

Project Portfolio



2022 - 2026

Preamble

This document presents a portfolio of projects implemented by the African Centre of Technology Studies (ACTS) during the strategic period 2022-2026. They reflect a diverse and interconnected approach to advancing sustainable development through science, technology, and innovation.

This document presents a portfolio of projects implemented by the African Centre of Technology Studies (ACTS) during the strategic period 2022-2026. The projects reflect a diverse and interconnected approach to advancing sustainable development through science, technology, and innovation. At the core of the portfolio is a significant emphasis on strengthening STI systems and policy frameworks. A large number of initiatives focus on enhancing the capacity of institutions, improving evidence use in policymaking and fostering innovation ecosystems that are responsive to national and regional development priorities. These efforts are complemented by projects aimed at improving governance, policy integration and knowledge systems, ensuring that research outputs are effectively translated into actionable policies and development outcomes.

The portfolio also places strong emphasis on agriculture, food systems, and the blue economy, recognizing their central role in livelihoods, food security and economic development. These projects address value chain development, post-harvest loss reduction, climate-smart agriculture and sustainable aquaculture, often integrating innovative technologies and inclusive business models. Many of these initiatives are designed to empower smallholder farmers, women, and youth, while enhancing productivity and resilience within agri-food systems.

Energy and climate change form another critical pillar within the portfolio. Projects under these themes explore renewable energy transitions, sustainable energy policy design and climate resilience strategies. They generate evidence to support low-carbon development pathways while addressing the practical challenges of implementation in African contexts. Closely linked to this are initiatives focused on environmental sustainability, climate adaptation and resilience building, which seek to strengthen the capacity of institutions and communities to respond to climate risks and environmental pressures.

In parallel, a growing cluster of projects focus on the digital economy, artificial intelligence and data systems. These initiatives aim to build capacity in responsible AI, support digital entrepreneurship and leverage data-driven solutions to address development challenges across sectors such as health, agriculture, and public service delivery. By strengthening digital skills and innovation ecosystems, these projects contribute to bridging the digital divide and positioning African institutions and innovators within the global digital landscape.

Underlying all these thematic areas is a strong commitment to capacity building, education and skills development. Several projects focus on strengthening research capacity, supporting doctoral and postdoctoral training, and equipping individuals and institutions with the knowledge and tools needed to drive innovation and development. These efforts are reinforced by cross-cutting priorities such as gender equality, youth empowerment, and inclusive development.

Overall, the portfolio illustrates a holistic and systems-oriented approach, where projects are not implemented in isolation but are interconnected across sectors and scales. By integrating research, policy, innovation, and capacity strengthening, the initiatives collectively contribute to building resilient, inclusive and sustainable development pathways.

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ABF	African Biodigester Facility
ACES	African Centre of Excellence for Sustainable Cooling and Cold Chain
ACTS	African Centre for Technology Studies
AI	Artificial Intelligence
AGRA	The Alliance for a Green Revolution in Africa
AI4D	Artificial Intelligence for Development
AMR	Antimicrobial Resistance
ATIP	African Technology and Innovation Partnerships
BE	Blue Economy
BMZ	German Federal Ministry for Economic Cooperation and Development
CAD	Canadian Dollar
CBE	Circular Bioeconomy
CCH	Community Cooling Hub
CCG	Climate Compatible Growth
CCN	Cold Chain Network
CIE	Climate Innovation Ecosystem
CLASP	Collaborative Labelling and Appliance Standards Program
COMESA	Common Market for Eastern and Southern Africa
CRDF	Climate Resilient Development Framework
CSAPP	Chala Sustainable Agribusiness Pilot Project
CTAs	Country Technical Advisor(s)
DANIDA	Danish International Development Agency
DigiKen	Digital Platforms Kenya
DiHs	Digital Innovation Hubs
DTU	Technical University of Denmark
EAC	East African Community
EBAFOSA	Ecosystem-Based Adaptation for Food Security Assembly
ECA	Economic Commission for Africa
EiA	Excellence in Agronomy
ENACTS	Enhancing National Climate Services
ESA	European Space Agency
ESADA	Eastern and Southern Africa Dairy Association
ESRC	Economic and Social Research Council
EU	European Union
EVI-POL	Evidence for Policy
EVI-SICEE	Evidence-Based Policy Making for Sustainable Industrialisation and Climate-Resilient Economies
FCDO	Foreign, Commonwealth and Development Office
FRF	Flexible Research Fund
FTA	Food Trade and Agriculture
GALS	Gender Action Learning System
GCF	Green Climate Fund
gDIH	Green and Digital Innovation Hub
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GRC	Global Research Council
GYAP	Global Youth Adaptation Partnership
IAU	Innovation for African Universities
ICCA	International Centre for Climate and Agriculture
ICIPE	International Centre of Insect Physiology and Ecology

IDRC	International Development Research Centre
IFT	Innovation Fund for Technology
IMTA	Integrated Multi-Trophic Aquaculture
IP	Intellectual Property
ISPF	International Science Partnerships Fund
JKUAT	Jomo Kenyatta University of Agriculture and Technology
JOUST	Jaramogi Oginga Odinga University of Science and Technology
KALRO	Kenya Agricultural and Livestock Research Organization
KCIC	Kenya Climate Innovation Center
KeNIA	Kenya National Innovation Agency
KIRDI	Kenya Industrial Research and Development Institute
LEPSAI	Leveraging Emerging Technologies for Policy Support in Africa Initiative
LMICs	Low- and Middle-Income Countries
MEL	Monitoring, Evaluation and Learning
ML	Machine Learning
MSMEs	Micro, Small and Medium Enterprises
NACOSTI	National Commission for Science, Technology and Innovation
NEADAP	Network for Environment and Development in Africa Programme
NRF	National Research Foundation
OACPS	Organisation of African, Caribbean and Pacific States
PHL	Post-Harvest Losses
POs	Producer Organizations
PWDs	Persons with Disabilities
QBMPs	Quality-Based Milk Payment Systems
RIM	Research and Innovation Management
SEI	Stockholm Environment Institute
SGCI	Science Granting Councils Initiative
SGCs	Science Granting Councils
SIDA	Swedish International Development Cooperation Agency
SMEs	Small and Medium Enterprises
SNSF	Swiss National Science Foundation
SNV	Netherlands Development Organisation
SPECC	Solar Powered E-Mkokoteni CoolCart
STEM	Science, Technology, Engineering and Mathematics
STI	Science, Technology and Innovation
STISA	Science, Technology and Innovation Strategy for Africa
TBYB	Try Before You Buy
TEA	Technology and Entrepreneurship Accelerator
TIDE	Technology, Innovation and Development Ecosystem
TTOs	Technology Transfer Offices
UJ	University of Johannesburg
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
VFP	Visiting Fellowship Programme
WUR	Wageningen University and Research
YLOs	Youth-Led Organizations

The project aimed to strengthen the capacities of SGCs to fund and manage research and innovation projects in areas aligned with their national development plans and priorities.

Funder: IDRC and FCDO

Period: 2023 – 2025

Project Value: USD 6.34 Million

1.1 Research and Innovation Management (RIM) Project

The Research and Innovation Management (RIM) was a project funded under the Science Granting Councils Initiative (SGCI) whose aim was to strengthen the capacities of SGCs to fund and manage research and innovation projects in areas aligned with their national development plans and priorities. The RIM project's main goal was to enhance the ability of Science Granting Councils (SGCs) in Sub-Saharan Africa (SSA) to support research that contributes to economic and social development. This included refining research frameworks, managing high-quality research competitions, and issuing contracts to ensure smooth project execution. It also involved joint monitoring of projects, integrating gender equality and inclusivity, supporting the synthesis and dissemination of research outputs, and organizing symposia for knowledge exchange.

1.2 Evidence for Policy (Evi-Pol) I and II

The EVI-POL project aims to further strengthen the capacity of Science Granting Councils to use data and evidence in policy and decision-making and to enhance their roles as policy champions both nationally and regionally.

Funder: IDRC/FCDO

Period: 2023 – 2025

Project Value: USD 202,870

The Evi-Pol 2 project aimed to further strengthen the capacity of Science Granting Councils to use data and evidence in policy and decision-making and to enhance their roles as policy champions both nationally and regionally. The project had five specific objectives: (i) to support the Science Granting Councils Initiative (SGCI) to implement monitoring, evaluation, and learning (MEL) plans; (ii) to support councils in science, technology, and innovation (STI) policy review and implementation; (iii) to systematize data for policy focusing on R&D data; (iv) to deepen support for peer-to-peer learning among councils; and (v) to deepen gender, ethics, and inclusion (GEI) considerations across the project. EVI-Pol 2 builds on the Evi-Pol 1 project (completed in February 2023) by supporting Councils in MEL, STI policy, data usage and peer-to-peer learning. It also expands beyond Evi-Pol 1 to include MEL at the SGCI level. The Evi-Pol 2 team at ACTS will be supporting objective 2: Support Councils in STI policy review and implementation.

1.3 Supporting Councils to Convene Multi-stakeholder Policy Events (Convening Fund)

This project supported the Science Granting Councils (SGCs) to convene multi-stakeholder events on science, technology and innovation issues.

Funder: IDRC/FCDO

Period: 2022 – 2025

Project Value: USD 455,580

This project supported the Science Granting Councils (SGCs) to convene multi-stakeholder events on science, technology and innovation issues. Through this project, SGCI has put in place a 'convening fund' for the councils to support them to convene multi-stakeholder events in a myriad of themes. An analysis by the ACTS team showed there was an increased demand and interest by the Councils to convene multi-stakeholder events focused on several key themes: public-private partnerships; commercialization, research impact evaluations, STI policy; gender, equality and inclusivity; frameworks and guidelines of establishing new funding agencies/councils; knowledge uptake through industrial knowledge clinics; Biosafety; research ethics; open science; open access; open data and STI advocacy. As the STI policy champions in their countries, SGCs are on the driving seat in convening these events as they are responsible for defining the scope and determining the participants of the stakeholder events. The goal of this project was to strengthen the role of Africa's Science Granting Councils in policy and decision-making processes. This goal was realized by supporting councils to convene multi-stakeholder events focused on key themes identified by the councils.

1.4 The African Network on Learning, Innovation and Competence Building Systems (AfricaLics)

AfricaLics supports African countries in developing and utilizing high quality research, conducted by African researchers, to enable more informed policy decisions to be made relating to the use of science, technology, and innovation (STI) for economic and social development as well as efficient governance.

Funder: SIDA
Period: 2025 – 2029
Project Value: USD 3,200,000

The African Network on Learning, Innovation and Competence Building Systems (AfricaLics) is an Africa-wide network focused on developing the field of African Innovation and Development Studies Research. In line with the overarching vision, AfricaLics supports African countries in developing and utilizing high quality research, conducted by African researchers, to enable more informed policy decisions to be made relating to the use of science, technology, and innovation (STI) for economic and social development as well as efficient governance. The network works closely with like-minded relevant international and local researchers and research networks to realize this vision. The project is envisaged to broaden the applicability of science, technology and innovations in productive systems articulating for knowledge in research arena for technical innovation and how this innovation stimulates economic growth and social development. The Network's vision is to support African countries towards developing and utilizing high quality research, conducted by African researchers, to enable more informed policy decisions to be made relating to the use of science, technology, and innovation (STI) for economic and social development as well as efficient governance. ACTS hosted the AfricaLics Secretariat until 2025. The Network has been implementing a research capacity building (RCB) program entitled "Enhancing research capacity on Innovation and Development (I&D) in Africa. Some of the activities under this RCB program include PhD academies; Research conferences; PhD visiting fellowships program (VFP); Policy engagements/Outreach (webinar series) among others.

