This action is funded by the European Union

ANNEX

of the Commission Decision on the Annual Action Programme 2015 in favour of the Kingdom of Swaziland

Action Document for “Water Harvesting, Small and Medium Dams Project (WHDP)"

<table>
<thead>
<tr>
<th>1. Title/basic act/CRIS number</th>
<th>Water Harvesting, Small and Medium Dams Project (WHDP) CRIS number: SZ/FED/038-359 financed under 11th European Development Fund</th>
</tr>
</thead>
</table>
| 2. Zone benefiting from the action/location | Kingdom of Swaziland  
The action shall be carried out at the following location: the whole Kingdom of Swaziland. |
| 4. Sector of concentration | Sector 1: Agriculture, with emphasis on Food Security |
| 5. Amounts concerned | Total estimated cost: EUR 15 075 000  
Total amount of EDF contribution EUR 15 000 000  
An indicative amount of EUR 75 000 will be contributed through the co-financing of grants |
| 6. Aid modality and implementation modality | Project modality  
Indirect management with the Government of Swaziland |
| 7. DAC code(s) | 31140 – Agricultural water resources |
| 8. Markers (from CRIS DAC form) | General policy objective | Not targeted | Significant objective | Main objective |
| | Participation development/good governance | ☐ | √ | ☐ |
| | Aid to environment | ☐ | √ | ☐ |
| | Gender equality (including Women In Development) | ☐ | √ | ☐ |
| | Trade Development | √ | ☐ | ☐ |
| Reproductive, Maternal, Newborn and child health | ✓ | □ | □ |

**RIO Convention markers**

| Biological diversity | ✓ | □ | □ |
| Combat desertification | ✓ | □ | □ |
| Climate change mitigation | ✓ | □ | □ |
| Climate change adaptation | □ | ✓ | □ |

### 9. Global Public Goods Challenges (GPGC) thematic flagships

Not applicable

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**SUMMARY**

The purpose of the Water Harvesting, Small and Medium Dams Project (WHDP) is to tackle food insecurity in Swaziland while supporting economic growth by enhancing the availability of water throughout the year in a context of very limited access to irrigation for smallholders. This additional water supply will improve agricultural production in the Swazi Nation Land for crops and livestock, thereby allowing subsistence farmers to overcome food insecurity as well as engage into small to medium scale commercial farming.

The action has three results: i) water storage capacity increased; ii) production capacity for smallholder (non-sugar crops and livestock) enhanced; iii) planning, design and O&M capacity of water infrastructure strengthened.

The results of WHDP will be achieved through the following key activities:

i. the rehabilitation and construction of water harvesting infrastructures, small and medium size earth dams, weirs and reservoirs (result 1)
ii. the downstream land development (land preparation/in-field irrigation equipment) (result 2)
iii. the upstream facilitation of farmer, land and water organization through producers (result2) and water users groups (result 3) adapting the chiefdom development planning model
iv. enhancing the performance of the Ministry of Agriculture and its parastatals: the Swaziland Water and Agricultural Development Enterprise (SWADE) and the National Agricultural Marketing Board (NAMBOARD) in ensuring sustainability of irrigation schemes, farmers organisations and production levels (result 3)
v. roof water harvesting in public buildings (schools and health facilities) (result 1)

The institutional support provided to the Ministry of Agriculture and notably its parastatal the Swaziland Water and Agricultural Development Enterprise Ltd and the National Marketing Board will be important not only for implementation of this project but also for the on-going development of their capacity as key nation building institutions in the agriculture and rural development sectors in Swaziland.

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1 About 75% of land in Swaziland is SNL, which is communal land held by the King in trust for the nation and administered by chiefs. The rest of the land is Title Deed Land (TDL), where there is private ownership. Crop and livestock production on SNL is mainly subsistence-oriented; whereas production on TDL is market-oriented. The size of allocated plots is small (below 2 ha for 90% of holdings) hence the need to group land and organise farmers to create economies of scale. SNL land cannot be used as collateral.

2 A majority of people living under the food poverty line are to be found amongst the subsistence farmers.
The upstream organization of land and the organization of farmers into groups are imperative in the context of the Swazi Nation Land. In addition, the downstream provision of efficient extension services to the farmers to improve production and linkages with market is essential for the sustainability of production levels and quality produce in the newly irrigated land. This integrated approach is key to the success of the action as per lessons learned. Substantial resources are being allocated for enhancing the smallholders’ production and operation and maintenance capacity with the support of SWADE, NAMBOARD and Ministry of Agriculture (MoA).

The action will build upon and adapt: i) the solid experience acquired in the sugar value chain notably a functioning model of land organization with Chiefdom Development Plans and establishment of farmer companies thereby circumventing the structural bottlenecks of land allocation under Swazi Nation Land; ii) the knowhow and leadership of the SWADE in implementing this new land organization model; iii) the logistical capacity of the NAMBOARD in transportation and storage; iv) the lessons learned from past investments in the building of earth dams and similar water harvesting structures.

