

A man in an orange life vest is sitting in a small boat on a body of water at night. The boat is filled with orange buoys and lights. The background shows a dark sky and distant land.

weTu

# IMPACT REPORT 2023

**Better solutions.**

**Better lives.**

**4** From the  
Shareholder

**9** Our Business  
Model

**22** Cooling  
Projects

**5** From the  
Director

**10** Clean  
Energy

**24** Circular  
Economy

**6** Our  
Commitment

**13** Sustainable  
Fishing

**26** Our  
Partners

**7** Our  
Values

**16** Electric  
Mobility

**27** Get in  
touch

**8** Our  
Impact

**19** Safe  
Drinking  
Water



# SIEMENS | Stiftung

Social enterprises stand out from traditional business practices for their strong focus on creating social, environmental and economic value. Rooted within communities, they understand the pulse of the people: Prioritizing their interests by developing sustainable solutions to some of the most challenging issues along with boosting economic activities. As an internationally operational foundation, we have been working with social enterprises in sub-Saharan Africa over the past decade and have experienced their contribution to creating long-term social business models designed around impact creation and financial sustainability.

In 2019, we put our collective experience and know-how into WeTu, a social enterprise serving communities around Lake Victoria in Kenya with innovative and sustainable solutions for safe drinking water, energy for productive use and e-Mobility. Creating a social and ecological business model was at the heart of founding WeTu, and five years down the lane, it is inspiring to experience the energy of the entire community. Joining hands to improve living conditions, they've reduced supply deficits and created structures that enable sustainable business.

Based on the principle of a shared economy, WeTu with its manifold services has opened economic prospects by creating jobs and improved skills for locals.

It is a living model of how a community-based social entrepreneurial model is developing locally designed and adapted technologies to create optimal social and economic impact. It demonstrates our three strategic topics of Access to Essential Services by providing safe and affordable drinking water, securing Climate and Sustainability through the generation of renewable energy through its various solar hubs and the deployment of electric vehicles and connecting the society to contribute in the process.

We acknowledge the efforts of our colleague Tilmann Straub (CEO, WeTu) and the entire team for setting an example of a social business that addresses a number of Sustainable Development Goals. The impact report provides a detailed low-down of the team's and communities' entrepreneurial journey giving insights into their approach toward creating sustainable social development.

**Congratulations and good luck!**



A stylized, handwritten signature in white ink that reads "Nina Smidt".

*Dr. Nina Smidt, Managing Director (CEO)  
and Spokesperson of the Board  
Siemens Stiftung*



A stylized, handwritten signature in white ink that reads "Robert Balthasar".

*Robert Balthasar, Managing Director  
(CFO) Siemens Stiftung*



**WeTu, established in 2019, has transformed into a leading social enterprise in the rural areas of western Kenya, dedicated to advancing the Sustainable Development Goals (SDGs).**

With a profound commitment to societal development, we acknowledge our significant role in advocating for both the Paris climate targets and the UN SDGs. These objectives remain fundamental to our mission. We are actively addressing climate change and its ramifications, aligning with SDG13 by fostering a disconnect between economic growth and carbon emissions. Additionally, we are aiding the implementation of Kenya's climate policy and the integrated development plans of four counties in western Kenya where we operate, namely; Migori, Homabay, Kisumu, and Siaya County.

The increasing threat of climate change and inequalities in communities, are a tangible reality that must be actively addressed. As an environmentally conscious, innovative social enterprise, we at WeTu value the power of the productive use of renewable energy to create change in communities. We continue to offer practical, innovative and inclusive business models in the rural areas to solve challenges and support development through reliable and affordable products and services such as renewable energy, safe drinking water and green mobility.

Sustainability is the foundation of everything we do at WeTu shaping our approach developing innovative business ideas, integrative business models and the way we manage the company, our team,

the way we interact with customers, partners and the world we want to create.

