

Co-creating Knowledge for Lasting Impact



2025
ANNUAL
REPORT

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About Nuvoni

Nuvoni Centre for Innovation Research is an independent research organisation based in Nairobi, Kenya.

We work where research, policy and practice meet. Our studies are designed to hold up academically, and they are also meant to be used by the officials who shape policy, the communities who live with its effects, and the partners who put new ideas into practice. Keeping these audiences in view from the outset is how we produce evidence that is both credible and usable.



Our Mission

Our mission is to undertake research in science, technology and innovation and its role in fostering inclusive development in sub-Saharan Africa.

Our research spans four domains: energy transitions, urban development, agrifood systems, and technology and innovation management.



Five themes cut across this work and shape the questions we ask and how we interpret what we find: **resilience, inclusion, frugality, governance and informality.**



Frugality



Resilience



Inclusion



Governance



Informality

Message from the Director



Dr. Elsie K. Onsongo
DIRECTOR

As I reflect on 2025, I am encouraged by the direction Nuvoni continues to take. This has been a year of deepening our work, both in the rigour of our research and in how that research is used in practice. Across our domains, we have continued to examine how science, technology and innovation can respond to complex development challenges in sub-Saharan Africa, while remaining attentive to the realities of informality, governance, and inclusion that shape these systems.

A defining feature of this year has been our continued shift toward research that is closely engaged with policy and practice. From our work on electricity access in informal settlements and the political economy of biomass cooking to emerging research on carbon dioxide removal and urban climate resilience, we are

increasingly providing evidence that informs decision-making at local, national, and regional levels. At the same time, we have strengthened our role in capacity development, working with policymakers, e.g. through the urban resilience masterclass, strengthening the capacities of community researchers across East Africa, and supporting students through the LEARN Master's Thesis Lab and student minor programmes. We are working to ensure that knowledge is not only produced through research but also understood and applied.

Our collaborations have also expanded, both within East Africa and internationally. Through partnerships with governments, universities, think tanks and community organisations, as well as through networks such as LEARN and the International Centre for Frugal Innovation, we are creating spaces for exchange that feel both grounded and open.

Looking ahead, we will continue to strengthen the rigour and relevance of our research, and be more deliberate in how we connect evidence to policy and practice. We also want to play a more active role in shaping conversations, locally and globally, on the issues we work on.

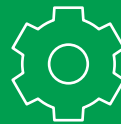
Thank you to all our partners, colleagues and collaborators who continue to shape this journey with us.



Numbers at a GLANCE



No. of
research
projects
implemented **8**



No. of stakeholder
engagements **21**



No. of countries **8**



No. of
publications **8**

Research increasingly
informed policy and
practice across energy,
climate, governance,
and urban resilience
challenges regionally.



No. of people
trained **93**



The background of the page features a light green wall. In the foreground, there is a stack of light-colored wooden blocks. On top of the blocks, there is a wooden spool and a lightbulb. The lightbulb is blue with a yellow filament. A large, thin red circle is drawn over the scene, partially enclosing the spool and the lightbulb.

1.0

Domain Highlights & Programmatic Achievements



1.1: Energy

1.1.1: Evidence Use in Biomass Cooking Policy: Understanding Stakeholder Influence and Framing in Kenya and Tanzania

Overview

In partnership with the British Academy, University College London, and University of Dodoma, Nuvoni sought to deepen its engagement in the clean cooking space. This project examined how evidence is generated, framed, and used in biomass and clean cooking policymaking in Kenya and Tanzania. The aim was to provide a nuanced understanding of clean cooking transitions, particularly the role of charcoal and other biomass fuels.

The challenge

Despite global and national investments in clean cooking, approximately one billion people in Sub-Saharan Africa still rely on biomass fuels. Policy approaches often favour rapid fuel switching, with limited attention to local realities such as energy affordability, rural livelihoods, and the cultural and economic importance of biomass. This has created gaps between policy ambition and implementation

Our approach

We employed a mixed-methods approach, combining comprehensive literature and policy reviews; key informant interviews with over 100 stakeholders across government, donors, private sector, researchers, and industry; and ethnographic observations of key policy events and forums.

Key insights



- i) There is a persistent tension between global push for rapid fuel switching and local realities where biomass (especially charcoal) remains central due to affordability, availability, and cultural preferences;
- ii) Health and environmental concerns dominate evidence framing in policies, while livelihood and biomass value chain dimensions are often underrepresented;
- iii) There is growing openness among certain actors for more pragmatic, hybrid approaches that integrate improved and sustainable biomass solutions alongside other modern fuels;
- iv) Policy processes in both Kenya and Tanzania show gradual openness for more nuanced discussions on biomass, though formal integration of charcoal into clean cooking strategies remains limited.

Outputs



- **Stakeholder mapping:** Comprehensive mapping of actors and influence patterns in biomass and clean cooking policy in Kenya and Tanzania
- **Policy mapping:** Analysis of existing policies and the types of evidence used (or overlooked) in decision making.



Policy and practice relevance

This project provides concrete guidance for more effective clean cooking policy in Kenya and Tanzania. It demonstrates the need for decision makers to move beyond charcoal bans and formally recognise charcoal within the cooking energy stack.

Key implications include:

- ① Designing policies that integrate modern, sustainable charcoal (improved kilns, certification, briquettes) alongside LPG, ethanol, and electricity.
- ① Strengthening evidence use in national policies and strategies.
- ① Supporting formalisation of the charcoal value chain to reduce informality, improve sustainability, and protect rural incomes.

Cross-cutting themes: Governance



SDGs impact



1.1.2: Climate Compatible Growth (CCG) Programme

RESEARCH / POLICY ADVISORY

a. Understanding Electricity Access in Informal Settlements through Systems Thinking

Overview

In 2025, we sought to advance our work on understanding the complex dynamics shaping electricity access in informal settlements, with a focus on Mathare Informal Settlement in Nairobi. Implemented in collaboration with the UCL Institute for Sustainable Resources under the Climate Compatible Growth (CCG) programme, the study examines the coexistence of formal and informal electricity systems and why many households continue to rely on informal providers despite efforts to expand formal connections.

The Challenge

Electricity access in informal settlements goes beyond infrastructure. Affordability constraints and

livelihood realities mean many households continue to rely on informal providers despite the associated risks, complicating efforts towards universal and safe electrification.

Our Approach

Using a systems thinking approach, this research examined the underlying structures sustaining the coexistence of formal and informal electricity systems. The work mapped feedback loops, interdependencies and unintended consequences shaping electricity access dynamics in informal settlements. Key methods included:

- ① Document and policy analysis
- ① Expert engagement and stakeholder consultations
- ① Development of causal loop diagrams to map system dynamics
- ① Participatory workshops involving policymakers, utilities, researchers and community stakeholders

Key Insights



- ① Informal electricity systems persist because they fill gaps that formal systems have yet to address.
- ① Expanding formal connections alone is insufficient without resolving underlying socio-economic constraints.
- ① Access outcomes are shaped by interconnected economic, institutional and social dynamics that require coordinated responses.