The project will link with previous EU investment in the sector notably the Swaziland Agricultural Development Project and the 11th EDF interventions in the agriculture sector namely the High Value Crop and Horticulture Project, as well as the livestock value chain project currently under preparation. It is expected that some farmers who will benefit from increased surface irrigated under this project will be able to link to the aforesaid value chains especially with regard to market linkages and other services. This project will have a positive environmental dimension by improving watershed management including soil conservation practices hence controlling rain water run-off volumes and speed. This will recharge the water table in the immediate catchment zones of the dams. This project will contribute to alleviate the burden of the women and children who spend considerable amount of time in collecting domestic water. In addition, women being the main workforce of the small farms, they will be empowered through their representation in the producers groups and will benefit from additional source of income. It will also contribute to improve water and land governance in Swazi Nation Land.

1. CONTEXT

1.1 Sector/Country/Regional context/Thematic area

1.1.1 Public Policy Assessment and EU Policy Framework

Despite the large potential of the agriculture sector with favourable climate and good soils that allow for a variety of produce to be grown throughout the year, Swaziland is a food-insecure country with 29% of the population not able to meet their minimum daily food requirements in 2009-10. Sector potentials are not being realised due mainly to institutional factors including land organisation with its dualistic structure consisting of large numbers of subsistence-oriented small-scale family farms growing mainly rain-fed maize with very low productivity on Swazi Nation Land3 (SNL) and a handful of medium- and large-scale commercial agribusiness enterprises with capital-intensive cash crop production (mainly sugar cane and citrus) on Title Deed Land (TDL).

Smallholders in particular face the following challenges: irrigation mainly limited to the big water infrastructure projects (Komati and LUSIP) dominated by sugar cane growing, lack of market information, high transaction costs for the transport of produce and the absence of financial services.

Between the subsistence SNL smallholders and the commercial farming on TDL, an alternative model has emerged in the past two decades in the sugar sector. It concerns approximately 130 farmer companies grouping above 6000 smallholders and growing sugar cane on SNL along the above water infrastructure projects. These developments have been facilitated by SWADE, a parastatal which mobilises communities, develops Chiefdom Development Plans (CDP), establishes farmer companies

3 About 75% of land in Swaziland is SNL, which is communal land held by the King in trust for the nation and administered by chiefs. The rest of the land is Title Deed Land (TDL), where there is private ownership. Crop and livestock production on SNL is mainly subsistence-oriented; whereas production on TDL is market-oriented. The size of allocated plots is small (below 2 ha for 90% of holdings). SNL land cannot be used as collateral.
on the basis of business plans, designs and supervises the development of irrigation schemes. The integrated model has the advantage in the unique context of the Swazi Nation Land to consolidate and formalise the land allocation, to concentrate extension and production hence creating economies of scale and to minimise risks for financial institutions (DFIs).

Swaziland National Development Strategy (NDS) provides a set of social and economic strategies for the 25-year period 1997-2022 that have been further analysed, refined and detailed in the 2008 Poverty Reduction Strategy and Action Plan (PRSAP). Under pillar ii) of the NDS, agriculture, land and rural development are awarded a key focus and strategies that promote agricultural production, propose better usage and land tenure practices, as well as community participation and empowerment are proposed with a view to improving food security and generating employment opportunities, especially for the disadvantaged smallholder farmers.

The PRSAP recommends further commercialisation of Swazi Nation Land and especially: to organise farmers into efficiently run groups, to channel extension services to them, to encourage diversified\(^4\) crops, to promote investment in irrigation, and to provide marketing information. The sector policies in place include the Comprehensive Agriculture Sector Policy (2005), the National Food Security Policy for Swaziland (2005) and the Swaziland National Irrigation Policy (2005). Policies are all aiming at reducing the dependence on rain-fed agriculture through expansion of economically, socially and environmentally sound smallholder irrigation schemes managed by viable farmer groups.

The draft Agriculture Diversification Strategy (2009) shows intent to reduce reliance on sugar and maize and calls for the development of irrigation infrastructure in support of all commercially grown crops while charging for the water at cost recovery levels in the framework of the major agricultural waterworks development projects initiated by the government.

A Swaziland National Agriculture Investment Plan finalised with EU support is currently being reviewed by the New Partnership for Africa Development (NEPAD) supported Comprehensive Africa Agriculture Development Programme (CAADP). The first programme under this plan is about Sustainable Natural Resource Management. Key outcomes of this programme include the reduction of rain-fed agriculture dependence, increased retention of rainfall within catchment areas and reduction in the severity and extent of land degradation. The second and third programmes aim at improving respectively diversification and food security through on one hand the increase in the number of rural households undertaking commercial agriculture, the increased volume and value of agricultural exports as well as decreased volume and value of selected agricultural imports and on the other hand an increase in the average yield per hectare of food crops.

The 11\(^{th}\) EDF National Indicative Programme (2014-2020) signed in 2014 seeks to address the national institutional, production and marketing challenges while promoting environmentally sound agricultural practices that mitigate and adapt to the changing climate. Sustainable agriculture and food security carried prominence in the EU Agenda for Change, where emphasis was placed on smallholder agriculture and the formation of producers groups. For Swaziland, the approach is to build on the experience and opportunities created by previous interventions to maximise synergies and effectiveness. The 11\(^{th}\) EDF project High Value Crop and Horticulture Project aims at transferring the learnings of the sugar sector support to the horticulture value chain by applying the models developed by SWADE in terms of chieftain based planning, consolidation of land and farmer grouping.