1.5 Synthesis of Science Granting Councils Initiative Projects

The synthesis aimed to provide a deeper understanding of the outcomes and impact of Science Granting Councils Initiative (SGCI) projects and their role in advancing research and innovation ecosystem in Africa and their alignment with national development agendas.

Funder: IDRC
Period: 2024 – 2026
Project Value: USD 164,473

The synthesis aimed to provide a deeper understanding of the outcomes and impact of Science Granting Councils Initiative (SGCI) projects and their role in advancing research and innovation ecosystem in Africa and their alignment with national development agendas. The specific objectives of the synthesis were: document the potential contribution of the funded project to national and continental development agenda; evaluate SGCI's role in fostering collaboration among researchers, institutions, and industry within the African Science Technology and Innovation (STI) ecosystem; document the contribution of the SGCI's on gender mainstreaming and inclusivity; evaluate and document the extent of utilization of the research outputs to the economy and policy influence; and prepare and disseminate knowledge products from the synthesis. The project was meant to deliver three immediate outcomes: increased use of synthesis as a tool for evidence generation; enhanced use of evidence to inform funding and policy making decisions by funders and councils; and increased knowledge sharing, learning, and networking among SGCs and other stakeholders in the STI system.

1.6 Research for Development

The study is part of IDRC's ongoing efforts at strengthening R4D ecosystems. Under its 2030 Strategy, IDRC aims to maintain a longer-term vision and demonstrate foresight to address emerging research questions and dynamics in today's rapidly evolving world.

Funder: IDRC
Project Period: 2025 – 2026
Project Value: USD 53,752

The International Development and Research Centre (IDRC) commissioned ACTS to conduct a study on 'Transforming Research for Development (R4D) in the Eastern and Southern Africa (ESA) Region'. The study is a part of IDRC's ongoing efforts at strengthening R4D ecosystems. Under its 2030 Strategy, IDRC aims to maintain a longer-term vision and demonstrate foresight to address emerging research questions and dynamics in today's rapidly evolving world. As part of its foresight work, in 2022-2024, the IDRC funded an initiative focusing on the disruptors and enablers of research for development (R4D). Through this Initiative, a vision for a transformative research-for-development system was developed, strategic options for change in the existing research-for-development systems, were identified, and a preliminary list of initiatives aimed at transforming this system, was outlined. Since January 2025, IDRC has moved this project to a second phase, building on phase 1 work to move from a transformative vision for research for development to more concrete actions, including - dissemination and validation of findings of the phase 1, acquire better understanding of the state of various ecosystems in regional contexts, highlighting examples of systemic changes occurring therein, and identify next strategic steps.

1.7 Flexible Research Fund: Climate Compatible Growth (CCG Energy Policy)

The project provided research funding to address new and emerging opportunities and challenges in the field of renewable energy. Its primary goal is to advance knowledge and understanding of the design and implementation of Kenya's new energy policies.

Funder: FCDO
Period: 2023 - 2024
Project Value: USD 49,997

The project provided research funding to address new and emerging opportunities and challenges in the field of renewable energy. Its primary goal was to advance knowledge and understanding of the design and implementation of Kenya's new energy policies. Overall, the project aimed to generate evidence on the systemic factors that contribute to the successes and failures of policy development and implementation, particularly in the context of a sustainable energy transition. Specifically, the project focused on several objectives. First, it sought to analyze the institutional, political, economic, and sociotechnical trends and dynamics that either enable or hinder the implementation of renewable electricity policies in Kenya. Second, it aimed to provide a comprehensive assessment of the successes and shortcomings of Kenya's renewable electricity deployment policies, thereby deepening our understanding of the political economy of the country's renewable energy subsector. Third, the project set out to generate practical evidence through case studies of renewable electricity auctions, which can inform policy recommendations for Kenya's renewable auction framework. Fourth, it set to propose actionable recommendations for the effective development and implementation of renewable energy policies, with particular emphasis on maximizing the benefits of renewable electricity auctions. Finally, the project emphasized stakeholder engagement through a transdisciplinary approach, co-developing future scenarios for a sustainable energy transition and disseminating findings via participatory workshops and stakeholder networks.

1.8 Empowering Women Entrepreneurs in Kenya's E-Mobility Sector

The project sought to map Kenya's e-mobility sector through a gender and inclusivity lens. It examines systemic factors that enable or constrain women's participation in high-growth e-mobility entrepreneurship, identifying financial, technical, and cultural barriers that limit engagement.

Funder: British Council
Period: 2024
Project Value: USD 31,089

The project sought to map Kenya's e-mobility sector through a gender and inclusivity lens. It examined systemic factors that enable or constrain women's participation in high-growth e-mobility entrepreneurship, identifying financial, technical, and cultural barriers that limit engagement. The initiative also assessed women's skills and capacity needs, aiming to develop targeted training programs to unlock entrepreneurial potential within the sector. The project supported the transition across transport modes while promoting sustainable urban growth, reduced emissions, and socioeconomic inclusion. By exploring entrepreneurial opportunities, best practices from successful women-led ventures like E-Safiri, and policy recommendations, the project sought to enhance women's participation throughout the e-mobility value chain. The research generated actionable insights for policymakers and industry stakeholders, emphasizing networks, mentorship, funding access, awareness campaigns, and gender-disaggregated data collection. Findings were disseminated through workshops, reports, and stakeholder engagements to inform inclusive policies and practices, ensuring women's empowerment in Kenya's e-mobility sector. The approach offered to replicable strategies for other high-technology areas, promoting gender-responsive innovation and economic growth.

1.9 Assessing the Structure, Performance and Policy Alignment of Doctoral Training

The study aimed to identify key gaps, challenges, and opportunities, and provide actionable recommendations to enhance the quality and impact of doctoral education in Sub-Saharan Africa (SSA).

Funder: ICIPE
Period: 2024 – 2025
Project Value: USD 79,500

ACTS led a rigorous multi-country analytical study commissioned by the Regional Scholarship and Innovation Fund (RSIF) to assess the structure, performance, and policy alignment of doctoral and postdoctoral training systems in Kenya, Ethiopia and Rwanda. The study aimed to identify key gaps, challenges, and opportunities, and provide actionable recommendations to enhance the quality and impact of doctoral education in Sub-Saharan Africa (SSA). The study also examined the alignment of PhD programs with national development priorities, gender inclusivity, and the funding mechanisms supporting these programs. The study involved: (a) analysing the current state of PhD and postdoctoral training, including enrolment, completion rates, and thematic distribution; (b) assessing pipeline issues, employment challenges for graduates, and other barriers to effective training; (c) reviewing the funding mechanisms for PhD programs and postdoctoral research, aligning them with national development goals; conducting qualitative and quantitative research, including surveys, interviews, and focus group discussions, to gather insights from stakeholders; and developing recommendations to inform policy and enhance the impact of doctoral education in the region.

1.10 SGCI Convenings (Regional MEL Meetings and Annual Forums)

The overarching aim of the 2024 SGCI Annual Forum was to amplify and strengthen the perspectives of Science Granting Councils (SGCs) and other STI stakeholders in broader thematic debates.

Funder: IDRC
Period: 2024 – 2025
Project Value: USD 611,930

The overarching aim of the 2024 SGCI Annual Forum was to amplify and strengthen the perspectives of Science Granting Councils (SGCs) and other STI stakeholders in broader thematic debates. To achieve this, the forum was structured around several interrelated objectives. First, it sought to build leadership and strengthen innovation networks through the Executive Seminar, which provided targeted training and workshops focused on advancing innovation across the continent. Second, it promoted learning and reflection within SGCI by facilitating peer-to-peer exchanges and strategic discussions on research and development (R&D) and STI priorities, ensuring alignment with the initiative's broader organizational strategies. In addition, the forum aimed to contribute to global STI discourse through engagement with the Global Research Council (GRC). This was achieved by creating a platform for stakeholders including the Initiative Management Team (IMT), Country Technical Advisors (CTAs), and Councils to share experiences, best practices, and lessons learned in managing STI ecosystems, particularly around cross-cutting themes. The forum also provided an opportunity to showcase SGCI-supported projects through a symposium, where participants presented and assessed projects implemented in Botswana and beyond, examining their impact and relevance.

1.11 Expanding and Strengthening the Visibility and Roles of Science Granting Councils

This project seeks to expand and strengthen the visibility, coordination role, and policy influence of Science Granting Councils (SGCs) to support inclusive, coherent, and effective science, technology, and innovation (STI) systems at global, continental, and national levels.

Funder: IDRC
Period: 2026
Project Value: USD 286,574

This project seeks to expand and strengthen the visibility, coordination role, and policy influence of Science Granting Councils (SGCs) to support inclusive, coherent, and effective science, technology, and innovation (STI) systems at global, continental, and national levels. Implemented under the Science Granting Councils Initiative (SGCI), the project integrates four mutually reinforcing sub-projects: (i) strategic engagement of SGCs at the African Union statutory meetings to shape the Continental STI Policy Agenda under Science, Technology and Innovation Strategy for Africa STISA 2034; (ii) strategic engagement of SGCs at the Wellcome Trust Meeting in London; (iii) GRC South Day to strengthen Global South coordination in global research governance; and (iv) targeted technical assistance to support the establishment of a National Research and Innovation Council and Fund in Nigeria. Aligned with IDRC's mandate to support inclusive knowledge systems and evidence-informed policymaking, the project strengthens institutional capacity, policy coherence, and political ownership of STI systems across multiple governance levels.

1.12 Knowledge Support and SGCI Engagement in STISA-2034

ACTS provided knowledge support to align the activities of African Science Granting Councils (SGCs) with STISA-2034 goals, facilitating policy engagement, research funding, and evidence-based decision-making to drive Africa's socio-economic transformation.

Funder: IDRC
Period: 2024 - 2025
Value: USD 79, 019

ACTS and the Science Granting Councils Initiative (SGCI) are heavily involved in supporting the Science, Technology, and Innovation Strategy for Africa (STISA-2034). ACTS provided knowledge support to align the activities of African Science Granting Councils (SGCs) with STISA-2034 goals, facilitating policy engagement, research funding, and evidence-based decision-making to drive Africa's socio-economic transformation. The STISA 2034 boldly continues the global agenda set by previous policies, including STISA 2024, firmly building upon their foundations and accomplishments. It draws clear direction from an extensive examination of the state of STI in Africa, defining a strategy that addresses the continent's developmental realities within the global context. It will serve as a driving force for critical sectors including agriculture, health, ICT, energy and environment. It is crafted for the application of STI for sustainable and inclusive industrialization, use of frontier and emerging technologies as well as human capital and skills development. It further provides orientation for private sector engagement, science diplomacy, and youth and women empowerment.