Output



- ① Stakeholder workshop report documenting the systems mapping process
- ① CCG policy brief on electricity access dynamics in informal settlements
- ① Two community briefs explaining electricity dynamics and systems thinking concepts in accessible formats for informal settlements residents
- ① Academic working paper on the systems dynamics of informal electricity demand.

Policy and Practice Relevance

This work informs the ongoing policy and planning discussions within Kenya Power on formalising electrification in informal settlements, as well as broader discussions within the Ministry of Energy and Petroleum and other government actors on universal electrification and informal settlement upgrading.

Cross-cutting themes: Informality, Governance, Inclusion.



SDGs Impact



Electricity access in informal settlements is shaped by affordability and livelihoods, leaving many households reliant on informal, often unsafe, electricity providers despite expanded infrastructure.



b. Gender Equality, Disability, and Social Inclusion in Energy Access (GEDSI)

In 2025, in partnership with the UCL Institute for Sustainable Resources under the Climate, we examined how inequality shapes energy access in Mathare, Nairobi focusing on how gender, disability, age, income and spatial marginalisation intersect to drive energy poverty and exclusion.

The Challenge

Kenya has made progress on inclusive energy policy, but these frameworks often treat marginalised groups as uniform, missing how overlapping identities create layered disadvantage. In informal settlements, these dynamics directly shape who can access and afford energy services.

Our Approach

This research applies an intersectional lens to understand the lived realities of energy access in informal settlements, combining policy and literature analysis, household-level data from Mathare, and stakeholder engagement. The study examined:

- ⑤ How existing policy frameworks mask layered patterns of exclusion
- ⑤ How energy poverty manifests differently in urban informal settlements
- ⑤ The structural and institutional barriers limit the effective implementation of GEDSI commitment.

Key Insights



- ⑤ Energy poverty affects groups differently based on gender, disability, income, age, and location.
- ⑤ Current policies often overlook the realities of exclusion in informal settlements.
- ⑤ Inclusive energy planning requires better data, spatial approaches, and stronger accountability.

Outputs



- ⑤ CCG policy brief with recommendations for inclusive energy planning.
- ⑤ Working paper based on research in Mathare informal settlement.

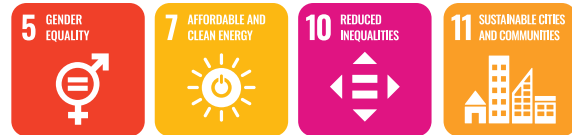
Policy and Practice Relevance

By making layered exclusion visible, the research gives CCG partners and county energy planners a sharper basis for targeting connections, subsidies and tariffs to the households that intersecting disadvantage tends to leave behind. It also shows where Kenya's inclusive-energy commitments need better disaggregated data and clearer accountability to take effect in informal settlements.

Cross-cutting themes: Inclusion, Informality, Governance.



SDGs Impact



1.2: Urban Development

RESEARCH / CAPACITY DEVELOPMENT

1.2.1: The Nairobi River as a Driver for Circular Communities

The Challenge

Nairobi's river corridors face mounting environmental pressure from waste, encroachment, and degradation. While community-based initiatives have emerged to address these challenges, their work often remains fragmented, under-resourced, and disconnected from policy and funding pathways. The central challenge was to understand how circular economy principles could be applied to foster inclusive, sustainable urban development along the river—and to ensure that grassroots knowledge informs broader strategies.



Our Approach

Nuvoni, funded by LDE Global and in collaboration with academic and research institutions, adopted a participatory, community-led research design.

The project centred on a Multistakeholder Workshop held in Nairobi on 28 March 2025, which brought together community groups, researchers, and practitioners. Using the Circular Value Flower (CVF) method, the team mapped circular and regenerative resource systems within the riparian landscape and co-created interventions to enhance the social-ecological character of the river area. Four pioneering community initiatives were documented in depth.

Key Insights



Local youth groups are actively using circularity to transform degraded spaces along the Nairobi River, turning environmental challenges into opportunities for innovation and community benefit. The Circular Value Flower method demonstrated that these initiatives generate multiple, interconnected values ecological, social, cultural, aesthetic, and economic—far beyond waste management alone. However, scaling these models requires stronger linkages between community knowledge, municipal planning, and funding mechanisms.

Outputs



- ① A Multistakeholder Workshop Report summarising key engagements and co-created interventions
- ① A documentary highlighting four pioneering organisations: Luckysummer Environmental and Waste Management Organisation, Tempo Arts Centre, Youthprinua, and Easy Urban Green Growers
- ① A collection of workshop photos and dissemination materials
- ① All outputs are publicly available as a practical toolkit for communities, policymakers, and practitioners seeking to replicate circular models

Cross-cutting themes: Frugality, Governance, Informality.



SDGs Impact





Luckysummer Environmental and Waste Management Organisation



Tempo Arts Centre



Youthprinua



Easy Urban Green Growers

RESEARCH / POLICY ADVISORY

1.2.2: The Opportunities for Digital Technologies to Support Urban Heat Resilience

The Challenge

Rapid urbanisation and climate change are intensifying the Urban Heat Island (UHI) effect in cities across Africa, South Asia, and Southeast Asia. Vulnerable populations including informal settlement residents, outdoor workers, pregnant women, and children—are disproportionately affected. The aim was to identify how mobile and digital technologies could strengthen urban heat resilience in Africa, South Asia, and Southeast Asia.

This study explored how mobile and digital technologies can strengthen urban heat resilience for vulnerable populations affected by the Urban Heat Island effect in rapidly urbanising cities across Africa, South Asia, and Southeast Asia.



Our Approach

This study was commissioned by the GSMA Digital Utilities Programme and completed in partnership with Nuvoni, TERI, JNU, and BRIN Indonesia. It employed a multi-method, case-centric approach - combining secondary and primary sources. The methods included virtual interviews with technology developers, government officials, programme leads, and users; and analysing technology back-end information and user data. We submitted an initial longlist of digital initiatives from the three regions before shortlisting six in-depth cases from Sierra Leone, South Africa, Côte d'Ivoire, Nigeria, India, Bangladesh, and Indonesia.

Key Insights



Digital tools were organised into three thematic areas:

- 1) Heat, health, and productivity (early warning systems and social protection);
- 2) Mapping, urban planning, and cooling infrastructure (data generation and monitoring tools);
- 3) Cooling appliances with financing mechanisms (pay-as-you-go models and clean energy solutions).

