



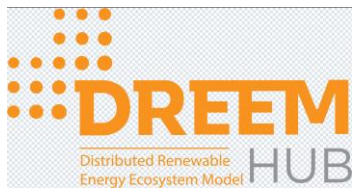
THE 2025 DREEM PARTNERS CONFERENCE

DATE: 9th & 10th JULY 2025

VENUE: MUTHU SOVEREIGN SUITES & SPA, LIMURU, KENYA

THEME:

***Unlocking the Full potential of Productive Use of Energy (PUSE) for Sustainable
Agricultural Transformation in EAC Region***



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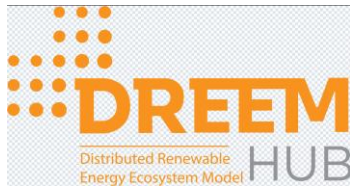


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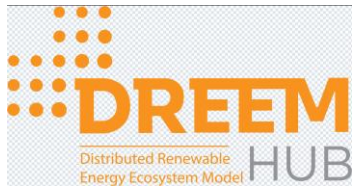
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Abbreviations

ACCS	Advancing Climate Change Solutions
ACODE	Advocates Coalition for Development and Environment
COMESA	Common Market for Eastern and Southern Africa
DREEM	Distributed Renewable Energy Ecosystem Model
EAC	East Africa Community
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KCIC	Kenya Climate Innovation Center
FETA	Fisheries Education and Training Agency
GDP	Gross Domestic Product
PUSE	Productive Use of Solar Energy
WWF	WorldWide Fund for Nature
TIV	The Innovation Village
JEEP	Joint Energy Environment Projects
PREO	Powering Renewable Energy Opportunities



A. Introduction

Climate change is increasingly threatening East Africa's development gains, particularly agriculture and energy. As the East African region experiences robust economic growth predicted to outperform other regions in Africa in the medium term, it also faces a surge in energy demand and associated carbon dioxide emissions. According to the African Development Bank 2023 East Africa Economic Outlook report, East Africa will register the highest regional economic performance on the continent in 2023 and 2024, with growth figures at over 5%.

Agriculture remains the backbone of the East Africa's economy contributing between 25% to 40% of GDP across the East African Community (EAC) Partner States' (Kenya, Uganda, Tanzania, Rwanda, Burundi, and Republic of South Sudan) and is a leading employer for over 80% of the population in the region¹. However, this sector is also a major contributor to the region's greenhouse gas emissions.

UNFCCC data shows that Kenya and Tanzania, the two largest economies, lead in carbon dioxide emission within EAC. Kenya emits approximately 72.62 million tonnes of CO₂ equivalent annually (representing 0.15% of global emissions), with agriculture sector accounting for 64% of the emissions². Tanzania follows with 158.82 million t CO₂e (0.33% of global emissions) , with (agriculture sector accounted for 37% of the emissions)³ . The rest of the EAC member states follow the two economic power houses in a distant with Uganda emitted 53.61 million tCO₂e (0.11% of global emissions), with over half (50.4%) from agriculture sector⁴ .

More than 70% of the industries in the EAC are agri-based and depend on agriculture as the main source of raw materials. The agriculture sector represents a significant opportunity for climate adaptation and mitigation efforts⁵. Yet, the adoption of clean energy solutions in agriculture especially for Productive use of energy (PUE) remain limited. The market is nascent, with few examples exist of scalable business models. Most market development support is focused on small-scale pilots and grants for research and development, innovations, and early-stage businesses. Agrisolar enterprises still face significant challenges in accessing markets, localized and sector aligned financing solutions, and technical skills to

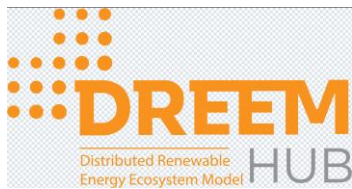
¹ <https://www.eac.int/agriculture>

² <https://www.climatewatchdata.org/countries/KEN>

³ <https://www.climatewatchdata.org/countries/TZA>

⁴ <https://www.climatewatchdata.org/countries/UGA>

⁵ <https://www.adaptation-undp.org/resources/plans-and-policies-relevance-naps-least-developed-countries>



develop and deploy PUSE technologies. Insights from the KCIC PUSE pilot highlighting that adoption of cooling technologies in agribusiness is still limited attributed majorly to their unavailability and high initial cost.

Advancing the Productive Use of Energy (PUSE)—particularly through decentralized solar technologies—offers a pathway to decarbonize agriculture while enhancing productivity, income, and resilience. PUSE enables mechanization, value addition, and improved market access, especially for smallholder farmers.

The Distributed Renewable Energy Ecosystem Model, an Initiative by the Mott Foundation has over the last 10 years brought together various partners across Eastern Africa (Kenya, Tanzania and Uganda), these include; [Kenya Climate Innovation Center\(KCIC\)](#), the [Heifer International Uganda](#), the [World Wildlife Fund Tanzania](#), [The Innovation Village](#), [IMED Foundation](#), [Africa Center for Media Excellence\(ACME\)](#), [World Resource Institute \(WRI\)](#), [EED Advisory](#), [Amshaamsha foundation](#), [Elico foundation](#) and [Don Bosco Technical Institute](#) among others.

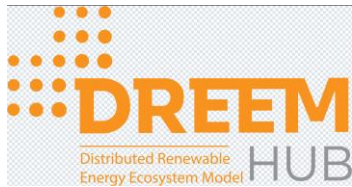
I. About the Distributed Renewable Energy Ecosystem Model (DREEM)

The Charles Stewart Mott Foundation through their Advancing Climate Change Solutions (ACCS) strategy since 2015 has supported the deployment and scaled up adoption of solar energy in the dairy and horticulture sectors in Kenya, Uganda, and Tanzania by financing key partners in the region who have been implementing the DREEM Initiative.

The ACCS strategy is based on the understanding that energy is the primary driver of global climate change accounting for more than two-thirds of all annual global GHG emissions. Against this background, the ACCS program goal seeks to **“Advance clean energy technologies at the community level in the U.S and internationally.”** Towards this goal, the ACCS objectives and desired outcomes are as follows.

The ACCS Global & Africa sub-strategy has been implemented through a series of grants to organizations operating both globally and in Africa to support the productive use of solar energy services (PUSE) through what has come to be described as the Distributed Renewable Energy Ecosystem Model (DREEM). The DREEM model has undergone two distinctive phases:

- **DREEM 1.0 (2015-2018)**, whereby the Foundation learned and defined a niche for its grant-making while at the same time addressing key global strategic barriers



(open innovation, public policy engagement, international finance, and strategic communications) to climate solutions.

- During the **DREEM 2.0 phase (2019-2022)**, the Foundation's grant making was primarily focused on demonstrating a working model in Tanzania as a systematic approach to solving five key strategic barriers to the widespread adoption and use of PUSE solutions in last-mile communities. To this end, the Foundation made grants towards various grantees in solar skills training, enterprise development, micro-financing, community demonstration projects and coordinating a multiplicity of actors.
- **DREEM 3.0: In the period 2023-2025**, the Foundation is implementing the third phase of Distributed Renewable Energy Ecosystem Model (DREEM 3.0) which was piloted in Tanzania, Kenya and Uganda. It is characterized by the following key features. Agricultural Value Chain Focus, DREEM Hub & Spoke Model, Distributed Solar Photovoltaic (PV) Location, Community Focus and Climate Change Solutions Impact. As part of DREEM 3.0 Mott Foundation has contracted WWF, Heifer International and KCIC to implement DREEM Hubs Tanzania, Uganda and Kenya respectively with a focus on solarizing the key agricultural value chains in East Africa.

Additionally, the Kenya Climate Innovation Center is leading the DREEM Coordination Project, an initiative that aims to ensure a shared vision, shared learning and long-term sustainability beyond the life of the DREEM hubs Kenya, Uganda and Tanzania. As part of this effort, KCIC convenes annual DREEM partners conferences which brings together development partners, policy makers, private sector and other key industry players to strengthen collaboration, share best practices and accelerate progress in the distributed renewable energy sector across East Africa.

B. The DREEM partners Conferences

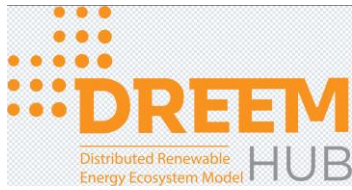


Figure 1: The inaugural DREEM partners conference in 2023

KCIC hosted an inaugural DREEM partners conference in 2023 in Nairobi, Kenya bringing together all the DREEM partners and other ecosystem partners.

The conference was themed ***"Financing Solutions for Local Productive Use of Solar Energy Entrepreneurs in East Africa's Agriculture Sector"***, where the partners got to share details about their various Mott funded projects and lessons learnt. Below were the key highlights from the inaugural DREEM Conference 2023:

- The partners called for reimagining future technologies, particularly energy pathways, increasing the deployment of energy technologies, and leveraging the numerous grants currently available in Africa and America aimed at increasing energy access in Africa.
- Emphasize more digital inclusion through payment systems, digital identity, AI, blockchain, Internet of Things, solar technologies, and encourage non-traditional players to consider use of cases and interventions to ensure community-powered technology adoption, including the use of statistical modeling.
- Promote climate action by unlocking employment opportunities for young people in the dairy, aquaculture, and horticulture value chains through the use of solar technology in production and post-production processes.



- Address infrastructure and systemic barriers, using Uganda as a case study, where such barriers hinder startups. The main question is how to build specific solutions that enable co-creation, thereby sustaining Africa's position as a food basket with increased productivity per acre. By improving infrastructure, Africa can leverage the knowledge economy, drawing comparisons to advanced countries like the Netherlands.
- Recognize that farmers do not receive their fair share of returns despite working the hardest and longest hours, often being underpaid or not paid at all.
- Highlight the need for a good understanding of a business's unit economics, more contextual financing, de-risking access to solar technology, increased talent fusion within the region/continent, and respect for market intermediaries who must understand the value of technology.
- Advocate for gender inclusion in the renewable energy sector by developing bespoke strategies to increase women's participation.

Expand the scope of assistance to incubatees, including establishing a dedicated technical assistance fund to provide extensive business development support. In 2024, the Mott Foundation supported the DREEM partners to jointly host a second partners meeting, the **DREEM Conference in Tanzania themed “*Financing an ecosystem of agrisolar entrepreneurs in East Africa*” on July 8th and 9th**, bringing together over 90+ ecosystem stakeholders committed to advancing distributed productive use of renewable energy (PURE) services in Africa.



