NUVONI RESEARCH

NUVONI 2024 ANNUAL REPORT

Transforming Research into Action for Inclusive Development

What's inside.

01

About us

Nuvoni Centre for Innovation Research is an independent research organisation based in Nairobi, Kenya.
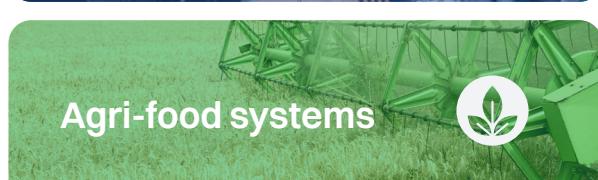
Our current focus areas are: -

Energy Access

Urban Development

Technology Management

Agri-food systems

Our Mission

Our mission is to leverage science, technology, and innovation in fostering inclusive development through research, policy advisory, capacity development, and entrepreneurship.

Our Objective

Nuvoni aims to establish itself as an international centre of excellence on innovation and inclusive development in East Africa, and by extension, sub-Saharan Africa. This will be achieved by conducting robust academic research across a range of disciplines, providing evidence-based policy advice, developing capacity in the region, and supporting entrepreneurship development in the region.

Nuvoni provides an environment where early-career scholars of innovation in East Africa and beyond can access mentorship, scientific resources and exposure. Our location in Nairobi, Kenya, being a regional hub, and a vibrant place for new technology development, entrepreneurship and policy innovation, offers a great environment to pursue these objectives.

Our themes

Frugality **Resilience** **Inclusion** **Governance** **Informality**

Reflecting
on 2024

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Message from the Director- Nuvoni Centre for Innovation Research

Reflections on the year, Institutional growth and challenges, Future outlook

As I reflect on 2024, I am encouraged by how Nuvoni has grown,both in the scope of our work and in the depth of our impact. What began as a small research outfit has steadily evolved into a centre that is shaping conversations on how science, technology and innovation can address complex development challenges in sub-Saharan Africa. This year reaffirmed the importance of focusing on issues central to our region: energy transitions, urban development, agrifood systems and technology management. Across all these domains, our themes of resilience, inclusion, frugality, governance and informality have remained our compass.

Dr. Elsie K. Onsongo
Director, Nuvoni Centre
for Innovation Research

Our research portfolio continued to break new ground. In our urban development programme, we advanced innovation in digital inclusion through the co-creation of the Mathare Digital Hub model,one of the most comprehensive community-led frameworks for digital infrastructure in informal settlements. Our climate resilience work along the Nairobi River applied circularity and systems thinking to explore how riparian communities can co-create adaptation solutions, a perspective rarely integrated into urban planning. In the energy sector, our work ranged from conducting the most comprehensive household survey on cooking at the national level and in informal settlements, to pioneering energy demand modelling for informal settlements, to generating new evidence on mini grids

in Kenya. We also ventured into carbon dioxide removal (CDR), contributing one of the earliest evidence bases on CDR ecosystems and governance in the region. Our mapping of the agri-tech innovation ecosystem further revealed visibility gaps, structural bottlenecks and opportunities for strengthening agricultural start-up systems. Across all these projects, our commitment remained clear: to produce novel, grounded and policy-relevant research that responds to real challenges and expands the frontier of knowledge in East Africa.

A defining characteristic of this year has been our move beyond research into more deliberate policy advisory and capacity development. We are increasingly ensuring that the evidence we generate is actively used by policymakers, civil society actors, fellow researchers and communities. Our involvement in Kenya's National eCooking Strategy is one example where research directly shaped national direction. The SIGMA mini-grids project informed discussions on tariff setting, governance and sustainability, while our energy modelling and electric cooking studies contributed evidence now feeding into national planning processes such as INEP and the LCPDP, and efforts to declare the Mathare settlement as a Special Planning Area. Our urban work also influenced practice through the Mathare Digital Hub model, which continues to attract

> We are shaping critical conversations on how science and technology drive meaningful development.

interest from agencies exploring community-centred digital infrastructure. The Nairobi River resilience project supported conversations within the Nairobi Rivers Commission, and the Research Atelier guided community action and policymaking processes in informal settlements by offering grounded insights on evictions, street use, waste systems and socio-ecological resilience.

Our evidence increasingly informs national policy, planning processes and community-centred decision-making across Kenya.

Capacity development became one of the strongest pillars of our work. The Urban Climate Resilience Masterclass—developed with GCA, the World Bank, IIED and Kenya's State Department of Housing and Urban Development—trained trainers and officials from 37 municipalities, equipping them with practical tools for climate risk assessment and resilient infrastructure design. Our engagement with community partners in Kenya, Uganda and Tanzania extended beyond participatory research into meaningful skills-building in research methods, digital literacy and advocacy. The LEARN Thesis Lab expanded our footprint further by supporting Kenyan and Dutch students to conduct context-grounded research and produce knowledge products now being used across counties, community organisations and practitioner communities. These efforts reflect our role in shaping a new generation of practitioners, policymakers and community leaders.

Collaboration sits at the heart of our work. We continued building meaningful, reciprocal partnerships with government agencies,including the

Ministry of Energy and Petroleum, the ICT Authority and the State Department of Housing and Urban Development,alongside counties and municipalities engaged in our training and policy advisory initiatives. Regionally, our partnerships with universities and think tanks across Tanzania, Rwanda, Uganda and Nigeria strengthened our role as a convenor of knowledge and practice. Internationally, our work through the Leiden-Delft-Erasmus network grew through cross-city dialogues, participation in the World Urban Forum, the LEARN Thesis Lab and the Urban Uncovered podcast. Through the International Centre for Frugal Innovation, we also continued shaping conversations on frugality in African contexts. We have further deepened collaborations with partners in the UK, Germany, the Netherlands and Switzerland. Our long-standing collaborations with community organisations remained central,ensuring that community knowledge continues to inform research and planning processes.

As we look ahead, I am proud of what we have built and excited for where we are going. Nuvoni is becoming a recognised centre of excellence because of the quality, integrity and relevance of our work. We remain committed to deepening our research-practice linkages, expanding collaborations and advancing development approaches that are inclusive, grounded and truly responsive to the lived realities of East Africans and beyond.