Technologies studied include mobile apps for tree monitoring, anticipatory disaster protocols, digitalised agricultural cold rooms, modelling early warning systems, pay-for-use digital community cooling centre, and heat action plans.

Overall, the project found that digital technologies are already playing a valuable role in addressing extreme heat from improving heat-health alerts and evidence-based urban planning to enabling access to cooling solutions. However, success of these technologies depends on factors such as the local availability of data, cross-sector collaboration, user needs integration and inclusion of the most vulnerable groups.

Outputs



- Six in-depth case studies spanning seven countries
- Actionable recommendations for governments, technology developers, and development partners addressing the effects of UHI in cities.
- A final project report with findings and guidance for scaling digital heat resilience solutions.

Policy and Practice Relevance

The study gives the GSMA Digital Utilities Programme and its partners a practical evidence base on where digital tools already strengthen urban heat resilience, and on what governments, technology developers and city authorities need, reliable local data, cross-sector



coordination and the deliberate inclusion of the most exposed groups, to scale them responsibly. It is meant to guide programme design and investment as these solutions move from pilots to wider use across African, South Asian and Southeast Asian cities.

Cross-cutting themes: Resilience, Inclusion, Frugality.



SDGs Impact



CAPACITY DEVELOPMENT / RESEARCH

1.2.3: Research Atelier

For the third consecutive year, Nuvoni partnered with Institute for Housing and Urban Development Studies (IHS) and Erasmus University Rotterdam to host six master's students conducting fieldwork in Nairobi. The collaboration strengthened research partnerships with local organisations and communities while promoting community-based participatory approaches. It also helped reduce research waste and improve knowledge sharing, ensuring research outcomes translate into tangible benefits for local communities.

THE 2025 COHORT BROUGHT DIVERSE RESEARCH INTERESTS INCLUDING:



Nature-based solutions,



Fire disasters in informal settlements,



Resilience hubs,



Women's networks,



Household resilience,

Mathare, Mukuru and Kibera were identified in consultation with local partners. Residents, grassroots organisations and community-based researchers were involved throughout, from framing research questions to co-designing solutions. This ensured the work was culturally appropriate, ethically grounded and responsive to real needs.

Cross-cutting themes: Informality, Resilience, Inclusion.



1.3: Agrifood Systems

RESEARCH / POLICY ADVISORY

1.3.1 African start-up Industry Mapping: Status quo and Emerging trends in Agriculture and Digitalisation

Objective

To examine the role of African agri-tech start-ups in advancing socio-economic development and sustainable development goals (SDGs), while identifying the barriers limiting their growth, scalability and market participation & transparency within African innovation ecosystems.

The Challenge

While startup activity has ramped up in recent years within the SSA region, the potential impacts promised are yet to be fully realised. Technology is anticipated to have significant and positive effects on efficiency, development and in the end, financial gain. The benefits that could be gained from the application of digital solutions in the agricultural sector especially in a region such as Sub-Saharan Africa include farmers making informed decisions thus reducing their risk while improving their resilience, optimal use of scarce resources, improved food security and better financial gain across the value chain. However, the startups developing these digital solutions have reduced resources and low levels of transparency on investor platforms. Therefore, to help achieve digital potential in the agriculture sector, startups need to increase transparency, scale and have access to available resources & markets.

Approach

The project investigated challenges affecting start-ups in Sub-Saharan Africa through an analysis of market transparency, innovation trends, market structures and the experiences of key market actors. These objectives were explored in collaboration with the University of Wuppertal, ETH Zurich and the Smith School of Enterprise and the Environment.