Figure 2: The 2024 DREEM partners conference

Following the successful 2023 and 2024 DREEM partners conferences, KCIC, Heifer Uganda and WWF Tanzania held the **2025 DREEM partners Conference** which served as a regional platform to advance the next phase of solar energy adoption in agriculture across Kenya, Uganda, and Tanzania. Building on the momentum of the 2024 convening in Tanzania, the conference sought to deepen regional collaboration, strengthen ecosystem partnerships, and align stakeholders around a common vision for scaling the **productive use of solar energy (PUSE)** in priority agricultural value chains—particularly dairy horticulture and fisheries.

The conference attendance spanned at least 119 key actors from government, development agencies, financial institutions, academia, private sector, and Agri solar enterprises, farmer groups/cooperatives in an aim to share lessons, co-create solutions, and identify investment opportunities that can drive sustainability of the all the DREEM Hubs beyond the program implementation period It served as a critical moment to explore synergies across the East African region, and amplify existing scalable innovations that address energy access and agricultural productivity in last-mile communities.



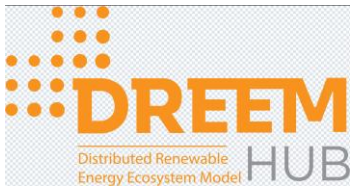
Figure 3: The 2025 DREEM Partners' conference.

The 2025 DREEM conference themed '**Unlocking the Full potential of Productive Use of Energy (PUSE) for Sustainable Agricultural Transformation in EAC region**' with the following objectives:

- € Sharing successful innovative financing approaches and frameworks utilized within the Agri solar ecosystem.
- € Identify and facilitate cross-sector collaborative opportunities among partners.
- € Strengthen knowledge sharing among partners on potential of PUSE in Agriculture
- € Explore further support of various financiers for the ecosystem, i.e. commercial financing partners (banks, impact investors), impact funders and bilateral and multilateral funders.
- € Shaping supportive policy and regulatory environment for clean energy financing
- € Showcase scalable technologies-existing and new innovative ideas.

II. Activities and Flow of Events

To achieve the objectives of the 2025 DREEM conference, a series of activities took place for the 2 days including:



- Remarks from KCIC CEO and Government officials
- Keynote speech by Mott Foundation representatives
- Plenary session on overview of the DREEM Hubs
- Policy Insights on The East Africa Agri-solar Policy landscape
- Plenary discussions
- Knowledge sessions
- Government Round table discussions and World café session
- Exhibitions
- Social Activities/Team building
- Cocktail and Networking Dinner

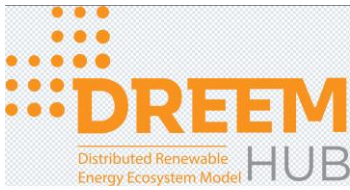
1.0. Commencement/Opening Remarks

Ernest Chitechi, Manager – Corporate Services at KCIC and **Violetta Ngina** –Citizen TV, opened the event by welcoming guests and introducing the agenda. They recognized the presence of the government representatives, DREEM Hub implementing partners and other key stakeholders highlighting the theme of the event “**Unlocking the Full potential of Productive Use of Energy (PUSE) for Sustainable Agricultural Transformation in EAC region**” reinforcing the need for a shared vision for the future of agricultural systems in East Africa.



Figure 4: KCIC CEO Mr Joseph giving his welcoming remarks

In his speech, Mr Joseph Murabula – KCIC CEO, appreciated the donor, Mott Foundation for supporting co-creation of the DREEM Hub programs within the East Africa Region, and their contribution to the partners conference that over time seen the bringing together of all the implementing partners: KCIC, Heifer International, Uganda and WWF Tanzania. “The Mott Foundation has been more than just a funder, they have been the most strategic partner we have especially in the journey of greening the agriculture sector”, he said. He brought to attention the need for grassroots interventions in scaling solar energy adoption



by engaging last-mile communities i.e., primary beneficiaries of the DREEM Hub Kenya program-23 cooperatives with a combined membership of 5200 farmers.

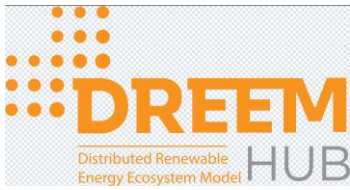
He concluded by urging collective ownership among farmers and enterprises and encouraging partnerships to unlock the full potential of Agri solar transformation in East Africa.

A testimonial by a coffee grower demonstrated how they have overcome adversity and shown strength through diversification. He shone light on how climate shifts, market volatility, and rising input costs have made traditional coffee farming increasingly uncertain. For years, reliance on a single crop meant that their income was directly proportional to the performance of their harvests. To adapt, they diversified their production stabilizing their earnings and improved soil health through crop rotation. "Coffee remains our pride—but diversification has become our resilience", he said.



Figure 5:Mr. Samuel B. Passmore, Program Director, Environment- Mott Foundation, delivering the keynote speech.

In his keynote speech, Samuel B. Passmore – Program Director, Environment- Mott Foundation introduced the foundation as a private philanthropic organization established in 1926 with a grant portfolio of approximately \$150 million USD annually across four core



program areas: Education, Civil Society, Environment, and the Flint Area. The foundation’s Environment Program sought to promote sustainability by supporting clean energy, climate resilience, and responsible infrastructure development. Its focus on Energy Access in East Africa has achieved impact for over a decade beginning its work in Tanzania, later expanding to Kenya and Uganda around 2019–2020.” ... I am so impressed with the energy and vision that Robert brought to work, the progress made...,” he vowed as he appreciated their work in the East Africa region. He mentioned that following the final round of grants in 2025, the foundation would have leveraged \$25 million USD, supporting:

- Over 150,000 people in Tanzania
- 200 local enterprises across the three countries
- 1 million people with improved access to clean energy

He reflected on the foundation’s valuable contributions to the off-grid solar space, particularly in rural and underserved communities.

2.0. Government Remarks

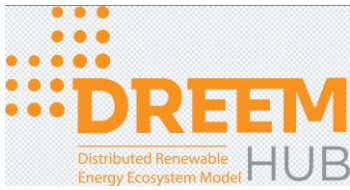
The governments’ commitment to support the integration of renewable energy to increase energy access and realize the productive use of solar energy for the transformation of various sectors i.e., agriculture, cooking etc was evident during their remarks.



Figure 6: Alice Nyaga, Ministry of Agriculture–Kenya representative, addressing participants

Eng. Alice Nyaga, a representative of the Ministry of Agriculture–Kenya, commended implementing agencies, farmers, community groups, and partners for their contributions to the DREEM Hub program. She emphasized the goal of government to improve system efficiencies in the agricultural sector while reaffirming agriculture’s crucial role in

Kenya’s GDP and job creation. She addressed the energy constraints affecting agriculture, despite its economic importance.” As part of mechanisms of the agriculture sector, The Ministry of Agriculture remains committed to support enabling policy frameworks standards and regulatory measures as well as programs and projects that will scale up clean energy access for productive use in the sector”, she said. This commitment is clear from



the launch of policies i.e., the National Agricultural Mechanisation Strategy 2024 which focuses on climate-smart agriculture and the Argo-Ecology Policy which supports transition into resilient sustainable farming systems.

Mr Imani Juma – Deputy Commissioner, Ministry of Energy, Tanzania reaffirmed the unwavering commitment of their government in fostering sustainable energy development and enhancing national competitiveness within the sector. Energy access remains a cornerstone of Tanzania’s development agenda. By increasing reliable and affordable energy access, they aim to not only light homes and power businesses—but are fuelling opportunity, innovation, and economic growth across the nation. He highlighted the ministry’s dedication to advancing technologies, frameworks, and partnerships that drive inclusive energy expansion for a more resilient and competitive energy sector.



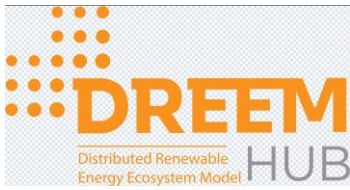
Figure 7: Mr Imani Juma – Deputy Commissioner, Ministry of Energy, Tanzania



Figure 8: Mr Vincent Okema - Ministry of Trade, Industry and Cooperatives, Uganda

Mr Vincent Okema - Ministry of Trade, Industry and Cooperatives, Uganda acknowledged the transformative potential of the **DREEM Hub Model**—an innovative framework built on collaboration and community-centred solutions. He shone a light on how DREEM Hub could become a driver of **agricultural resilience** across Uganda through strategic partnerships and localized engagement.

“ Climate challenges transcend borders, as we share innovations today let us commit to scaling proven technologies and regional communities to aligning our policies to unlock green investments and improve food systems, to forging borderless partnerships that accelerate our collective vision, ”he said. By connecting energy access with Agri-value chains, farmers are empowered to increase productivity, reduce post-harvest losses, and enhance livelihoods. He underscored how DREEM Hub doesn’t just deliver energy but also delivers opportunity. He concluded by underlining their dedication



to fostering such dynamic collaborations that ensure energy investments translate into tangible gains for agricultural development.

3.0. Panel Discussions

a) An overview of the DREEM hubs

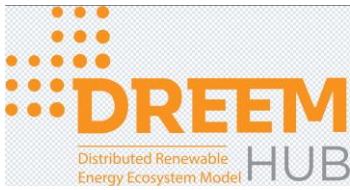
The 2025 DREEM Conference provided a comprehensive platform to highlight the role and structure of DREEM Hubs across East Africa. DREEM, which stands for Distributed Renewable Energy Ecosystem Model, is a multi-stakeholder initiative aimed at scaling the productive use of renewable energy in key agricultural value chains. Anchored by hub institutions in Kenya, Tanzania, and Uganda, each DREEM Hub operates through a “hub-and-spoke” model where the central hub coordinates activities and support from specialized spoke partners. These partners provide targeted services ranging from access to finance and technical capacity building to community engagement and policy advocacy, all aimed at creating a robust ecosystem that supports sustainable livelihoods and energy transition in rural communities. “...the work of the spoke partners is to support the hubs i.e., KCIC to efficiently deliver the services agreed upon with Mott Foundation,” Felix said



Figure 9: SAVINUS Kessy, WWF Tanzania, Saumu Ismail, KCIC, Enock Mutinga and William Matovu, Heifer Uganda, Felix Magaju, KCIC.

Each country's hub has adopted a distinct value chain based on contextual strengths and existing community needs. In Kenya, the hub focuses on dairy and horticulture, leveraging a well-organized cooperative system and previous learnings from the AgriBiz programme. "Of the 6 million farmers in Kenya, 1.5 million rely on Dairy while 95% of produce is from the horticulture value chain," Saumu explained. The data validates focus of the DREEM Hub Kenya in unlocking opportunities for job creation and improved livelihoods. The financing model –issuance of concessional loans- targeting cooperatives amplifies the impact of the program. A need assessment exercise across 15 counties sought to understand organization structures for farmers and opportunities for integrating solar within the value chains. 23 farmer groups with a membership of over 5000 across 4 counties –Kitui, Isiolo, Laikipia and Makueni were onboarded to the program. The long-term vision is to expand to more value chains and more counties.

