



Brief prepared for the Entry phase of the project:

Strengthening Agricultural Water Efficiency and Productivity on the African and Global Level

The Project

The GCP/INT/166/SWI “Strengthening Agricultural Water Efficiency and Productivity on the African and Global Level” has the aim to improve Agriculture Water Management (AWM) practices and mainstream AWM in national frameworks and processes on the African and global level. The project is funded by the Swiss Agency for Development and Cooperation (SDC) and is composed of three phases: Entry Phase, First and Second Implementation Phases.

The overriding goal of the entry phase is to share the project document with a broad range of stakeholders and beneficiaries in each of its countries, in order to refine it in accordance to their interests and priorities, and to ensure that the final document is endorsed by the concerned parties. The First Implementation Phase will focus on Africa and will be implemented in the three countries – Burkina Faso, Morocco and Uganda - within three years. The Second Implementation Phase will have a global focus and will expand to other three countries in Africa, the Middle East and South East Asia. The purpose of this phase is to develop country cooperation to promote knowledge transfer and experience sharing in improving AWM practices and mainstreaming them into national frameworks and processes.

This thematic brief is part of the Entry Phase work and relates to the proposed outcome of the project – *AWM mainstreamed in national policy frameworks and processes in project countries*. This outcome includes different outputs that focus on the definition of bankable investment projects in AWM and the production of investment profiles in project countries as well as the preparation of outreach materials on the mainstreaming of AWM in national policy frameworks/processes.

Agricultural Water Policy

Agriculture policy in Africa is generally framed within the Comprehensive Agriculture Africa Development Programme (CAADP). Established by the African Union assembly in 2003, CAADP focuses on improving food security, nutrition, and increasing incomes in Africa. It aims to do this by raising agricultural productivity by at least 6% per year and increasing public investment in agriculture to 10% of national budgets per year.

CAADP’s work falls under 4 pillars, dealing with key issues. One of them is Pillar 1 dedicated to Land & Water Management, which is the pillar the project will work on. CAADP understands policy formulation as a process that includes the analysis, design, implementation and evaluation of agricultural investment programmes (see graph).



Both Burkina and Uganda have already prepared and are implementing their National Investment Plan. Morocco has not yet adhered to the CAADP but has developed its own agriculture strategy *Plan Maroc Vert*.



State of Agricultural Water Management (AWM)

- Agriculture in Burkina is predominantly rain-fed with limited irrigation.
- Soils have low water retention capacity.
- In 2013, there were 29 730 ha equipped for irrigation (13% of potential) and 24 545 ha of equipped low lands (5% of potential).
- Surface irrigation is the main irrigation technique.
- Agriculture productivity is low.
- About 80% of the water storage infrastructure is in bad state.



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Agricultural Water Policy

- **Stratégie de Développement Rural (SDR) 2004-2015.** It gives high priority to the equipment of low lands. The development of new irrigation schemes, the rehabilitation and maintenance of water infrastructure and the creation of a water information systems is also emphasised.
- **Programme National du Secteur Rural (PNSR) 2011-2015.** It includes a sub-programme on AWM that proposes the development of 17 000 ha of new irrigation schemes and 35 000 ha of equipped low lands as well as the rehabilitation of 1 500 ha. It also refers to the development of small infrastructure to mobilize water resources (wells, catchment areas), the promotion of new irrigation technologies and the development and rehabilitation of dams. The development of a water information system is also proposed.
- **Stratégie Nationale de Développement Durable de l'irrigation (SNDDI).** It has four main axes: (1) Mobilize land and water resources; (2) Promote small scale irrigation; (3) Render large and medium scale public systems and low lands more profitable; (4) Intensify and diversify production of irrigated crops.

CAADP process

Burkina Faso signed its **CAADP Compact** in July 2010 to set the priority areas for agricultural investments. One of those priority areas is the improvement of water resources management for productive activities. In this line, the **Programme National d'Investissements Agricoles (PNIA), 2010-2015** has a component on irrigation promotion and another one on integrated water resources management. The first has the following objectives:

- Large/medium scale irrigation: rehabilitation of 5 000 ha; development of 20 000 ha.
- Small scale irrigation: development of 15 000 ha of community systems and 15 000 ha of individual systems
- Low-lands: develop 5 000 ha of equipped low-lands.

Progress in policy implementation

Unfortunately, information on progress in implementing policy objectives was not available.