Key Insights

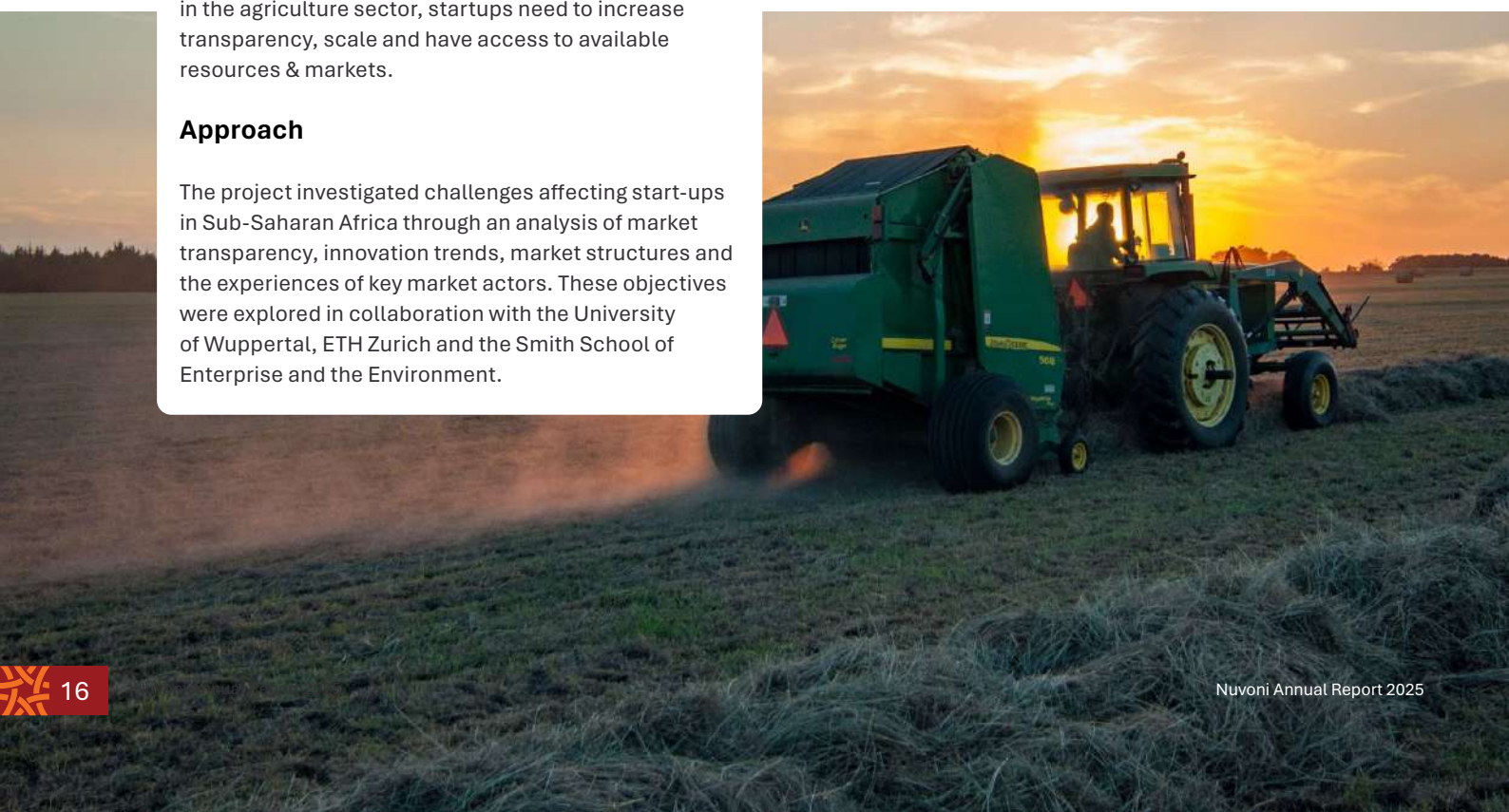


- ① The project highlighted the growing importance of African start-ups as drivers of innovation, productivity and sustainable development within agricultural value chains.
- ② It also identified limited market knowledge, weak market transparency, evolving innovation ecosystems and structural market constraints as major barriers to start-up growth and scaling.
- ③ Digitalisation emerged as a significant opportunity for improving efficiency, scalability and market access.

Policy and Practice Relevance

The findings contribute to discussions on innovation policy, entrepreneurship support and sustainable agricultural development in Africa. The project emphasises the need for policies that strengthen market transparency, improve financing and investment ecosystems, support innovation capacity, and create enabling environments for agri-tech entrepreneurship. These discussions will further inform the planned Nairobi workshop on innovation, policy and financing for agri-tech start-ups in Kenya as a case study for Sub-Saharan Africa.

Cross-cutting themes: Frugality, Governance.



1.3.2 Ongoing academic research on agrifood systems

Work is ongoing on a paper focused on the impact of remittances on the agricultural outcomes of maize farmers. The domain presented the initial findings of this paper at the KALRO Socio-Economic and Policy Development (SEPD) Conference held in June. The initial findings indicate that recipient farmer households may be shifting away from investing in farm activities and instead redirecting additional income towards off-farm operations. The paper benefited from significant comments from the panel and a call to the broader agricultural ecosystem in Kenya to disseminate the findings to relevant stakeholders for more impactful engagement.

Cross-cutting themes: Frugality, Governance.



SDGs Impact



1.4: Technology and Innovation Management

RESEARCH / CAPACITY DEVELOPMENT

1.4.1: Making Carbon Dioxide Removal Work for Sustainable Development in Sub-Saharan Africa Project

Overview

In 2025, Nuvoni advanced its work on carbon dioxide removal (CDR) in Sub-Saharan Africa, launching the project *Making Carbon Dioxide Removal Work for Sustainable Development in Sub-Saharan Africa* at the African Carbon Removal Summit in Nairobi. The project recognises that carbon removal offers a pathway to address both climate change and interconnected development challenges, energy access, water constraints and food system pressures, when implemented in ways that reflect local realities.

The Challenge

The CDR sector in Sub-Saharan Africa is still emerging, with uneven awareness, evolving policy frameworks and varying access to finance and technical capacity. In many contexts, land and resources are already under pressure, meaning carbon interventions introduced without careful alignment risk disrupting the systems communities depend on.

Our Approach

The project combines research, stakeholder engagement and support to emerging initiatives through the Africa Carbon Removal Accelerator (ACRA). ACRA is a six-month accelerator for early-stage CDR startups, which we are implementing as part of a consortium led by Remove, alongside ETH Zurich, Max Planck Institute and Strathmore University.

The team supported the launch and early-stage training of the first ACRA cohort and actively contributed to the African Carbon Removal Summit in April.

Alongside these activities, Nuvoni has been involved in setting up the research component of the project.

- ① Laying the groundwork for data collection and analysis.
- ① This has included the development of data collection tools to support field research and the compilation of a regional database of carbon removal technologies.
- ① Initial development of geospatial maps showing the distribution of projects.
- ① Early review of monitoring and verification reports to understand project performance and maturity

Emerging Insights



- ① Interest in carbon removal is growing across the region, but capacity, access to finance and institutional readiness vary significantly.
- ① Project outcomes are driven as much by local conditions as by technology.
- ① Building a functional carbon removal ecosystem requires coordination across multiple actors, reliable data and practical implementation experience

Outputs



- ① Launch and training support for the first ACRA cohort
- ① Development of a blog documenting key insights and takeaways from the SummitDevelopment of a regional CDR technology database
- ① Initial geospatial mapping of project distribution

Policy and Practice Relevance

As the research matures, we expect it to inform how carbon removal is governed and financed across the region, and to help ensure that early projects strengthen, rather than compete with, the systems communities already depend on for energy, water and food. We anticipate it informing:

- ① Development of context-sensitive carbon removal policies.
- ① Integration of CDR into national development and climate strategies.
- ① Strengthening of institutional and technical capacity.
- ① Alignment of carbon removal initiatives with energy access, water and food security priorities.

Cross-cutting themes: Governance, Resilience, Frugality.



SDGs Impact

Upon completion the project will generate knowledge that will contribute to:





2.0

Collaborations



Our work depends on partnerships that are built to last. Across 2025 we worked with collaborators who help shape our questions, share our data and carry findings into decisions, rather than standing at arm's length as funders or subjects. These relationships are reciprocal and, in most cases, long-standing, and much of our research is co-created, from the framing of questions through to the interpretation of results.





3.0

Leiden-Delft- Erasmus-East Africa Research Network (LEARN)



CAPACITY DEVELOPMENT

3.1: Community Researcher's Training Workshop

LEARN conducted a two-day community researcher training in Nairobi, bringing together communities and academics from Kenya, Uganda and Tanzania to strengthen collaboration and cross-learning between community and academic researchers.



Participants acquired knowledge on the following areas of research;



- ① **Research Conceptualisation:** Understanding the research process, defining researchable problem and clear research objectives.
- ① **Framing Research Questions:** Developing contextually relevant research questions in collaboration with communities.
- ① **Research Ethics:** Ethical considerations, including informed consent, recognition, and addressing power imbalances.
- ① **Data Collection:** Practical data collection tools and techniques (preparation of data collection tools).
- ① **Data Analysis and Interpretation:** Equipping participants with skills to analyse and interpret qualitative data

Cross-cutting themes: Informality, Inclusion.



POLICY ADVISORY

3.2: Cross City Policy Dialogues

3.2.1: Webinar: Mainstreaming Indigenous Nature-Based Solutions in African Urban Practice

LEARN's second Policy Dialogue webinar explored how indigenous nature-based solutions (NbS) can be mainstreamed into urban practice and policy in East African cities. Drawing on cases from Kenya, Rwanda, South Africa, Ethiopia and Europe, the webinar highlighted the need for communities and governments to collaborate in owning and scaling indigenous NbS practices.

