

### **2.3. TARGETS**

The policy objectives will apply to a specific set of policy targets that will be directly impacted, supported or involved in agricultural water management. Broadly these can be clustered under following three groups:

- User groups, including potential irrigators on the SNL
- Public/Private service providers
- Regulatory institutions including those responsible for natural resources

This policy will address all groups in a balanced manner.

### **2.4. PRINCIPLES**

The achievement of policy objectives is not simply a matter of expediency. Certain development principles have to be accepted in reaching the stated objectives to maintain equity and to protect the public interest in land and water resources. A sub-sector policy in irrigation and drainage will therefore need to be predicated on the following principles of natural resource management.

- Equitable allocation of water rights and land ownership
- Beneficial use of water within the agricultural sector, including optimising use of stored water and the mobility of rights to use in water and land
- Environmental responsibility in irrigation and drainage and the application of good practice
- Clear operation and regulatory roles between agriculture in production and water in supply and establishment of a working interface between them
- Engagement of private and public sector agencies where they are most effective
- Functional (systemic) inter-sector management of water across river basins
- Clear alignment of policies and plans between public agencies
- Coherency of planning and budgetary lines
- Attention to scale - let technology and institutions match their respective purpose

Some of these principles are already covered in the draft national constitution, environmental legislation and the provisions under the proposed Land Policy and the Water Act of 2003, notably the mobility of rights in use. These principles need to be clarified. Other, mainly institutional principles are not and need to be elaborated.

First, key provisions of the Water Act do need clarification in this policy. This is particularly the case for the allocation of water within agriculture and between other sectors and the relative mobility of rights in land use and water use. The Water Act is also categorical on the evolution of an institutional hierarchy with the establishment of a National Water Authority and Department of Water Affairs (at national level) and the transition from a Water Apportionment Board to River Basin Authorities and the formation of Irrigation Districts and Water User Associations. This institutional framework for water resource management has yet to mature. The Act has set a period of five years from March 2003 for full implementation of these institutional provisions.

Second, the respective roles of the public and private sector in relation to operational and regulatory function need elaboration particularly with respect to agricultural water management. The proposed river basin authorities will be responsible for implementation of a water resource management plan (under the Water Resources Master Plan) across Swaziland's five river basins. They will retain all the present powers of the Board within their basin jurisdiction and have "authority" over Irrigation Districts, Project Boards and User Associations i.e. a regulatory function only. It is assumed therefore that operational functions are left in the hands of Irrigation Districts, Project Boards and User Associations. Presumably support in the application of irrigation technology will continue to be provided by MOAC.

## **CHAPTER 3. THE POLICY**

### **3.1. WATER PRODUCTIVITY IN AGRICULTURE**

#### **3.1.1. Water Productivity Issues**

Achievement of this policy's water resources objective is currently constrained by the following issues.

##### *3.1.1.1. Catchment Management Issues*

- Most catchments are heavily eroded resulting in the siltation of water bodies
- Some irrigation practices degrade the soil through erosion
- Production is compromised by the accumulation of salts in poorly drained areas
- Wetlands are not appropriately exploited for irrigation purposes
- Occasionally, the water available is less than the water allocated resulting in the depletion of environmental flows
- Water consuming alien invasive species are spreading in some catchments resulting in the reduction of water resources available for irrigation

##### *3.1.1.2. Water Quality and Quantity Issues*

- Water quality is currently not taken into consideration in the issuance of water permits for irrigation

- The use of water for irrigation can result in the deterioration of the water quality in the river system due to agricultural chemicals affecting downstream users and health standards
- The full potential of water harvesting is not realized in the country
- The tying of water permits to land creates scenarios where water seems to be fully allocated while in reality some permits are not being utilized

#### 3.1.1.3. *Water Use Efficiency Issues*

- The rate of water application is not always appropriate for the soil type and management techniques employed
- Low efficiency irrigation systems account for a bigger portion of the irrigation sub-sector. Poor performance of operations and management also results in low water productivity
- Upstream and downstream uses and irrigation styles need to be better adapted to suit local hydrology and hydraulics

However, it is noted that where water is scarce as in Swaziland, increases in irrigation application efficiency do not necessarily result in increased availability of water, as in the absence of an appropriate regulatory framework, water saved through improved on-farm-water-management and/or investments in more efficient technology can be reinvested locally thereby concentrated the benefits in terms of wealth concentration rather than distributing the benefits in terms of increased economic water use efficiency, increased equitability of access to its productive benefits and more sustainable environmental stream flows. Accordingly, strategies involving increased irrigation application efficiency will have to be accompanied by improved allocation mechanisms.