The Tanzanian hub, coordinated in Mafia Island, targets the fisheries value chain (Dagaa)—addressing energy access challenges, promoting solar drying innovations, and reducing reliance on firewood to curb deforestation. The DREEM Hub model is aligned to WWF operations i.e., working with partners including government and over 30 years expertise in



the fisheries value chain. “We have deep roots among the communities along the coast,” Savinus confessed. The Dagaa value chain contributes 30% of fishing within Mafia Island. The current practices on the island include boiling using firewood. WWF is innovating boiling technologies and solar dryers. Other partners for the DREEM Hub Tanzania include WetFish. The ultimate goal is supporting the value chain actors to elevate the fishing community (including youth and women) through increasing income and quality of life.

The DREEM Hub Uganda focuses its interventions in Nakaseke District implemented within the cattle corridor, is centered on greening the dairy sector by introducing solar-powered water and energy solutions at both household and cooperative levels. During conceptualization of the program, it was clear that “one stick cannot start a fire,” Enock said. The Hub areas of focus include (1) scaling and capacity development program for women and youth—trained 1000 women and youth through a partner, Enterprise Uganda. Also support university students supported by the Joint Energy and Environment Program. 2) Stimulate deployment of Agri solar technologies. The DREEM Hub Uganda seeks to educate farmers and increase awareness of proven technologies through 10 demonstration centers etc. All three hubs integrate capacity development, particularly for youth and women, to ensure local ownership, job creation, and long-term sustainability.

The DREEM Conference emphasized not only the operational achievements of these hubs but also their strategic importance in ensuring continuity beyond donor funding. With support from the Mott Foundation set to conclude by 2027, stakeholders acknowledged the urgency of developing sustainable financing mechanisms and value-aligned partnerships. The hubs are increasingly exploring blended finance models, policy engagement, and demonstration farms as pathways to sustainability. Through shared learning, innovation, and locally driven solutions, the DREEM Hubs are emerging as critical pillars in advancing inclusive green growth and decentralized energy access across the region.

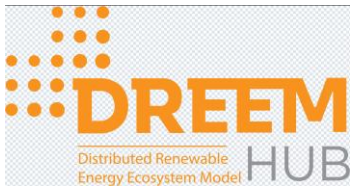
b) Steering PUSE Adoption and innovation through Capacity building and skills development



Figure 10: Panellists (Daniel Muvali-Kamiti, Eric Bisanda-IMED, Eng Eric Ronoh-JKUAT, Anthony Mugeere-ACODE and Makrina Nombo-FETA discussing steering of PUSE adoption and innovation through capacity building and skills development.

This panel explored the critical role of skills development, localized training, and technical empowerment in scaling Productive Use of Solar Energy (PUSE) across agriculture and fisheries sectors in East Africa. Panelists discussed both structural and practical barriers, drawing examples from farming cooperatives, academia, and fisheries development programs.

Daniel Muvali offered a candid reflection from the grassroots, citing the continued reliance on diesel and petrol-powered pumps around riverbanks, a practice that not only increases fuel costs for farmers but also contributes to pollution of vital water sources. "There is an extended period of dry spells," he confessed. He stressed the urgent need to shift toward solar-powered irrigation systems. However, he noted that most rural communities lack the local expertise to install or maintain these systems, often having to bring in technicians from Nairobi or other urban areas. This not only raises costs but delays adoption. He emphasized that the solution lies in targeted capacity building at the local level, particularly in training and sustaining young technicians who can serve their own communities. He



noted that we need these systems to sustain expertise, highlighting that when communities are empowered to pay for and manage technology, it builds long-term self-reliance.

Daniel reflected on the challenge of introducing climate change concepts to farmers, especially when the language is too technical, suggesting that meaningful transition to PUSE requires not only technical training but approaches rooted in local understanding. Using a diesel pump, he explained, can cost a farmer 20 liters of fuel for just six hours of operation while solar systems can offer longer, cleaner operation at lower cost, if adoption barriers are addressed.

Eric Bisanda shared IMED Tanzania's approach to building business capacity among farmers and fishers, highlighting that technical training must go together with financial literacy, enterprise structuring, and market linkage. Their current project works directly with fishermen to help them run viable businesses using solar technology. "We build business capacity from business formalization, financial management skills, marketing....", he stated. He emphasized the importance of follow-up after training, explaining how IMED conducts 5 to 10 training sessions followed by on-site mentorship and monitoring within participants' businesses. This, he said, makes the productive use of solar energy much easier to sustain.

Makrina Nombo, FETA discussed Tanzania's fisheries sector, noting the post-harvest losses that arise from traditional preservation methods like open sun-drying or firewood-based drying methods that are not only inefficient but increasingly unsustainable in the face of climate change. FETA's training programs have introduced solar driers and solar-powered water pumping in aquaculture, with support from partners like WWF. He also noted how their programs are beginning to involve youth, particularly in places like Zanzibar, through hands-on training and system installations, both addressing unemployment and boosting technical capacity within communities.

Dr Anthony Mugeere, ACODE added that policy-practice disconnect has always remained a major bottleneck in scaling these solutions. Outdated or overly generic policies fail to address real implementation challenges, and there remains minimal dialogue between policymakers and practitioners. He called for more deliberate engagement and inclusion of implementers in policy-making processes to ensure solar adoption efforts are supported by an enabling environment

Dr. Erick Ronoh wrapped up the technical perspectives, calling for a stronger institutional role in integrating PUSE into mainstream training and agricultural curricula. He noted that

as long as a gap exists between technological innovation and technical literacy, adoption will remain slow. “There is a clear role of academia in capacity building”, he said. He advocated for a system-wide approach, connecting universities, field actors, and communities through sustained capacity development.

c) Navigating technological complexities in PUSE Adoption



Figure 10: Mr John-Chairman Solion Cooperative, Anthony Mayode- RAFODE, Winnie Terry-TAMFI, Queen L’amboka-Techwin

The panel discussion focused on the challenges and opportunities related to the adoption of Productive Use of Solar Energy (PUSE) technologies across East Africa. Bringing together voices from technology providers, agribusinesses, policymakers, and farmers, the session unpacked the technical, financial, and infrastructural barriers hindering widespread adoption of solar-powered productive systems in agriculture and rural livelihoods.

Panellists acknowledged the promise of PUSE technologies in transforming rural economies, particularly through applications such as solar-powered irrigation, cold storage, solar thermal, milling, and water pumping. However, they emphasized that navigating the technical complexities remains a major hurdle, especially for smallholder farmers and rural enterprises.

Key issues raised during the discussion included:

- Lack of standardized and context-relevant technologies: Many solutions are imported without adaptation to local conditions, leading to inefficiencies or premature failure in the field. As Queen L’ombaka wisely put it *"There can be a significant difference between what we think farmers need and what they actually need. When solutions are built without grounding in real user experience, even the best technologies can struggle to gain traction."*
- Limited technical capacity: Farmers, technicians, and even local distributors often lack the necessary training to operate, troubleshoot, or maintain PUSE systems.
- High costs of customized systems: Integrating PUSE into existing farm operations often requires site-specific design, raising costs and limiting scalability.
- Inadequate data and feedback mechanisms: Limited monitoring and data collection make it difficult to assess impact or adapt technologies in real time.

Panellists also noted the importance of strong local partnerships, user-centred design, and capacity-building programs as essential ingredients for successful deployment. Emphasis was placed on the need for collaboration between governments, innovators, and communities to co-create solutions that are technically sound, user-friendly, and financially viable.

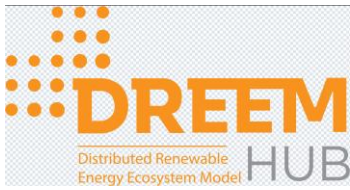
The session concluded with a call to invest in local innovation ecosystems, strengthen technical education pathways, and integrate solar solutions into broader agricultural development strategies. Only through such coordinated efforts can the region harness PUSE to improve productivity, resilience, and economic outcomes for rural populations.

d) Tapping into multiple sources of funding for DREEM hubs sustainability beyond program implementation period



Figure 11: Martin Irungu, KCIC Investment Manager giving a strategic outlook on DREEM Hubs sustainability

This session kicks off with a scene setting presentation from the KCIC Investment manager, Martin Irungu on the DREEM Hubs Sustainability which outlined a strategic pathway for ensuring long-term impact and viability of distributed renewable energy hubs serving marginalized communities. Anchored in the vision of delivering inclusive, reliable, and affordable clean energy, the DREEM



model emphasizes pillars such as financial sustainability, community engagement, institutional support, and enterprise development.

There was a call for a shift from donor dependency and towards a diversified resource base including concessional financing, carbon credits, client-paid services, diaspora investment, and impact-driven portfolios—each tailored to align with global climate and SDG financing streams.

Equally critical was the emphasis on embedding community ownership and policy alignment. Strategies include entrepreneurship training, co-ownership models, and collaboration with government and private sector players. Demonstration farms and business development services were presented not only as technical enablers but also as avenues for local livelihood improvement.

The overarching message was clear: sustainability must be planned for from the outset, driven by impact metrics, revenue resilience, and stakeholder accountability. The presentation concludes with a call to action for partnerships, advocacy, and investment to scale this inclusive clean energy approach.

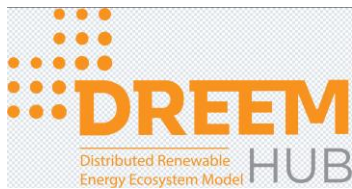


Figure 12: Panel discussion on DREEM sustainability (Martin Irungu, KCIC; Arthur Makembo, TIV; Kevin Gituma, Heifer Capital; Brian Tahinduka, Stanbic Bank)

The presentation followed a panel session which addressed a central question: ***How can DREEM Hubs remain sustainable after the post-donor-supported implementation phase?***

The session also addressed on the critical question of how DREEM Hubs can achieve long-term financial sustainability beyond the current donor-funded implementation window. It featured practical insights into blended finance, cooperative readiness, and partnership pathways.

The conversation opened with reflections on the current funding landscape, with donor financing primarily from development partners and private foundations identified as the dominant source to date. This model has served its purpose, particularly in countries like Kenya; however, shifts in economic classification, such as Kenya's transition to lower-middle-income status, are now resulting in reduced donor flows. This presents both a challenge and an opportunity. The panellists emphasized that while donor support has enabled foundational progress, there is now an urgent need to rethink sustainability and transition toward more diversified and resilient financial models.