Key highlights:



- ① Reframing indigenous African NbS as “new” solutions creates a false perception of capacity gaps, despite communities’ long-standing expertise
- ① Capitalist ideologies are shifting NbS from community-driven practices to large-scale, bankable projects that reinforce external control and colonial financing dynamics
- ① Narratives portraying Africa as lacking capacity undermine local agency and overlook the continent’s rich knowledge systems
- ① Key barriers to scaling indigenous NbS include planning approaches that privilege engineering, limited documentation of traditional knowledge, and sporadic interventions that reduce legitimacy

Cross-cutting themes: Governance, Resilience, Informality.



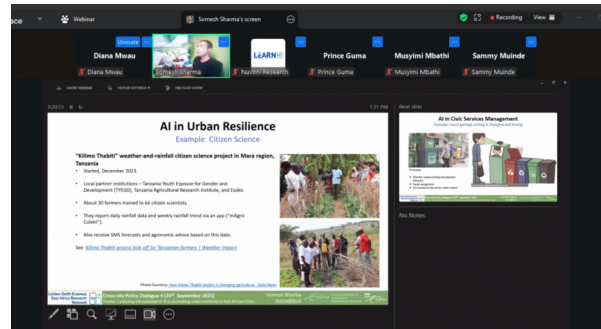
POLICY ADVISORY

3.2.2: Webinar: Catalysing the Potential of AI in Promoting Urban Resilience in East African Cities

The third webinar in the policy dialogue series explored how artificial intelligence (AI) can support resilience in East African cities. Discussions highlighted AI applications in climate resilience, disaster prediction, citizen science, waste and traffic management, and participatory urban planning.

Examples included AI tools used in Barcelona to map urban heat islands and in Jakarta for real-time flood forecasting. Participants also examined the growing role of AI in improving data collection and urban decision-making in African cities.

The webinar also raised critical concerns around ethical data management, job displacement, and digital coloniality. Participants emphasised the need for strong collaboration between communities, governments, and technology developers to ensure AI solutions are locally grounded, inclusive, and responsive to the realities of East African cities.

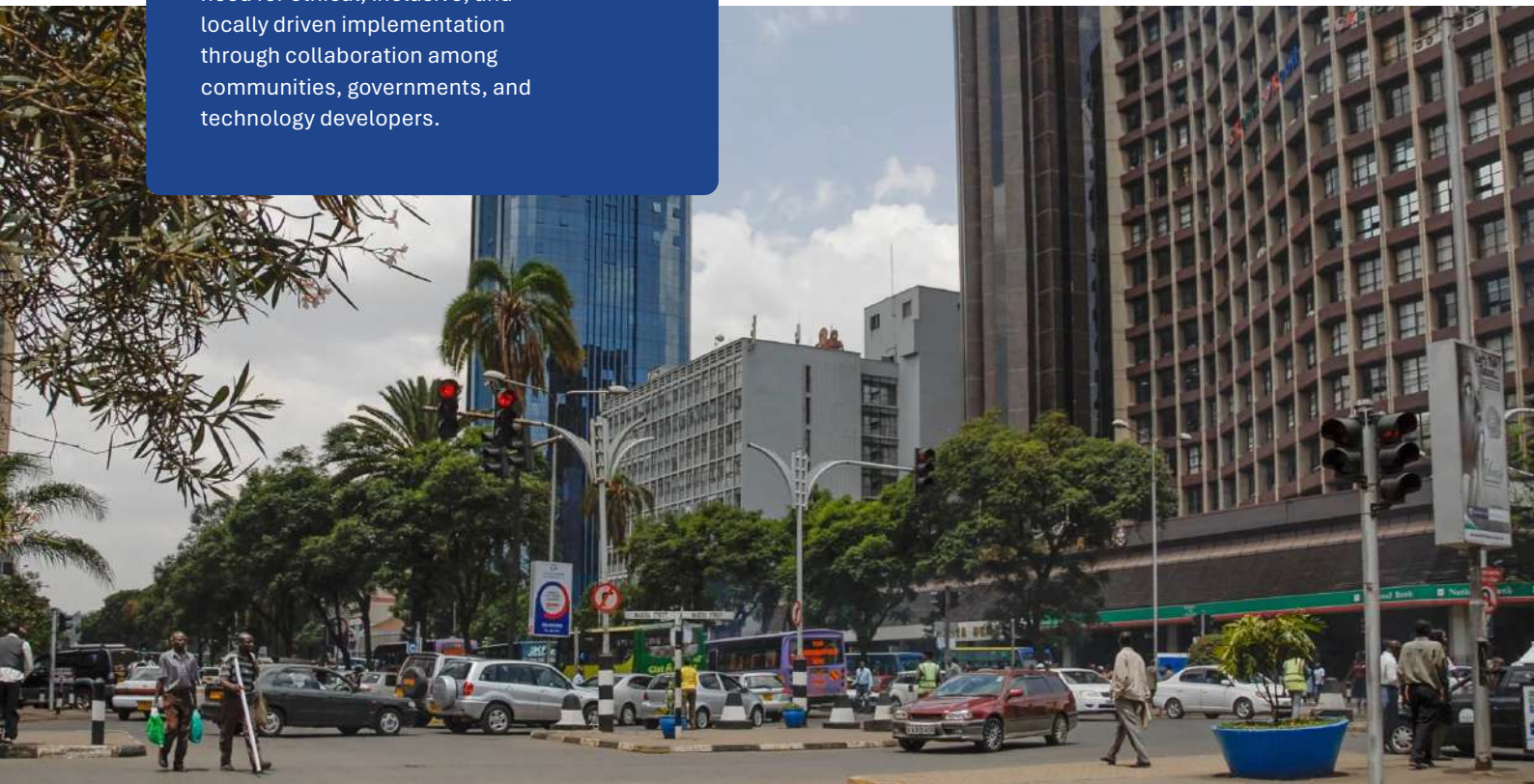


The third Policy Dialogue webinar highlighted the potential of AI to strengthen urban resilience in East African cities while stressing the need for ethical, inclusive, and locally driven implementation through collaboration among communities, governments, and technology developers.



CAPACITY DEVELOPMENT

Cross-cutting themes: Resilience, Governance.



3.3: LEARN Master's Thesis Lab

3.3.1: Cohort 1

Nuvoni hosted the first LEARN Master's Thesis Lab cohort of 9 students drawn from two Kenyan Universities (University of Nairobi and Dedan Kimathi University) and two Dutch universities (Leiden University and Tu Delft University)

The students engaged in research on the themes of:



Disaster risk management,



Clean cooking,



Energy planning in informal settlements.

Students developed knowledge products including policy briefs, community briefs, training toolkits and infographics which translated their research findings and insights in accessible formats to inform policy, practice and society.

Find their knowledge products here:

<https://learnresearch.network/publications/>



Cross-cutting themes: Resilience, Informality, Inclusion.