The proposed Water Harvesting, small and medium Dams Project under the 11\(^{th}\) EDF is clearly aligned with the policy environment as it will contribute to the commercialisation of Swazi Nation Land through increased surface under irrigation, consolidation of land, organised producer and water user groups, business planning, and marketing while promoting environmentally sound practices and infrastructures. In addition, provision will be made for controlled and robust access to water in/ from the dams for livestock. The issue of access to water for cattle is an important factor in view of the high mortality rate of cattle during the dry season. This was strongly underlined by national stakeholders in

\(^4\) Diversified means non-sugar
the context of the preparation of this project as well as the next planned 11th EDF project under the Agriculture sector, which is envisaged to focus on the livestock value chain.

1.1.2 Stakeholder analysis

The stakeholders of the project were identified during the consultative workshop\(^5\). The main one is the Ministry of Agriculture (MoA). The obligation of the Ministry of Agriculture is to ensure household food security and increased sustainable agricultural productivity. The Land Use Planning and Irrigation Development Section has the specific mandate to determine irrigation potential of areas; carry out engineering designs for small earth dams and diversion weirs for small-scale irrigation development. Other MoA departments that have been identified as stakeholders include Agricultural Extension and Veterinary and Livestock Services. In general, and despite noticeable improvement, the performance of the ministry's services are still constrained owing to limited staff, budget, human resource capacity, leadership and management skills, low morale, and limited transport to rural locations. Centralized financial management also results in the inability to spend the current low budget. Because of its central role, the ministry will be strengthened to implement this project especially to deliver the water infrastructure and extension services to the producer groups.

Other stakeholders include the Ministry of Natural Resources and Energy through the Department of Water Affairs in charge of issuing the water rights (National Water Authority, NWA); the Swaziland Environmental Authority and the Department of Forestry. Two parastatals under Ministry of Agriculture have a critical importance for this project: the Swaziland Water and Agricultural Development Enterprise (SWADE) and the National Agricultural Marketing Board (NAMBoard).

SWADE was established in 1999 to plan and implement major water resources development projects. Its function have since expanded to cover a myriad of necessary activities including Chiefdom Development Planning (CDP), community mobilisation, land consolidation, Farmer Companies incorporation, the design and implementation of downstream irrigation schemes and business support to farmers. SWADE has been involved for several years in the EU support to the sugar sector and is a key implementer of the High Value Crop and Horticulture Project. In the framework of this new proposed project it will in particular be involved in the community mobilisation, water groups formation and the design and implementation of downstream irrigation schemes.

NAMBOARD mandated to provide market information and transport is a key actor which provides the farmers access to local and regional markets. Under the High Value Crop and Horticulture Project, the organization is strengthened in the area of market infrastructure, cold chains, transport, and market information system. In the framework of this project, it will provide the link for the produce to the markets.

The direct beneficiaries of the project include: i) the small scale farmers that constitute the greatest majority of the 29% Swazi population not able to meet their minimum daily food requirements; ii) women as the main workforce of the small farms will be represented in the farmer groups and thus will take part actively in the decision making process; iii) youth as the force and minds to move from subsistence to commercial agriculture and; iv) owners of livestock.

1.1.3 Priority areas for support/problem analysis

Only 12 000 ha of Swazi Nation Land are irrigated and most in the sugar belt. Increased productivity and commercialisation of SNL as prescribed by the development policies of the country are directly dependent on irrigation development. On the other hand, the country is currently harnessing only 17%\(^6\) of its available renewable water resources in its major dams. This puts a lot of pressure on the need for infrastructure development to meet the ever increasing demands for water resources.

\(^5\) Held on 22/04/2015
\(^6\) CAADP stocktaking report, 2013
During the consultative workshop a problem analysis exercise was conducted to identify the main causes of food insecurity and reduced crop and livestock production. Institutional constraints include poor land administration and planning, chieftaincy disputes, extension support not readily accessible.

In terms of production, there are a number of social, environmental, financial and technical challenges that prevent the development of Swaziland’s agricultural potential. Among the social problems are: i) weak participation of beneficiaries; ii) gender inequality; iii) unequal distribution of power and wealth and; iv) inequality in participation. These lead to the inadequate formation of producer and water user groups.

Among the technical issues, there are: i) loss of water through run-off; ii) poor design of water infrastructure; iii) poor construction of water infrastructure; iv) lack of management and maintenance of water harvesting structures; v) poor water harvesting techniques; vi) high mortality rate of cattle during the dry season. Specific planning related problems include i) inadequate access to data resources; ii) insufficient capacity & skills to use water resource data base and; iii) inadequate software and hardware. These lead to inadequate water resources planning.