One of the key risks highlighted was an over-reliance on donor funding, which leaves Hubs vulnerable to changes in global priorities or national policy shifts. There was consensus that sustainability must be intentionally designed from the outset and not treated as a secondary concern after implementation.

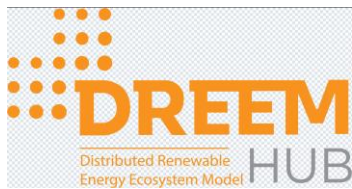
The panel outlined several alternative financing pathways. Kevin Gituma categorized these broadly into three: engaging the private sector at various stages of hub maturity, enabling community-based financing through SACCOs and local lenders, and adopting blended finance structures where philanthropic capital is used to de-risk commercial investment. He emphasized that the success of any model depends on how well a hub understands its place within the full agricultural value chain. There is no single formula; businesses must define what they stand for and select a financing model that aligns with their value proposition.

From a commercial banking perspective, Brian Tahinduka noted that while capital is available, many cooperatives and community-led initiatives are not yet prepared to meet the requirements of traditional finance. Issues such as weak governance structures, unclear revenue models, and limited credit history often present barriers. However, with proper support, cooperatives can mature into investable entities. He further pointed to the potential of green finance products and innovative risk-sharing partnerships that could bridge this gap.

Audience engagement highlighted key tensions between policy and implementation. Concerns were raised about the limited involvement of private sector actors in shaping policy frameworks, despite being significantly affected by them. This disconnect was seen as a barrier to creating enabling environments for investment. Participants called for stronger collaboration between financial institutions, government agencies, and implementing partners to ensure that policies reflect operational realities on the ground. Brian Tahinduka (Stanbic Bank) acknowledged the gap and noted that while the private sector is often well-informed, it remains underrepresented in policy dialogue.

The panel concluded with a collective call to action: stakeholders must move deliberately toward models that blend financing instruments, build cooperative capacity, and unlock private and community investment. Sustainability, they agreed, must be designed, not hoped for.

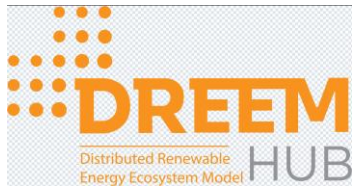
Drawing from the insights shared within the panel, the following recommendations were put forward to support the long term financial and technical sustainability of Dreem Hubs.



1. Engage the Private Sector Across the Value Chain
Build early and sustained partnerships with private sector actors especially in input supply, value addition, logistics and finance to create integrated, demand driven models.
2. Align with Policy and Advocate for Inclusion
Advocate for stronger alignment between policy frameworks and implementation realities. Include private sector voices in policy formulation processes to ensure enabling regulatory environments
3. Adopt Blended Finance Models
Combine donor support and concessional support with private sector and community-based financing to reduce risk and attract long term investment. Blended finance can become a practical tool to unlock investment for agri value chain initiatives.
4. Strengthen Cooperative and Enterprise Readiness
Invest in capacity building for cooperatives to improve governance structures, financial literacy and business development. This readiness is essential for attracting commercial financing and scaling up operations
5. Enable Community-Based Financing Mechanisms
Promote access to affordable credit through SACCOs and local lenders, empowering communities to co invest in renewable energy and productive use technologies
6. Embed Sustainability in Program Design
Treat Sustainability as a design principle from inception not as an end stage concern. Metrics for financial visibility, stakeholder ownership and environmental resilience should be integrated from the beginning

4.0. Policy Insights: The East Africa Agri-solar Policy landscape

The East African region faces persistent challenges relating to food insecurity and limited access to reliable energy, compounded by the adverse impacts of climate change. During the 2025 DREEM Conference, a policy insight session led by Vincent Ogaya, Senior Policy Officer at the Kenya Climate Innovation Center (KCIC), highlighted the role of agri-solar technologies in addressing these intertwined challenges. It was observed that despite the proven potential of Agri-solar solutions in promoting resource-efficient agricultural practices, adoption rates across Kenya, Uganda, and Tanzania remained critically low. The penetration of solar water pumps, for instance, averaged only 1% among smallholder farmers, with the sector dependent on development agency initiatives. Furthermore, the



market continued to be constrained by nascent supplier networks and a lack of reliable maintenance and technical support services.

The session emphasized that the regional policy environment remained fragmented, with inadequate alignment across key sectors such as agriculture, energy, water, and trade. This lack of policy coherence perpetuated market inefficiencies, heightened information asymmetry regarding product performance and warranties, and obstructed the formation of sustainable agri-solar supply chains. High installation costs and limited financing options further hindered scalability and adoption among smallholder farmers. The discussion called for harmonized policy frameworks, enhanced multi-sector coordination, and strengthened cross-border collaboration within regional blocs such as the East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA), as critical steps toward unlocking the full potential of agri-solar technologies.

In conclusion, the discussion underscored the importance of deliberate policy interventions by national governments, regional organizations, and development partners. It was recommended that entities such as the World Bank and the African Development Bank scale up support for targeted financing mechanisms and capacity-building programs. The adoption of integrated support structures, the fostering of public-private partnerships, and the establishment of sustainable financing models were identified as key to advancing the productive use of solar energy in agriculture. These measures were deemed essential for promoting climate-smart agriculture, enhancing rural livelihoods, and driving inclusive economic growth across the East African region.

e) Policy Roundtable Discussion

The policy roundtable convened DREEM Coordination partners, DREEM Hub Kenya Spoke partners, key stakeholders across government, and the private sector to deliberate on the policy landscape surrounding Agri solar technologies in East Africa. The focus was to identify actionable strategies that can accelerate the adoption of solar-powered solutions across the agricultural value chains.



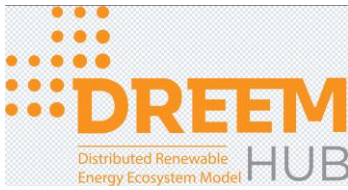
Figure 13: Vincent Ogaya, Senior Policy Officer at KCIC, leading the policy session.

The session was facilitated by Vincent Ogaya, Senior Policy Officer at the KCIC, who led the dialogue around existing policy gaps, emerging opportunities, and collaborative approaches to scaling Agri solar interventions across the region.

Participants acknowledged the growing demand for clean energy in agriculture, especially in areas such as irrigation, cold storage, and agri-processing. However, they raised concerns over slow adoption, mainly due to limited farmer awareness, high upfront investment costs, and the absence of strong policy frameworks to support scaling.

Key policy-focused insights from the discussion included the need to:

- Develop and implement clear national policies and regulatory frameworks that prioritize agrisolar within agricultural transformation strategies
- Involve industrial players and local manufacturers in policymaking processes, leveraging their practical insights and technical knowledge to inform more grounded, responsive policy actions



- Promote decentralized decision-making by empowering county and local governments to create enabling environments for agrisolar uptake at the grassroots level
- Institutionalize capacity-building programs for farmers, cooperatives, and extension officers on the benefits, use, and maintenance of solar technologies
- Foster stronger public-private partnerships (PPPs) to unlock financing mechanisms, reduce costs, and enhance access for smallholder farmers

The roundtable concluded with a call to action for sustained policy dialogue and multi-sector engagement. Participants committed to supporting coordinated efforts among policymakers, the private sector, development partners, and local communities to build a robust and inclusive policy ecosystem that enables agrisolar technologies to contribute meaningfully to food security, climate resilience, and rural livelihoods in East Africa.

The roundtable discussion was a validation forum for the East Africa policy landscape for Agri solar research. A policy position paper from discussion will be developed highlighting key learnings and commitments from the various stakeholders.

5.0. World Cafe Forum

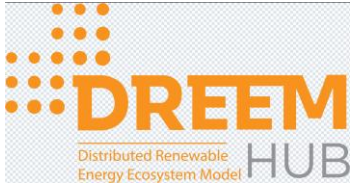


Figure 14: Rebecca Nabosa from The Innovation Village, chairing the World Café session

The world cafe session chaired by Rebecca Nabosa – The Innovation Village, consisted of a roundtable discussion around the conference theme –Unlocking the full Potential of Productive Use of Solar Energy for Sustainable Agricultural Transformation. The rationale for the discussion traversed the agricultural sector’s vulnerability to growing impact of climate change, challenges around affordability, financing mechanisms, weak last- mile distribution networks, ecosystem

coordination, and user adoption for decentralized energy solutions, emerging financing models and leveraging on strategic public-private partnerships in unlocking pathways to scale.

The session provided a collaborative space to reflect on what’s working, what’s not, and what is needed to drive inclusive, scalable, and sustainable deployment of PUSE in the



region. It was designed with 4 tables assigned to a set of specific questions. A table host then shared a summary of the discussions at their table.

The specific objectives of the session were as follows:

- Explore the key barriers and enablers of PUSE adoption across agricultural value chains.
- Identify innovative financing models, partnerships, and policy approaches that are unlocking access to PUSE.
- Co-create actionable recommendations to drive inclusive and sustainable deployment of PUSE solutions.
- Foster cross-sector collaboration and shared learning through multi-stakeholder dialogue.

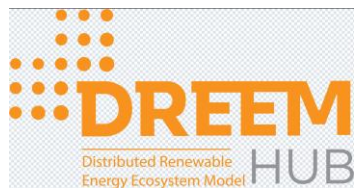
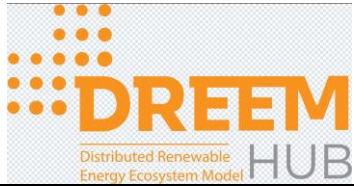


Table 1: The findings from the World Café roundtable discussions are as in table below.

TABLES	SUGGESTED QUESTIONS	DISCUSSION
<p>TABLE 1:</p> <p>Value Creation and Demand Driven Design of PUSE solutions – Aligning technology with farmer needs and agricultural value chains.</p>	<ul style="list-style-type: none"> • How can we ensure that PUSE technologies meet the real needs of rural farmers and agribusinesses? <ul style="list-style-type: none"> ○ What Frameworks or methodologies can be used to assess the energy needs of the PUSE technology end users? ○ What are the most promising opportunities for PUSE in agriculture in East Africa? ○ Which PUSE technologies show the greatest potential and what technical gaps remain in their adaptation to local conditions? ○ How can user-centric design approaches be integrated into the development of PUSE solutions? 	<p>To ensure PUSE technologies align with community realities there is need to:</p> <ul style="list-style-type: none"> • Use energy needs and alternative assessments to determine demand intensity and viable technologies. • Apply human-centered design, layering it with gender and social inclusion lenses to highlight nuanced barriers. • Conduct financial and climatic assessments to guide sustainable planning under local constraints. <p>PUSE’s most impactful touchpoints cut across the following:</p> <ul style="list-style-type: none"> • Solar irrigation systems for dry seasons. • Value addition technologies (dryers, milling, packaging). • E-mobility solutions for transport and logistics. • Solar cooling for perishables, and tools to counter price volatility during gluts or shortages. <p>User centric design can be integrated into the development of PUSE solutions by making communities part of the solution:</p> <ul style="list-style-type: none"> • Through participatory design, local capacity building, and field trials.