1.13 Regional Innovation and Technology Transfer Strategy

This project sought to expand and strengthen the visibility, coordination role, and policy influence of Science Granting Councils (SGCs) to support inclusive, coherent, and effective science, technology, and innovation (STI) systems at global, continental, and national levels

ACTS was contracted by the EAC Secretariat to develop a regional Innovation and Technology Transfer Strategy, requiring a scientifically rigorous and politically sensitive analysis of national innovation ecosystems across six partner states. The strategy is expected to guide the region to exploit existing opportunities within the innovation ecosystem and with a view to harnessing, developing, and applying science, technology, and innovation for socio-economic development; and also address the gaps within the ecosystem. Eventually, the strategy will help catalyse industrial innovation and related outputs, strengthen technology and knowledge transfer, enhance knowledge creation, build effective partnerships, and improve technology management and protection in East Africa. The strategy was developed through a six-step process: documenting the status of innovation and technology transfer in the region, mapping key stakeholders in the Innovation ecosystem, data collection, preparation of a draft strategy, holding a regional workshop and preparing a comprehensive implementation plan.

1.14 Analysis of Leather and Textiles Sector Value Chains and Enterprise Development in Kenya

The 6-month research project was initiated by GIZ to support the Ministry of SMEs in generating evidence on potential avenues for job creation in leather & textile value chains.

Funder: GIZ
Period: 2023 – 2024
Project Value: USD 61,891

The 6-month research project was initiated by GIZ to support the Ministry of SMEs in generating evidence on potential avenues for job creation in leather & textile value chains. The project was implemented under GIZ's programme for promotion of self-employment and entrepreneurship in Kenya in which GIZ collaborated with the Ministry of Cooperatives and Micro Small & Medium Enterprises (MSMEs) Development to unlock the potential of MSMEs. It aimed to provide the Ministry of Cooperatives and MSMEs Development and GIZ with an in-depth analysis of the current status of the leather and textile sub sectors with regard to the competitiveness of its value chain, the actors, comparative advantages, and constraints thereof with a view to enhance development of the MSMEs engaged in the two sub sectors; identify challenges and opportunities with respect to its potential for developing MSMEs through increased productivity, efficiency and employment generation capacity in the two sub-sectors; and examine and recommend strategic measures and policies to improve the leather and textile value chains.

1.15 Benchmarking the Control of Kenya's Research in Dual-Use Technologies

The study surveyed government ministries, state-based regulators, universities and research institutions in an attempt to establish the existence of policies, guidelines or practices that secure and document such research.

Funder: CRDF Global
Period: 2023
Project Value: USD 17,285

This project employed a methodology that involved a combination of desktop research, surveys, personal interviews, and workshops. The study surveyed government ministries, state-based regulators, universities and research institutions in an attempt to establish the existence of policies, guidelines or practices that secure and document such research. The study interrogated the maturity levels of the Kenyan regulatory regime for the 4 technology themes: AI; additive manufacturing & nuclear energy technology; cyber & cryptography; and biotechnology and Genetically Modified Organisms (GMOs).

1.16 Mapping Kenya's Innovation Ecosystem

The study aimed to provide evidence to support policy decisions and strengthen innovation-driven economic growth. The study mapped the actors, infrastructure, and trends shaping innovation in Kenya.

Funder: UNDP
Period: 2022
Project Value: USD 50,000

The study aimed to provide evidence to support policy decisions and strengthen innovation-driven economic growth. The study mapped the actors, infrastructure, and trends shaping innovation in Kenya. It involved desk research and field data collection across all 47 counties, engaging 225 stakeholders including innovation hubs, universities, government agencies, financiers, trainers, and start-ups. The goal was to understand the ecosystem's structure, identify gaps, and highlight opportunities for collaboration, investment, and policy improvement. Findings showed that Kenya has a dynamic and rapidly growing innovation ecosystem and is considered one of the leading innovation hubs in Africa. The system includes key actors such as universities and research institutions (innovation producers), start-ups and SMEs (innovation consumers), innovation hubs and incubators (support systems), and regulatory bodies such as National Commission for Science, Technology (NACOSTI), Kenya National Innovation Agency (KeNIA) and the National Research Fund (NRF). The study concluded that Kenya's innovation ecosystem has strong potential but requires improved collaboration, infrastructure expansion, talent development, and better access to finance. Strengthening linkages between government, academia, industry, and development partners will be essential to fully harness innovation for economic growth, job creation, and the achievement of national development goals.

1.17 Advancing a Just Energy Transition: Localisation, Decent Work, and Sustainable Livelihoods

This project aims to develop public policy interventions and advocacy support necessary to cement decent work and sustainable livelihoods, especially women and youth workers.

Funder: IDRC
Period: 2024 – 2026
Project Value: USD 326,551

This project aims to develop public policy interventions and advocacy support necessary to cement decent work and sustainable livelihoods, especially women and youth workers, through the localization of clean energy value chains and capability development for Micro Small and Medium Enterprises (MSMEs). Focusing on solar modules, wind turbine towers, and battery storage systems, the project assesses how localisation, through local production, ownership, SME participation, and firm upgrading, can move beyond simple assembly toward higher value-added industrialisation. It investigates how decent work, gender equity, and sustainable livelihoods can be embedded in renewable energy national and global production networks, generating evidence to inform public policy that strengthens local manufacturing and avoids reproducing unequal global economic patterns. The project is implemented through a partnership of policy institutes, civil society organisations, labour bodies, researchers, and industry actors.

1.18 Reimagining Health-Industry Policy Linkages in Africa for Pandemic Preparedness

Focusing on Kenya and South Africa, this project engaged with a critical question related to health-industrial policy linkages concerning pandemic preparedness: How can the policy be reimagined to support the development of local health-industrial linkages to create broad-based local industrial capabilities and thereby improve local health security for pandemic preparedness?

Funder: The International Science Partnerships Fund (ISPF)
Period: 2024
Project Value: USD 44,070

The COVID-19 pandemic exposed the risks and challenges of relying on imports and the global supply chains to satisfy the local healthcare needs in Low-Middle Income Countries (LMICs). Specifically, the pandemic exposed the lack of broad-based industrial capabilities in LMICs and missing links between health and industrial policies, creating serious questions about responding to the future pandemic. The previous research highlighted a need for supporting, strengthening and reimagining the health-industrial policy linkages to stimulate local industrial development through various routes such as agile regulation, innovative procurement, protected markets for local manufacturers, and incentivising technological upgrading. Focusing on Kenya and South Africa, this project engaged with a critical question related to health-industrial policy linkages concerning pandemic preparedness: How can the policy be reimagined to support the development of local health-industrial linkages to create broad-based local industrial capabilities and thereby improve local health security for pandemic preparedness?

1.19 Policies for Enhanced Transition to Sustainable Energy Systems in Kenya

The project aimed to advance knowledge and build understanding on the design and implementation of Kenya's new policies. Specifically, the study seeks to understand the design of emerging policies inter alia, electricity auction, net-metering, captive electricity generation and others in the pipeline as maybe identified during the study.

Funder: Climate Compatible Growth (CCG) Flexible Research Fund (FRF)
Period: 2023 – 2024
Project Value: USD 59,997:

This was a partnership between the African Centre for Technology Studies (ACTS) and the Stockholm Environment Institute (SEI) under the Climate Compatible Growth (CCG) Flexible Research Fund (FRF) that provided research funding to respond to new and emerging research opportunities and demands. The project sought to advance knowledge and build understanding on the design and implementation of Kenya's new policies. Specifically, the study sought to understand the design of emerging policies inter alia, electricity auction, net-metering, captive electricity generation and others in the pipeline as maybe identified during the study. Moreover, the study aimed to understand the broader economic, political and institutional context in which these policies will be implemented. This independent academic research considered the policy, economic and political economy context that shape the implementation and impact of renewable energy auction programmes in Kenya. It was informed by the fact that empirical evidence is scanty around the systemic factors that influence a joined-up development and implementation of renewable policies which may have an impact on the expected outcome with regards to transition to a sustainable energy system. The overall aim of this study was thus to build evidence on systemic factors leading to failures and successes of policy development and implementation toward a sustainable energy transition. Our ultimate goal is to build evidence for policy recommendations targeting the Kenya's renewable auction policy.

1.20 Governing SDG Interactions Project

The Governing SDG Interactions project aimed to investigate how to manage trade-offs and synergies between Sustainable Development Goals in Africa.

Funder: Dutch Research Council
Period: 2021 – 2026
Project Value: USD 223,228

The Governing SDG Interactions project aimed to investigate how to manage trade-offs and synergies between Sustainable Development Goals in Africa. It focused on, for instance, climate-smart livestock in Kenya, landscape restoration in Ethiopia, and urban water-energy-food in Uganda, aiming to support evidence-based policy for sustainable development. Together with international, Dutch and East-African partners, this project studies the effectiveness of governance mechanisms that aim to align SDG efforts between donors' domestic and foreign policies; donors and recipients; different donors public and private initiatives. By working across disciplines and with stakeholders, we will produce actionable research results. Policy briefs with tailored recommendations for co-designing inclusive and effective polycentric governance arrangements were produced. It aimed to support better alignment between development actors and efforts, so as to minimize trade-offs, maximize synergies, and achieve the SDGs in Ethiopia, Kenya and Uganda.

1.21 Institutional Commercialization Support Phase II

The core objective of this project is to strengthen and streamline systems and processes within selected institutions, to facilitate technology translation and successful commercialization of their research outputs with the ultimate goal of promoting innovation, driving job creation, enhancing employability, and stimulating socio-economic growth.

Funder: UK Aid
Period: 2024
Project Value: USD 73,770

This project aimed to overcome the barriers impeding the commercialization of research in Kenyan institutions. Through an initial rapid assessment in Phase I, eight institutions were identified as having inefficient Technology Transfer Offices (TTOs), lacking innovation strategies, inadequate structures for research translation, and underutilized Intellectual Property (IP) policies. To this end, early 2022, IS phase II project was launched with the core objective of strengthening and streamlining systems and processes within selected institutions, to facilitate technology translation and successful commercialization of their research outputs with the ultimate goal of promoting innovation, driving job creation, enhancing employability, and stimulating socio-economic growth throughout Kenya. Five institutions participating in IS Phase II developed customized work plans, serving as guiding frameworks for implementing interventions that enabled research commercialization. The plans were tailored to the specific contexts of each institution and encompassed the creation of institutional roadmaps for commercialization. Multiple avenues for commercialization, including establishment of start-ups, publishing, joint ventures, licensing, and developing spinoffs were proposed as the pathways to the commercialization of research.

1.22 Decoloniality Book Project

The book explored how methods for informing policy decisions and wider political debates can enable learning, enrich knowledge, enhance practice and nurture more emancipatory outcomes in the Global South.

