

# Technology, Markets And Investment for Low Carbon and Climate Resilient Development (TEMARIN)

## PROJECT BRIEF

# The Challenge

Uptake and diffusion of climate technologies in Africa plays a key role in the ongoing transition towards low carbon and climate resilient societies. Over the past decade, climate technologies have become cheaper, more advanced and increasingly accessible through commercial markets. From being traditionally implemented and funded by foreign donors and NGOs climate technology investments are increasingly being driven by private investors.

This trend - from projects to markets - creates new challenges and opportunities for national governments to optimise the enabling framework for these markets as well as to support domestic industries to maximise domestic benefits from the ongoing transition. There is a large potential for domestic industries to take advantages of these expanding markets. However, insights into the specific needs, requirements as well as specific bottlenecks for domestic businesses and how such bottlenecks can be removed are currently limited. Likewise, while international finance is largely available to drive technology diffusion and clean transitions in developing countries, there is still a challenge in linking international markets and international technology suppliers to local needs and country specific opportunities.

## WHAT ARE CLIMATE TECHNOLOGIES?

Climate technologies are technologies that can support the transition to low carbon societies and ensure climate resilience. They include a wide variety of technologies ranging from clean energy technologies such as solar PV and wind power, or technologies that can directly support farmers in for instance increasing yield and coping with droughts using improved irrigation systems and water pumps. Climate technologies are more than hardware though. They include the knowledge involved in producing and using them as well as the enabling frameworks and business models without which they would not make it to the market. Transfer, diffusion and uptake of climate technologies therefore refer to the processes and mechanisms that enable markets to function and users to adopt new technologies. Successful technology diffusion is reliant on the larger support system to function including availability of a skilled and competent workforce, supportive policy frameworks, accessible finance for end-users and businesses as well as business models that work.

## The Project

On this background, the UNEP DTU Partnership has launched the project *Technology, Markets and Investment for Low Carbon and Climate Resilient Development* (TEMARIN). In addition to an overall aim of accelerating the transfer, diffusion and uptake of particular climate technologies, the specific aim of the TEMARIN project is to support Kenya and Uganda in strengthening domestic markets for climate technologies and to increasing cooperation among private actors, public actors, and international actors to build global and national partnerships for implementation.

The project is funded by Danida and runs until end of 2021.

1. Generate market knowledge and explain successful cases of market-led transfer and diffusion of climate technologies including small-scale irrigation, captive solar PV and ICT based agricultural extension services.
2. Co-create actionable recommendations to strengthening the support for domestic firms in gaining larger share of markets for solar PV.
3. Provide a platform for partnership facilitation to increase technology transfer and diffusion in selected climate mitigation and adaptation technologies.

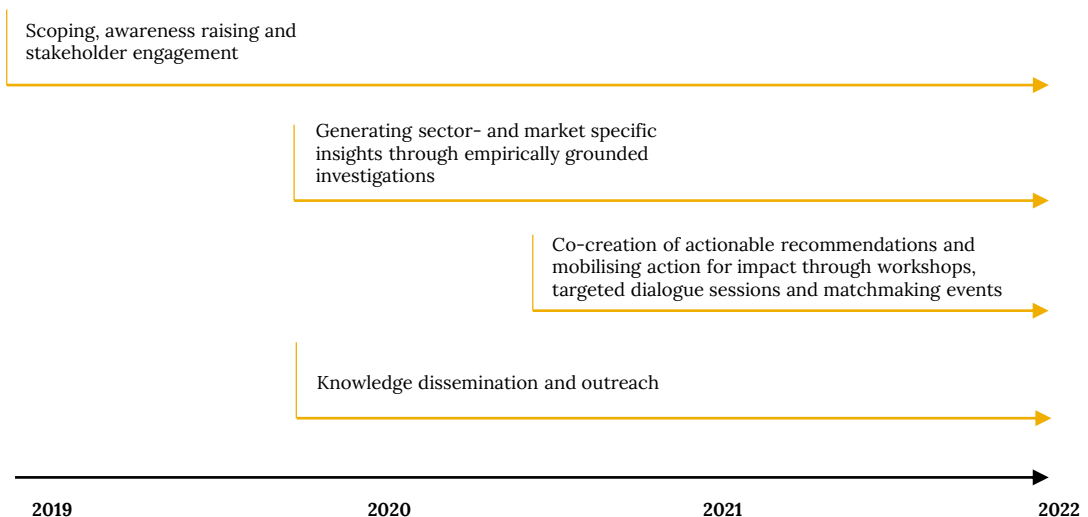
The project is developed based on UNEP DTU Partnership's experience in supporting Technology Needs Assessments in more than 60 countries. It follows a stakeholder centred and process oriented approach in which scope of investigations is established through a stakeholder engagement process covering three main actor groups; private actors (i.e. private business operators); policy actors (i.e. politicians and government agencies); and supportive actors (i.e. research institutions, donors and investors). In-depth, interview-based, empirical case studies lay the ground for further co-generation of insights, ideas and recommendations through workshops, webinars and targeted dialogue sessions. These insights are communicated through a series of outputs, which can be explored further on the [TEMARIN website](#).

Explore the Technology Needs Assessment Project to learn more about how 60+ countries globally prioritise and implement climate technologies: [www.tech-action.unepdtu.org](http://www.tech-action.unepdtu.org)

## Partner Countries

Kenya and Uganda are part of Danida's strategic focus countries and the TEMARIN project thus complement already existing support through other Danida funded activities. Kenya and Uganda are both examples of countries where markets for climate technologies are relatively well developed. Documentation of lessons learnt including what has worked and what has not are therefore particularly interesting in terms of replication in other countries in the region and across Africa.

## Project Activities



## Outcomes

- Better access to market information and data for business owners, investors and government actors on specific technologies and market segments as well as increased understanding of contextual drivers and barriers for market-led transfer, diffusion and uptake of specific climate technologies.
- Increased understanding of the needs and requirements of domestic firms as well as bottlenecks inhibiting domestic firms from growing and upgrading in the markets in which they operate.
- Aligned understanding among domestic firms, investors, government and other supporting actors of how to remove barriers and strengthen the supportive ecosystem for domestic firms.
- New partnerships formed between sector-specific actors (local and/or global) to initiate or support implementation of specific climate technologies.

## Potential across Africa

While the project initially is implemented in Kenya and Uganda, there is potential for upscaling similar activities regionally and across Africa. Especially, countries, where markets for climate technologies are emerging, can benefit from deeper market analyses focusing on specific segments where access and participation for domestic industries can be maximised as well as on developing strategies on how to remove bottlenecks and strengthen links with international financiers as well as with technology suppliers.

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**For more information**, visit our project website: [unepdtu.org/project/TEMARIN](http://unepdtu.org/project/TEMARIN)

### ABOUT UNEP-DTU PARTNERSHIP

UNEP-DTU Partnership is a leading international research and advisory institution on energy, climate and sustainable development. Our work focuses on assisting developing countries transition towards more low carbon development paths, and supports integration of climate-resilience in national development through in-depth research, policy analysis, and capacity building activities. Read more about our work here.