The financial constraints are as follows: i) constrained access to appropriate smallholder financial services and; ii) irrigation infrastructure is too expensive for smallholders. These lead to the lack of private investment in smallholder non-sugar crops. Among the environmental problems are: (i) soil erosion and land degradation; and (ii) erratic rainfall patterns, resulting in floods and droughts, aggravated by climate change. Lack of attention to all these issues inevitably lead to inadequate water for irrigation and livestock. Finally, marketing is limited due to lack of volumes and quality, cold chain/storage infrastructures, transport.

2. RISKS AND ASSUMPTIONS

<table>
<thead>
<tr>
<th>Risks</th>
<th>Risk level (H/M/L)</th>
<th>Mitigating measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insufficient Government commitment to support the activities related to the small and medium dams project</td>
<td>L</td>
<td>Strengthened M&amp;E to provide evidence of impact</td>
</tr>
<tr>
<td>Limited absorption capacity among beneficiary partners</td>
<td>M</td>
<td>Ensure all stakeholders fully aware of the project and adequately involved in implementation</td>
</tr>
<tr>
<td>The Traditional Authorities and small holders not supportive of project strategy or scheme design</td>
<td>M</td>
<td>Carry out Community Development Plan (CDP) based on the SWADE Chiefdom Development Plan model in identified areas to obtain buy-in from Traditional Authorities and community</td>
</tr>
<tr>
<td>Insufficient cooperation of the stakeholders</td>
<td>M</td>
<td>Need to provide adequate and timely interactive reviews</td>
</tr>
<tr>
<td>Restricted land allocation for the implementation of new dams</td>
<td>L</td>
<td>Key issue will be to insure equitable access for the wide community</td>
</tr>
</tbody>
</table>
Vulnerability of smallholders diverting their commitment to the project | L | Strengthening of market linkages to ensure tangible benefits
Natural disasters of medium and high impact | L | If occurring high negative impact; ensure robust, climate resilient construction; high priority given to natural and earth dams
Data and maps not easily available | L | High detail aerial photography currently carried out for whole country

Assumptions
- MoA will have the necessary budget resources to fulfil its function
- High Value Crop and Horticulture Project (HVCHP) is effectively implemented
- Access to suitable financial services and products available
- Profitable market available for farms products

3. LESSONS LEARNT, COMPLEMENTARITY AND CROSS-CUTTING ISSUES

3.1 Lessons learnt
The completion and evaluation reports of the 7th EDF Rural Dams Construction Project – Phase II clearly demonstrated the value of such projects in improving the quality of life of farmers, including rural women in enhancing their status and individual empowerment. They however pointed to critical issues related to hydrology and the feasibility analysis.

Poor hydrology analyses and design has led to the failure of some small dams irrigation schemes. Lack of proper study of precipitation patterns and frequencies has led to the construction of schemes that will never fill up. In other cases, the lack of proper erosion and sediment transport analysis led to the silting up of dams, reducing the useful life of the structures. Government and SWADE officers need some training in dams’ hydrology. Also, poor crops’ water demand analysis and lack of a water balance study has led to poor estimates of the potential irrigation area.

Also, there was a lack of sufficiently detailed engineering feasibility work during the sites selection, as some of the dams proved uneconomic or physically impossible to rehabilitate or construct causing disappointment to the communities concerned. The lack of qualified staff in sufficient numbers and the issue of targeting semi-arid part of Swaziland resulting in highly scattered distribution of dam areas and serious logistical problems in terms of transport and communication with field staff and dam committee were also issues mentioned by the reviews.

The Rural Dams Construction Project and the 9th EDF Swaziland Agricultural Development Programme (SADP) had a number of achievements in the field of earth dam construction and rehabilitation. However they both failed to link these water infrastructures with the support to farmers’ organisation, technical and business services to farmers, in order to achieve effective land development and agricultural production.

To increase crop yields, with scarce water requires effective farmers’ organisations and a detailed water rights system. Irrigated agriculture cannot be improved by technology alone, rather, strong Water Users Groups (WUG) are also required. However, forming WUG is at an embryonic stage in Swaziland and is a challenging task. These organisations need support get established and operational. In this regard the positive experience of SWADE working with small farmers on SNL is vital.

For the schemes where the farmers have no experience on irrigated agriculture, intensive agriculture extension work is required, as improved reliability/availability of water supplies is a necessary but no
sufficient condition. In Swaziland, where most of the country is hilly, farmers do not have the skills to manage water in their fields and if not properly trained there is the risk of eroding good agricultural soils. The same can be said about crop diseases caused by excessive moisture.

Finally, failure of some small dams' irrigation schemes have created some disbelief in these type of structures and the farmers would only consider irrigation as an option after the dam has been in operation for a full dry season. The main reasons are ad hoc designs, insufficient stakeholders’ consultations, inefficient water users groups and, insufficient maintenance. Therefore, once a reliable water source has been identified, dams should only be considered for construction or rehabilitation under the following conditions: a request from the community to the project (MoA) to ensure genuine interest within the community for a water source has been made.

1. The community must be willing to prepare a Community Development Plan (CDP), that incorporates the management of land, production and water, with the commitment to participate in the conceptualisation and implementation of the irrigation scheme and operation and maintenance

2. The Government of Swaziland should commit to having agricultural extension agents to support the new WUG for at least five (5) years.