Funder: Africa Uninet
Period: 2021 – 2024
Project Value: USD 3,000

The book explored how methods for informing policy decisions and wider political debates can enable learning, enrich knowledge, enhance practice and nurture more emancipatory outcomes in the Global South. The book focused on three strands: the first strand explain how research methods can be used to provide learning opportunities by employing new teaching approaches and training techniques. The second strand focused on explaining how these theories have been used to engage, challenge and shift prevailing methods and practices; while the last strand aimed to identify crucial cross-cutting qualities deriving different methods and explain how related attributes can lead to alternative methods/approaches that are more sustainable, inclusive and can easily be adopted.

1.23 FAO Regional Livestock Experts Meeting

The workshop aimed to support countries in Eastern and Southern Africa in scaling up climate action in the livestock sector by identifying opportunities to address methane in the livestock sector in the context of the Global Methane Pledge.

Funder: FAO
Period: 2023 – 2024
Value: USD 80,000

ACTS and the Food and Agriculture Organization of the United Nations (FAO) organized a regional workshop on “Scaling up national climate actions in Eastern and Southern Africa to increase climate resilience and reduce methane emissions” in collaboration with the Africa Climate Action Partnership. The workshop aimed to support countries in Eastern and Southern Africa in scaling up climate action in the livestock sector by identifying opportunities to address methane in the livestock sector in the context of the Global Methane Pledge. The workshop was organized in the context of FAO’s work on Livestock, Climate Change and the Environment, Sustainable Livestock Transformation and the FAO Flexible Voluntary Contributions sub-programme on “Scaling-up livestock climate actions to enhance nationally determined contributions - Phase II”, which aims to raise ambitions in national climate actions by integrating livestock-specific mitigation and adaptation interventions.

1.24 Africa Regional Advocacy Lead: Global Goal on Adaptation and the New Collective Quantified Goal on Climate Finance

The project aimed to strengthen the Adaptation Research Alliance’s regional and global policy influence by enhancing member engagement across Africa, Asia-Pacific, and Latin America & the Caribbean.

Funder: Adaptation Research Alliance (ARA)
Period: 2024 – 2025
Value: USD 48,187

The project aimed to strengthen the Adaptation Research Alliance’s regional and global policy influence by enhancing member engagement across Africa, Asia-Pacific, and Latin America & the Caribbean. It focused on driving inclusive, evidence-based advocacy to shape key international climate policy processes, particularly the Global Goal on Adaptation (GGA) and the New Collective Quantified Goal (NCQG) under the UNFCCC. Through coordinated stakeholder mapping, multi-stakeholder dialogues, and strategic communication outputs, the project sought to amplify diverse regional voices, integrate local knowledge, and ensure that adaptation priorities of developing countries are effectively reflected in global decision-making.

2.1 Optimizing a solar milk pre-cooler innovation to improve quality & safety of raw milk at smallholder chilling Centers in Kenya

This project aims to strengthen milk safety, quality, and farmer incomes in Kenya's smallholder dairy sector by optimizing and scaling a solar-powered milk pre-cooling innovation at dairy cooperative chilling centres.

Funder: GIZ
Period: 2024 – 2026
Project Value: USD 22,000

This project aims to strengthen milk safety, quality, and farmer incomes in Kenya's smallholder dairy sector by optimizing and scaling a solar-powered milk pre-cooling innovation at dairy cooperative chilling centres. Delayed cooling at milk collection points remains a critical bottleneck in the dairy value chain, contributing to high bacterial growth, milk spoilage, processor rejection, and significant income losses for farmers and cooperatives. Implemented over 24 months (April 2024–March 2026) in Nakuru and surrounding high-potential dairy counties, the project addresses this challenge by validating and deploying a solar-powered ice-bank pre-cooling system that rapidly lowers milk temperature before it enters bulk chillers, reducing bacterial multiplication, energy costs, and reliance on fossil fuels. In parallel, the project promotes inclusive, market-based business models by building the technical and entrepreneurial capacity of local SMEs, cooperatives, and women- and youth-led enterprises to fabricate, install, operate, and maintain the technology. Led by Happy Cow Ltd in partnership with the African Centre for Technology Studies (ACTS) and Fooster Solutions Ltd, and supported by the EU, OACPS, BMZ through GIZ's Agri-Business Facility (ABF), the project combines technology innovation, capacity building, and evidence-based policy engagement to strengthen climate-resilient dairy value chains in Kenya.

2.2 Circular Retrofitting for Sustainable Industrialization - GeckoCIR

The overall objective in GeckoCIR is to develop and test an efficient science-based methodology for circular retrofitting in Nairobi, Kenya, i.e., the creation of circular hubs in existing industrial areas.

Funder: DANIDA
Period: 2022 – 2026
Project Value: USD 46,394

The overall objective in GeckoCIR is to develop and test an efficient science-based methodology for circular retrofitting in Nairobi, Kenya, i.e., the creation of circular hubs in existing industrial areas. It seeks to demonstrate that it is possible to develop circular hubs in an efficient, fast, and competitive way in developing countries focusing on both internal and symbiotic upcycling of industrial side streams. The project brings in food researchers, biochemical & biorefinery researchers, materials researchers, business/policy researchers and the Rodee technology for upcycling food side streams. It is a transdisciplinary research project which aims to develop circular industrial networks and eco-industrial parks in Kenya, and the core focus is on upcycling food side-streams and developing circular business cases among food companies. Besides, GeckoCIR will also research deeper into other upcycling opportunities for industrial side-streams combining business, policy, and natural sciences (biorefinery, biotech, food, chemistry and material research). The overall objective in GeckoCIR is to develop and test an efficient science-based methodology for circular retrofitting in Nairobi, Kenya, i.e., the creation of circular hubs in existing industrial areas. It seeks to demonstrate that it is possible to develop circular hubs in an efficient, fast, and competitive way in developing countries focusing on both internal and symbiotic upcycling of industrial side streams. The project brings in food researchers, biochemical & biorefinery researchers, materials researchers, business/policy researchers and the Rodee technology for upcycling food side streams.

2.3 A Circular Bioeconomy for the Kenyan Dairy Sector (VALORISE)

The project aimed to create a foundation of bioeconomic knowledge on which Kenyan dairy-industry stakeholders can act in applying bio-circular principles to facilitate sustainable growth pathways.

Funder: DANIDA
Period: 2022 – 2025
Project Value: USD 150,862

This VALORISE was a transdisciplinary project that sought to examine how Circular Bio-economy (CBE) principles of resource use – i.e., prevention, reuse, recycling, can be leveraged in the growing and modernizing dairy industry in Kenya. The project aimed to create a foundation of bioeconomic knowledge on which Kenyan dairy-industry stakeholders can act in applying bio-circular principles to facilitate sustainable growth pathways. The research unravelled the application of CBE principles in an evolving food-processing industry in low-middle income countries (LMICs) focusing on dairy processing firms who are central value-chain actors and leverage points for sector-wide CBE development. Integrating CBE principles through value addition of side streams is an important pathway toward sustainable food processing industry development, however, there has been limited understanding of its application in a country like Kenya. The project sought to generate state of the art integrated and comprehensive knowledge on conditions, challenges and opportunities that can guide industry in developing new valorisation solutions into food and feed products through utilization of side streams. In dairy processing, side streams such as whey and others waste streams have shown a lot of promise, drawing from insights and experiences from other countries. The project was implemented by a consortium comprising the following partners: ACTS; Roskilde University, Denmark; Technical University of Denmark (DTU); Arla Foods Ingredients; Egerton University; The Alliance of Bioversity International and CIAT; Eastern and Southern Africa Dairy Association (ESADA).

2.4 Building High Level Support & National Capacities to enhance Climate & Ozone Protection through Cooling Efficiency in Kenya

The Africa Centre for Excellence for Sustainable Cooling and Cold-chain (ACES) programme to promote sustainable cooling and cold-chain solutions across Africa's agriculture, fisheries, dairy, and health sectors. Its goal is to reduce food loss, strengthen supply chains, support rural jobs, improve energy use, and enable low-carbon development.

Funder: DEFRA UK
Period: 2023 – 2026
Value: USD 1,092,561

The Africa Centre for Excellence for Sustainable Cooling and Cold-chain (ACES) programme brings together governments, academia, industry, and NGOs to promote sustainable cooling and cold-chain solutions across Africa's agriculture, fisheries, dairy, and health sectors. Its goal is to reduce food loss, strengthen supply chains, support rural jobs, improve energy use, and enable low-carbon development. On March 25, 2025, the African Centre for Technology Studies (ACTS) and partners launched Kenya's first "Try Before You Buy" (TBYB) cooling and cold-chain unit in Kinale, Kiambu County. The initiative allows farmers to test cold-chain technologies before investing, demonstrating their value in reducing post-harvest losses, improving produce quality, and connecting farmers to better markets. TBYB represents Phase 2 of the CCN SPOKE community engagement programme. Phase 1 (2024) involved training, mentoring, and a needs assessment to develop a community cold-chain ecosystem and business model. Phase 2 installs basic cold-chain equipment so farmers can test the system during harvest. So far, 163 smallholder farmers have joined the cooperative, attracted by the opportunity to aggregate and market higher-quality produce. Farmers are already earning over 50% higher prices, with the cooperative model ensuring 80% of sales revenue goes to farmers and 20% supports cooperative operations and sustainability.

2.5 Cooling Sectoral Studies for Countries Included in World Bank Facility (Kenya).

ACTS conducted a baseline study on the cooling and cold chain sector in Kenya and Malawi with a view to provide country specific assessments for the World Bank's multi-country "Cooling Facility", an umbrella programme intended to mobilise \$157 million from the Green Climate Fund (GCF) in form of concessional loans and grants.

Funder: World Bank
Period: 2024
Project Value: USD 32,500

The World Bank commissioned ACTS and the United Nations Environment Programme (UNEP) to conduct a baseline study on the cooling and cold chain sector in Kenya and Malawi. The baseline studies were primarily intended to provide country specific baseline assessments for the World Bank's multi-country "Cooling Facility", an umbrella programme intended to mobilise \$157 million from the Green Climate Fund (GCF) in form of concessional loans and grants. The loans and grants were meant to be used to support policy, regulatory and enabling environment support and cooling investments aimed at promoting the adoption, scale-up and deployment of sustainable cooling technologies and appliances. The baseline studies helped the World Bank country offices to better understand the current landscape of cooling with a view to engaging with government counterparts and key stakeholders on the subject. The study revealed that efficient cold chains are critical for reducing post-harvest losses of perishable foods like fruits and vegetables; and recommends strengthening energy efficiency standards, investing in infrastructure, scaling innovative cooling solutions, improving technician training, and expanding financing to promote climate-friendly cooling technologies.

2.6 Gender Analysis & Action Plan for REGAIN Program

The RE-GAIN programme is a multi-country GCF supported investment designed to strengthen climate resilience in smallholder agri-food systems by accelerating adoption of Food Loss-Reduction Solutions (FL-RS) at harvest and post-harvest stages.