With this report, we are grateful for the opportunity to share our first annual impact report, detailing our work and the impact we have achieved together with our customers, partners and stakeholders in large in 2023.

A handwritten signature in black ink that reads "Tilmann Straub".

*Tilmann Straub*  
Director



## OUR COMMITMENT

WeTu, founded in 2019 by the Siemens Stiftung (Foundation) as the sole shareholder, is a social enterprise with a profound commitment to elevating the living standards of rural Western Kenya. Our name is derived from the Swahili word, which means “ours” and represents our collaborative approach in implementing our projects in the communities where we work. Since our inception in 2019, we have been on a mission to bring about positive change in the lives of the communities we serve.

WeTu creates sustainable solutions in the key areas of safe drinking water, clean energy, green mobility, electronic waste management and smart agriculture through innovative products and services averting pollution of the environment by targeting key needs of people at BoP in the local communities.

The enterprise products and services are therefore fully powered by renewable energy through the company’s self-designed and installed solar systems.

Our emphasis is on making a difference than on profit-making with the primary goal of creating a lasting impact in the communities we work with, leaving behind a legacy of transformative impact.

We are pioneers in our field, consistently developing innovative sustainable products and services that not only address our clients’ immediate needs but also align with our commitment to sustainability. We believe true innovation should not only provide better solutions but also contribute to better lives.

## OUR VISION

To open up greater opportunity and choice for people through providing products and services that create jobs, improve health and protect the local environment.

## OUR MISSION

To deliver sustainable, innovative solutions for better mobility, clean energy and safe water across rural Kenya.

# OUR CORE VALUES

## **Problem focused Innovation**

We solve and address problems through innovation. We understand the critical importance of safe water, clean energy and mobility in rural Kenya. We are committed to offering innovative, accessible and environmentally conscious solutions that enhance our customer's lives.

## **Local Impact and Collaboration**

As a Kenyan company, we want our products and services to create positive and measurable impact. Through partnering and collaborating with local businesses and organizations we will strengthen this impact and widen the infrastructure around delivering safer, cleaner and better products and services.

## **Positive, Professional, Dedicated**

We care and uphold respect, professionalism and transparency in our endeavours. Our commitment to continuous improvement fuelled by growth mindset, enables us to evolve our products and services in response to existing needs, ensuring that we consistently provide effective solutions delivered with the utmost accuracy.

## **Responsibility and Honesty**

Our team is committed to driving positive change upholding honesty, openness and approachability which builds trust and loyalty with customers resulting to sustainable business growth.

# OUR IMPACT AT A GLANCE (2019–2023)

## RENEWABLE ENERGY



Established **14 solar-powered Water-Energy-Hubs** with a total of **300 kWp** installed capacity

Produced **1.17 Mio. kWh** of solar energy

Engaged over **400 active fishermen** through sustainable solar fishing lanterns

Saved **2.1 Mio. liters** of kerosene and avoided **5,800 tons** of CO<sub>2</sub> emissions

One solar-powered ice production plant

Served **367 customers** and sold **461 tons** of ice-flakes to preserve fish



## ELECTRONIC WASTE

Operating **one e-waste pre-processing plant** licenced by the National Environmental Management Authority (NEMA)

Collected **10 tons** of e-waste from 2 communities

## ELECTRIC MOBILITY



Introduced **40 electric vehicles**, including electric motorcycles and three-wheelers