		<ul style="list-style-type: none"> • Embed PUSE within school curricula and partner with NGOs to build networks of trust and skills.
<p>TABLE 2: Business Models and Innovative Financing – Unlocking access to affordable and scalable PUSE financing for farmers and agri-enterprises</p>	<ul style="list-style-type: none"> • What scalable financing models are unlocking access to PUSE for end-users and enterprises? Explore how the models can be improved. <ul style="list-style-type: none"> ◦ What financing structures have proven effective in de-risking PUSE investments in early-stage markets in East Africa? ◦ How might we design business or financing models that balance affordability for farmers with sustainability for providers? ◦ What partnerships (e.g., with cooperatives, financial institutions, digital platforms) have you seen that help unlock access to capital or reduce risk for end-users? 	<p>The following financing mechanisms de-risk investments in early stage:</p> <ul style="list-style-type: none"> • Blended finance, pay-as-you-go, performance-based grants, and climate bonds mitigate risks for suppliers and enable phased scaling in undercapitalized areas. <p>Designing Balanced Financing Models ensures affordability without bankrupting providers through:</p> <ul style="list-style-type: none"> • Bundled services, subsidized grants, and leasing/hire-to-own models. • Striking the right mix of upfront accessibility with longer-term viability.
<p>TABLE 3: Capacity Building & Strengthening Local Capabilities – Empowering local actors to drive and sustain PUSE adoption</p>	<ul style="list-style-type: none"> • What knowledge, skills, or capabilities are most needed at the farmer, community, and local enterprise level to support meaningful use of PUSE technologies? • How can we build local capacity and raise awareness about the benefits of PUE? 	<p>PUSE uptake requires a skilled ecosystem with:</p> <ul style="list-style-type: none"> • Financial literacy to understand costs and returns. • Technical proficiency in operating and maintaining systems. • Extension services to ensure ongoing support, backed by enabling policy climates. <p>There is a need to drive impact with multi-channel efforts i.e.,</p> <ul style="list-style-type: none"> • National campaigns, demo sites, and training workshops



		<ul style="list-style-type: none"> • Leverage influencer farmers and storytelling via radio, community media, and social platforms.
<p>TABLE 4:</p> <p>Partnerships and Ecosystem Alignment – Creating the right Environment for scale</p>	<ul style="list-style-type: none"> • What roles can government, development partners, and private sector play in accelerating sustainable PUSE adoption? 	<ul style="list-style-type: none"> • Government: Enact policies, remove tax barriers, and commit to agreements that support solar tech proliferation. • Development partners: Provide capital, equipment, and technical support. • Private sector: Innovate, advocate, and sustain solutions through leasing models or concessional finance.

6.0. Knowledge sessions

In these sessions, experts from various organisations shared knowledge on various topics during the conference. The purpose of the knowledge session was to:

- Facilitate in-depth learning on emerging trends, opportunities, and challenges in the distributed renewable energy (DRE) and productive use of energy (PUE/PUE) sectors across East Africa.
- Showcase practical case studies and PURE project findings from DREEM partners and stakeholders to inform better program design and investment strategies.
- Highlight actionable insights that can support the scale-up of agrisolar and other PUSE solutions.
- Strengthen regional collaboration by sharing lessons learned from Kenya, Uganda, and Tanzania. Strengthen regional collaboration by sharing lessons learned from Kenya, Uganda, and Tanzania.

f) Leveraging MRV Tools to Maximise Impact: Practical Insights for Productive Use of Energy in Agriculture—a case study from TIV

Building Blocks for Performance Measurement

This presentation was done and led by Priscilla Nangobi, Innovation Village Hub, to demonstrate the framework for measuring performance in advancing agri-solar adoption and sustainable agricultural technologies across East Africa.

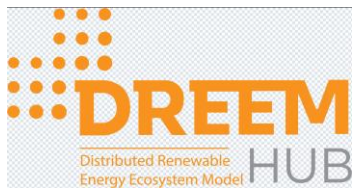


Figure 15: Priscilla Nangobi, MEAL Officer Innovation Village, presenting an MRV case study

The performance measurement framework was built upon a set of structured building blocks. These included the Theory of Change (ToC), Results Framework, Indicators, Data Collection Tools, Routine Reporting & Learning, and Adaptive Management. The ToC served as a comprehensive framework that described how specific interventions were expected to lead to desired development outcomes. It highlighted causal pathways, identified critical assumptions, and helped stakeholders understand strategic linkages.

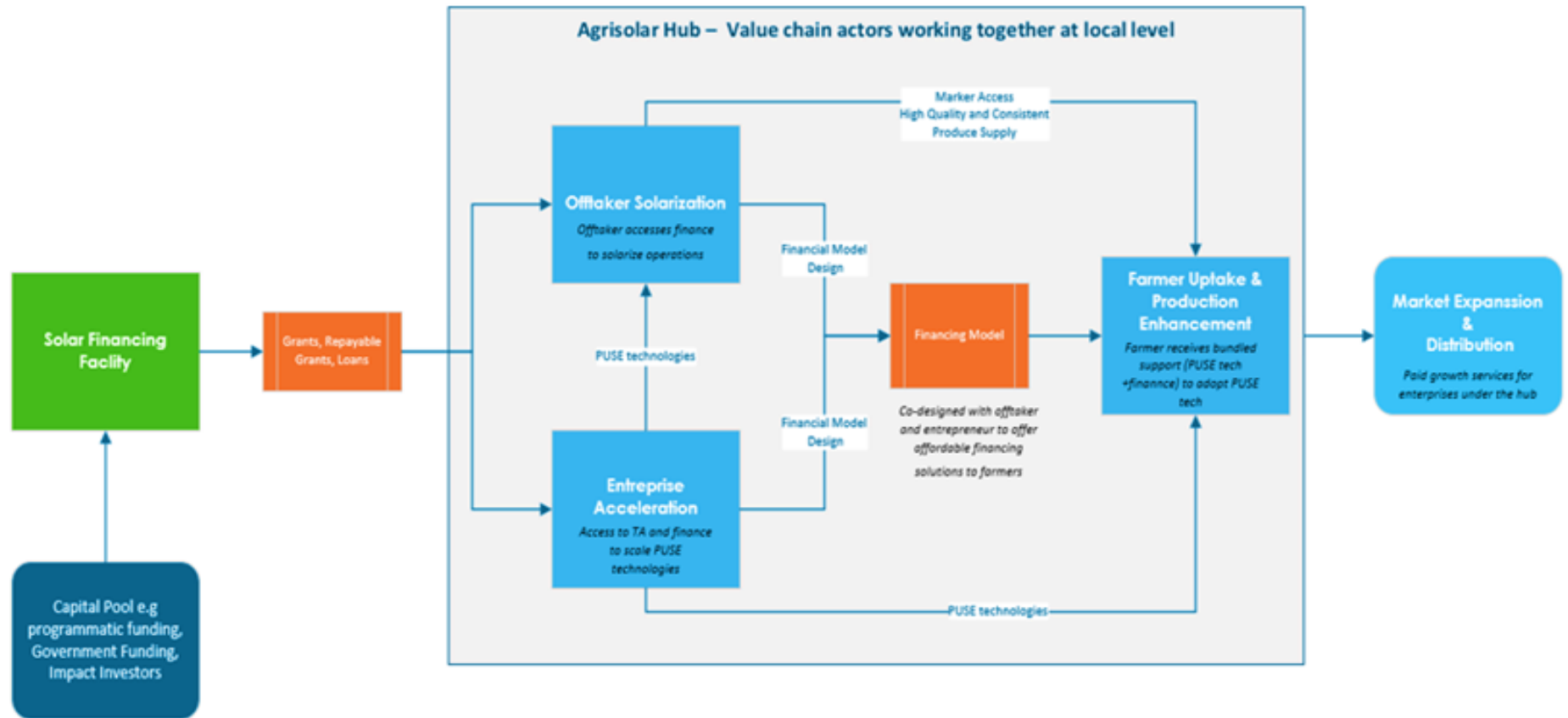
This was complemented by the Results Framework, which offered linear logical pathways to track change from activities to long-term goals through measurable indicators.

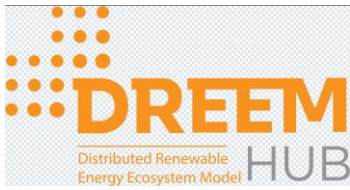
Key Components and Best Practices for Performance Measurement:



- **Indicators:** Specific and measurable indicators were designed with defined baselines, targets, and actuals. These metrics helped track progress and supported accountability at all implementation levels.
- **Data Collection Tools:** Standardized instruments ensured that data collected across regions and teams was consistent, reliable, and of high quality. These tools were also tailored to local contexts for better accuracy.
- **Data Disaggregation:** The project emphasized breaking down data by age, gender, and inclusion parameters. This allowed for understanding who benefited most and helped tailor interventions for equity.
- **Learning Cycle (Plan-Do-Review-Adapt):** A structured learning loop was institutionalized through monthly 'Pause & Reflect' sessions. These forums offered a space to assess key metrics, address challenges, and refine action plans.
- **Dashboards & Dialogue:** Data was visualized in simple formats to facilitate stakeholder engagement and frontline feedback. Quarterly stakeholder roundtables further enriched understanding.
- **Action Learning Questions:** Teams defined 2–4 learning questions each quarter (e.g., 'Why did X spike?'), tested interventions in real time, and documented findings in short learning briefs.
- **Best Practices:** These included using concise learning logs, documenting 'what changed and why', embedding learning into workplans, and pairing anecdotes with charts to ensure insights were retained.

Agrisolar - Financial Model Approach





The Agrisolar- Financial Model Approach emphasized a structured and inclusive strategy for scaling solar adoption in agriculture. It combined innovative financing mechanisms with stakeholder collaboration, allowing farmers to access solar technology through credit schemes, partnerships, and risk-sharing arrangements. This model ensured affordability, technical support, and sustainability while driving uptake among smallholder farmers across East Africa⁶.

g) Lessons from Heifer International Impact Capital

Mike Heald, VP – Heifer Impact Capital began by recognising the presence of Heifer International in Africa and its support to at least 288,676 active households. The East Africa Dairy Development program is a 10-year program designed to transform the livelihoods of resource poor farming communities through a competitive and inclusive dairy value chain. The Heifer Impact Capital bridges the gap resulting ineligibility of Heifer farmers to avail formal credit.