Funder: The Alliance for a Green Revolution in Africa (AGRA)
Period: 2025 – 2026
Project Value: USD 149,960

This is a consultancy project under the AGRA-RE-GAIN program funded by the Green Climate Fund (GCF). The RE-GAIN programme is a multi-country GCF supported investment designed to strengthen climate resilience in smallholder agri-food systems by accelerating adoption of Food Loss-Reduction Solutions (FL-RS) at harvest and post-harvest stages. The study aimed to conduct a gender and youth analysis for the program and formulate actionable Gender and Youth Action Plans (GYAP) for the RE-GAIN program in Burkina Faso, Ethiopia, Kenya, Malawi, Tanzania, Uganda, and Zambia (the "RE-GAIN Program Countries"). The GYAPs will support the effective integration of gender and Youth considerations across the RE-GAIN's three interlinked program components: i) Demand-side adoption: farmer awareness and training, incentives such as output markets, intra-household decision-making, and execution capacity at harvest and post-harvest under climate pressure ii) Supply and affordability: availability, reliability, and timing of FL-RS tools, services, finance, and youth enterprise pathways and iii) Enabling environment: policies, institutions, coordination mechanisms, and accountability systems that shape inclusive adoption of FL-RS at scale.

2.7 WorldFish – Climate-Smart Fish Handling Technologies

ACTS conducted a study to unlock the adoption challenges faced by women in sustainable adoption of climate smart fish handling equipment under the WE and Climate justice project implemented by ILRI in Homabay and Migori counties of Kenya.

Funder: ILRI/World Fish
Period: 2025
Project Value: USD 40,000

ACTS conducted a study to unlock the adoption challenges faced by women in sustainable adoption of climate-smart fish handling equipment under the WE and Climate justice project implemented by ILRI in Homabay and Migori counties of Kenya. Using a gendered systems lens, the team conducted a detailed review of the adoption of solar tent dryers, fish smoking kilns and solar-powered freezers with the aim of better understanding the socio-technical gaps that have limited uptake and use of the promoted technologies. This included GALS- Gender Action Learning System. The ACTS team also set out to identify what interventions would be needed to unlock these challenges, test the interventions and assess their efficacy and recommend sustainable mechanisms by providing guidance and training on food handling and safety and through developing standard operating procedures related to food handling and business models that can contribute to maximum return of such investments.

2.8 Netherlands East Africa Dairy Program (NEADAP) – Quality-Based Milk Payment Systems

The QBMPS pilot was a joint effort by SNV TIDE, the Uganda Dairy Development Authority (DDA), three dairy processors and 10 (partly private) milk collectors. More than 1,400 farmers participated.

Funder: SNV (NEADAP)
Period: 2022 – 2023
Project Value: USD 30,000

The QBMPS pilot was a joint effort by SNV TIDE, the Uganda Dairy Development Authority (DDA), three dairy processors and 10 (partly private) milk collectors. More than 1,400 farmers participated. The pilot successfully inspired coordinated actions by all actors along the value chain in the southwest of Uganda. It provided a combination of training, coaching and education as well as setting up a quality control system. This required support for setting up milk testing routines. Factories introduced a (recommended) 10% bonus over the base price for A-grade milk. Criteria were 0.0% added water and minimal fat and solids-not-fat (SNF) levels. A variety of communication and training methods were used, such as classroom sessions and the distribution of leaflets and brochures. In the remainder of the pilot, about €100,000 worth of bonuses were paid out to farmers. Also, DDA converted the pilot procedure and parameters into national guidelines, which is awaiting ratification by parliament.

2.9 Scaling Agricultural Digital Innovations within Fairtrade Producer Organizations (FTA)

The study aimed to generate insights and recommendations on how to enhance adoption and scaling of digital solutions to support productivity, profitability, and sustainability gains for smallholder producers.

Funder: FairTrade Africa
Period: 2023
Project Value: USD 22,000

The integration of digital innovations in agrifood systems in Africa remains low with, numerous digital solutions struggling to expand their reach and to improve the performance of farming enterprises, including small- scale producers and other target end users as expected. For this reason, Fairtrade Africa contracted ACTS to assess the status of digital innovation integration among FTA certified Producer Organizations (POs). The assessment focused on digital solutions in advisory services, market linkage, financial access, supply chain management, and macro agri-intelligence. The study aimed to generate insights and recommendations on how to enhance adoption and scaling of digital solutions to support productivity, profitability, and sustainability gains for smallholder producers. The objective was to analyse the status of adoption of D4Ag in FTA POs, identify potential solutions and propose appropriate means for increasing their adoption, outcomes, and related impacts.

2.10 Scaling-up Solar Drying to Reduce Post- Harvest Losses in Kenya

The project aimed to accelerate scaling-up the solution in more locations and support youth-led SMEs to deploy more affordable solar dryers. It will target 500 low cost dryers over 5 years reaching over 40,000 smallholder farmers with a view to growing market for “pay as you dry” services across various agri-value chains.

Funder: The Institute of Food Technologists (IFT)

Period: 2022 – 2023

Project Value: USD 100,000

The project leveraged on lessons from the UNEP Ecosystem Based Adaptation for Food Security (EBAFOSA) initiative that promoted solar drying technology and dryers as “pay-as-you go” business models through collective action among smallholder communities in Kenya. The project aimed to accelerate scaling-up the solution in more locations and support youth-led SMEs to deploy more affordable solar dryers. It will target 500 low-cost dryers over 5 years reaching over 40,000 smallholder farmers with a view to growing market for “pay as you dry” services across various agri-value chains. In addition, the project sought to expand inclusive entrepreneurship and green jobs especially for youth and women in agro-processing. It sought to scale the proof-of-concept of climate-action low-cost solar drying technology enterprises to reduce PHL and drive realisation of multiple Sustainable Development Goals (SDGs). The provision of the dryers as a shared service was predicated upon payment of a small maintenance fee, which lowered the cost of dryer services to a fraction of the cost of ownership i.e. 0.05% of the cost of a full dryer. Through this initiative, the project provided solar-drying services to 300 cassava farmers in Kenya and Uganda.

2.11 Chala Sustainable Agribusiness Pilot Project (CSAPP)

The project aimed to transition smallholder farming systems from flood irrigation to drip/solar-powered systems amid declining River Lumi flows due to climate change impacts coupled with human activity.

Funder: Miundo Misingi Hub

Period: 2023 – 2024

Project Value: USD 5,000

The CSAPP was a pilot study led by ACTS in collaboration with the Chala Agribusiness Limited (CAL). It sought to pilot and scale a sustainable agribusiness production model to address water scarcity, low yields, and environmental degradation for resilient agri-food systems in the Tuhire Irrigation Scheme in Chala, Taita Taveta County, Kenya. It aimed to transition smallholder farming systems from flood irrigation to drip/solar-powered systems amid declining River Lumi flows due to climate change impacts coupled with human activity. The project utilized a participatory action research approach integrating farmer-led experimental approaches and stakeholder engagement.

2.12 Resilient Agri-Food Systems - Excellence in Agronomy

The Excellence in Agronomy (EiA) initiative focuses upon improving the ability of men and women farmers to make appropriate decisions and apply new, climate-adaptive, and gender- and youth-responsive solutions

Funder: WUR / IITA (CGIAR)

Period: 2023 – 2025

Project Value: USD 38,544

The Excellence in Agronomy (EiA) initiative focused on improving the ability of men and women farmers to make appropriate decisions and apply new, climate-adaptive, and gender- and youth-responsive solutions. EiA aimed to deliver agronomic gain for millions of smallholder farming households in prioritized farming systems by 2030. Uptake of agronomic solutions at scale was meant to generate measurable impacts on livelihoods, food and nutrition security, resource use, soil health, climate resilience, and climate change mitigation, particularly among women and young farmers. EiA research objectives were expected to determine how agronomy research and development (R&D) can leverage advances in diagnostics, data science, geospatial analysis, remote sensing, and behavioral sciences to develop widely applicable and locally-relevant gender- and youth-responsive solutions at scale. Secondly, it aimed to assess the effectiveness of the use case model, constructed around actual demand for agronomic solutions, and implemented through a co-creation process with demand partners.

2.13 The Blue Empowerment Project

The project aimed to tackle barriers for the empowerment of fisher women in Kenya's coastal region through adoption of climate-smart integrated multi-trophic aquaculture (IMTA) of seaweeds and fish for improved livelihoods and resilience.

Funder: IDRC
Period: 2022 – 2025
Project Value: USD 1,000,000

The Blue Empowerment (BE) project aimed to propose socio-technical, policy and governance configurations that can support in optimizing gender-transformative practices that are resilient to shocks (such as Covid-19), enhance inclusive empowerment, and ensure sustainability, which could be achieved by drawing relationships between stakeholders' interests and their processes. The project aimed to tackle barriers for the empowerment of fisher women in Kenya's coastal region through adoption of climate-smart integrated multi-trophic aquaculture (IMTA) of seaweeds and fish for improved livelihoods and resilience. The MCM methodology was used to systemically appraise and explore socio-technical, policy and governance options that would be best suited in promoting effective implementation and uptake of Integrated Multitrophic Aquaculture (IMTA) in Kwale and Kilifi Counties in Kenya. A core criterion was developed to determine what it means for a technology, policy and governance option to be technically and socially smart. The identified criteria included: sustainability, resilience and women economic empowerment and the parameters under each criterion. The analysis used MCM web application tool to facilitate a structured interaction with stakeholders for the systematic appraisal of policy, technology and governance options. The project focused on adoption of climate-smart integrated multi-trophic aquaculture (IMTA) of seaweeds and fish for improved livelihoods and resilience. It is anchored on Sustainable Development Goal (SDG) 5 on the crucial role of gender equality in development processes as well as in the Kenya Vision 2030.

2.14 Demonstration & Upscale of Community Cooling Hubs (CCH) as a strategy for low-carbon development pathways in Africa

The project introduced Community Cooling Hubs (CCH), an innovative approach that provides clean, accessible cold storage solutions. Using an integrated systems approach, these hubs meet diverse cooling needs for rural households and small and medium-sized enterprises (SMEs).

Funder: UK PAACTS
Period: 2023 – 2025
Project Value: USD 170,584

Cold chains are essential for ensuring access to safe medicines, nutritious food, and overall socio-economic development. In Kenya, however, limited access to reliable end-to-end cold chains leads to significant food and value losses, creating social, economic, and environmental challenges. To address this, a project focusing on clean energy refrigeration aims to support sustainable, resilient, and equitable cold chains for both food and vaccines. By improving cooling services across agricultural and health supply chains, the initiative aimed to reduce food loss, lower emissions, and improve health outcomes, particularly in rural communities. The project introduced Community Cooling Hubs (CCH), an innovative approach that provides clean, accessible cold storage solutions. Using an integrated systems approach, these hubs meet diverse cooling needs for rural households and small and medium-sized enterprises (SMEs). Support from UK PACT enabled the project team to test and validate sustainable cooling hub designs near farms and develop business models that ensure affordability, efficiency, resilience, and long-term sustainability. Implemented by the University of Birmingham, London South Bank University, and ACTS, the project engages local stakeholders through the Kitui Mango Farmers forum to promote local ownership. The hubs support agriculture and health needs—including dairy, horticulture, fisheries, and vaccine storage—reducing post-harvest losses, improving nutrition and health, generating economic opportunities, and strengthening community resilience.