State of Agricultural Water Management (AWM)

- Agriculture in Morocco is predominantly rain-fed.
- In 2009, area under irrigation was 1 458 150 ha (88% of irrigation potential).
- Surface irrigation accounts for 76% of total area irrigated.
- Irrigation is characterized by two typologies: (1) modern and productive, and (2) small-scale subsistence agriculture.
- The country is affected by increasing water scarcity.
- Morocco has good water storage capacity, with 135 large dams (about 17,5 km³).
- Agriculture productivity per hectare is one of the lowest in the Mediterranean region.
- Agriculture accounts for more than 80% of water withdrawals.



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Agricultural Water Policy

Government policies favour investments in irrigation which accounts for 60 percent of agricultural investments. The main guiding document for the development of agriculture in the country is “**Plan Maroc Vert (The Green Morocco Plan)**” launched in 2008 with the overarching objective to promote investments in agriculture. The Plan has two Pillars: (1) Accelerate development of agriculture with a higher value and productivity; (2) Support smallholders in the: (i) modernization of smallholder agriculture; (ii) integration of smallholder agriculture into a rural development strategy. The Plan’s AWM objectives are reflected in several programs such as:

- **Programme National d’Economie d’Eau en Irrigation (PNEEI) 2009**, which aims to modernize 550 000 ha by 2020 with the usage of water-saving irrigation techniques (localized irrigation systems).
- **Programme d’extension de l’irrigation (PEI)**, which aimed to connect dams with irrigation schemes. The program set the target of improving water supply and developing localized irrigation systems in an area of 140 640 ha by 2012 (almost 70% in Gharb region).
- **Plan National d’Aménagement des Bassins Versants (PNABV) (The National Plan for Watershed Management)**, which aims to enhance soil conservation and fight against erosion. It was launched in 1996 with the specific target of recovering about 570 000 ha in the next 20 years.

Progress in policy implementation

The most recent information available on progress in the aforementioned AWM programmes is presented below:

PNEEI: By the beginning of 2014, almost 370 000 ha have been modernized (74% of targeted area by 2020).

PEI: By 2010, studies for irrigation development were conducted in 128 340 ha, of which 11 300 ha had already been developed for irrigation.

PNABV: Up to 2007, the plan had already recovered 570 000 ha (38% of the total target).



Uganda

State of Agricultural Water Management (AWM)

- Agriculture in Uganda is predominantly rain-fed with limited irrigation.
- In 2010, there were 14 148 ha equipped for irrigation (mainly surface irrigation) and 53 000 ha of informal irrigation of rice (managed swamps around streams flowing into lake Kyoga).
- Irrigation potential is estimated between 200 000 – 400 000 ha.
- Agriculture productivity is far from reaching the attainable potential.
- Water storage in the country is lagging behind.

Agricultural Water Policy

- The **National Development Plan (NDP) 2010/11 - 2014/15** proposes to increase area under irrigation from 14 418 ha to 22 000 ha.
- The **National Agriculture Policy (NAP)** emphasizes the development of capacity in water harvesting, the promotion of appropriate technologies and practices for agricultural resources conservation and the establishment of new irrigation schemes.
- The **Public Investment Plan (PIP) 2013/14 – 2015/16** includes several projects on water storage development, rehabilitation and development of irrigation schemes, demonstration sites for water harvesting and small scale irrigation, etc.

CAADP process

Uganda signed its **CAADP Compact** in March 2010 to set the guiding principles for the implementation of the **Agricultural Sector Development Strategy and Investment Plan (DSIP) 2010-2015**. These principles emphasize the role of the government in supporting farmers and market oriented systems (to reach equitable economic growth), ensuring that environmental resources are sustainably used and managed and pursuing agricultural development according to the agricultural zoning strategy.

The **DSIP** was launched in 2010. It has two sub-programmes related to AWM: sub-programme 1.4 on **Sustainable Land Management**, and sub-programme 1.5 on **Water for Agricultural Production**.

The first sub-programme promotes soil and water conservation and water for agricultural production. It aims to **improve water supply** with a focus on **small scale irrigation practices**.

The second sub-programme aims to **stablish new irrigation schemes**, **rehabilitate** about 6 535 ha of large irrigation schemes (including previous assessment), **stablish demonstration sites and trainings on small-scale irrigation technologies and rain water harvesting as well as irrigation research and development stations**.