Figure 16: Kevin Gituma, Regional Director- Heifer Impact Capital, during his presentation

Kevin Gituma - Regional Director- Heifer Impact Capital, introduced the PREO project (Solar for Sustainable Income in Dairy). The pilot project has been commissioned in Dwaniro–Kiryanyonza, while implementation is ongoing in Kijumba, Migani, and Kalyabulo. Additional sites include Dwaniro–Migina and Nabitanga–Sembabula.

The PREO_SSDI project aimed to help reduce energy costs by installing solar (and batteries) at several dairy cooperatives in Uganda.

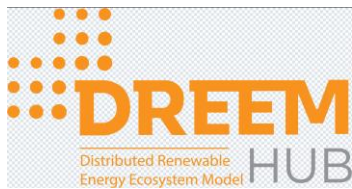
The sectoral learnings from the PREO projects since inception were as follows:

Infrastructure & Demand Realities

- Higher energy demand profiles paired with unreliable grid access require more robust solar + battery setups.
- Remote agri-hub locations limit responsiveness and drive-up O&M (operations and maintenance) costs.

Contracting & Technical Complexity

⁶ https://docs.google.com/presentation/d/1RUopfTu3bQJuc7eLUGBT7h-Q79EVQ_kl/edit?slide=id.p1#slide=id.p1



- Contracting structures need simplification to ease coordination between energy, finance, and agricultural stakeholders.
- Delivery delays are common, often caused by long lead times on equipment and installation.

Financial & Impact Dynamics

- Financial benefits such as energy cost savings and reduced carbon emissions are substantial—but may take time to fully materialize for farmers and cooperatives.
- Upfront costs and financing access gaps remain significant hurdles; innovative blended finance models are critical but must fit user realities.

Sector Coordination & Capacity Gaps

- There is a clear disconnect between agriculture, energy, and finance sectors, hindering cohesive scaling.
- Farmers and cooperatives often lack the technical literacy to evaluate solar solutions or manage installations.

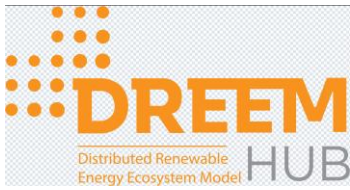
h) Situational Analysis of Tanzania's fishing sector and the Transformative Role of the DREEM Hub initiative

About Mafia Island

Mafia Island, located off the coast of Tanzania, is a fishing-dependent community where Dagaa fish (also known as Omena or Lake Victoria sardine) plays a central role in local livelihoods and regional trade. It accounts for about 40% of Tanzania's marine dagaa landings which have a strong market demand in the Democratic Republic of Congo (DRC).

Traditional fishing practices rely on kerosene lanterns for night fishing and firewood for drying and frying, contributing to deforestation, environmental degradation, and high greenhouse gas emissions. Access to electricity is limited and expensive (up to TZS 1,000 per kilowatt-hour), with diesel generators serving only select areas. These energy constraints, coupled with inefficient post-harvest practices, have hindered productivity and sustainability in the island's aquaculture sector. The estimated losses are up to 13% physical loss, 32% quality loss due to spoilage, and poor handling.

DREEM Hub Interventions



The DREEM Hub program, led by WWF Tanzania, has introduced transformative Agrisolar solutions to address these challenges across the aquaculture value chain.

Key interventions include:

- Solar lanterns for fishing, replacing kerosene lamps and improving catch efficiency by attracting plankton and Dagaa.
- Solar thermal dryers for fish preservation, reducing firewood use, enhancing product quality, and minimizing post-harvest losses.

These clean energy technologies have proven both economically viable and environmentally sustainable, with investment payback periods of 2–3 years. The interventions enable market expansion, particularly to the DRC, while supporting forest conservation, climate resilience, and community empowerment. Mafia Island now stands as a model for how distributed renewable energy can drive inclusive development in off-grid coastal communities.

The Mafia Island case is a compelling example of how strategic deployment of Agrisolar technologies can address multiple interconnected development challenges: from rural electrification and environmental protection to climate resilience and economic upliftment. By promoting renewable energy solutions across the aquaculture value chain, the DREEM Hub program is not only preserving critical ecosystems but also empowering communities with sustainable livelihoods offering a scalable model for replication in similar off-grid settings across Africa.

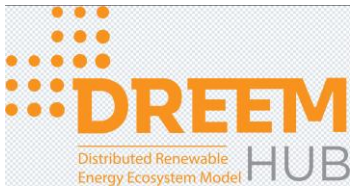
i) Knowledge session on PUSE financing, VeraSol Certification and quality assurance

Ruth Kimani- Manager, CLASP outlined the crucial role of quality assurance in accelerating the adoption and effectiveness of Productive Use Renewable Energy (PURE) appliances in off-grid and underserved markets.

Through the **VeraSol program**, CLASP works to strengthen confidence in solar-powered



Figure 17: Ruth Kimani, CLASP Manager, speaking on quality assurance in accelerating PURE appliance adoption



solutions by offering standardized testing, certification, and data transparency for appliances such as solar water pumps, fans, refrigerators, and electric pressure cookers. The program emphasized consumer protection by addressing widespread challenges such as poor workmanship, unreliable product performance, and lack of warranty or after-sales support—issues that undermine trust and slow market growth.

It was iterated that affordability and institutional support remain major bottlenecks i.e., cost of solar appliances like water pumps can exceed 80% of a typical Kenyan's annual income, presenting serious barriers to equitable access. CLASP's **Productive Use Appliance Financing Facility**, launched with support from the Global Energy Alliance, seeks to bridge this affordability gap through upstream subsidies, concessional loans, and capacity-building grants. The need for broader engagement from utilities, governments, investors, and civil society to create enabling environments through tariff reforms, consumer awareness efforts, and integration of quality standards into procurement and import policies remained prevalent. These efforts would catalyse inclusive growth, climate resilience, and economic opportunity across vulnerable communities.

j) A case study of Unlocking the value of Agri solar for community livelihood impact

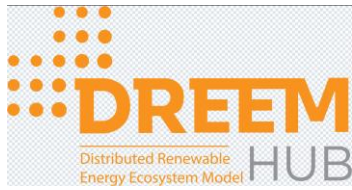


Figure 18: Case study presentation on Songosongo Island by Zephania Arnold, WWF Tanzania

Zephania Arnold, Seascope Fisheries Projects Executant, presented the results of a project piloting the use of clean and energy-efficient cold storage facilities along the marine fisheries value chain Tanzania which took place between 2019 to 2021. The initiative, funded by ClimateWorks Foundation, was designed to address systemic challenges across the seafood supply chain while identifying opportunities for clean logistics and sustainable distribution of

seafood in Tanzania, Kenya, and China.

The project focused on the octopus fishery in Songosongo Island, a small island within the Songosongo Archipelago in Kilwa District, Tanzania. This fishery holds significant economic and ecological value but faces numerous challenges, especially for small-scale fishers and local traders. A key issue is the instability in fish prices, which stems from limited



negotiation skills and a lack of access to premium markets. The value chain is dominated by a network of traders and middlemen on the demand side, while fishers and harvesters on the supply side often lack a voice in determining pricing and market terms.

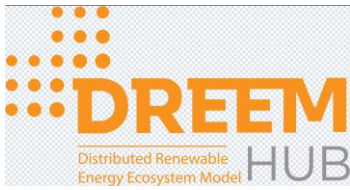
Post-harvest losses remain a major challenge, particularly for octopus, due to a lack of appropriate storage facilities and inefficient logistics. This disproportionately affects local fishers and traders who rely heavily on octopus fishing as a primary source of income. Despite these challenges, the octopus fishery in Tanzania is one of the country's priority fisheries and plays a central role in the national economy. Over the past decade, it has contributed more than USD 17.4 million in export value (FOB), making it one of the leading fisheries in terms of export volume.

The community of Songosongo Island has emerged as a pioneer in sustainable fisheries management, introducing the practice of temporary reef closures for octopus fishing as early as 2017. This community-led approach is grounded in principles of Community-Based Natural Resource Management (CBNRM) and community tenure rights. Under the oversight of the Village Government and Beach Management Units (BMUs), these closures allow the reef to recover, thereby improving catch volumes and quality. These conservation efforts also align with broader Nature-based Solutions (NbS) goals for environmental resilience.

Octopus fishing in Songosongo is undertaken by both men and women, often within family units. The fishery is largely export-oriented, with local, regional, and global markets exerting strong demand. However, outdated and environmentally harmful fishing gears often financed by traders and agents remain in use, threatening the long-term sustainability of marine ecosystems. When the reef is reopened for fishing after closure, the entire community participates, reflecting the shared cultural and economic importance of the resource.

The island's geographical isolation and limited livelihood options have made fishing and seaweed farming the only viable economic activities. With no crop farming possible, the population of 6,608 of which more than 50% are women relies almost entirely on marine resources for both food and income.

To further support the fishery's development, technical training was conducted in Songosongo by the Fisheries Education and Training Agency (FETA). Training focused on the operation and maintenance of ice plants, including personal safety, general care, routine maintenance, and troubleshooting. The project also explored the use of solar



technology as a cost-reducing solution for powering cold storage units, helping to make fish preservation more affordable and environmentally sustainable.

In addition, assessments were carried out in key fishing areas, including Bwejuu and Jibondo in Mafia District, and Somanga and Songosongo in Kilwa District. These studies revealed that the presence of both large and small octopus reefs, combined with submerged reef systems and favorable environmental variables such as low and stable sea surface temperatures and high chlorophyll levels result in high catch per unit effort (CPUE). These conditions, coupled with seasonal closures, support the natural replenishment of octopus stocks.

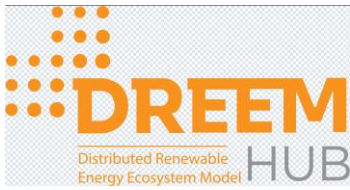
The Songosongo experience demonstrates how integrating agrisolar technology with sustainable fishery management can unlock new value for coastal communities. It highlights the importance of clean energy solutions, inclusive community participation, and ecosystem-based practices in strengthening marine-based livelihoods and building resilience in the face of growing demand and environmental pressures.

7.0. Closing Remarks

The conference concluded with reflections from two key leaders, who emphasized the momentum, who emphasized the momentum built over the two days convening and the shared responsibility in sustaining its impact.

Dr. Robert Ddamulira commended the diversity of actors and the openness of dialogue throughout the conference, noting that it created space for critical conversations on sustainability, inclusion and financing. He expressed deep appreciation to the farmers, stating that if it were not for them, we would not be here. He called for continued co-creation, mutual learning and bold partnerships that prioritize community ownership and long-term systems change.