The primary aim of this project was to explore African perspectives on food system leadership with a specific focus on its influence and significance.

Funder: Wageningen University

Period: 2024

Project Value: USD 29,508

2.15 Exploring African Perspectives on Food System Leadership

The African Food Fellowship (AFF) engaged with partners to better understand African perspectives on leadership in food systems. This included the forms that leadership networks and systems take across the continent, as well as how these can contribute to sustainable food systems change. The result was a series of case studies to explore food system leadership in Africa, demonstrating how collective food systems leadership is manifested and what outcomes are achieved. The primary aim of this project was to explore African perspectives on food system leadership with a specific focus on its influence and significance. The objective of the study research was to investigate the role leadership as a synergy/trade-off in driving transformative changes within African food systems.

This project aimed to form a sustainable network between scientists from Kenya and Austria to maximize the use of next generation quantitative genetics to improve breeding programs in Kenya.

Funder: AfricaUninet

Period: 2023 - 2024

Project Value: USD 5,532

2.16 Gentwork

This was a partnership between ACTS, Egerton University and University of Natural Resources and Life Sciences Vienna (BOKU). It aimed to use next generation quantitative genetics to modernize breeding programs in Kenya. This project aimed to form a sustainable network between scientists from Kenya and Austria to maximize the use of next generation quantitative genetics to improve breeding programs in Kenya. The work made major contributions to breeding programs leading to increased productivity, contribute to food and nutritional security, lower production costs while leading to economic empowerment. The project focused particularly on quantitative genetic methods such as genomic selection and mutation breeding that are affordable at low cost, therefore accessible and applicable to researchers and breeders working in breeding programs with limited financial resources.

An in depth analysis into the Kenya Innovation Ecosystem found that SMEs faced multiple barriers that hindered their performance. To address these challenges, the GIZ through its Digital Transformation Center set out to establish a Hub that would act as in intervention and strengthen the Kenya Innovation Ecosystem.

Funder: GIZ
Period: 2024 – 2025
Project Value: USD 93,508

3.1 Green and Digital Innovation Hub (gDIH) Kenya

An in depth analysis into the Kenya Innovation Ecosystem found that SMEs faced multiple barriers that hindered their performance. To address these challenges, the GIZ through its Digital Transformation Center set out to establish a Hub that would act as in intervention and strengthen the Kenyan Innovation Ecosystem. The ACTS Consortium comprising of 6 Key institutions: Kenya National Innovation Agency (KeNIA), Konza Technopolis, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya Industrial Research and Development Institute (KIRDI), and the Kenya Agricultural and Livestock Research Organization (KALRO). The gDIH was officially launched on 28th November 2023 during the Kenya Innovation Week to be a one stop shop that will contribute to the digital transformation of Kenyan enterprises while promoting sustainable development, circular economy, environmental protection and tackling climate change. The project made significant achievements: over 1,200 innovators and MSMEs have been directly supported, with at least 40% of enterprises being women-led. Key achievements include promoting technologies such as clean cookstoves to reduce carbon emissions, and improve energy efficiency; training 229 innovators on IP and commercialization strategies; enabling 29 MSMEs to validate and prototype solutions in real-world settings; supporting 9 Green and Digital MSMEs to patent and trademark their innovations; linking 16 MSMEs to finance and investment opportunities; and equipping at least 800 innovators with essential technical, entrepreneurial, and digital skills.

DigiKen seeks to bridge the digital divide of learners in local communities by equipping them with the tools, training, and mentorship necessary to participate meaningfully in the digital economy.

Funder: UN Women & UNEP (under Joint SDG Fund)
Period: 2026 – 2027
Project Value: USD 128,000

3.2 Digital Platforms Kenya (DigiKen)

The Digital Platforms Kenya Project (DigiKen) is a transformative 36-month UN Joint Programme in Kenya supported by the Joint SDG Fund, and designed to equip Women, Men, Youth, PWDs, people in Urban Informal Settlements and other marginalized groups including refugees and MSMEs with critical digital skills for the modern economy. DigiKen seeks to bridge the digital divide of learners in local communities by equipping them with the tools, training, and mentorship necessary to participate meaningfully in the digital economy. The overall objective of the project is to ensure that access to capital is strengthened for MSMEs, local start-ups, and entrepreneurs to invest in and deliver digital platform solutions; and women youth, and marginalized persons engage in digital entrepreneurship and/or seek employment in the digital economy. DigiKen aims to build a rights-based, inclusive digital ecosystem that aligns with national development priorities and accelerates progress toward the Sustainable Development Goals (SDGs). The project is in alignment with the Government of Kenya's vision under Ministry of Information, Communications and the Digital Economy and the objectives of Kenya Vision 2030, and is committed to fostering inclusive innovation ecosystems, particularly in underserved regions. It is for this reason that the DigiKen project competitively selected 15 Digital Innovation Hubs (DIHs) that will support in delivering a digital literacy curriculum to MSMEs and marginalized people across Kenya.

3.3 AI4D Africa

The project supported selected scholars to undertake and successfully complete PhD research in AI and ML in African universities; and early career academics (ECA) to strengthen their research and development capacities in the two areas.

Funder: IDRC/SIDA
Period: 2021 – 2014
Project Value: USD 2,421,900

The AI4D Africa Scholarship Programme was a capacity-building initiative implemented by the African Centre for Technology Studies (ACTS) to strengthen responsible Artificial Intelligence (AI) and Machine Learning (ML) research in African universities. The project aimed to meet the growing demand of demand for research and development in responsible Artificial Intelligence (AI) and Machine Learning (ML) in the continent. Specifically, the project supported selected scholars to undertake and successfully complete PhD research in AI and ML in African universities; and early career academics (ECA) to strengthen their research and development capacities in the two areas. Special consideration is given to research projects on responsible AI innovation for sustainable development, gender equity, equitable regional distribution in low-income countries. It supported 60 scholars (30 students, 20 PhD scholars, and 10 Early Career Academics) across 8 universities in Anglophone, Francophone, and Lusophone Africa. Key outputs included AI/ML short courses, national workshops (11), research collaborations, and training programmes aimed at building an African ecosystem of AI researchers addressing development challenges such as agriculture, health, education, climate monitoring, and digital infrastructure.

3.4 Anti-Microbial Resistance (AMR) Hub Phase I and II

Lacuna Fund supports the creation, expansion, and maintenance of datasets that enable robust and equitable application of machine learning (ML) tools of high social value in low- and middle-income contexts globally.

Funder: Wellcome Trust
Period: Phase 1 (2024-2025; Phase II (2025 – 2026)
Project Value: Phase I(USD 113,935; Phase II (USD 281,000)

Lacuna Fund supports the creation, expansion, and maintenance of datasets that enable robust and equitable application of machine learning (ML) tools of high social value in low- and middle-income contexts globally. The project aims to disburse funds to institutions to create, expand, and/or maintain datasets that fill gaps and reduce bias in labeled data used for the training and/or evaluation of machine learning models, make it possible for underserved populations to take advantage of advances offered by AI. And deepen understanding by the machine learning and philanthropy communities of how to fund development and maintenance of equitably labeled datasets most effectively and efficiently. In Phase I of the Lacuna Fund AMR project, the African Centre for Technology Studies served as a regional hub responsible for coordinating and governing the implementation process up to the selection of project beneficiaries. ACTS supported the design and management of the call for proposals, stakeholder engagement, proposal evaluation, and selection of successful applicants developing AI and data solutions addressing antimicrobial resistance (AMR). Through this role, ACTS facilitated collaboration among researchers, innovators, and institutions while promoting responsible AI practices, open data standards, and inclusive participation in AI research and innovation.

3.5 AI4D Innovation Pillar (LEPSAI)

The overall objective of the project is to support the scaling of responsible AI innovations that have demonstrated potential to address key development challenges in Africa, including those related to gender equality, health, education, and environmental sustainability.

Funder: IDRC/FCDO
Period: 2024 – 2026
Project Value: USD 1,022,426

The AI4D Innovation Pillar is a component of the Artificial Intelligence for Development (AI4D) Africa programme that supports AI-driven innovations addressing socio-economic and sustainable development challenges across Africa. The pillar is currently strengthening capacity building for Responsible AI (RAI) and gender equality, diversity and inclusion (GEDI) among innovators and beneficiaries of the scholarship programme. It supports 4 PhD scholars and 3 Early Career Academics (ECAs), all women, to advance research in responsible AI. The pillar is also developing an Africanized Scaling Responsible AI (RAI) tool, designing a curriculum for scaling responsible AI innovations, and coordinating innovation pillar hubs across Africa and internationally. In addition, it is implementing the AI4D Innovation Scaling Challenge, which is set to support and scale three AI innovations within Africa addressing key development challenges. This project seeks to establish AI principles that are tailored to Africa's realities while equipping innovators with the tools, guidance, and mentorship needed to transition from prototype development to scalable real-world deployment. By strengthening an ethical and inclusive AI ecosystem, the initiative aims to ensure that AI development in Africa contributes meaningfully to sustainable development and benefits society broadly. The overall objective of the project is to support the scaling of responsible AI innovations that have demonstrated potential to address key development challenges in Africa, including those related to gender equality, health, education, and environmental sustainability. Through these efforts, the project expects to increase the number of women and persons with disabilities from disadvantaged backgrounds who possess the knowledge and practical skills needed to develop and deploy AI solutions in Africa.

3.6 UK-Kenya AI Challenge Fund

The fund promoted responsible and ethical AI development, strengthens research partnerships between UK and Kenyan institutions, and supports innovators in moving AI concepts into practical, scalable solutions.

Funder: UK Aid through the British High Commission Nairobi
Period: 2024 – 2025
Project Value: USD 15,473

The UK-Kenya AI Challenge Fund was a collaborative initiative between the United Kingdom and Kenya designed to support innovative artificial intelligence solutions addressing socio-economic and development challenges such as agriculture, healthcare, education, climate action, and public service delivery. The fund promoted responsible and ethical AI development, strengthens research partnerships between UK and Kenyan institutions, and supports innovators in moving AI concepts into practical, scalable solutions. The Fund operated through two main mechanisms: direct institutional partnerships and competitive project funding. This structure allowed established organizations in the UK and Kenya to collaborate closely while also enabling researchers, innovators, and institutions to participate through open calls for proposals. ACTS and the Alan Turing Institute served as implementing partners, providing technical oversight and strategic guidance to ensure projects meet the programme's goals. Funded initiatives focused on three strategic priorities: advancing applied AI research that delivers tangible development outcomes; promoting AI ethics and standards to support fair and responsible technology use; and developing AI safety frameworks that ensure AI systems remain secure, accountable, and beneficial to society.

3.7 TELEMETRY

The study aimed to develop a pilot IoT-based monitoring system for water quality variables, dissolved oxygen, temperature; pH, salinity and turbidity.

