Call for expression of interest
for participation in the programme for capacity development of educational institutions on solar power irrigation systems in East and West Africa

Sun4Water
Countries: Mali, Niger, Togo, Ethiopia, Kenya & Malawi
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In Sub-Saharan Africa, the agricultural sector, being the dominant economic activity, is not able to meet the needs of an ever-growing population. This is largely due to the structural challenges faced by farmers, such as problems of access to quality inputs, innovative technologies, energy, financing, information and knowledge, markets, etc. In addition, farmers are highly vulnerable to the impacts of climate change, particularly changes in rainfall patterns that make access to water increasingly difficult. Thus, water insecurity is threatening the growth of agricultural production in sub-Saharan Africa, where the vast majority of agricultural production is predominantly rainfed and the area of irrigated land accounts for only 6% of total cultivated land (Agra, 2019).

In the face of all these challenges, the practice of small-scale solar-powered irrigation, combined with appropriate water management, could be a viable and sustainable solution to boost food production. However, despite the great potential and availability of the technologies, their dissemination is still underdeveloped.

Equipment and service providers, farmers, financial actors as well as policymakers in the agriculture, water and energy sectors have limited knowledge about the technologies. This could be due to a variety of reasons, including the lack of specialised training facilities on the subject, the limited capacity of existing educational institutions in terms of training tools and qualified staff to offer appropriate training programmes.

The Sun4Water project, a contribution of the German Federal Ministry for Economic Cooperation and Development (BMZ) to the International Water and Energy for Food Initiative (WE4F), aims to promote the dissemination of approaches for the suitable and sustainable use of climate-friendly, water- and energy-efficient solar-powered small-scale irrigation systems in Sub-Saharan Africa, in particular in six countries: Mali, Togo, Niger, Malawi, Ethiopia and Kenya.

To achieve this objective, the project, in partnership with other projects[1] implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in the fields of water, energy and agriculture, intends to work on four (04) main pillars: 1) Capacity development of educational institutions and independent experts on the implementation of needs-oriented training in solar irrigation, 2) Support for the development and provision of technical and financial services for the use of the technologies 3) Policy advisory 4) Participatory development and adaptation of the existing Solar Powered Irrigation Systems (SPIS) toolbox[2] and the establishment of a supra-regional platform for the exchange of experience and best practices.

In order to achieve the results of pillar 1, Sun4Water has set itself the task of supporting fifteen (15) educational institutions (EIs) in the energy, water and agriculture sectors. These institutions will be selected through a targeted call for expressions of interest. The support will be materialised through several actions focused on solar irrigation: the organisation of technical trainings for the teaching staff, the strengthening of their pedagogical and didactical capacities, the support to the development of tailor-made training modules, etc.

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1. Context

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1. (Kenia: Global Programme Water and Energy for Food (WE4F), Ethiopia: Strengthening Rural Value Chains (SRVC), Agricultural Mechanisation and Technology for Smallholder Productivity (AMT) and Green Innovation Centres for the agriculture and food sector (GIC); Malawi: Energizing Development (EnDev) and Empowering Youth in Agriculture (EYA); Togo: Un Projet pour un Système Agricoles et alimentaires intelligents face au Climat et Pro-Energie; Niger: Promotion de l’Agriculture Post-productive (PromAIP); Mali: Programme d’Appui au Secteur Irrigation de Proximité (PASSIP); Appuis Ciblés aux Terres Irriguées et Opportunités pour la Nutrition (ACTION), Energizing Development (EnDev).

2. Toolkit with different training modules on solar energy irrigation systems designed by GIZ and FAO in 2019.
Through this support, the project intends to make available to all actors, qualified human resources and adapted training tools for the dissemination and sustainable use of small-scale solar irrigation systems.

2. Objectives

The objective of this capacity development programme is to support the qualification of 15 educational institutions (EIs) and 500 trainers (Teaching Staff of EIs and independent consultants) in the development and offering of economically viable and demand-driven training programmes on solar power irrigation systems in East and West Africa.

The beneficiaries of the programme should subsequently be able to offer trainings to different categories of target groups, namely:

- **SPIS End-Users** (farmers, smallholder-farmers, agricultural enterprises, cooperatives, etc.)

  Technical Service Providers which are SSMEs providing technologies (developers, sellers/resellers) and or offering various services such as, drilling, construction of water tanks, installation of irrigation systems, trouble shooting, maintenance etc.

- **Financial Service Providers** (Banks, MFIs, Impact Investors, SMEs providing alternative financial services etc.)

- **Policy Makers and Advisors**

The support to the organisation of pilot trainings will allow the project and its partners (projects implemented by GIZ on the spot) to ensure the quality of the content and methods applied. The targets of these pilot trainings will be identified and selected jointly by EIs, Sun4Water and partner projects in the respective countries.

Geographic Focus

The call for expressions of interest is primarily focused on the six Sun4Water intervention countries indicated in green on the map below: Mali, Niger, and Togo in West Africa; and Malawi, Ethiopia, and Kenya in East Africa. More generally, the other countries of intervention of the WE4F International Initiative covered by GIZ, which are circled in blue on the map, could be considered as a secondary option.
Target groups

The call is aimed at educational institutions offering training in the fields of agronomy, agricultural hydraulics (irrigation etc.), agriculture/renewable energy nexus, or equivalent themes.