With regard to roof top rainwater capture, positive experiences from the Food and Nutritious Garden under the SADP and from the IFAD Lower Usuthu Sustainable Land Management Project have guided the incorporation of this component. However it will be implemented at the level of public buildings like schools and health facilities in the communities and chiefdoms where the project is active.

3.2 Complementarity, synergy and donor coordination

EU is the major donor in Swaziland and the main actor in the sector of Agriculture since the approval of the 11th EDF NIP, with Agriculture as priority focal sector with an allocation of EUR 40 000 000. The recently initiated High Value Crop and Horticulture Project (HVCHP) include a limited activity on small earth dams and irrigation scheme rehabilitation in the pack-house hubs areas. This WHDP project will complement the first 11th EDF intervention by allowing more production and commercialisation to link up to the horticulture value chain.

IFAD has recently approved a Smallholder Market Led Project (SMLP) that also includes investment in small and medium earth dams. Collaboration with this project will be actively pursued, as it is obviously critical to avoid duplication of effort and competition for dam locations and it will be performed at the level of stakeholders, the MoA and SWADE. This project has clearly delineated chiefdoms where it will be operating.

3.3 Cross-cutting issues

The main cross-cutting issues relevant to this project include Gender, HIV/AIDS, governance and the environment.

Gender. In Swaziland, poverty, HIV/AIDS and food insecurity have a disproportionately negative effect on women. The project will review, adapt and adopt the SWADE Gender Policy Manual in aspects related to domestic water supply and irrigation water supply for small vegetables garden. Women will play an important role since they are the main workforce for this type of agricultural activity and are likely to be strongly represented in the farmer groups. From past experience under the sugar sector, women are always well represented in the farmer companies and play a significant role. The community mobilization undertaken by SWADE has proved gender sensitive. SWADE being the same actor in charge of the formation of farmer groups in this project it is expected that their adapted gender manual to this new context will contribute to a good gender balance in the farmers groups.

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7 Final Report Earth Dams Rehabilitation & Construction Phase II. EDF No. 7 ACP SW 023. Apr. 2000
**HIV/AIDS.** In Swaziland, the prevalence rate among adults (15 to 49) is 27.4%. At farm level, the impact of HIV/AIDS is felt as loss of labour. The project will improve food security and availability of nutritious food that are essential for HIV/AIDS affected population.

**Good governance.** The project applying the community led development approach of SWADE will enhance land and water governance. The operation and governance of farmers’ organisations and water users groups will be a key implementation focus.

**Environment.** Large irrigation projects are substantially reducing the uncertainties of rain fed agriculture due variability but also can cause environmental degradation in the form of scouring and flooding for downstream land, salinity in the soils and water logging. More land cultivated also means more agrochemicals which the corresponding polluting of the streams. The small and medium irrigation schemes proposed have substantially less environmental impact, but must necessarily identify with mitigation measures to protect the environment. Preserving natural resources and maintaining the natural biodiversity through appropriate design of water harvesting/storage and irrigation infrastructure, appropriate water use management and sustainable farming practices will be a necessary condition for all schemes. This project has the potential to improve watershed management including soil conservation through control of rainwater run-off and volumes. This will also contribute to recharging the water table in the immediate catchment zones of the dams.

### 4. DESCRIPTION OF THE ACTION

#### 4.1 Objectives/results

The overall objective of the 11th EDF National Indicative Programme (NIP) 2014 – 2020 for the agriculture sector is to alleviate food insecurity while contributing to sustainable economic growth. The NIP target is to reduce the food insecure population from 29% in 2009/10 to 15% by 2020. The overall objective of this project corresponds to NIP Strategic Objective No. 3 which is to improve food security of subsistence farmers by improving access to land and water, while avoiding deforestation and land degradation areas.

The project purpose is the sustainable enhancement of smallholders’ irrigated crops in project areas based on approaches that reduce vulnerability to climate risks, support improved water resource management and promote access to markets. Three results have been identified to achieve the project purpose. These are:

- Result No. 1. Water storage capacity increased
- Result No. 2. Production capacity for smallholders enhanced
- Result No. 3. Institutional capacity strengthened

#### 4.2 Main Activities

**Result No. 1. Water storage capacity increased**

This should be achieved by working on the following indicative activities:

i) Planning, design and construction of environmentally and economically sustainable new water storage infrastructure. These include small and medium dams (including spillways), weirs (diversion dams) and off-stream water harvesting reservoirs, taking account of watershed characteristics and with a view to reducing erosion and water loss from run-off. Schemes are envisaged to be developed in all four regions of the country, but priority will be given to the moist middleveld area. The total number of new schemes planned is approximately 64.

ii) The rehabilitation of existing schemes that have become dysfunctional or less productive because of siltation or due to less than optimal design. A total of approximatively 11 rehabilitation schemes are envisaged.