Thank you to all our partners, colleagues, communities and supporters. Your trust and collaboration continue to make Nuvoni a space where science and innovation meet people, practice and purpose.

Collaboration across governments, communities and global partners continues strengthening our shared development impact

Reflecting on 2024

In 2024, Nuvoni made significant strides across its thematic areas of Urban Development, Energy and Technology Management domains.

Key Focus Areas & Highlights

Capacity Building: The Urban Climate Resilience **Masterclass Workshop was among the key highlights in 2024**. It entailed capacity building in **urban climate resilience and inclusive innovation**. The training brought together researchers, policymakers, and community leaders to learn practical tools in **systems thinking, participatory research, and policy communication**. Participants also explored ways to integrate **gender and inclusion** into climate and urban development programs. The workshop strengthened local expertise and collaboration, reinforcing Nuvoni's role in advancing **evidence-based, community-driven solutions** for sustainable cities.

Digital inclusion in informal settlements: A major focus of the year was the co-creation and validation of a digital hub model for Mathare informal settlement, Nairobi. This involved stakeholder workshops (April and June), development of a four-element model (process, services, governance, sustainability) and dissemination through a detailed report. Click here to read more.

Energy We also contributed to the national agenda for clean cooking (eCooking) in Kenya by participating in strategy validation and producing related publications. This demonstrates our policy-advisory role within the energy domain. Click here to read more

Urban development/publications: The academic article published in November 2024 on "Digital Public Spaces for Youth Engagement in Informal Settlements" reflected our engagement with urban informality, digital infrastructure and youth participation.Click here to read more
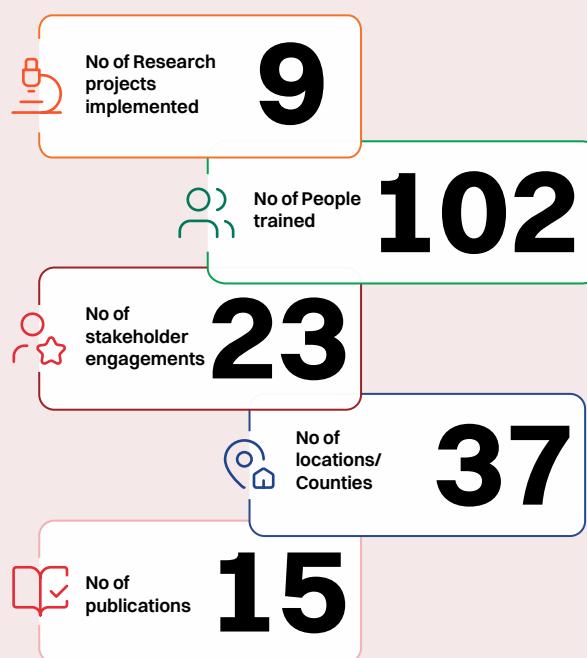
Stakeholder outreach and thought leadership: We reflected on continental energy dialogues (AICCEES 2024) and contributed to public discourse via our blog. These activities increased our visibility in the region. Click here to read more

Strengths and Achievements:

- Multi-stakeholder engagement (community, government, private sector) in workshops and model design.

- Clear linkage between research output and policy relevance (e.g., eCooking strategy).

- Publications in peer-reviewed and practitioner outlets, showing both academic and applied research relevance.

- Focus on informal settlement contexts in Nairobi, ensuring local relevance and potentially high impact

Numbers at a Glance

No of Research projects implemented **9**

No of People trained **102**

No of stakeholder engagements **23**

No of locations/ Counties **37**

No of publications **15**

1.0

Domain Highlights and Programmatic Achievements

1.1
Urban Development 🏛

1.1.1 Bridging the Digital Divide: Co-creating Digital Hubs in Mathare informal settlement

2024 marked a remarkable year in our digital inclusion research, transforming how informal settlements access digital technologies and opportunities.

This project, implemented in partnership with Vital Cities and Citizens, Erasmus University Rotterdam - Institute of Housing and Urban Development, and Institute of Social Studies (ISS), Ghetto Foundation and supported by Erasmus Trustfonds, focused on Mathare, one of Nairobi's largest informal settlements. Through our work, we pioneered a community-driven, social design approach to digital empowerment aimed at reshaping the lives and livelihoods of low-income urban populations.

The project adopted a multistakeholder, collaborative approach to design a model community digital hub, underscoring inclusivity in research and urban development processes. A series of co-creation workshops were held, bringing together researchers, community members, local administration, digital service providers, and government entities, including the ICT Authority of Kenya (ICTA). These workshops

facilitated the identification, design and validation of the community's digital needs, potential digital hub sites, requisite infrastructure and equipment, and socio-economic activities to be hosted in the proposed digital hub.

The impact has been transformative. We successfully developed and validated a comprehensive digital hub model featuring four core elements:

- ⊙ A co-creation process ensuring community ownership of the digital hub.
- ⊙ Targeted digital services emphasizing literacy and income generation.
- ⊙ A robust multi-stakeholder governance structure.
- ⊙ Sustainable funding mechanisms through service proceeds.

It is envisaged that the digital hub would serve as a dynamic space that fosters community vitality and strengthens social cohesion through digital employment and training programmes and socio-economic engagement.

From a policy perspective, our work directly advances **several SDG's** namely:

Our research methodology, **combining ethnographic studies with participatory design**, has produced an adaptable, replicable social design framework aimed at supporting the government in adopting more inclusive and effective approaches to digitalization.

1.1.2 Climate Resilience Through Innovation: The Nairobi River as Driver for Circular Communities

Against the backdrop of the devastating May 2024 floods that claimed over 220 lives and displaced 23,000 people in Kenya, this project emerged as a beacon of hope and innovation in climate adaptation for vulnerable communities living along the Nairobi River.