Funder: IDRC

Period: 2025

Project Value: USD 10,000

The study developed a pilot IoT-based monitoring system for the following water quality variables: dissolved oxygen, temperature, pH, salinity and turbidity. The system was applied in a tilapia fish pond to monitor these essentials for the fish. The project will be deployed / installed in Maryhill Girls High School together with the girls to enable the school science club to learn how to manage fish, and to appreciate the beauty of STEM application in various economic sector.

3.8 Strengthening the Capacity of AI4D Africa Scholarship Beneficiaries on Gender and Inclusion

This project aimed to strengthen the gender equality and inclusivity capacity of AI and machine learning researchers by illuminating, and also visualizing, areas where there are gender equality lapses in AI studies in Africa so that relevant interventions can be designed.

Funder: IDCR/FCDO

Period: 2024

Project Value: USD 2,421,900

This project aimed to strengthen the gender equality and inclusivity capacity of AI and machine learning researchers by illuminating, and also visualizing, areas where there are gender equality lapses in AI studies in Africa so that relevant interventions can be designed. This will allow for a more GEI-sensitive research design, data collection process, data analytics, set of predictive models and the development of an African researcher community that is more conscious of gender and inclusion within AI studies. Activities consisted of each research team reviewing their individual AI4D Africa Scholarship research study against Women at the Table's <AI and Equality> Toolbox, reporting on observed lapses, and suggesting corrective measures in subsequent AI research. Through collaborative efforts within the AI4D Africa Scholarship Network, this project encompassed 15 study initiatives, comprising 10 PhD projects involving student-supervisor pairs and 5 ECA projects. This initiative was meant to enable the beneficiaries and their mentors to revisit their study processes, isolating areas at which gender equality and inclusion (GEI) was never considered. The study used the AI Human Rights toolbox. It was anticipated that each participant would internalize how to apply a standard tool such as the AI Human Rights toolbox in all their future studies, and also publish the results.

3.9 SautiBot

This is a multilingual, low-bandwidth digital platform designed to capture community-generated climate knowledge.

Funder: UK Aid

Period: 2025 – 2026

Project Value: USD 14,878

This is a multilingual, low-bandwidth digital platform designed to systematically capture community-generated climate knowledge and translate it into insights that can be used by practitioners, planners, and decision-makers. By enabling communities to share information in their own languages through accessible digital channels, SautiBOT recognises citizen voice as a critical source of climate intelligence and positions communities as active contributors to climate governance.

4.1 Evidence for Optimizing and Scaling of Youth and Women led Clean Energy Enterprises

The project seeks to support sustainable development by generating evidence to strengthen and scale clean energy enterprises led by youth and women in Kenya, Uganda, Malawi, and South Africa.

Funder: IDRC,
Period: 2023 – 2026
Project Value: USD 1,115, 583

The EVI-SICEE project seeks to support sustainable development by generating evidence to strengthen and scale clean energy enterprises led by youth and women in Kenya, Uganda, Malawi, and South Africa. It aims to enhance their role in driving an inclusive and sustainable energy transition. The project focuses on four key objectives: mapping youth- and women-led clean energy enterprises, analyzing ecosystem factors affecting their participation, scaling successful business models through incubation support, and promoting knowledge sharing and collaboration among stakeholders.

4.2 Convening Kenya Botswana Renewable Energy Knowledge Exchange

The Kenya–Botswana Renewable Energy Knowledge Exchange convening brings together policymakers, researchers, and energy sector stakeholders from Kenya and Botswana to share experiences and best practices in renewable energy policy, innovation, and implementation.

Funder: FCDO
Period: 2025 – 2026
Project Value: USD 101,353:

The Kenya–Botswana Renewable Energy Knowledge Exchange convening brings together policymakers, researchers, and energy sector stakeholders from Kenya and Botswana to share experiences and best practices in renewable energy policy, innovation, and implementation. The convening facilitated dialogue on sustainable energy solutions, regulatory frameworks, and opportunities for regional collaboration to accelerate renewable energy adoption and support clean energy transitions in Africa. This initiative stems from a powerful trilateral commitment to renewable energy between the governments of the United Kingdom, Kenya, and Botswana reflected by national policies, including the UK's Climate Change Act (2008), Net Zero Legislation (2019) and Clean Power 2030 Mission, Kenya's Constitution (2010), Kenya's Energy Act (2019), Integrated National Energy Plan Framework and National Energy Policy 2025-2034, and the Botswana Energy Compact that is guiding the country's diversified energy mix and renewable energy penetration. Grounded in robust policy frameworks, including Kenya's National Energy Policy 2025-2034 and the Botswana Energy Compact, this collaboration leverages the unique strengths of each nation to accelerate the deployment of inclusive and affordable energy solutions. This programme ensures that renewable energy transitions uphold the core principles of equity and environmental sustainability by bridging the gap between policy and practice.

4.3 Agrispoke

The project promotes solar energy adoption for productive use in dairy and horticulture value chains across climate-vulnerable counties including Kitui, Isiolo, Makueni, and Laikipia.

Funder: CS Mott Foundation
Period: 2025 – 2027
Project Value: USD 29,066

ACTS serves as the Research and Knowledge Management partner in the Distributed Renewable Energy Ecosystem Model (DREEM) Hub and Spoke Model, coordinated by the Kenya Climate Innovation Center (KCIC). The project promotes solar energy adoption for productive use in dairy and horticulture value chains across climate-vulnerable counties including Kitui, Isiolo, Makueni, and Laikipia. ACTS' role is to generate evidence-based insights on the DreemHub model's effectiveness in catalysing access to and adoption of productive-use of agri-solar technology.

4.3 Agrivoltaics Project

The project was a unique agricultural concept that focuses on co-utilization of land for agricultural production, solar energy and water harvesting. The concept has already demonstrated its value for multiple stakeholders in energy, agriculture, water, and microclimate creation.

Funder: Economic and Social Research Council (ESRC)

Period: 2020 – 2023

Value: USD 63,388

To significantly improve livelihood opportunities associated with increased access to renewable energy in East Africa through an interdisciplinary programme of shared knowledge which stresses the intersections between sustainable technology, land & other natural resources, and agricultural development in rural communities. The Project was a unique agricultural concept that focuses on co-utilization of land for agricultural production, solar energy and water harvesting. The concept has already demonstrated its value for multiple stakeholders in energy, agriculture, water, and microclimate creation. It is exciting, for many stakeholders in arid-and-semi-arid areas, who harvest the solar irradiance in often off-grid areas, use the water harvested for irrigation and animals, produce food beneath the panels, and/or create 'cooler' shade for animals. The project aimed to change the perception on current vs future cost of Agrivoltaics, as well as influencing public opinion on the practicality and suitability of this technology in the region.

4.4 Solar Drying Technology Trends

It aimed to analyze solar dryers' market dynamics, identify barriers to adoption and scalability of the technologies as well as strategies for promoting policy integration, research and development investment.

Funder: World Bank

Period: 2024

Project Value: USD 6000

The project was a short research "Tech Trends in Energy Access" conducted by ACTS together with Energy Saving Trust to assess the solar dryer markets focusing on East Africa (Kenya, Uganda, Tanzania) and India. It aimed to analyze solar dryers' market dynamics, identify barriers to adoption and scalability of the technologies as well as strategies for promoting policy integration, research and development investment, and market linkages for higher incomes from nutrient-rich dried exports. The research was conducted as part of the Low Energy Inclusive Appliances (LEIA) programme, a flagship initiative under Efficiency for Access, funded with UK aid, from the UK Government via the Transforming Energy Access (TEA) platform, and the IKEA Foundation.

4.5 E-Mkokoteni CoolCart: Solar Powered Electric Handcarts with Cold Storage for Reducing Post-Harvest Losses in the Horticulture Value Chain in Kiambu County

This pilot project aims to develop, implement, and refine an adaptation prototype of electric "Mkokoteni", called 'E-Mkokoteni CoolCart' a solar-powered electric handcart integrated with a refrigerated storage compartment to address post-harvest losses (PHLs) in Kenya's horticulture sector.

Funder: CLASP

Period: 2025 – 2026

Project Value: USD 25,000

This pilot project aims to develop, implement, and refine an adaptation prototype of electric "Mkokoteni", called 'E-Mkokoteni CoolCart' a solar-powered electric handcart integrated with a refrigerated storage compartment to address post-harvest losses (PHLs) in Kenya's horticulture sector. The innovation is designed by Ecomobilus Technologies Limited, to address PHLs through a structured pilot and maturation process. The E-Mkokoteni CoolCart combines clean transport with mobile cold-chain functionality. The technology offers a decentralized, off-grid solution tailored to the needs of last-mile agricultural logistics, enhancing not only food security and farmer profits but also contributing to emissions reductions and gender responsive innovations. Two prototypes will be fabricated and deployed in two horticulture cooperatives in Nyandarua and Nakuru Counties. These pilot sites have been strategically selected to represent key horticulture value chains that are prone to high PHLs. The project is funded through CLASP Low Energy Inclusive Appliances (LEIA) programme which is Efficiency for Access' flagship initiative funded by UK aid, via the Transforming Energy Access (TEA) platform and the IKEA Foundation.

5.1 Transforming Climate Innovation Ecosystems through Inclusive Transdisciplinarity(TransCIIT) II & III

The project investigated the problem of how to establish strong relations between the full-range of actors in Kenya's climate innovation ecosystem (CIE).

Funder: British Council
Period:2021 – 2023
Project Value: USD 45,000

TransCIIT project was a beneficiary of the Innovation for African Universities (IAU) programme which brought together a consortium comprising of ACTS, the University of Sussex, Kenya Climate Innovation Center (KCIC), Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and University of Johannesburg (UJ). The project took cognizance of the fact that climate change threatens ecosystem services and endangers jobs, often those of the most vulnerable, perpetuating exclusion and inequality. The project investigated the problem of how to establish strong relations between the full-range of actors in Kenya's climate innovation ecosystem (CIE). Two objectives were embedded in this approach: active participation of young people and women (inclusivity), and productive interactions between academic, practitioner, policymaker and citizen perspectives (trans-disciplinarity). Enacting this inclusive trans-disciplinarity, the project sought synergies among actors in various sectors and locations engaged in technological and non-technological climate innovation.

5.2 The Climate Adaptation and Resilience (CLARE) Capacity Strengthening Hub

The Climate Adaptation and Resilience (CLARE) programme (2022–2027) is a five-year initiative that supports action-oriented research to strengthen resilience to weather extremes, climate change, and related hazards in the Global South, particularly across Africa and the Asia-Pacific.