KCIC CEO Joseph Murabula began his remarks by sharing three quotes that had resonated with him. Each, its own way, touched on the themes of purpose and timing. He extended heartfelt thanks to all partners, delegates and especially the Dreem Staff acknowledging the hard work and collaboration that had gone into organizing the event and sustaining the program across the region. Murabula highlighted the success of the Dreem Community Fund as a tangible demonstration of collective action and the power of ecosystem trust. He reminded participants that what happens after the conference matters more than what happened in it, and urged stakeholders to focus on implementation, local partnerships and long-term sustainability beyond donor support. He reaffirmed the shared mission to



empower communities through clean energy, agricultural transformation and inclusive finance models.

Together, the closing remarks grounded the event in a spirit of gratitude, responsibility and forward-looking collaboration, anchored by the very communities the program exists to serve.

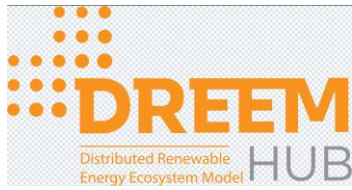
8.0. 2.9 Other Conference activities

k) Exhibitions



Figure 19: Participants at the exhibition booth

The event featured a vibrant exhibition showcasing five outstanding enterprises that are transforming agriculture through solar technology. These businesses, supported through KCIC programs i.e., the PUSE Pilot program (Techwin & Grekkon) and GreenBiz programs (WISEe, Swirl Water & Voltstone Technologies), are at the forefront of deploying clean energy solutions to boost productivity, resilience, and sustainability in Kenya's agricultural sector. A total of five exhibitions were showcased, drawing from two key KCIC programs:



Grekkon Limited: focuses on efficient water management solutions for agriculture, offering solar drip irrigation systems and automated irrigation kits tailored for arid and semi-arid regions. Their technologies are helping farmers increase yields while reducing water and energy costs.

Techwin Limited: specializes in design, fabrication, and installation of solar milk chillers and industrial cooling systems. Their solutions support dairy farmers and agribusinesses by ensuring quality preservation of perishable products through clean and reliable energy

Women In Sustainable Energy & Entrepreneurship (WISEe): women-led organization offering solar installation and Agri solar services across the country. WISE not only provides technical solutions but also promotes gender inclusion and empowerment in the renewable energy sector.

Voltstone Group Limited: offers solar water pumping, both off-grid and on-grid energy systems for homes and industries. Voltstone is also at the forefront of integrating smart monitoring systems for irrigation and agricultural applications, enhancing precision and efficiency.

SwirlWater solutions offer small scale solar pumping solutions. Pumps that operate with solar panels below 100 watts, capable of delivering water up to a 25-meter head. They also provide water purification solutions, making clean water accessible to off-grid communities.

The exhibition offered attendees including investors, policymakers, entrepreneurs, and industrial players a unique opportunity to interact with some of the solar technologies available and meet the innovators behind them. This facilitated valuable networking and opened new business opportunities for the exhibitors. The strong interest and engagement at the exhibition underscored the growing demand and readiness for solar solutions in the region. It also validated the success of KCIC programs in nurturing enterprises that are accelerating the productive use of renewable energy across East Africa.

Beyond the technology showcase, the exhibition powerfully demonstrated how renewable energy particularly solar is a key enabler in addressing climate change, improving food security, and uplifting livelihoods in arid and semi-arid areas. These solutions not only offer sustainable alternatives to fossil fuels but also contribute directly to the economic empowerment of local communities.

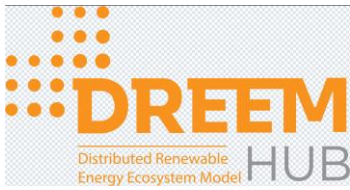
KCIC remains committed to scaling such innovations and supporting enterprises that are transforming the renewable energy landscape in Africa.

I) Team building and social engagement activities



Figure 20: One of the team building session

In an aim to complement the technical sessions in the conference, curated social engagements delivered by Eagle Consultants were integrated to enhance networking and foster lasting professional relationships. The social sessions acted as strategic tools that sought to strengthen collaboration, ignite curiosity and promote cross-country knowledge exchange. Eagles consultants designed and developed inclusive, culture sensitive activities throughout the two days of the conference. Such activities included but are not limited to guess the song, chicken dance etc. They also played an integral part in the networking and dinner session by facilitating the dance sessions. In a nutshell, the social engagement activities, acted as icebreaker for the various discussion topics, encouraged conversations, laughter and bonding and created shared memories that boost morale.



m) Communication and Media Activities

To support the visibility and engagement of the DREEM Partners Conference, a comprehensive communication and media strategy was implemented before, during, and after the event.

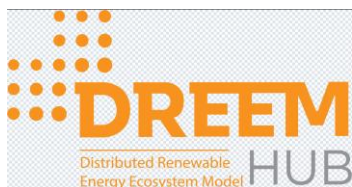
In the lead-up to the conference, digital banners and flyers were designed and circulated across platforms such as LinkedIn, Twitter, Instagram and Facebook. Email invitations and updates were sent to key partners, sponsors, and media contacts. Coordination with partner organizations helped amplify outreach efforts. Additionally, a pre-event media invite was shared with targeted media houses to highlight the conference's theme and purpose.

Throughout the conference, real-time coverage was carried out via live social media updates featuring photos, speaker highlights, and quotes. The communications team and the invited media houses, facilitated on-site interviews with speakers and partners, ensuring key messages were captured for both internal documentation and public sharing. There were also brand communication and visibility materials, erected at different points at the event venue.

Post-event, communication focused on sustaining engagement and consolidating key outcomes. Highlight photos and speaker quotes were shared through social media coupled with expressions of gratitude to participants and partners. A post-event blog feature summarizing key insights and next steps was disseminated to stakeholders through the website and email. Follow-up thank you emails included links to official event photos and presentations.

Media Features

The DREEM Partners Conference received coverage from both mainstream and specialized media outlets, including Nation Media Group & Royal Media Services. Coverage included event highlights, key partners interviews and post-event features. Social media analytics indicated notable reach and engagement across platforms, reflecting strong interest in the conference's themes of clean energy transition, innovation, and regional collaboration.



C. Conclusion

III. Key success factors of the DREEM conference

Several elements contributed to the success of the DREEM Partners Conference, positioning it as a timely and impactful convening for stakeholders working at the intersection of renewable energy, finance and agriculture across East Africa

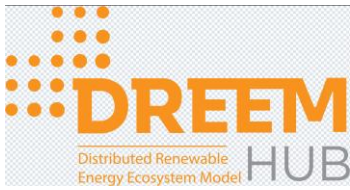
1. Strong multi stakeholder representation:

The conference successfully brought together key actors from government, donor institutions, financial service providers. Implementing partners, farmer cooperatives and private sector innovators. The presence of decision makers from Kenya, Uganda and Tanzania enabled a dialogue anchored in local realities and shared goals.

2. The DREEM Community Fund

One of the most engaging and participatory moments of the conference was the DREEM Community Fund; a community led fundraising initiative designed to support grassroots innovation within the DREEM ecosystem. Contributions were open to all attendees freely offering financial support. Ideas were submitted digitally through an online platform where people pitched ideas, and the entire audience had the opportunity to vote for the most compelling proposal based on relevance, feasibility and community impact. The six winning proposals were selected were as follows:

Name	Proposed Initiative	Amount awarded
Daniel Muvali	Productive use of solar energy in vegetables	200 USD
Rodrirk Mwirigi	Cold room for tomatoes in Meru County	200 USD
Gerald Owino	Exchange program for youth at KCIC	100 USD
Enock Mutinga	Create a village micro credit scheme	150 USD
Doreen Linus	Train and mentor Women group in Muranga	96 USD
Missaga Zeus	Promotion of solar -biogas hybrid energy system for sustainable thermal energy and electric power supply in dairy cooperatives	100 USD
Total		750 USD



The proposals reflected a strong alignment on local ownership and sustainability. The themes of the ideas included solar powered cold storage to reduce post-harvest losses, women led agri processing hubs using solar drying technologies among others.

3. Balance between technical content and practical experience

Participants appreciated that the sessions not only addressed high-level frameworks, such as financing and policy, but also shared grounded experiences from the field. Testimonials from farmers, cooperative representatives, and field-level implementers helped contextualise challenges and highlight real outcomes from agri-solar interventions.

4. Regional representation and cross-country learning

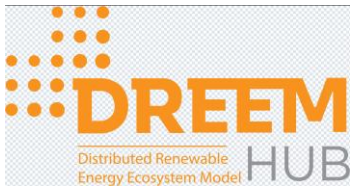
The active involvement of delegations from Kenya, Uganda, and Tanzania created space for cross-learning, highlighting different approaches and outcomes across the East African region. This fostered a sense of regional identity around the DREEM model and encouraged alignment in vision, strategy, and investment direction.



Figure : DREEM Community fund winners!

IV. Key Lessons

- Local Ownership is Essential for Sustainability



Across multiple sessions, speakers emphasized that lasting impact depends on how well local actors like farmer groups own and drive the adoption of productive use of solar energy. Success lies not only in technology but in building systems that communities can manage and sustain.

- Donor Dependency Must be Rebalanced with Blended Financing.

While donor support has been instrumental in launching the DREEM model, several speakers highlighted the limitations of long-term dependency. Blended financing, private sector engagement and community-based financing methods emerged as viable alternatives to bridge funding gaps and build financial resilience.

- Quality Assurance Enhances Impact

The CLASP session demonstrated the critical role of product quality and certification in driving user confidence and adoption. Verasol's approach shows that when appliances meet consistent standards, the need for excessive awareness campaigns reduces and consumer satisfaction increases.

- Understanding the Business context matters

To attract funding and build strong partnerships, DREEM Hubs and community-based enterprises more broadly need to fully understand their role in the broader Agri energy ecosystem. Strategic clarity allows them to better align with private sector investors, technical partners and government programs.

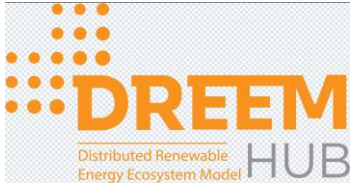
- Community Driven Innovation Can be Scaled.

The DREEM Community Fund illustrated the appetite and potential for bottom-up solutions. Community members presented practical, relevant and scalable ideas when given the platform to do so, reinforcing that innovation exists at all levels.



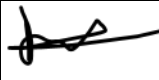




- Diversified Financing is Critical to Long-term Viability

The sustainability of renewable energy hubs cannot rely on donor funding alone. A shift toward blended and innovative financing including concessional loans, carbon credits, diaspora investment, and client-paid models is essential to build financial resilience and align with broader climate and development financing frameworks.