#### 3.1.1.4. *Water Allocation Issues*

- Water is not adequate for everyone interested in irrigation even though its use is supposedly regulated through the issue of irrigation permits
- During the months of peak irrigation demand, the water allocations outstrip the available amount of water in the river
- There is a lot of informal trading with permits leading to disputes rather than improved allocation which is theoretically possible with a permit based allocation system
- Inappropriate or non-existent financial mechanisms for the equitable and economically efficient allocation of water
- There are no guidelines, regulations or mechanisms concerning how or where water saved within a permit as a result of improved practices, higher application efficiencies or crop diversification should be utilized or reallocated

### **3.1.2. Water Productivity Policy Measures**

Policy measures for removing these constraints are described in the four following sub-sections.

#### *3.1.2.1. Catchment Management Policy Measures*

In order to maintain healthy and productive watersheds Government will:

- Identify, evaluate, demonstrate and promote effective catchment management practices
- Enforce soil conservation measures in irrigated areas and where there is a risk of land degradation require the adoption of soil erosion mitigation measures
- Require that irrigated areas are properly drained in order to avoid risks of salinisation
- Protect wetlands and allow them to be used as sources of irrigation water only when compatible with existing and future environmental Rules and Regulations. To this end, sustainable recession agriculture technologies will also be developed and disseminated
- Enforce the removal of alien species from watersheds by either government agencies or civil society entities as appropriate

#### *3.1.2.2. Water Quality and Quantity Policy Measures*

In order to restore and or maintain sustainable levels of water quality and riparian/environmental stream flows Government will:

- Recognise environmental flow requirements as the priority use of water in a catchment
- Through the WAB and later the RBA's allocate water for irrigation purposes on the basis of permits for which farmers will be required to apply and which will be granted on the basis of appropriate technical, hydrological and economic considerations
- Consider both the water quantity and quality when issuing water permits for irrigation
- Regulate irrigation water abstractions through the appropriate agencies
- Set and enforce and monitor quality standards for any return flows from irrigation

#### *3.1.2.3. Water Use Efficiency Policy Measures*

In order that irrigation water use application efficiencies are maximised, Government will:

- Advocate and develop incentives for the use of water saving irrigation technology and proper management practices

- Proactively seek ways and means to encourage farmers to engage in water saving methods
- Require that Irrigation water application and management techniques be in accordance with soil characteristics and topographic conditions
- Promote soil amelioration and management approaches to improved soil moisture holding capacities
- Promote agro-forestry as a soil management, micro-climate amelioration and household productivity measure

#### *3.1.2.4. Water Allocation Policy Measures*

In order that irrigation water use economic efficiencies are maximised while increasing the equitability of access to its productive potential and the sustainability of the natural environment, Government will:

- Undertake a public information campaign to appraise all irrigators, particularly small-scale users on SNL of their water use rights and the related provisions of the Water Act
- Assist Irrigation Districts and Water User Associations in preparing water permit applications
- Tie water permits to land
- Subject any permit holder who fails to use or abuses his/her permit to the provisions of the Water Act of 2003
- Investigate and promulgate measures to ensure that water saved within a permit as a result of improved irrigation technology and practices or crop diversification is used or reallocated in a way that best serves the common objectives of economic efficiency, social equity and environmental sustainability

## **3.2. INSTITUTIONS**

### **3.2.1. Institutional Issues**

Achievement of this policy's institutional objective is currently constrained by the following issues.