This collaborative initiative with the LDE Global and The Circular Community Foundation represents a paradigm shift toward community-driven circular solutions for essential resource management and climate adaptation. Working alongside vulnerable riverside communities in Nairobi, we employed the Circular Value Flower method to map resource systems within the riparian corridor of the Mathare and Nairobi Rivers, illustrating the various forms of value (social, economic, ecological among others) that community initiatives produce. The riparian landscape was viewed as a shared and collectively managed space in which community initiatives can effectively contribute to climate adaptation and river regeneration.

With the establishment of the Nairobi Rivers Commission in 2023 and the declaration of a 60-meter wide riparian and development corridor along the Nairobi River system as a special planning area. This project provides a community-centered, multi-beneficial perspective essential for effective river regeneration. Our action research approach builds on existing community initiatives to empower riverside communities to develop self-sufficient circular systems that transform their vulnerability into strength. We worked closely with four community-based organizations, namely, Lucky summer Environmental and Waste Management Organization (LEWMO), Easy Urban Green Growers, Youth Prinua and Tempo Arts Centre.

This initiative advances several SDGs
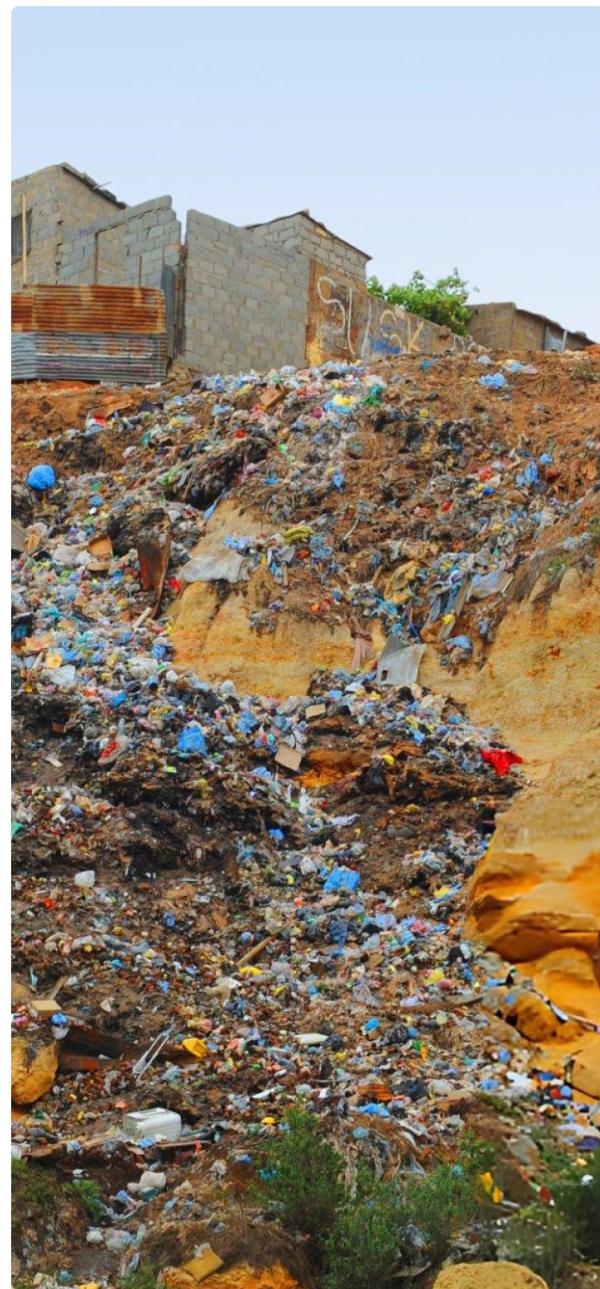
(Sustainable Cities and Communities) through resilient urban planning.

(Climate Action) by addressing locally led climate adaptation

(Partnerships for the Goals) through our multi-institutional collaboration spanning Dutch institutions, and local institutions including the Nairobi Rivers Commission, government agencies, and civil society organisations, to co-create sustainable solutions that close resource loops, share knowledge, and build collective capacity for long-term resilience.

1.1.3 **Urban Climate Resilience Masterclass: Building Institutional Capacity for Climate Action**

The Urban Climate Resilience Masterclass (UCRMC) is a training programme developed in partnership with the Global Center on Adaptation (GCA), World Bank, International Institute for Environment and Development (IIED), and the State Department of Housing and Urban Development-Kenya.

The masterclass is part of the broader Kenya Urban Support Programme II, aimed at strengthening urban governance, improving infrastructure and promoting urban resilience to foster sustainable development across urban areas in Kenya.

The course was developed as part of an institutional capacity building initiative aimed at: -

〉 Helping city/municipal officials to understand climate risks in their cities.

〉 Provide them with the skills to design and implement climate-resilient urban infrastructure.

The curriculum combines self-administered foundational modules with intensive 5-day training workshops covering six training modules as follows:

Module 1
Introduction to Climate Change and Urban Resilience

Module 2
Understanding Climate Risk in Your City

Module 3
Locally Led Adaptation for Urban Resilience

Module 4
Ensuring Climate Resilience of Urban Infrastructure

Module 5
Step-by-Step Guidelines for Delivering Climate Resilient Infrastructure

Module 6
Financing Climate Resilient Urban Infrastructure

These UCRMC modules were delivered through interactive exercises, case studies, and in-person lectures.

Through this initiative, we trained **30 trainers** drawn from various government agencies, professional bodies and universities in Kenya. We subsequently supervised the training of **60 government officials**, including urban planners, engineers, environmentalists and administrators from **37 municipalities**, and officials from the State Department for Urban and Housing Development, the Council of Governors and Kenya School of Government.

The expected long-term impact extends beyond the initial cohorts, as trained officials cascade knowledge throughout municipalities, creating lasting institutional change that will strengthen urban governance and climate adaptation.

1.1.4 Research Atelier

The Nairobi-IHS Research Atelier is a 3-month collaborative research program between master's students from the Institute of Housing and Urban Development Studies (IHS) in the Netherlands and research practitioners in Kenya – including CBOs, community researchers, NGOs, and government officials.