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8 Livestock production will also benefit from this project via watering points organised at the dams.
iii) Assuring quality of construction of water infrastructure through appropriate supervision.

iv) Development of an appropriate water infrastructure maintenance system.

v) The implementation of roof-top water harvesting methods, building on the experience of the ministry, SWADE and NGOs. The intervention will be targeted at public facilities like schools, health canters etc. Implementation will be done through a grant contract following a call for proposals.

vi) Identification and implementation of appropriate climate change adaptation measures\(^9\), including watershed management practices that reduce loss of water through run-off. Where appropriate community based labour-intensive methodologies will be applied.

**Result No. 2. Production capacity for smallholder enhanced.**

This should be achieved by working on the following indicative activities:

i) Adoption of participatory planning approaches to ensure effective participation of project beneficiaries; and community mobilisation, based on the Chiefdom Development Planning (CDP) approach.

ii) The formation of smallholder producers groups and the provision of group training.

iii) Downstream farm development, including land development and the establishment of sustainable and viable farm irrigation systems in the dam command areas. Irrigation will be gravity fed, avoiding the use of pumping. This work will be implemented by means of small contracts under the programme estimates. Supervision will be done by MoA and project staff based in the regions.

iv) The provision of effective extension services to the farmer groups\(^10\); Where applicable, provisions for small cattle watering points will be made, taking into consideration any environmental and health aspects.

v) The strengthening of market linkages will be done by adoption of a value chain approach to ensure inclusion of analysis of the demand side, market links and private sector participation. The project will seek collaboration with the High Value Crop and Horticulture Project (HVCHP) zones to ensure that the successful approaches are incorporated. Facilitation for the formation of Water User Groups (WUG) and provision training.

**Result No. 3. Institutional capacity strengthened.**

This should be achieved by working on the following indicative activities:

i) Adoption of land use planning approaches based on community-based CDP planning (including basic principles of watershed management).

ii) Improving access to and utilisation of available water-related data resources.

iii) Developing capacity and skills to use water resource database and computer-based planning.

iv) Conducting a base-line survey.

v) Establishment and operationalization of appropriate consultation mechanisms on water resources development.

vi) Technical assistance for project management support (from 2018) and for rural engineering (from 2017)\(^11\).

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\(^9\) This notably involves the review and analysis of the available agro-climatic and hydro-meteorological data, including projected changes, in the identification and preparation of irrigation schemes.

\(^10\) Covering all identified needs including environmental aspects (e.g. climate-smart farming practices, sustainable use of fertilizers and pesticides).
vii) Development of manuals on design, operation and maintenance of small to medium irrigation schemes and on project management.

Please refer to the Appendix for the details of the Logframe Matrix.

Preliminary design work undertaken during the formulation phase allowed for more accurate estimation of irrigable areas and costing of downstream development than was possible at identification. Furthermore, the average estimated cost per scheme turned out to be higher than originally projected, mainly due to the large size of the spillways as a result of high precipitation intensity in the country. In order to reach the intended number of beneficiaries the number of ‘pro-poor’ micro schemes (off-stream reservoirs) has been increased.

The following table provides a summary of the schemes to be developed under the project:

<table>
<thead>
<tr>
<th>Irrigation Scheme</th>
<th>Number of Schemes</th>
<th>Area Irrigated (ha)</th>
<th>Number of Households</th>
<th>Number of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type</td>
<td>Size (ha)</td>
<td>Type of Structure</td>
<td>New</td>
</tr>
<tr>
<td>Micro Systems</td>
<td>Dam</td>
<td>&lt; 5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Weir</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Reservoir (H)</td>
<td>17</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Reservoir (L)</td>
<td>18</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Small Systems</td>
<td>Dam</td>
<td>5 to 15</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Weir</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Medium Systems</td>
<td>Dam</td>
<td>15 to 50</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Weir</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-totals</strong></td>
<td></td>
<td></td>
<td>64</td>
</tr>
<tr>
<td></td>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td>75</td>
</tr>
</tbody>
</table>

4.3 Intervention logic

The above three results: i) water storage capacity increased; ii) production capacity for smallholder (non-sugar crops and livestock) enhanced; iii) planning, design and O&M capacity of water infrastructure strengthened should lead, in the absence of extreme climatic events, to improved agricultural production in the Swazi Nation Land for crops and livestock, thereby allowing subsistence farmers to overcome food insecurity as well as engage into small to medium scale commercial farming.

\[11\] To take over from current TA support under the EU funded Accompanying Measures for Sugar Protocol countries
5. **Implementation**

5.1 **Financing agreement**

In order to implement this action, it is foreseen to conclude a financing agreement with the partner country, referred to in Article 17 of Annex IV to the ACP-EU Partnership Agreement.

5.2 **Indicative implementation period**

The indicative operational implementation period of this action, during which the activities described in section 4.2 will be carried out and the corresponding contracts and agreements implemented, is 60 months from the date of entry into force of the financing agreement.

Extensions of the implementation period may be agreed by the Commission’s authorising officer responsible by amending this decision and the relevant contracts and agreements; such amendments to this decision constitute non-substantial amendment in the sense of Article 9(4) of the Annex to Regulation (EU) 2015/322.