#### *3.2.1.1. Gender and Social Issues*

With respect to gender and youth, two particularly important issues given the decimation of the adult, and often productive, population by HIV:

- The majority of farmers on SNL in the irrigation sub-sector are women yet they have constrained access to factors of production
- The youth form an increasingly large portion of rural populations yet their participation in irrigation development is limited

### 3.2.1.2. *Water User Organisation Issues*

As far as the participation of smallholder irrigators is concerned:

- Small-scale farmers are not fully involved in the planning, designing, implementation, operation and maintenance of irrigation projects and hence scheme ownership concepts remain limited and constrain sustainable operation and maintenance

### 3.2.1.3. *Service Delivery Issues*

As far as service delivery is concerned:

- Service organisations lack capacity
- Market institutions and services are inadequate

### 3.2.1.4. *Regulation, Monitoring and Evaluation Issues*

As far as regulation is concerned:

- Improperly managed irrigation development and practices end up affecting existing users with customary rights.

## **3.2.2. Institutional Policy Measures**

Policy measures for removing these constraints are described in the four following sub-sections.

### 3.2.2.1. *Gender and Social Policy Measures*

In order that gender and social challenges are properly addressed in the irrigation sub-sector, Government will:

- Ensure that customary water use is not compromised as a result of irrigation development
- Ensure that women have equal access to irrigation facilities and services including credit services
- Ensure that women participate fully in the leadership of irrigation water user associations and districts
- Ensure that youth have equal access to irrigation facilities and services, including appropriate credit services
- Tailor training initiatives in the irrigation sub-sector that take into account the specific needs of women and youth

### 3.2.2.2. *Water User Organisations Policy Measures*

In order to maximise the sense of scheme ownership, increase the sustainability of smallholder irrigation and the productivity of all irrigation and in conformity with the Water Act, Government will:

- Increase civil society participation in the identification, planning, implementation, financing (by cash, kind or labour), operation and maintenance of their irrigation schemes
- Facilitate the formation and strengthening of Water User Associations and Irrigation Districts
- Investigate options for flexible intra-group water allocations
- Encourage intra-group water allocations that increase the productivity of water as required and allowed by the Water Act

### 3.2.2.3. *Service Delivery Policy Measures*

In order that service delivery in the irrigation sector is cost effective and accountable, Government will:

- Analyse the demands on the irrigation sector in the short, medium and long terms
- Assessed and establish and strengthen and appropriate institutional landscape
- Determine where public agencies will continue to give support to smallholder irrigators
- Assist the formation of Irrigation Districts and Water User Associations
- Extend incentives to start-up entrepreneurs in irrigation services

### 3.2.2.4. *Regulation, Monitoring and Evaluation Policy Measures*

In order to increase equitable participation in irrigation and to ensure sustainable services and resources Government will:

- Draft, enact and promulgate an appropriate legal framework
- Review and revise the Irrigation Act on a regular and demand driven basis
- Develop in a participatory and consultative fashion a system of regulations addressing inter-alia, service delivery standards, return flow quality, the prevention and mitigation of soil erosion and siltation hazards, the rights and obligations of irrigators, the rights and obligations of service providers and any other issues that may be identified
- Enforce the said regulations in an objective and transparent fashion

### **3.3. PROMOTE NEW INVESTMENT OPPORTUNITIES FOR EMERGING FARMERS**

#### **3.3.1. Promoting New Investment Opportunity Policy Issues**

Achievement of this policy's investment objective is currently constrained by the following issues.

##### *3.3.1.1. Infrastructure Issues*

With respect to irrigation sector assets:

- Infrastructure development has not reached the stage where everyone has easy access to irrigation water
- There are not enough dams to harvest excess runoff leading to a low assurance of supply of irrigation water
- There is a lot of potential where diversion weir sites have not been developed to take advantage of gravity irrigation
- Marketing infrastructure is inadequate

##### *3.3.1.2. Operation, Maintenance and Cost Recovery Issues*

With respect to operation, maintenance and recurring cost recovery:

- Maintenance of dams, weirs and canals etc. has not been adequately attended to and most of the responsibilities have been left with government
- Inappropriate or non-existent financial mechanisms for recurring cost recovery
- Water permits for irrigation are issued free of charge while costs are incurred during the processing of applications

##### *3.3.1.3. Financing Irrigation Issues*

With respect to the financing of new irrigation development:

- Irrigation development is an expensive undertaking and a number of farmers are finding problems in securing adequate finance
- Opportunities to diversify beyond sugar cane irrigation are limited

#### **3.3.2. Promoting New Investment Opportunity Policy Measures**

Policy measures for removing these constraints are described in the three following sub-sections.