The program employs a community-based participatory research (CBPR) approach to drive research that leads to community action and informs government policy.
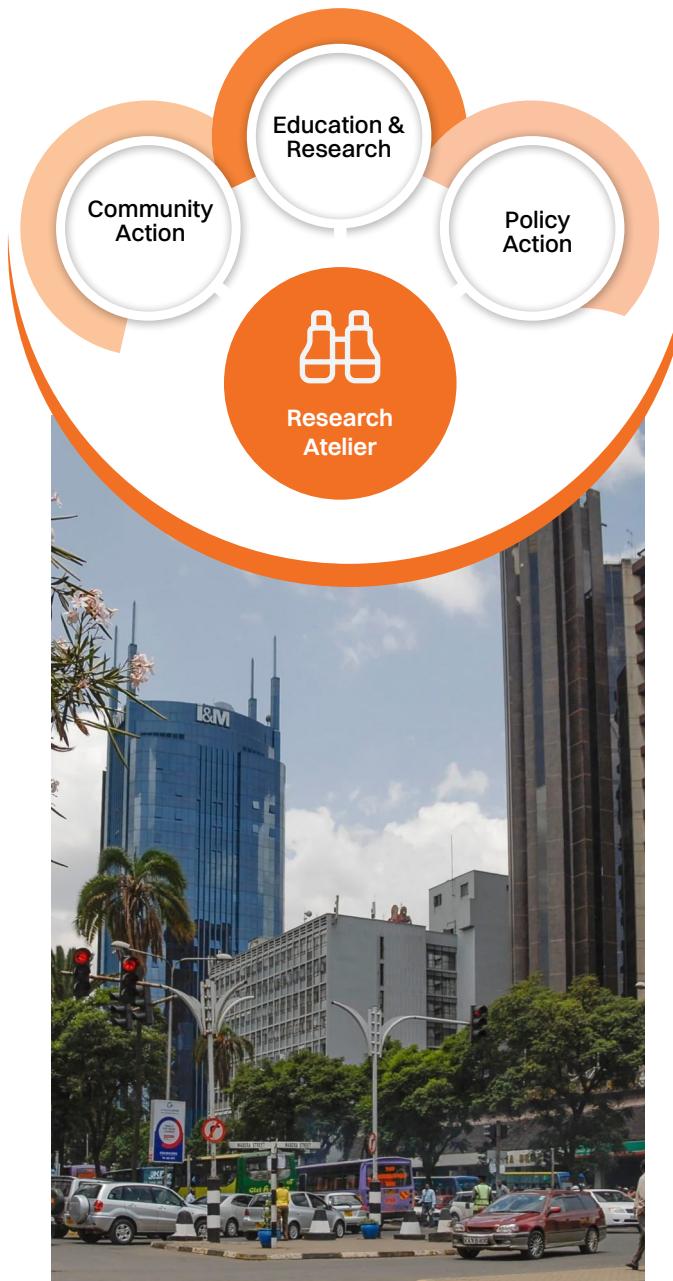
The program ran from March 2024 to May 2024, with seven IHS students drawn from diverse nationalities coming to Kenya.

Students conducted their studies in Mathare and Mukuru informal settlements – focusing on:

- ⊙ Socioecological and climate resilience.
- ⊙ Evictions and re-settlements in informal settlements.
- ⊙ Multiple street use and design.
- ⊙ Multi-level governance of digital waste supply in informal settlements.

Further, the students worked closely with Ghetto Foundation, Muungano wa Wanavijiji, Slum Dwellers International-Kenya, and Nairobi City County, influencing their decisions in community action policy-making processes.

1.1.5 MSPARC Strategy Meeting – April 2024

The MSPARC Strategy Meeting, held on 17th April 2024, brought together 15 representatives from key community organisations and partners, including Ghetto Foundation, Mathare Social Justice Centre (MSJC), Muungano wa Wanavijiji, Akiba Mashinani Trust, Mathare Roots, SDI-Kenya, UN-Habitat, and the Nuvoni team. The session focused on strengthening the uptake of the MSPARC website and enhancing the use of community engagement tools. It began with a reflection on MSPARC's progress over the past year, followed by a presentation of engagement tools and a discussion on the development of a central website to support planning and research efforts in Mathare.

A major outcome of the meeting was a collective acknowledgment that a dedicated MSPARC website will be crucial for visibility, knowledge-sharing, and documenting ongoing developments within the settlement. Partners emphasised that planning processes in Mathare cannot remain dependent on the formal declaration of the SPA and instead must continue proactively through community-led and collaborative initiatives. The session also spotlighted the active contributions by MSPARC partners, from SDI-Kenya's planned household enumeration in Mathare 3A to MSJC's ongoing work on water and climate change, and Ghetto Foundation's engagement with the D.C.C to explore entry points for participatory planning.

1.2
Energy ⚡

In 2024, the energy domain continued to advance Kenya's transition toward sustainable, inclusive and low-carbon energy systems.

1.2.1 Research on minigrid development

2024 marked the successful completion of the Sustainability, Inclusiveness and Governance of Mini-Grids in Africa (SIGMA) project, a three-year, multi-country research collaboration funded by UKRI-GCRF.

> **Led in Kenya by Nuvoni, the study examined how the below shape mini-grid performance and long-term sustainability:**
> - Technical designs
> - Financing models
> - Regulatory environments
> - Community participation

Fieldwork was done across **Kajiado, Homa Bay, Kisii, Siaya, Busia, and Murang'a counties** and produced important findings showing that although Kenya has made significant progress in expanding off-grid electrification, there are still some major challenges, such as:-

- Affordability.
- Tariff setting.
- Governance coordination.
- Building livelihood strategies.
- Technical maintenance capacity.

These findings were presented at the SIGMA Dissemination Workshop held on 16th February 2024 in Brighton, United Kingdom. The project has already produced several academic papers, with additional working papers underway to expand analysis on regulation, sustainability, innovations, and inclusion among others.