- Plan for Sustainability from the onset



Sustainability must be integrated into the program from the outset not treated as an afterthought. From impact tracking to revenue models and ownership structures, every hub must plan for long term viability as a core component of its setup.

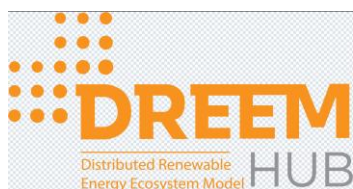
Compiled by	Sign	Date
Faith Chelangat Program Officer		18/07/2025
Faustine Murunga Program Intern		18/07/2025
Havinna Katee Program Attachee		18/07/2025
Nelly Moraa Finance Assistant		18/07/2025
Petite Pendo Communication Assistant		21/07/2025
Reviewed by	Sign	Date
Saumu Ismail Program Manager		29/7/2025
Approved by	Sign	Date
Felix Magaju Director Enterprise support & Investment		8/8/2025

D. Annex

[Attendance Register](#)

[Photos](#)

[Seascope Fisheries Project case study](#)



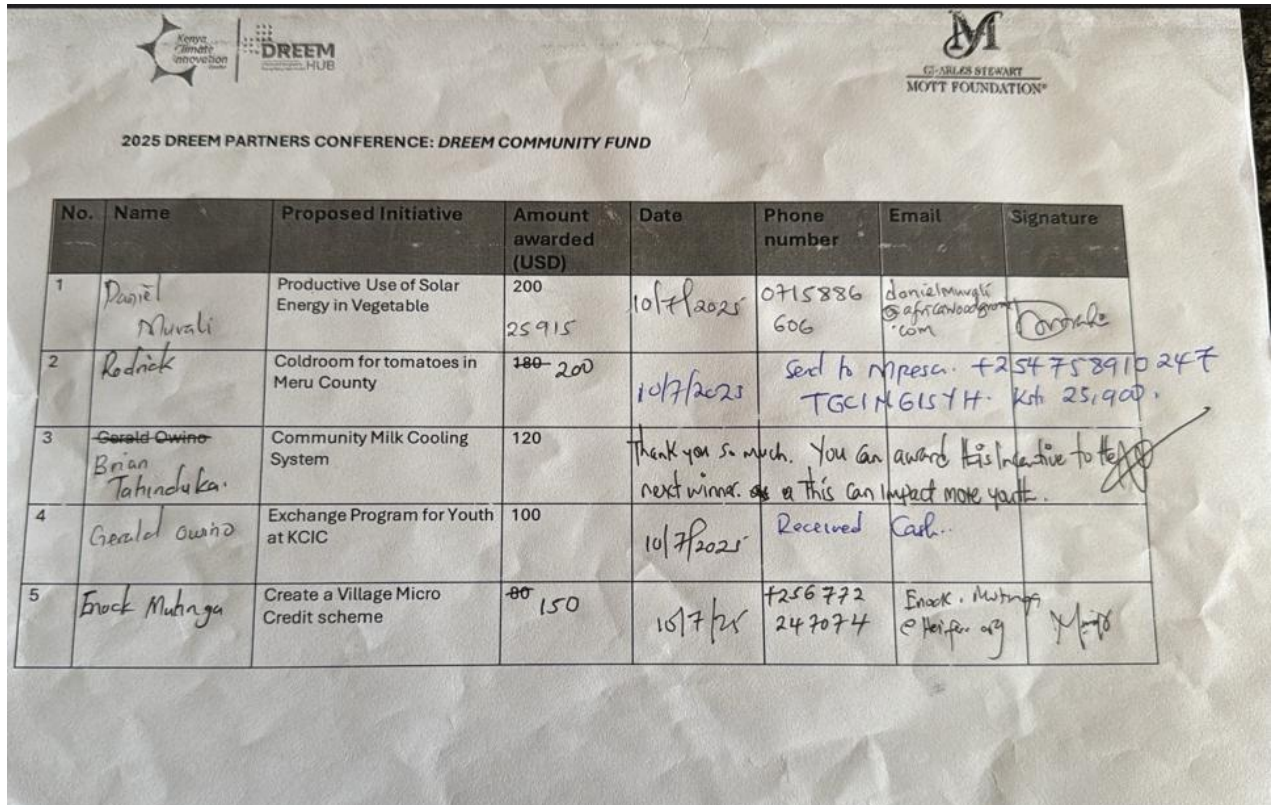
Conference Program

DESCRIPTION	SPEAKER/COORDINATOR
09th July- Day 1 – Unlocking the Potential of Productive Use of Energy (PUSE)	
MC: Ernest Chitechi and Violeta Ngina	
Guest Arrival and Registration	Mary, Havinna & Faith, KCIC
Welcoming Remarks and Scene Setting: <i>'Unlocking the Full potential of Productive Use of Solar Energy (PUSE) for Sustainable Agricultural Transformation in the EAC Region'..</i> <i>About DREEM coordination and next phase of the DREM hubs</i>	KCIC CEO - Mr. Joseph Murabula
Remarks from Government officials	Ministry of Agriculture, Kenya- Eng. Alice Nyaga Ministry of energy, Tanzania- Mr. Imani Mruma, Deputy Commissioner
Keynote speaker	Mr. Samuel Booth Passmore, Program Director - Mott Foundation
Panel discussion: <i>An overview of the DREEM hubs</i>	Panellist: <ul style="list-style-type: none"> € KCIC Director, Felix Magaju, € Heifer Uganda Country Director-William Matovu € DREEM hub Program managers (Savinus Kessy, Saumu Ismail and Enock Mutinga) Moderator: Tobias Belle, Senior Communication Officer, KCIC
HEALTH BREAK	
Policy Insights: <i>The East Africa Agri-solar Policy landscape</i>	Vincent Ogaya, KCIC Senior Policy Officer
Team Building	
Open Discussion: <i>Steering PUSE Adoption and innovation through Capacity building and skills development</i>	Panellist: <ul style="list-style-type: none"> € Dr Erick Ronoh, Jomo Kenyatta University of Agriculture and Tech (JKUAT), Kenya € Daniel Muvali, Kamiti Farmer CBO, Kenya € Advocate Coalition for Development and Environment (ACODE), Uganda

	<p>€ Patrick Nombo, Fish Technologist, Tanzania Fisheries Education and Training Agency (FETA)</p> <p>€ Eric Bisanda, Project Officer, IMED, Tanzania</p> <p><i>Moderator; Violeta Ngina, Citizen TV</i></p>
LUNCH BREAK AND NETWORKING	Mary and Faith, KCIC Ponciano Obong, Heifer Uganda
Documentary: Situation analysis of Tanzania's fishing sector and the Transformative Role of the DREEM Hub Initiative	Savinus Kessy, WWF Tanzania
Parallel Sessions: 1. Round table: National & County Government officials and DREEM implementing partners (WWF, KCIC and Heifer)	Vincent Ogaya, KCIC Senior Policy Officer Bright Masakha Wekesa, Consultant
2. World Cafe Forum	Rebecca Nabbosa, Venture Design Associate, Innovation Village Uganda Faith Chelangat, DREEM hub program Officer, KCIC
Team building	
Cocktail Dinner: Networking and informal engagement.	Faith, Mary and Maureen/Eagles Consultant
10th July: Day 2 – Community livelihood Impact and Ecosystem Collaboration MC; Ernest Chitechi and Violeta Ngina	
Guest Arrival and Registration:	Mary & Faith
Case Study presentation: <i>Unlocking the value of agrisolar for community livelihood impact</i>	Nestory Kennedy, WWF Tanzania
Plenary Session: Navigating technological complexities in PUSE Adoption	<p>Panellist:</p> <ul style="list-style-type: none"> • Queen L'ombaka, Marketing Specialist, Techwin Limited • Winnie Terry, Executive Director, Tanzania Association of Micro Finance Institutions (TAMFI) • Solio Ranch Settlement Dairy cooperative, Kenya • Antony Mayodi, CEO Rafode Microfinance <p>Moderator: Violeta Ngina, Citizen TV</p>
Knowledge session: <i>Leveraging MRV Tools to Maximise Impact: Practical Insights for Productive Use of Energy in Agriculture-a case study from TIV</i>	Nangobi Priscilla, The Innovation Village Uganda
HEALTH BREAK	

Knowledge session: <i>PUSE financing, VeraSol certification and quality assurance</i>	CLASP
Lessons from Heifer International	Kevin Gituma-Regional Director Heifer Impact Capital Impact Capital, Africa Region
Team building	
LUNCH BREAK AND NETWORKING	Mary and Faith, KCIC
Strategic Outlook: <i>Ensuring the sustainability of the DREEM hubs..</i>	Martin Irungu, KCIC Investment Manager
Open Discussion: <i>Tapping into multiple sources of funding for DREEM hubs sustainability beyond program implementation period..</i>	<p>Panellist:</p> <ul style="list-style-type: none"> € Martin Irungu, Investment Manager, KCIC € Kevin Gituma, Regional Director Heifer Impact Capital Africa Region € Mr. Arthur Mukembo, Chief Executive, Future Lab (TIV) € Brian Tahinduka, Head Energy and Infrastructure BCB Africa Region &Offshore, Stanbic Bank <p>Moderator; Violeta Ngina, Citizen TV</p>
Reflection and Call to action	Felix, Magaju, Director KCIC
Closing remarks	<p>Dr. Robert Ddamulira, Program Officer Mott Foundation</p> <p>Mr. Joseph Murabula, CEO KCIC</p>

DREEM community Fund



Kenya Climate Innovation | DREEM HUB | MOTT FOUNDATION

2025 DREEM PARTNERS CONFERENCE: DREEM COMMUNITY FUND

No.	Name	Proposed Initiative	Amount awarded (USD)	Date	Phone number	Email	Signature
1	Daniel Muvuli	Productive Use of Solar Energy in Vegetable	200 25915	10/7/2025	0715886606	danielmuvuli@afrikanload.com	<i>[Signature]</i>
2	Rodrick	Coldroom for tomatoes in Meru County	180 200	10/7/2025	Sent to Mpesa: +254758910247 TGCIN 6157H. Ksh 25,900.		
3	Gerald Owino Brian Tahinduka	Community Milk Cooling System	120	Thank you so much. You can award this initiative to the next winner as this can impact more youth.			
4	Gerald Owino	Exchange Program for Youth at KCIC	100	10/7/2025	Received Cash.		
5	Enock Mwangi	Create a Village Micro Credit scheme	80 150	10/7/25	+256772247074	Enock.Mwangi@Heifer.org	<i>[Signature]</i>