3.3.2: Cohort 2

13th November 2025 marked the official start of a new journey for our second cohort of the LEARN Master's Thesis Lab students from Kenya and the Netherlands. The students were from the University of Nairobi, Leiden and Tu Delft University. The kick-off meeting set the stage for months of collaborative, community-engaged research, focused on waste management, carbon dioxide removal, and clean energy transitions.

We're excited to see how this new cohort will co-create knowledge, bridge continents, and shape more resilient and sustainable urban futures.

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Cross-cutting themes: Resilience, Informality, Inclusion.





4.0

International Centre for Frugal Innovation (ICFI)



In 2025, Nuvoni actively contributed to the International Centre for Frugal Innovation (ICFI) network through organizing and participating in ICFI network's synergy sessions and workshops. These engagements have continually strengthened our collaboration with researchers and practitioners in partner countries.

4.1: ICFI Community Synergy Sessions

Nuvoni participated in a series of ICFI Community Synergy Sessions that brought together researchers from across the network to share research findings, exchange knowledge, and identify opportunities for collaboration. The sessions focused on frugality and processes in agri-food, agri-tech startups and digitalization in agrifood and heuristics in frugal innovation.

Discussions explored the role of frugal innovation in addressing food security challenges, supporting digital transformation in agriculture and understanding how heuristic approaches such as intuition, experiential knowledge and adaptive problem-solving shape innovation processes.



The sessions contributed to the development of future collaborative research agendas and strengthened interdisciplinary engagement across the ICFI network.

4.2: Heuristics in Frugal Innovation Workshop in India

Nuvoni also participated in the Workshop on Heuristics in Frugal Innovation held at the Indian Institute of Technology (IIT) Roorkee, India,. The workshop convened researchers and practitioners from India, the Netherlands, Kenya and Latin America to explore heuristics as cognitive shortcuts, methodological tools, and adaptive strategies for innovation under constraints, across domains ranging from engineering and governance to ethics and digital innovation.

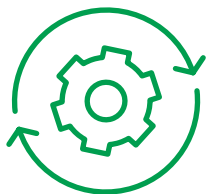
Nuvoni presented the African perspectives to the discussions and participated in collaborative working groups exploring theoretical, empirical, governance, digital innovation and renewable energy dimensions of heuristics. The workshop enhanced our understanding and contributions to the development of an emerging research agenda on heuristics and frugal innovation.



5.0

Capacity Development





Capacity development remained a central pillar of Nuvoni's work, reflecting our commitment to ensuring that knowledge is not only produced but also understood, applied, and sustained across different contexts.

Our approach to capacity development is grounded in co-learning, long-term engagement, and the integration of research into practice.

We work across multiple levels, communities, policymakers, practitioners and researchers, recognising that meaningful change requires strengthened capacity across the entire system.

5.1: Strengthening institutional and policy capacity

We continued engaging in national and county-level institutions to support more evidence-informed and context-sensitive policymaking. Through research, workshops, and policy dialogues, we contributed to discussions on energy access, informal systems, and inclusive policy design. Our work increasingly focuses on translating evidence into practical formats

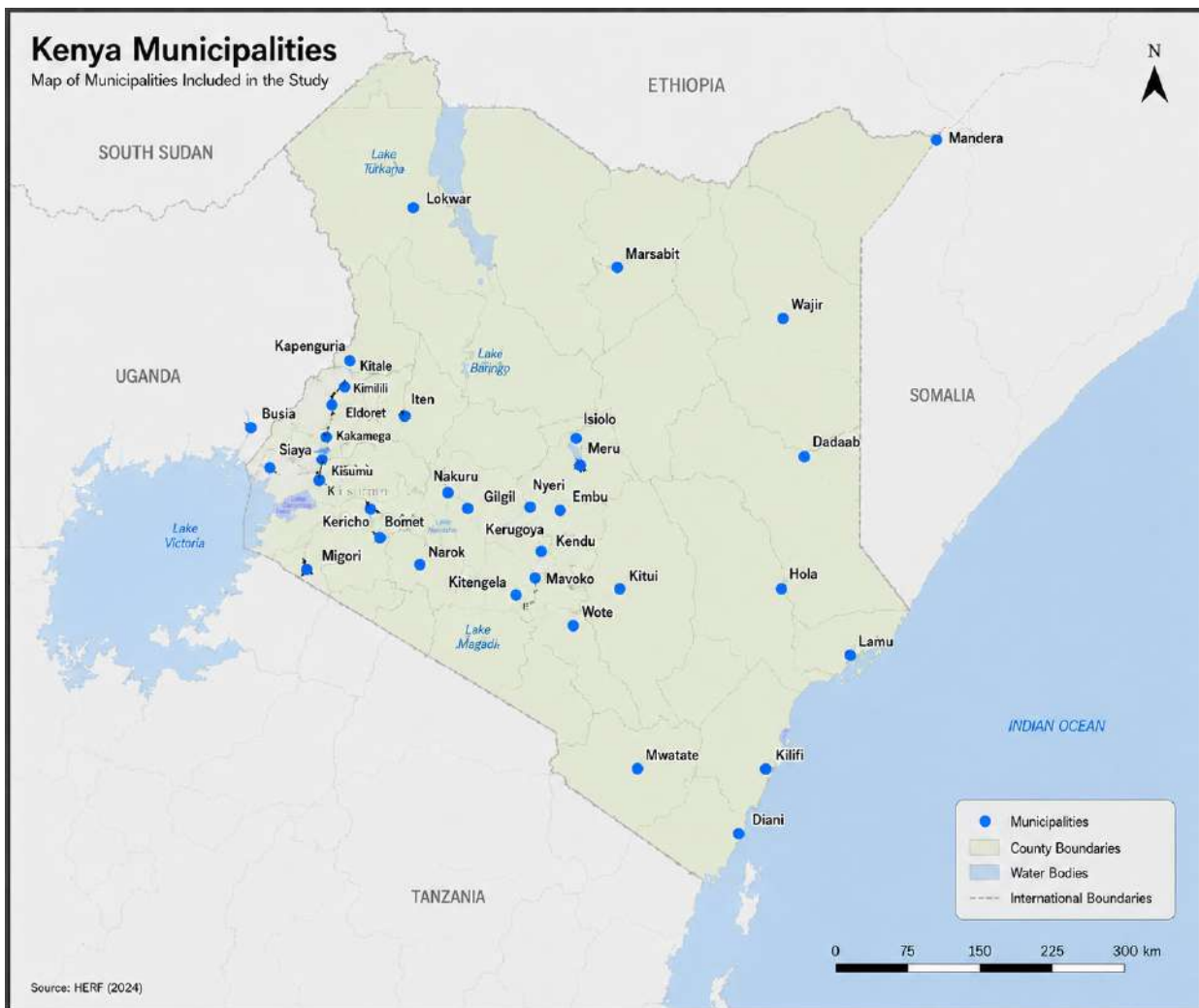
that support decision-making and create spaces for collaboration among policymakers, researchers, and communities.