1.2.2 Development of the Kenya National Electric Cooking Strategy

In collaboration with the Ministry of Energy and Petroleum (MoEP), the energy domain also successfully finalized the development of the Kenya National Electric Cooking Strategy (KNeCS), the country's first roadmap for mainstreaming electricity as a cooking fuel. The strategy lays out a coordinated pathway to achieve universal clean cooking access by 2028 by:

- Strengthening supply chains for clean cooking appliances
- Improving affordability through lower electricity tariffs and consumer financing interventions
- Enhancing consumer awareness.
- Integrating electric cooking into national and county energy planning.

The strategy also highlights; -

- Gender and social inclusion in growing the clean cooking sector
- The important role of electric cooking in to improve household health,
- How electric cooking could help advance our environmental goals

> **This work has contributed to advancing Kenya's clean energy transition and strengthened Nuvoni's engagement in national policy discussions on modern cooking solutions in Kenya.**

1.2.3 Modelling energy demand for informal settlements

We developed a behavior-focused energy demand model for informal settlements, using Mathare as the primary study site. The project responded to the gap where informal settlements are often not reflected in national energy planning processes such as the Integrated National Energy Plan (INEP) and the Least Cost Power Development Plans (LCPDP).

The study developed a Structural Equation Model (SEM) that showed household energy choices are influenced by a combination of income, education, household characteristics, and decision-making dynamics. These factors interact with perceptions of reliability, convenience, and safety to shape how households select and use different energy sources. The model contributes directly to ongoing planning discussions within the Mathare Special Planning Area (SPA) by providing evidence on real patterns of energy use and constraints faced by households. It also supports wider national conversations on how informal settlements can be more systematically and accurately represented in future energy planning efforts.

1.2.4 eCooking in urban informal settlements

This project examined the market conditions for adopting electric cooking in Nairobi's informal settlements.

The study involved the following activities:

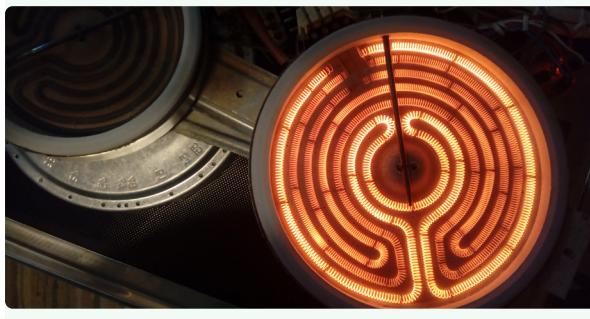Surveys with 350 households and vendors in Mathare

Focus group discussions

Spatial mapping of fuel and appliance vendors

On-site cooking demonstrations

The findings show that electric cooking has the potential to improve health, reduce household energy costs over time, and increase demand for legal electricity connections.

However, several factors continue to limit the adoption of electric cooking such as: -

- High cost of appliances,
- Limited awareness and familiarity with electric cooking,
- Informal electricity connections,
- Inadequate household wiring.

This evidence contributes to Kenya's electric cooking transition by providing a practical market and policy understanding of what is required to scale electric cooking in low-income urban settings. It aligns closely with our national policy work on the Kenya National Electric Cooking Strategy.

Our initiatives contributed to several SDGs:

1.3

Technology Management

The year 2024 ushered in an exciting chapter as it marked the beginning of exploration within a pioneering subject in the Sub-Saharan Africa (SSA) region: carbon dioxide removal.

The effects of climate change are a persistent and immediate problem, especially in Africa, a continent where the majority of economies depend on agriculture hence prone to nature's unpredictability. This exploration project is being implemented in collaboration with Strathmore University, ETH Zurich and Remove.

The project, which commenced in the last two months of 2024, made some interesting observations:-

- The natural resources that exist within the region were an indication of the potential that Sub-Saharan Africa (SSA) can gain in terms of carbon removal and eventually carbon credits.
- The implementation of CDR technologies requires economic and social tradeoffs that impact both direct stakeholders and surrounding communities. The region's participation in CDR is evident through the emergence of carbon projects and startups working in an environment that lacks regulatory and structural support.

Future expectations of the project include a clearer understanding of the ecosystem, the potential impact of CDR technologies and the important trade-offs that require consideration during their implementation.

> The niche nature of CDR within SSA translates to low levels of knowledge among stakeholders including policymakers. Therefore, there is a lack of necessary physical and regulatory infrastructure within the CDR ecosystem.

The project directly relates to three SDGs:

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND
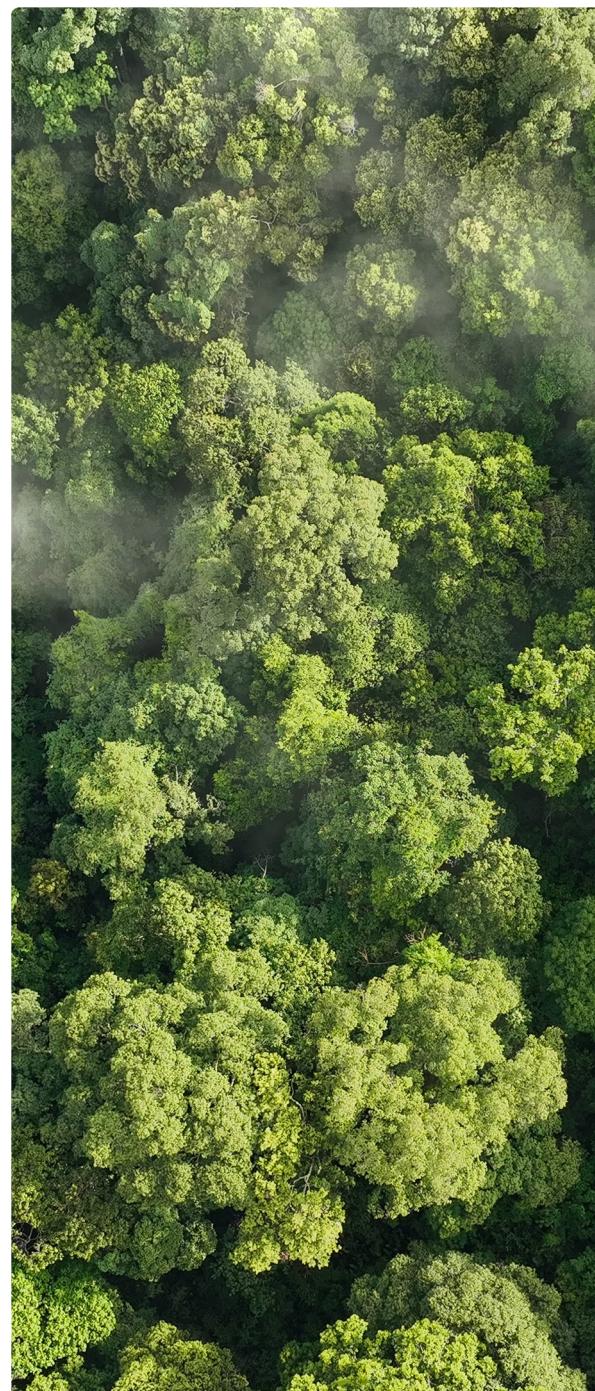
1.4