5.3 **Implementation modalities**

5.3.1 **Indirect management with the partner country**

This action with the objective of “enhancing smallholder irrigated crop and livestock production in project areas” may be implemented in indirect management with the Kingdom of Swaziland in accordance with Article 58(1)(c) of the Regulation (EU, Euratom) No 966/2012 applicable by virtue of Article 17 of the Annex to Regulation (EU) 2015/323 according to the following modalities:

The partner country will act as the contracting authority for the procurement and grant procedures. The Commission will control ex ante all the procurement procedures except in cases where programme estimates are applied, under which the Commission applies ex ante control for procurement contracts above EUR 50 000 (or lower, based on a risk assessment) and may apply ex post control for procurement contracts up to that threshold. The Commission will control ex ante the contracting procedures for all grant contracts.

Payments are executed by the Commission except in cases where programmes estimates are applied, under which payments are executed by the partner country ordinary operating costs, direct labour and contracts below EUR 300 000 for procurement and up to EUR 100 000 for grants.

The financial contribution covers, for an amount of EUR 2 000 000 the ordinary operating costs incurred under the programme estimates.

The financial contribution also covers support for the roof water harvesting component under result 1, which will be implemented through a grant contract following a call for proposals. The purpose of the grant will be to support roof water harvesting in public buildings such as schools, health and social facilities. Potential applicants will include NGOs and civil society bodies with an established operational base in Swaziland including international organisations and economic operators such as SMEs. The indicative amount of the EU contribution is EUR 300 000 and the indicative duration of the grant will be 36 months. The maximum possible rate of co-financing for the grant will be 80% of the eligible costs of the action. The grant may be awarded to sole beneficiaries and to consortia of beneficiaries (coordinator and co-beneficiaries). The selection criteria will be the financial and operational capacity of the applicant while the award criteria will be the relevance of the proposed action to the objectives of the call; design, effectiveness, feasibility, sustainability and cost-effectiveness of the action.

In accordance with Article 190(2)(b) of Regulation (EU, Euratom) No 966/2012 and Article 262(3) of Delegated Regulation (EU) No 1268/2012 applicable by virtue of Article 36 of the Annex to Regulation (EU) 2015/323 and Article 19c(1) of Annex IV to the ACP-EU Partnership Agreement, the partner country shall apply procurement rules of Chapter 3 of Title IV of Part Two of Regulation (EU, Euratom) No 966/2012. These rules, as well as rules on grant procedures in accordance with Article 193 of Regulation (EU, Euratom) No 966/2012 applicable by virtue of Article 17 of the Annex to
Regulation (EU) 2015/323, will be laid down in the financing agreement concluded with the partner country.

The call for tender for the design and supervision service contract shall be launched with a suspensive clause before the Decision has been adopted by the Commission. This is justified by the implementation schedule which imposes support to communities still to be conducted after the infrastructures are completed, hence the need to have the design and supervision contract starting immediately after signature of the financing agreement without any potential delays due to the finalization of the works design.

5.4 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply, subject to the following provisions.

The Commission’s authorising officer responsible may extend the geographical eligibility in accordance with Article 22(1)(b) of Annex IV to the ACP-EU Partnership Agreement on the basis of urgency or of unavailability of products and services in the markets of the countries concerned, or in other duly substantiated cases where the eligibility rules would make the realisation of this action impossible or exceedingly difficult.
### 5.5 Indicative budget

<table>
<thead>
<tr>
<th>Component/Result</th>
<th>EU contribution (EUR)</th>
<th>Other contributions (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indirect management with the partner country</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3.1. Programme estimates</td>
<td>2 950 000</td>
<td></td>
</tr>
<tr>
<td>PE operating costs (staff, operations) under Result 3</td>
<td>1 680 000</td>
<td></td>
</tr>
<tr>
<td>PE activities under Result 1 (reservoirs downstream development) and Result 2 (chiefdom development planning, market linkages)</td>
<td>1 270 000</td>
<td></td>
</tr>
<tr>
<td>5.3.1. Service contracts (technical assistance, design and supervision)</td>
<td>1 600 000</td>
<td></td>
</tr>
<tr>
<td>5.3.1. Works contracts under Result 1 (dams, weirs, reservoirs) and Result 2 (downstream land development)</td>
<td>9 230 000</td>
<td>75 000</td>
</tr>
<tr>
<td>5.3.1. Grant contract under Result 1 (roof water harvesting)</td>
<td>300 000</td>
<td></td>
</tr>
<tr>
<td>5.10 Communication and visibility</td>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td><strong>Direct Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.8/5.9. Evaluation, Audit</td>
<td>120 000</td>
<td></td>
</tr>
<tr>
<td><strong>Contingencies</strong></td>
<td>700 000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15 000 000</td>
<td>75 000</td>
</tr>
</tbody>
</table>

### 5.6 Organisational set-up and responsibilities

The contracting authority for this project shall be the representative of the beneficiary country, the National Authorising Officer. In Swaziland this is the Principal Secretary, Ministry of Economic Planning and Development.

The Ministry of agriculture shall be the supervisor; it shall lead the project, utilising and building on the already established institutional capacities, operational mandates and experience of two local parastatals SWADE and NAMBOARD, in particular seeking to build on the complementarity of both parastatals working together. It will emphasise and support institutional ownership, operational mandates and responsibilities. To this end, it is foreseen to have Programme Estimates implemented by MoA.