Progress in policy implementation

The Second Joint Agriculture Sector Annual Review conducted in 2012 tracked progress on the development of the interventions mentioned above and highlighted the following achievements:

- Identified sites for small scale irrigation and water harvesting demonstrations in 33 districts;
- Established demonstration sites in 7 districts;
- Funded EU Project on Agricultural Adaptation to Climate Change in Uganda ;
- Verification of sites for development of WfAP facilities in the cattle corridor districts of Sembabule, Kiboga, Nakaseke, Luwero and Nakasongoro;
- Technical assistance provided on setting up of Aketa Farm Irrigation demonstration center.

Agricultural Water Policy COMPARATIVE ANALYSIS



State of AWM

AWM policy documents

AWM policy objectives

BURKINA FASO

- Predominantly rainfed agriculture
- Area equipped for irrigation is 13% of the potential
- Surface irrigation is the main irrigation technique

- Stratégie de Développement Rurale (SDR) 2004-2015
- Programme National du Secteur Rural (PNSR) 2011-2015
- Stratégie Nationale de Développement Durable de l'Irrigation (SNDDI)

- Equipment of low lands
- New irrigation schemes
- Rehabilitation, modernization and maintenance of schemes
- Promotion of small scale irrigation
- Intensification and diversification of production of irrigated crops
- Development and rehabilitation of dams
- Development of water information systems

MOROCCO

- Predominantly irrigated agriculture
- Area equipped for irrigation is 88% of the potential
- Surface irrigation is the main irrigation technique

- Programme National d'Economie d'Eau en Irrigation (PNEEI)
- Programme d'extension de l'Irrigation (PEI)
- Plan National d'Aménagement des Bassins Versants (PNABV)

- Irrigation modernization (localized systems)
- Linking dams with irrigation schemes
- Soil conservation
- Higher added value, higher productivity of irrigated products
- Better integration of smallholder agriculture into development strategies

UGANDA

- Predominantly rainfed agriculture
- Area equipped for irrigation is 4-7% of the potential
- Surface irrigation is the main irrigation technique

- National Development Plan (NDP) 2010/11 - 2014/15
- National Agriculture Policy (NAP)
- Public Investment Plan (PIP) 2013/14 – 2015/16

- Increase area under irrigation
- Water harvesting and small scale irrigation
- Rehabilitation of existing schemes
- Water storage development



Project Development RECOMMENDATIONS

BURKINA FASO

- One of the key activities of the Water Policy component of this project is to formulate bankable investment projects on AWM in the context of the CAADP process. It is, therefore, proposed that focus is placed on those objectives set in the PNIA related to water for crop production that have not been attained so far. This way the project would close the gap between policy formulation and policy implementation.
- The following actions are proposed for project implementation in the short term:
 - Find out about the latest progress in the implementation of the *sous-programme Amélioration de la gestion de l'eau* of the PNIA to identify projects that could be implemented to achieve goals specified.
 - Prioritize those projects.
 - Define those projects that can be formulated within the project framework.
 - Formulate those projects.

MOROCCO

- One of the key activities of the Water Policy component of this project is to prepare a National Investment Profile that will review ongoing and pipeline AWM projects and programmes; analyse the adequacy of the investment areas identified in policy documents; and identify supplementary investment areas.
- It is proposed that focus is placed on the PNEEI and PEI in order to assess lessons learned from programme implementation and analyse possible gaps in the investment areas identified.
- The following actions are proposed for project implementation in the short term:
 - Conduct an initial review of investment projects implemented under PNEEI and PEI.
 - Develop a framework for project analysis including criteria for the assessment of environmental and socio-economic factors.
 - Prioritize projects to assess.
 - Define those projects that can be assessed within the project framework.
 - Assess those projects.

UGANDA

- One of the key activities of the Water Policy component of this project is to formulate bankable investment projects on AWM in the context of the CAADP process. It is, therefore, suggested that focus is placed on those projects proposed in the DSIP related to water for crop production that have not been implemented so far. This way the project would close the gap between policy formulation and policy implementation.
- The following actions are proposed for project implementation in the short term:
 - Find out about the latest progress in the implementation of the water for crop production component of the DSIP to identify projects that have not yet been implemented.
 - Prioritize those projects.
 - Define those projects that can be formulated within the project framework.
 - Formulate those projects.