Agri-food systems

The Agri-Food domain concluded the mapping of the agri-tech startup ecosystem in the SSA region. The potential of startups to transform developing economies through numerous facets is remarkable.

Startups encourage the dissemination of ideas and technology, leading to the development of skills and the creation of job opportunities. With adequate incentives and regulatory infrastructure that increases the probability of success, startups can improve the economic development and position of a nation. The project was done in collaboration with the University of Wuppertal, ETH Zurich and University of Oxford. Though mapping was the main objective, the project included other sub-themes that included improving startup visibility, exploring trends specifically within agricultural innovation and the degree of regulatory and infrastructural support.

Agriculture is a foundational sector for the larger part of nations within SSA in terms of development and economy. However, even with startups' transformational potential, startup funding in the agricultural sector is below 10 percent and the percentage towards agri-tech much less so. There has also been a decline in the general level of overall startup funding which can be interpreted as an indication of increased cautious investment. In terms of visibility, majority of startups lack any online presence be it websites, social media presence (i.e. active LinkedIn pages) or registration on stakeholder platforms. Online visibility for enterprises increases brand awareness, making it possible to improve reach to both target customers and investors while enhancing organizational credibility. Therefore, visibility may help improve the challenge of funding and profitability. Another notable finding is the distribution of funding and number of startups along the agricultural value chain. Most investment and agri-tech startups emphasize solutions at the production stage. However, majority of producers

(especially farmers) experience waste due to the high perishability of agricultural goods. Moreover, this food wastage contributes not only to farmer losses but to carbon emissions thus further contributing to climate change. More on the findings from the project will be communicated on the scheduled validation workshop. The solution that agri-tech startups developed are in relation to food and its productivity.

The project is therefore linked to two SDGs:

Separate from the GIZ sponsored project, the domain continues to research into the impactful effects of agri-based interventions such as extension services and remittances. The objectives of the research is to explore whether the challenges of funding and asymmetric information faced by Kenyan smallholder farmers can be overcome through such alternative pathways.

2.0

Collaborations

Transforming Research into Action for Inclusive Development
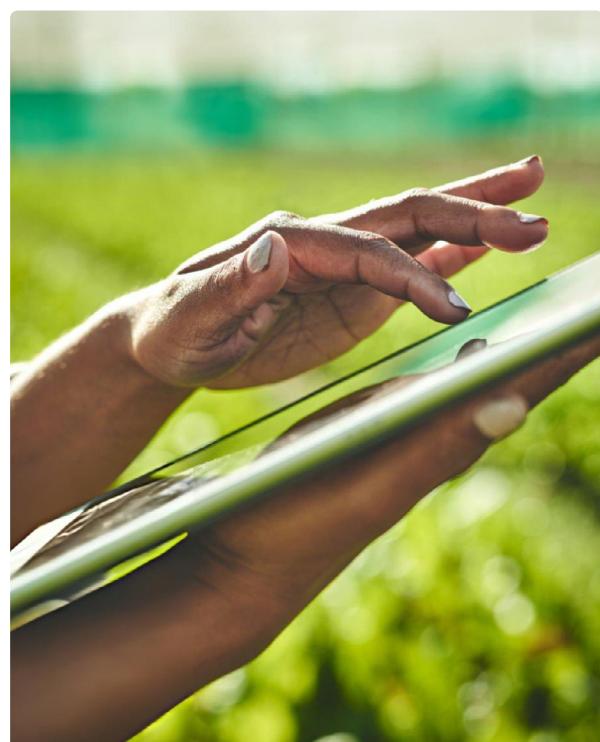
Collaborations is at the heart of our work. We collaborate closely with a diverse range of partners, leveraging their expertise, experiences, skills, capacities, resources, networks, and geographic locations to achieve a meaningful impact. Our partnerships span from local community-based organizations to government bodies and international research institutions.

Below is an overview of the organisations that we actively collaborated with in 2024
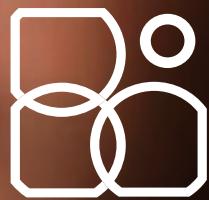
3.0

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

In its first year of establishment LEARN undertook several activities spanning policy, education and science communication, aimed at enhancing network visibility, establishing and fostering stakeholder linkages and knowledge exchange on urban developmental issues in East African cities.

LEARN successfully convened workshops, webinars and capacity building sessions engaging a diverse group of stakeholders, including academics from LDE and East African universities, practitioners, and policymakers, and civil society actors from Rwanda, Burundi, Tanzania, Uganda and Kenya.

Key activities included cross-city policy dialogues, the LEARN (urban uncovered) podcast series, publication of two policy briefs, participation in the World Urban Forum, and the LEARN Master's thesis lab.

3.1
Cross-city Policy Dialogues

LEARN organized two cross-city policy dialogues around its thematic focus on cities and climate change. These events brought together participants drawn from local and national governments, research institutions, community-based organisations, and international partners.

The first dialogue was a virtual webinar focusing on locally-led Adaptation for climate resilience, which generated insights that informed the publication of policy brief titled: Scaling up local actions shaping climate trajectories in East African cities.