Technical Assistance (TA) will be appointed to complement and support the efforts of project management in an advisory and institutional strengthening role. The TA will provide strategic support to MoA, whilst ensuring that operational field offices operate effectively.

### 5.7 Performance monitoring and reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process and part of the implementing partner’s responsibilities. To this end, the
implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than semi-annually) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (outputs and direct outcomes) as measured by corresponding indicators, using as reference the logframe matrix. The report shall be laid out in such a way as to allow monitoring of the means envisaged and employed and of the budget details for the action. The final report, narrative and financial, will cover the entire period of the action implementation.

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

5.8 Evaluation

Having regard to the nature of the action, a mid-term and a final evaluation will be carried out for this action or its components via independent consultants contracted by the Commission.

The mid-term evaluation will be carried out for learning purposes, in particular with respect to informing the second phase and any subsequent phase(s) of the action.

The final evaluation will be carried out for accountability and learning purposes at various levels (including for policy revision).

The Commission shall inform the implementing partner at least 30 days in advance of the dates foreseen for the evaluation missions. The implementing partner shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities.

The evaluation reports shall be shared with the partner country and other key stakeholders. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the partner country, jointly decide on the follow-up actions to be taken and any adjustments necessary, including, if indicated, the reorientation of the project.

Indicatively, two contracts for evaluation services shall be concluded under a framework contract approximate after 30 months and 56 months from the entry into force of the financing agreement, for the mid-term and the final evaluation respectively.

5.9 Audit

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audits or expenditure verification assignments for one or several contracts or agreements.

Indicatively, three contracts for audit services shall be concluded under a framework contract in 24, 42 and 60 months from the entry into force of the financing agreement.

5.10 Communication and visibility

Communication and visibility of the EU is a legal obligation for all external actions funded by the EU. This action shall contain communication and visibility measures which shall be based on a specific Communication and Visibility Plan of the Action, to be elaborated at the start of implementation and supported with the budget indicated in section 5.6 above.

In terms of legal obligations on communication and visibility, the measures shall be implemented by the Commission, the partner country, contractors, grant beneficiaries and/or entrusted entities.
Appropriate contractual obligations shall be included in, respectively, the financing agreement, procurement and grant contracts, and delegation agreements.

The Communication and Visibility Manual for European Union External Action shall be used to establish the Communication and Visibility Plan of the Action and the appropriate contractual obligations.

Implementation of communication and visibility actions will be done on the basis of service and or supply contracts under the imprest component of the programme estimates.
## APPENDIX - Indicative Logframe matrix (for project modality)

<table>
<thead>
<tr>
<th>Hierarchy of Objectives</th>
<th>Narrative</th>
<th>Indicators (OVI)</th>
<th>Baseline</th>
<th>Targets</th>
<th>Means of Verification (MOV)</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall Objective</strong></td>
<td>Food in security eradicated while contributing to sustainable economic growth (NIP)</td>
<td>- % of food insecure population reduced (NIP)</td>
<td>29%</td>
<td>15%</td>
<td>Vulnerability Assessment reports (Poverty unit MEPD) and MOA records</td>
<td></td>
</tr>
<tr>
<td><strong>Project purpose</strong></td>
<td>Smallholder irrigated crop production in project areas are sustainably enhanced</td>
<td>- Increase in volumes of crop in project areas</td>
<td>tbd</td>
<td>+ %</td>
<td>MoA statistics</td>
<td>No extreme climatic events</td>
</tr>
<tr>
<td><strong>Result 1</strong></td>
<td>Water storage capacity increased</td>
<td>- Additional number of functioning bulk-water structures (NIP)</td>
<td>N/A</td>
<td>+ 75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Additional volume of storage established (million m³)</td>
<td>N/A</td>
<td>+ 1.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Volume of diverted water (million m³)</td>
<td>N/A</td>
<td>+ 1.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Production capacity for smallholders enhanced</td>
<td>- Additional hectares irrigated (NIP)</td>
<td>N/A</td>
<td>+ 539</td>
<td>Records of the Land Use Planning Department</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of cattle watering points established (NIP)</td>
<td>N/A</td>
<td>+ 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of farmer business groups with business plans adhering to good agricultural practices (NIP)</td>
<td>N/A</td>
<td>+ 75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number female headed producer groups</td>
<td>N/A</td>
<td>+ 37</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Number of roof water harvesting units installed</td>
<td>N/A</td>
<td>+ 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Increase in volume of quality produce marketed (NIP)</td>
<td>N/A</td>
<td>+ % tonnes</td>
<td>NAMBoard and Maize Board records</td>
<td></td>
</tr>
<tr>
<td><strong>Result 3</strong></td>
<td>Institutional capacity strengthened</td>
<td>- Number of Operation &amp; Maintenance plans implemented</td>
<td>N/A</td>
<td>+ 75</td>
<td>Records of the MoA</td>
<td></td>
</tr>
</tbody>
</table>