5.2: Urban Climate Resilience Masterclass

Following a successful Training of Trainers (ToT) for the Urban Climate Resilience Masterclass (UCRMC) held in October 2024, we conducted the pilot UCRMC for Kenyan municipalities from 17–21 February 2025 at Lake Naivasha Resort, Kenya. The pilot training programme was implemented as part of the Kenya Urban Support Programme II (KUSP II), in collaboration with the State Department for Housing and Urban Development (SDHUD), Global Centre for Adaptation and World Bank. It was co-facilitated by six certified trainers who had successfully completed the UCRMC ToT programme.



UCRMC pilot training at Lake Naivasha Resort



Municipalities represented in the pilot training sessions

The pilot training was designed to strengthen the capacity of municipalities to effectively plan for, respond to, and adapt to urban climate challenges. A total of 60 policy actors drawn from 37 municipalities participated in the training, including municipal/urban planners, engineers, environmentalists, and administrators. Additional participants comprised 19 representatives from the SDHUD, two technical committee representatives from the Council of Governors, and two representatives from the Kenya School of Government.

5.3: Working with communities as knowledge partners

A key aspect of our capacity development approach is working with communities as active contributors

to knowledge production. In 2025, we partnered with community-based organisations and researchers in Mathare, Mukuru, and along the Nairobi River to strengthen skills in research methods, systems thinking, and data collection. These engagements enhanced community participation in research and policy discussions while ensuring our work remained grounded in lived realities.

In 2025, LEARN strengthened community-led research by building the capacity of local organisations and researchers in Nairobi informal settlements to actively contribute to knowledge generation and policy engagement.



5.4: Supporting research education and emerging scholars

We strengthened engagement with students and early-career researchers through initiatives such as the LEARN Master's Thesis Lab and Research Atelier, supporting context-grounded and community-based research. The programmes also helped students translate their findings into accessible outputs including policy briefs, toolkits, community briefs, and visual materials.



5.5: Building networks for learning and exchange

Our capacity development work is also embedded within broader networks that facilitate learning and exchange across contexts. Through the LEARN network, we supported training workshops, cross-city dialogues and collaborative learning platforms that bring together academics, practitioners and community actors from across East Africa and beyond.

These spaces create opportunities for peer learning, reflection and the sharing of approaches, while strengthening relationships between institutions and individuals working on similar challenges.

5.6: Our Approach

Across all these areas, our approach to capacity development is guided by a few core principles:



Co-creation Working with stakeholders to jointly define problems and solutions



Contextual relevance: Ensuring that knowledge reflects local realities and priorities



Integration of research and practice: Bridging the gap between evidence and action



Sustained engagement: Moving beyond one-off trainings to longer-term relationships

Through this work, Nuvoni continues to contribute to building a community of practitioners, policymakers and researchers who are better equipped to engage with complex development challenges in informed and meaningful ways.



6.0

Responsible Research and Impact



At Nuvoni, environmental sustainability, social inclusion and ethical governance are not treated as separate compliance areas, but as integral to how we design and conduct research.



Our focus is on ensuring that the knowledge we produce is not only rigorous, but also responsible, contextually grounded, and relevant to the challenges facing sub-Saharan Africa.

6.1: Environmental contributions

Our work contributes to environmentally sustainable development pathways across energy, urban systems and emerging technology domains.

In 2025, this included research on electricity access, biomass cooking transitions, urban climate resilience, and carbon dioxide removal. These areas directly engage with questions of resource use, emissions, and adaptation to climate change.

Our approach emphasizes solutions that are both technically sound and context-appropriate, recognizing that environmental outcomes are shaped by economic, social and institutional realities. Work such as the Nairobi River project further illustrates how.

Our work advances environmentally sustainable development by generating research on electricity access, clean cooking transitions, urban climate resilience, and carbon dioxide removal to support low-carbon, climate-resilient development pathways.



6.2: Social inclusion and equity

Inclusion remains central to how we frame and conduct research. Much of our work focuses on contexts where inequalities are most visible, particularly in informal settlements. In 2025, we strengthened our application of intersectional approaches, examining how factors such as gender, disability, income and location interact to shape access to services and opportunities.

Rather than treating these as separate categories, our research highlights the layered and interconnected nature of exclusion. This perspective contributes to more nuanced analysis and supports the development of policies and interventions that are better aligned with lived realities.

6.3: Ethical and participatory research

We are committed to research practices that are ethical, transparent and participatory. Across our projects, we engage stakeholders throughout the research process, from framing questions to validating findings, ensuring that different perspectives are reflected in both analysis and outputs.

This approach helps to address extractive research practices by positioning local actors as contributors to knowledge, rather than subjects of study. It also strengthens the credibility and relevance of findings by grounding them in real-world contexts.