The second policy dialogue was convened at Makerere University, Kampala, Uganda. The event was hosted in partnership with the Urban Action Lab. The 2-day event explored strategies for addressing climate related challenges focussing on their impacts on urban livelihoods. Practical climate resilience strategies were recommended and a call to action emphasising a reframing of Africa's climate narrative was made. Insights from this event are published in a policy brief titled Resilient Urban Futures: Adapting Livelihoods to Climate Change.

Insights from the policy dialogues were used to co-curate an exhibition booth at the 12th World Urban Forum (WUF12) in Cairo, Egypt, together with Erasmus University Rotterdam the Institute of Housing and Urban Development and International Institute of Social Studies. LEARN's participation significantly boosted the network's international visibility and facilitated connections for future collaboration.

3.2
Education- Master's Thesis Lab

The LEARN Master's Thesis lab is a 6-month student education and exchange programme designed to facilitate interdisciplinary collaboration and knowledge exchange among master's students from Leiden, Delft, Erasmus, and Kenyan universities. It provides a dynamic research environment where students conduct field-based thesis research that addresses pressing societal challenges, aligning with current research agenda identified by Nuvoni and partner institutions. The Thesis Lab provides tailored academic and professional mentorship whereby students are supported by expert supervision from Nuvoni and participating universities in both Kenya and the Netherlands.

Students engage in interdisciplinary peer learning, with policymakers, practitioners and communities in Kenya to ensure that academic research is contextually anchored and impactful. The thesis lab is structured around a series of both virtual and in-person seminar sessions on relevant theory and research methodologies and field engagement.

Nuvoni hosted the first thesis lab cohort of 9 students drawn from two Kenyan Universities –University of Nairobi and Dedan Kimathi University of Technology, and the LDE Universities.

The students engaged in research on the below themes;

Disaster risk management **01**

02 Clean cooking

Energy planning in informal settlements **03**

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.

We are excited to host the second cohort of students in **2025/2026!**

3.3
Science Communication- Urban Uncovered Podcast

The [LEARN Urban Uncovered podcast](#) series emerged as a key science communication platform for sharing cutting-edge urban research with broader audiences.

Each episode unpacked critical issues shaping cities today, such as:-

- ⊙ Digital inclusion,
- ⊙ Climate adaptation,
- ⊙ Urban resilience to social innovation.

LEARN seeks to use podcasts and other multimedia tools to stimulate dialogue, inspire collaboration, and strengthen LEARN's commitment to making science both understandable and impactful.

4.0

Organizational Risk Management

4.1
Risk Profile

Nuvoni risk principles and mitigation strategies are detailed under the different risk categories.

1 Strategic Risk

Nuvoni continuously reviews and updates its research agenda to remain aligned with global and regional development trends. The organization is also expanding its international presence and building a wider network of partnerships to enhance resilience and visibility. A Monitoring and Evaluation (M&E) Framework is in place to ensure quality assurance, track performance, and maintain institutional learning across all programs.

2 Financial Risk

To address potential financial risks, Nuvoni has implemented a diversified funding strategy and established a reserve fund to cushion against cash flow disruptions. The organization has invested in a robust financial management system that promotes transparency, inclusivity, and accountability in budgeting and reporting. Periodic external audits are conducted to maintain fiscal integrity, while financial policies are regularly reviewed to ensure compliance with donor and statutory requirements.

4 Operational Risk

Nuvoni mitigates operational risks through strong HR policies and Standard Operating Procedures (SOPs) that enhance organizational efficiency and accountability. The organization also maintains a comprehensive IT and Data Management Policy, incorporating secure cloud-based backups and controlled access systems to safeguard sensitive information and ensure business continuity.

3 Compliance Risk

Nuvoni upholds strict compliance with labor laws, donor regulations, and statutory obligations. The organization undergoes annual external audits and routine compliance checks to ensure full adherence to national and international standards. Continuous monitoring of compliance status helps Nuvoni maintain transparency, accountability, and credibility with its stakeholders and partners.

The organization has invested in a robust financial management system that promotes transparency, inclusivity, and accountability in budgeting and reporting

5.0

Environmental, Social and Governance Impact

The focus, goals, and objectives of Nuvoni Research are embedded in the Environmental, Social, Governance (ESG) principles across the four domains.

Our ESG commitments reflect our dedication to integrate our work with environmental stewardship, social inclusion, and ethical governance, ensuring that our practices not only generate actionable solutions but also contribute to the well-being of society and the planet.

Our commitments also align with the United Nations' 17 SDGs, particularly in areas such as sustainable cities (Urban Development), affordable and clean energy (Energy), zero hunger (Agri-Food Systems), and industry, innovation, and infrastructure (Technology and Innovation Management).

5.1
Environmental

Nuvoni's environmental responsibility is demonstrated through our research projects, policy solutions, and operational practices, all of which are designed to advance a sustainable world. We collaborate with stakeholders to deliver evidence-based interventions such as low-carbon energy systems, resilient urban planning, and sustainable agri-food innovations while embedding eco-conscious practices in all our activities. We are also encouraging environmentally friendly practices among our staff members including using digital platforms in research engagements, discouraging single-use plastics within our premises, collaborating with licensed waste pickers practicing recycling, and conducting environmental conservation awareness to our staff members and project partners.

5.2
Policies

Nuvoni is committed to fostering a culture of integrity, accountability, and transparency across our operations. To achieve this, we have several key policies and procedures to guide our ethical behaviour and decision-making. Our Code of Conduct, Anti-Bribery and Corruption Policy, Whistleblower Policy, and Conflict of Interest Guidelines provide clear expectations for all employees, partners, and stakeholders.

Through regular training, open communication, and continuous review of our practices, we aim to maintain the highest standards of ethical performance. By embedding these principles into every aspect of our work, Nuvoni strives to build trust, uphold responsibility, and ensure long-term sustainability for our company, our clients, and the communities we serve.

Our code of conduct is designed to allow the establishment and preservation of our core values of integrity and credibility globally. This Code applies to all employees and any third-party service provider in contact with us. The key components include service, accountability, conflict of interest and disclosure, confidentiality, sexual harassment and procedures for the care of those who may be vulnerable due to disability.