Educational institutions are entities providing educational services to individuals or services related to education. This includes:

- Technical or vocational schools;
- Public or private colleges, high schools and universities.
- Private or public research institutions;
- Training centers and community colleges, etc.

3. Content of the EIs Capacity Development programme

The Capacity Development Programme for the EIs will include the following activities:

- Training of trainers (ToT) on solar irrigation systems for EIs staff and independent trainers selected on the basis of predefined criteria
- Didactic and pedagogical capacity building measures (methodology, content etc.) for selected EIs/trainers
- Support for the development and adaptation of training modules, tools and materials and their integration into the EIs training programmes
- Support for the development of sustainable business models and marketing plans for training offerings on solar power irrigation systems
- Support for the development of appropriate and tailor-made training concepts to address the needs of different categories of target groups

4. Expected results - Involvement of training institutions

The Capacity Development Programme for the EIs as offered by Sun4Water and its partners is expected to achieve the following key results:

- Each of the 15 EIs has technically, pedagogically, and didactically qualified trainers in the field of solar irrigation
- The training programmes of each EI integrate a module on solar irrigation, including tools and training materials needed to deliver training to the selected target groups
- Additionally, each of the EIs will implement joint trainings of selected SPIS stakeholders from the following categories:

1. Smallholder farmers
2. SPIS technicians and practitioners: including agricultural advisors, technology and service providers in the energy, water and agriculture sectors.
3. Financial service providers including: financial institutions, technology and service providers offering alternative financial services
5. Selection Criteria

The following evaluation criteria will be used to assess the applications:

### Status of registration
- Be a formal private or public body that is legally registered in the respective countries

### Technical capacity/capability
- Have at least ten (10) years of teaching experience in the fields of agriculture, rural engineering, agricultural hydraulics, water/energy/food nexus etc.; renewable energy, or any other equivalent specialization.
- Having also been offering training in irrigation, sustainable agriculture or natural resource management (such as water) for over 5 years.
- Have a teaching staff with permanent personnel and/or working with independent trainers (individual contractors) qualified and experienced in the topics mentioned in the previous points.
  
  Nb: each teacher must have at least the equivalent of a bachelor's degree in one of the above-mentioned fields and have a minimum of five (5) years of experience in teaching in general and a minimum of two (2) years of experience in training related to the topics covered.

### Management capacity
- Have qualified and experienced Administrative and Financial Unit.

### Infrastructure and resources
- Have the capacity to provide infrastructure, equipment, and pedagogical and didactic tools to conduct training in the training in the teaching areas relevant to the project and the previous mentioned points.
- Have curricula, modules and training programmes that facilitate the integration of solar irrigation

### Other Criteria

#### Capacity to contribute to the capacity development programme
- Be prepared to make an in-kind investment through the provision of human resources and infrastructure for the implementation of the project. Infrastructure can be training rooms, demonstration plots etc.
- Be capable of participating in virtual events, and coaching through adequate equipment and stable internet access
- Be willing to engage in training of the target group categories mentioned in point 2.
- Having the infrastructure to implement the programme. Infrastructure can be training rooms, demonstration plots.
- Have the capability of monitoring and evaluation of trainings and participants.
- Be willing to integrate the gender aspect in the activities.

#### Other criteria considered as asset
- Good network of partners working in relevant fields and especially in irrigation (installers, irrigation equipment suppliers, etc.)
- Good capacity to mobilize potential students/trainees.
- Proven experience in managing funds from technical and financial partners or other types of international partners.
- Previous collaboration with GIZ
Institutions wishing to express their interest in the qualification programme should complete the application form, attach the required documents and send them by email.

### 6. Selection process and timetable

This is a three-stage procedure:

1. Evaluation of the applications on the basis of the criteria mentioned in point 5 and pre-selection of 20 institutions
2. Virtual meetings with each of the pre-selected institutions to clarify open questions and provisional selection of 15 institutions
3. Visiting the institutions and making the final selection

#### Timeline of the call and selection processes

- **Launch of the call for expressions of interest**
  - 28/03/2023
- **Submission of application files**
  - 14/04/2023
- **Evaluation of the received applications**
  - 17/04 - 21/04
- **Publication of the list of shortlisted institutions**
  - 26/04/2023
- **Virtual selection meetings**
  - 01/05 - 05/05
- **Visit to the institutions**
  - 15/05 - 26/05
- **Publication of the final list of selected institutions**
  - 31/05/2023

#### 7. How to apply?

Institutions wishing to express their interest in the qualification programme should complete the application form, attach the required documents and send them by email.

- **Deadline for submission**
  - 14 April 2023 at 23:59 CEST.
- **Applications can be submitted in English or French**

Send your application by e-mail to the following address:

`sten.schurer@giz.de`

#### 8. Additional terms and conditions

- The German Agency for International Cooperation (GIZ GmbH) based in Eschborn and Bonn, Germany, is the organizer of this call for expressions of interest.
- Participation in this Call for Expression of Interest does not give the right to conclude a contract with GIZ or to receive an automatic financial contribution from GIZ.
- GIZ reserves the right to exclude participants who provide false or incomplete information.