Funder: FCDO/IRDC
Period: 2022 – 2027
Project Value: USD 2,723,390

The Climate Adaptation and Resilience (CLARE) programme (2022–2027) is a five-year initiative that supports action-oriented research to strengthen resilience to weather extremes, climate change, and related hazards in the Global South, particularly across Africa and the Asia-Pacific. Its goal is to ensure that knowledge and evidence generated through research are applied to support vulnerable and diverse communities in adapting to climate risks. A central component of CLARE is capacity strengthening, which aims to empower researchers, practitioners, journalists, and decision-makers to drive effective climate adaptation actions. The programme prioritizes collaboration with existing initiatives in the Global South to leverage local expertise and resources. It also emphasizes gender equity, social inclusion, and the removal of structural barriers to Southern leadership in climate research and action. CLARE's research is organized around three interconnected themes: understanding climate risk, risk-informed early action, and development in a changing climate. In 2022, the UK's FCDO and Canada's IDRC funded 16 projects through a competitive process, including nine smaller projects (up to CA\$1.5 million) and seven larger ones (up to CA\$8 million). A capacity strengthening hub, hosted by PlanAdapt and ACTS), supports the programme by coordinating learning, sharing knowledge, and collaborating with project focal points to design and improve capacity-building initiatives.

5.3 Adaptation Research Alliance Emerging Adaptation Professionals

Funder: Adaptation Research Alliance (ARA)
Period: 2026
Project Value: USD 174,359

This project was meant to amplify adaptation research in Africa on the global platform by enhancing publications in open access journals. This will be done by on-boarding Emerging Adaptation Professionals (EAPs) in the APA platform as fellows and supporting them with publication and editing skills as well as sponsoring the publication of some while ensuring their manuscripts are all submitted for publication by the end of the project.

5.4 Transformative Pathways for Synergizing Just Biodiversity and Climate Action (TransPATH)

The project aims to develop science-based tools that support inclusive, pro-active, adaptive transformation pathways towards better management of water resources.

Funder: The Dutch Ministry of Foreign Affairs
Period: 2022 – 2027
Project Value: USD 24,293:

The project aims to focus on the development of alternative solutions in transformation pathways for adaptive water resources management through fostering learning about, and support the further development of policy analysis tools and planning approaches and concepts to support a pro-active , adaptive, joint management of transformation pathways. Specifically, the project aims to develop science-based tools that support inclusive, pro-active, adaptive transformation pathways towards better management of water resources. It sets out to establish an international network of academics, postgraduate researchers, policy makers, activists, and water stewards for participatory action research on different sites, while also fostering learning across disciplines and locations. It builds the capacity of policymakers to use more inclusive, transparent, participatory and adaptive planning tools; and support water users in different parts of the world to participate meaningfully in policymaking, planning and management of water resources.

5.5 Mobilising Development Finance for strategic and scaled up investment in Climate Adaptation

The project aimed to generate knowledge that can be used to mainstream adaptation in development finance strategies to support the scaling up investment in way that are strongly aligned with country defined adaptation needs

Funder: IDRC
Period: 2020 – 2022
Project Value: USD 50,000

The main objective of this project was to contribute to improved understanding of options to scale up funding for adaptation. Specifically, the project aimed to generate knowledge that can be used to mainstream adaptation in development finance strategies to support the scaling up investment in ways that are strongly aligned with country defined adaptation needs. It examined processes in Multilateral Development Banks (MDBs) and identify the barriers that limit the use of development financing to address national adaptation priorities and opportunities to overcome these constraints. The project consisted of three work-streams: mainstreaming adaptation considerations into development finance decision-making; strengthening national strategies for financing adaptation; and promoting innovative financial instruments for adaptation.

5.6 Disaster Risk Management

Funder: UK Research Innovation (UKRI) Global Challenges Research Fund (GCRF)
Period: 2020 – 2022
Project Value: USD 26,824,500

ACTS implemented a project on Multi-hazard Urban Disaster Risk Transitions project that directly focuses on disaster risk management interventions and capacity building. The project funded by UKRI GCRF at a cost of £20 million, provided options for anchoring actions for climate change adaptation, while also contributing to mitigation against urban disasters associated to climate variability. As part of the transitions hubs, the project addresses critical development problems.

5.7 FAR-Leaf II

Funder: Future Africa -University of Pretoria
Period: 2025 – 2027
Project Value: USD 13,474

This project is meant to devise innovative communication strategies for capacity strengthening/ information and technology transfer to the people of Murang'a County on climate resilience and adaptation.

6.1 Transformative Innovation, the 4th Industrial Revolution and Sustainable Development

The programme aimed to strengthen African scholarship for examining transformative innovation, and developing transformative innovation policy in the context of the 4IR and efforts to achieve sustainable development.

Funder: NRF South Africa and British Council

Period: 2020 – 2024

Project Value: USD 90,695

The programme aimed to strengthen African scholarship for examining transformative innovation, and developing transformative innovation policy in the context of the 4IR and efforts to achieve sustainable development. Over the course of the program, a total of eight PhD projects were supported with full scholarships, two of which are based at the Jaramogi Oginga Odinga University of Science and Technology (JOOUST) and hosted by ACTS. A sub-contract agreement was signed between ACTS and JOOUST in 2020. ACTS is responsible for funding the program's collaborative activities in Kenya. As the project facilitating organization, JOOUST provides training, mentoring, capacity building and administrative support to students. Other activities implemented within the program included conversation between the PhD students and authors, PhD Engagement Week designed to discuss the PhD cohort which provided a platform for students and senior researchers to meet, as well as sensitize the students under this program about the different theoretical frameworks and thematic areas relevant for their study and the introduction to Systematic Literature Reviews (SLR) course.

6.2 Capacity Building of Technical Institutions on Climate Education, Training, and Research

The Capacity Building of Technical Institutions in the Provision of Climate Education, Training, and Research (CapCET) project seeks to address capacity gaps that hinder effective climate action in the COMESA region.

Funder: COMESA

Period: 2020 – 2022

Project Value: USD 476,958

The Capacity Building of Technical Institutions in the Provision of Climate Education, Training, and Research (CapCET) project aimed to address capacity gaps that hinder effective climate action in the COMESA region. It focuses on strengthening skills and knowledge in areas such as implementation of the Paris Agreement, climate transparency and reporting, ecosystem-based Climate-Smart Agriculture solutions, adaptation and mitigation measures, disaster risk management, and climate resilience and leadership. The project also aimed to strengthen the capacity of technical institutions to address market gaps in climate education, research, and training at individual, institutional, and systemic levels, ensuring long-term sustainability and stronger contributions to climate action. Africa remains particularly vulnerable to climate change due to development challenges, poverty, and population growth, despite ongoing regional mitigation and adaptation efforts. Increasing awareness and strengthening institutional capacity through education, training, and research are therefore essential. Climate education, training, and research are essential for improving the implementation of mitigation and adaptation strategies that respond to local needs. Through such initiatives, local communities, climate professionals, trainers, and other stakeholders were empowered to contribute to climate ambition. Commissioned by COMESA, the project was implemented by ACTS in partnership with ICCA at the University of Nairobi and Tetralink Taylor & Associates, collaborating with technical institutions to address governance, administrative, and structural capacity gaps.

6.3 Capacity Enhancement of Youth-led Organisations (YLOs)

Funder: MasterCard Foundation
Period: 2023 – 2024
Project Value: USD 68,897:

Developing contextualized curriculum that does not follow the one-size-fits all approach underscores the need for initiatives to adopt a holistic assessment approach to inform targeted capacity-building interventions. ACTS is currently developing a governance curriculum informed by a baseline report.

6.4 Learning Lab (ACTS Pathway Academy)

Funder: ACTS
Period: 2022 – to date
Project Value:

The ACTS Pathways Academy (APA) is a transformational space launched in 2024, where curiosity meets purpose, where policy and practice converge, and where the next generation of African change-makers are nurtured. It is a comprehensive learning ecosystem that integrates multiple educational approaches to deliver transformational experiences for professionals, researchers, and leaders across Africa. It aims to provide access to borderless, flexible, informative training to foster skills, knowledge and collaboration on Science, Technology & Innovation (STI).

6.5 RURALITIES

RURALITIES utilises a comprehensive ecosystem-based approach, integrating knowledge from social sciences and humanities. It adopts a methodology that encompasses various points of expertise and learning, facilitated by a network of actors and facilities from the project targeted intervention areas.

Funder: European Union
Period: 2022 – 2027
Project Value: USD 35,000

RURALITIES utilises a comprehensive ecosystem-based approach, integrating knowledge from social sciences and humanities. It adopts a methodology that encompasses various points of expertise and learning, facilitated by a network of actors and facilities from the project targeted intervention areas. This approach effectively builds the capacity of rural communities, promoting sustainable, balanced, and inclusive development of simplified socio-ecological systems (SIMSES). Additionally, RURALITIES raises awareness among rural communities about the diverse factors driving climate change challenges and provides pathways to overcome or mitigate them. To achieve these goals, RURALITIES establishes a network of rural expertise and training centers organised in hubs. These centers form a knowledge alliance that incorporates cutting-edge concepts such as smart villages and eco-villages, among others. Supporting these efforts is a community of practice, a digital collaborative platform, a citizen-led network of living labs, and a citizen science sensing monitoring framework.

The ACTS project portfolio (2022–2026) reflects a holistic approach to development, anchored in science, technology, and innovation (STI). The portfolio is well-aligned with Africa’s development challenges, covering interconnected domains including STI systems, agriculture and food systems, digital economy and AI, energy, climate change, and capacity development. As a result, ACTS has positioned itself strongly as a knowledge broker and policy intermediary, particularly within STI systems. Across multiple thematic areas, a pattern emerges: ACTS is highly effective at diagnostics, piloting, and capacity building, but less so at scaling and commercialization. For instance, in agriculture and food systems, projects on solar cooling, dairy value chains, circular bioeconomy, and digital agriculture generate strong proof-of-concept evidence. Similarly, in the digital economy and AI space, initiatives such as AI4D, gDIH, and DigiKen build skills, networks, and early-stage innovations. Yet, many of these remain at pilot or demonstration stages, with limited pathways to national or regional scale. This suggests a structural gap between research and commercialization. On inclusion, ACTS demonstrates commendable commitment to gender, youth, and equity considerations, which are embedded across many projects (e.g., women in e-mobility, youth in clean energy, gender in agri-food systems, AI inclusion).

A key priority, ACTS will focus on strengthening the “last mile” of innovation which focuses on scaling and commercialization. ACTS will achieve this by:

- Building stronger partnerships with private sector actors, investors, and industry associations.
- Supporting enterprises beyond pilot stages into growth and market expansion.
- Linking research outputs directly to industrial and policy implementation pathways.

ACTS will also aim to strengthen its role as a systems catalyst rather than just a knowledge producer. This means actively coordinating stakeholders across government, academia, private sector, and communities to drive collective action. Projects like convenings and ecosystem mapping provide a strong foundation for this, but they need to evolve into sustained platforms for collaboration and implementation. By focusing on integration, scaling, strategic coherence, and stronger linkages between research and practice, ACTS will significantly enhance its role as a transformative actor in Africa’s development landscape.

The ACTS project portfolio (2022–2026) reflects a systems-oriented approach to development, anchored in science, technology, and innovation (STI). The portfolio is intellectually strong, strategically relevant, and well-aligned with Africa’s development challenges, covering interconnected domains including STI systems, agriculture and food systems, digital economy and AI, energy, climate change, and capacity development.

ACTS will also aim to strengthen its role as a systems catalyst rather than just a knowledge producer. This means actively coordinating stakeholders across government, academia, private sector and communities to drive collective action.



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