5.3
Ethics

We are guided by our Code of Conduct, which requires all researchers to uphold the highest standards of professionalism and ethical behavior throughout the research process. We uphold all the principles of ethical research such as maximizing benefits and minimizing harm, respect of rights and dignity, voluntary and informed participation, integrity and transparency, accountability and responsibility, independence and conflict of interest and disclosure.

5.4

Diversity, Equality and Inclusion (DEI)

At Nuvoni, we believe that diversity, equality, and inclusion are essential to excellence in research and innovation. Our commitment to DEI is reflected in how we recruit, collaborate, and conduct our work ensuring that every individual is valued, respected, and empowered to contribute fully. By fostering an inclusive environment, we encourage creativity, critical thinking, and a deeper understanding of the communities we serve.

5.5

Employee Engagement

5.5.1 Team Building

Nuvoni staff were involved in an exciting Teambuilding exercise in Kajiado. This is an annual event geared to promote a culture of collaboration, trust, and continuous learning. During the activities the team got to bond and know each other. It was also a time to relax and enjoy the great outdoors.

5.5.2 Corporate social responsibility (CSR)

After flood donations

The 2024 floods caused havoc in Mathare, one of the communities we largely work in and most of our partners are in. In that sense our team, with the support of Ghetto Foundation, gave some humanitarian support. We have the communities we work with at the center of our work, hence our continued research on resilience and advocacy for better coordination during disaster response.

Clean up

We took part in a weekly clean-up at Luckysummer Neighborhood. These cleanups are usually organized by Luckysummer Environment and Waste Management Organisation.

Sports activity

In December 2024, the Delft Frugal Minors Programme (2024/25), in collaboration with Easy Urban Green Growers, organized a Sports and Cultural Day to mark Jamhuri Day celebrations. The event brought together children and community members from Baba Dogo neighborhood in Nairobi, promoting teamwork, creativity, and cultural exchange.

6.0

Organisational Structure

The leadership of Nuvoni is anchored in a collaborative and accountable governance structure designed to ensure strategic alignment, operational efficiency, and research excellence.

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The organization is headed by the **Centre Director**, based in Nairobi, Kenya. The Director provides overall strategic leadership and oversight of all programs and operations. The Director works closely with our **global partners** from the **International Institute of Social Studies (ISS)** under the **LDE Global umbrella**, and the **International Centre for Frugal Innovation (ICFI)** program.

The **Head of Programmes** provides technical and managerial supervision of Nuvoni's research and operational teams, ensuring coherence across thematic domains and alignment with organizational objectives.

Each **Research Domain** is led by a **Research Fellow**, responsible for guiding thematic research agendas, mentoring junior researchers, and fostering partnerships relevant to their area of focus.

Operational functions, including finance, administration, human resources and logistics, are overseen by the **Finance and Administration Manager**, who also reports to the Head of Programmes. **Research Associates** coordinate specific projects within their respective domains, ensuring the smooth implementation of activities and the integration of research outputs into Nuvoni's broader agenda.

7.0

Looking Ahead

As we look to the coming years, our ambition is to continue deepening both the rigor and breadth of our research while staying closely connected to the practical realities and aspirations of the communities we serve.

A key part of this expansion is the development of new **health** and **water** domains. These areas naturally intersect with our existing work in energy, urban development, informality, agrifood systems, and technology management, and many of the challenges emerging in health and water call for the same evidence-based, interdisciplinary, community-engaged approach that defines our current research. We already see strong potential collaborations in this space—both locally and internationally—and we are excited to build a research agenda that responds to critical regional needs while complementing our broader thematic focus.

We also plan to strengthen our contributions to **policy advisory**, as this has become a central part of making our research meaningful. We want to make ourselves more available to governments and decision-makers at national and county levels, and continue refining how we translate evidence into formats that are practical, adaptable, and usable across diverse policy contexts. This applies to all our domains—from clean energy transitions and digital inclusion to climate resilience, agri-food systems, and the governance of emerging technologies. Our goal is to contribute to policy spaces not only as researchers, but as thought partners who help shape instruments, strategies and frameworks grounded in solid evidence and lived realities.

Capacity development will remain a major pillar of our work. Beyond training policymakers, practitioners and community actors, we also want to strengthen our contribution to **research education**. We see immense value in working more closely with research fellows and students—both Kenyan and international—because they influence the kinds of innovative, grounded and future-shaping knowledge that enters the field. By embedding students more meaningfully in our research processes, we can foster deeper co-learning, enrich our methodologies, and help shape a new generation of scholars whose work is informed by, and responsive to, the African context.

Regionally and globally, we intend to amplify East African perspectives in international discussions. We will continue to bring our insights into global fora—on cities, climate, innovation, digital inclusion, and frugality—while also ensuring that these global conversations stimulate richer **local and regional dialogues**. This "glocal" engagement is central to our mission: contributing outward, while strengthening the intellectual and policy ecosystems at home.

We look forward to further growing the **LEARN network**, engaging more actively with stakeholders across East African countries and the Netherlands, and facilitating more joint research, teaching exchanges, and knowledge-sharing among universities and practitioners. We also want to amplify science communication within LEARN and build the network's capacity to attract new research funding. Similarly, we plan to deepen our role within the **International Centre for Frugal Innovation**, supporting efforts to establish a frugal innovation lab and strengthening cross-collaboration among partners in Africa, India, Indonesia, the Middle East, the Netherlands and beyond. In both networks, we want to continue championing our core themes—**frugality, resilience, inclusion, governance and informality**—and ensure they remain central to the research and innovation agendas emerging from these collaborations.

Internally, we are preparing to move into a new, larger and more serene office space that will allow us to accommodate visiting researchers, foster collaboration, and create an environment that supports thoughtful, high-quality work. We also hope to strengthen our internal capacity around science communication, build robust knowledge systems, and support our staff as they pursue further education, specialised training and international exposure.

Driven by our commitment to inclusive, locally-grounded and forward-looking innovation, we are excited for this next phase of Nuvoni's growth—and for the new opportunities it will bring for research, collaboration, policy influence and impact across the region and beyond.