##### *3.3.2.1. Infrastructure Policy Measures*

In order to increase access to irrigation facilities government will:

- Prepare an inventory of affordable (in economic, social and environmental terms) irrigation development opportunities, including water harvesting opportunities, in the country and prepare a strategy for their implementation
- Incorporate this strategy into the Water Master Plan called for by the Water Act
- Facilitate the development of water conveyance infrastructure to ensure equitable access to irrigation facilities
- Where environmentally acceptable, develop and implement a program of dam construction
- Develop diversion weirs and canals to potential irrigation sites
- Where feasible strengthen farmer capacity to implement diversion weirs and canals to potential irrigation sites
- Facilitate funding and technical assistance

#### 3.3.2.2. *Operation, Maintenance and Cost Recovery Policy Measures*

In order to achieve sustainable operation and maintenance and recurring cost recovery on irrigation schemes and bulk irrigation water supply infrastructure Government will:

- On the basis of thorough civil society sensitisation, consultation and participation, establish a transparent irrigation service tariff structure in accordance with the Water Act which requires that such tariffs are set, at least in part, by user groups
- Ensure that irrigation service tariffs are disbursed for the purpose that they are levied, and do so in a transparent and accountable fashion
- Allow the WAB and later the RBAs to establish and collect charges for administering water permits
- Transfer responsibility for the operation and maintenance of irrigation facilities and their appurtenant infrastructure to the users except where such infrastructure is of a scale beyond the capacity of the users to operate and maintain
- Establish and enforce a transparent system of fines and other regulatory measure to discourage the misuse of irrigation infrastructure, over-abstraction and of water and the pollution of water courses

#### 3.3.2.3. *Financing Irrigation Policy Measures*

In order to increase the profitability and hence bankability of irrigation in Swaziland and generally to increase the financial resources available for irrigation development in the country Government will:

- Establish mechanisms that will improve marketing and processing institutions, infrastructure and services to respond to the output of irrigated agriculture

- Facilitate access to adaptable and flexible credit services for small farmers
- Mobilise adequate financial resources for the implementation of the policy document. The primary funding sources are likely to include the following:
  - **National budgets.** IWRM can be considered to be a public good. Hence it is appropriate that IWRM be funded from the national tax base.
  - **Catchment management charges.** An alternative (or perhaps complementary) source of funds for catchment management is a catchment management charge which can be levied on all water users in a catchment, as well as on land- use activities which affect water resources. This has the advantage of being an earmarked fund, which can be dedicated to catchment management activities in the basin. Such a charge can be used to finance the activities of a shared watercourse institution where the catchment traverses national boundaries.
  - **Abstraction charges.** Abstraction charges can be an important source of finance to fund water resource infrastructure development. Abstraction charges also influence behaviour (water use) and hence are an important economic instrument. Fines for non-compliance also influence behaviour but should not be relied on as primary source of income.
  - **Pollution charges and fines.** Charges related to the allocation of pollution permits, effluent charges and fines relating to non-compliance are also sources of revenue, which can be used to fund IWRM activities. However, these should be regarded primarily as economic instruments intended to influence behaviour. It is not appropriate for these charges to be relied upon as a primary source of income to fund IWRM.
  - **International donor funds.** Grants are an important source of funding for IWRM activities in many developing countries. This has arisen as a result of the high profile that IWRM has achieved on the international water agenda. (See Section 3) Although these funds are important and are likely to continue for some time, they should not be relied on as a primary and sustainable source of funding for IWRM activities.
  - **International Development Banks.** Soft loans from the IDB and other related institutions could be an important source of finance for irrigation development.

## CHAPTER 4. ASSUMPTIONS AND PRECONDITIONS

The following assumptions were made in preparing the National Irrigation Policy:

- **Market pull:** The local, regional and international market opportunities in irrigated production diversify and deepen.
- **Policy shifts:** Rights in land use on SNL land are declared and match the mobility of water use rights within Irrigation Districts as defined by the Water Act.

**Institutional Stability:** Provisions of the Water Act are implemented.

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