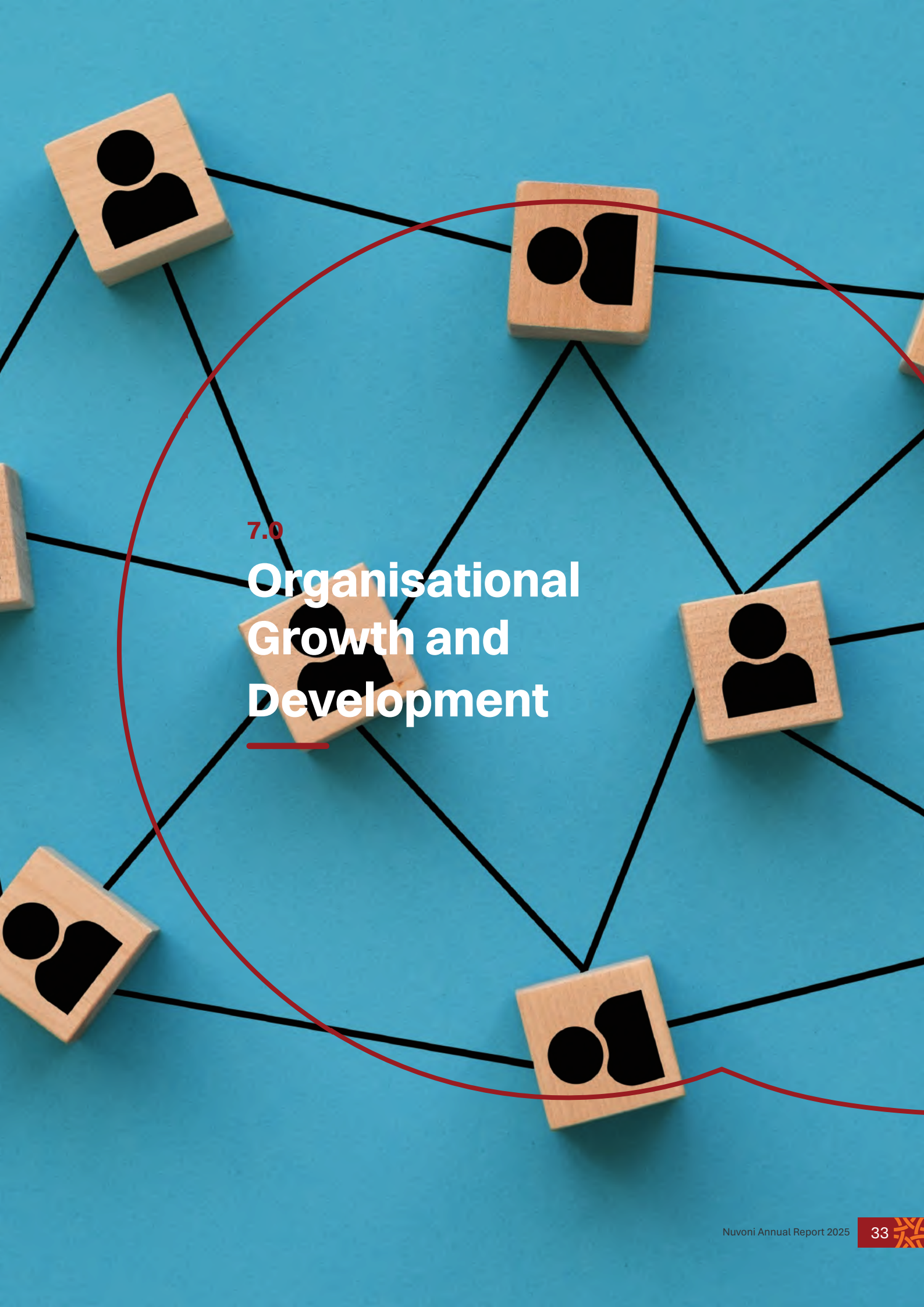
Our work is guided by established ethical principles, including informed consent, respect for participants, transparency in data use, and accountability in reporting.



We are committed to research practices that are ethical, transparent and participatory”

Nuvoni maintains internal systems that support responsible and accountable operations. This includes adherence to financial, legal and data governance standards, as well as organisational policies that guide professional conduct and decision-making.

These systems underpin the credibility of our work and enable us to manage complex research projects and partnerships with consistency and integrity.



7.0

Organisational Growth and Development



In 2025, Nuvoni continued to strengthen its institutional foundations to support the growing scope and complexity of its work. As our portfolio has expanded across research, policy engagement and capacity development, we have placed increasing emphasis on building a team, structure and systems that can sustain high-quality delivery, while remaining responsive to emerging opportunities.

7.1: Team development and staff engagement

A key area of growth has been the continued development of our team. Over the course of the year, staff deepened their expertise across our core domains, while also gaining exposure to new areas such as systems thinking, political economy analysis and emerging technology spaces. We supported team members to pursue further academic and professional development, including two staff members transitioning into PhD programmes in the Netherlands and Germany, alongside participation in international workshops, conferences and exchanges across Spain, Nigeria, Egypt, Ghana, Morocco and the Netherlands.

In addition, two members of our administration team participated in a two-week exchange programme in The Hague, gaining practical exposure to international organisational systems and operations. We also hosted visiting partners and researchers in Nairobi, strengthening mutual learning and collaboration across contexts.



These opportunities have strengthened both individual expertise and the organisation's overall capacity to engage across different contexts and disciplines. At the same time, they have contributed to a more outward-facing team, that can participate in global discussions while maintaining a strong grounding in local realities.

Alongside technical development, we invested in creating an environment that supports collaboration, learning and staff wellbeing. Through team-building activities, wellness initiatives and internal engagement processes, staff were able to build stronger relationships, reflect on their work, and maintain a healthy balance between delivery and wellbeing. These efforts have contributed to a more cohesive, motivated and engaged team.

7.2: Organisational structure and roles

As the organisation has grown, there has been a gradual evolution in our internal structure to better support delivery and coordination.

- ➔ The **Centre Director** continues to provide overall strategic leadership and institutional oversight, while also engaging with key partners and networks.
- ➔ The **Head of Programmes** coordinates research and operational activities, ensuring alignment across domains and supporting delivery.
- ➔ **Research Fellows** lead thematic areas, shaping research agendas, mentoring junior researchers and developing partnerships.
- ➔ **Research Associates** support project implementation and contribute to research outputs.
- ➔ **Corporate Services** provides the systems and support that enable Nuvoni to operate effectively. Across Finance, Administration, Human Resources and Communications. These functions strengthen internal coordination, enhance organisational visibility, and ensure the smooth delivery of day-to-day operations.

This structure has enabled clearer accountability, improved communication across teams, and strengthened our ability to engage with partners at community, national and international levels.

7.3: Systems and operational strengthening

Alongside team and structural development, we have continued to strengthen our internal systems and processes. This includes improvements in financial management and compliance systems, ensuring transparency and accountability across projects. We have also enhanced our data and knowledge

management practices, supporting better organisation, storage and sharing of research outputs.

Internal workflows have been refined to support collaboration across teams and domains, particularly as projects have become more complex and multi-partner in nature. These systems are essential in maintaining consistency and quality, while enabling the organisation to operate efficiently as it grows.



Steve Nyagaya speaking at the AAK Convention, 2025



Alice Menya speaking at the Second World Social Development Summit in Doha, Qatar



Nuvoni staff enjoying a day of paintball and team-building activities.



8.0

Looking Ahead



The year ahead is about depth as much as growth. We want to take our core research further, asking sharper questions across energy, urban development, agrifood systems and technology management, while opening two areas where the need is pressing and our methods carry over well: health and water.



We also want to be more deliberate about **influence**. That means staying close to the policy processes our evidence speaks to, and creating more occasions for researchers, government and communities to think through problems together, locally and across the region.



We are investing in the **foundations** too. A new office has given our growing team room to work and to host partners. We are strengthening our knowledge systems so that what we learn is captured, shared and reused. And we want to communicate science better: clearly, honestly, and in formats that reach the people who can act on it.



Research education will remain central. We will grow the LEARN Master's Thesis Lab and our work with early career researchers and continue to build the International Centre for Frugal Innovation as a home for ideas that matter to the global South.



We hold these ambitions lightly, and the year will bring its own surprises. But the direction is clear. We want Nuvoni to keep **producing research** that is rigorous and useful, and to remain a place where evidence, policy and practice meet on equal terms.





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