Covered **398,100 km** and avoided **12.6 tons** of CO<sub>2</sub>

Established **2 battery swapping stations**

## SAFE DRINKING WATER



Established **27 Water ATMs** serving **11 communities**

Dispensed **10.9 million liters** of clean and safe water



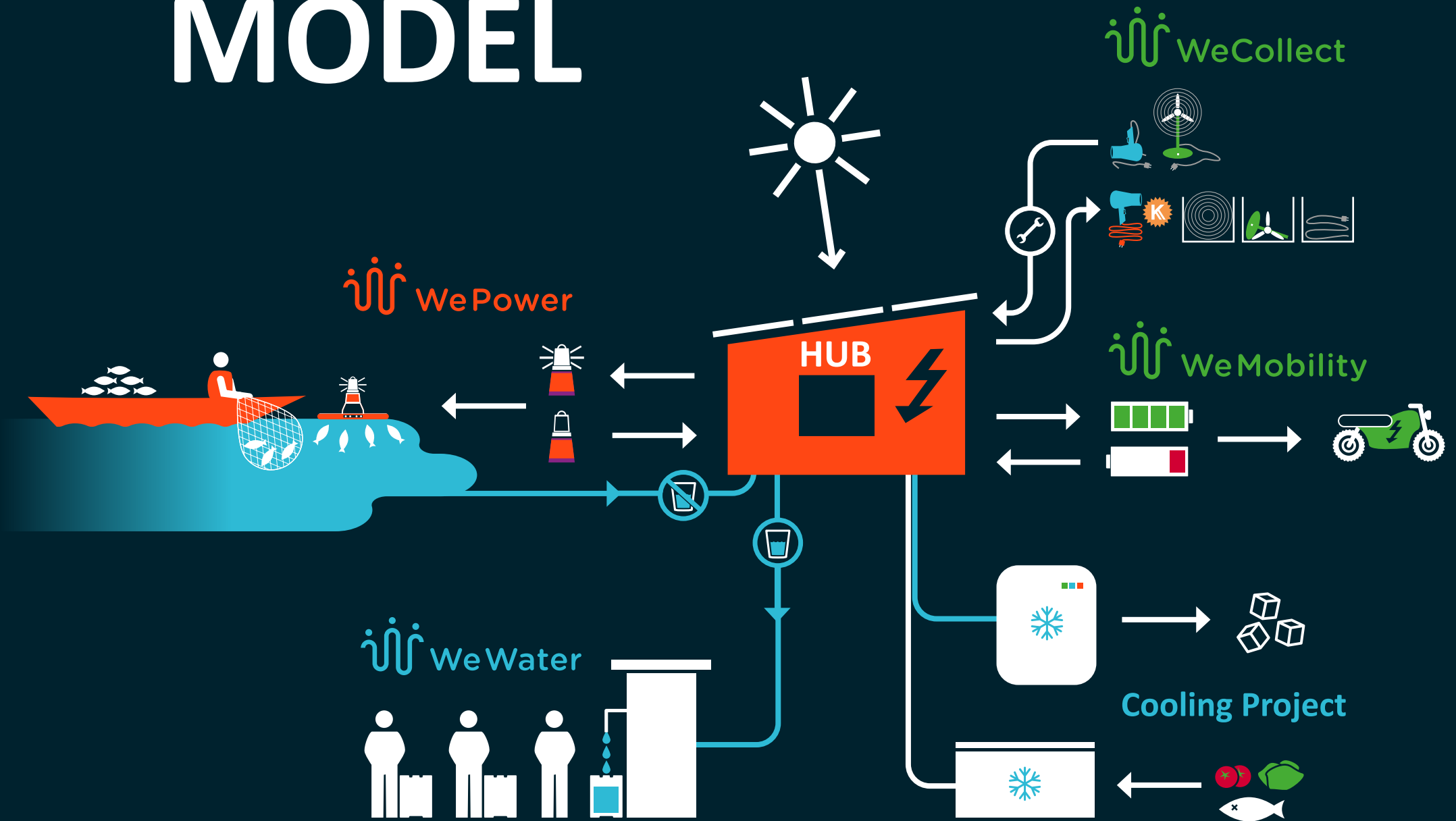
Serving **21,440 people** on a daily basis with safe drinking water

## JOB CREATION



WeTu has created **61 direct full time jobs** (44M/17W) within the organization and a total of **102 direct jobs** including full time jobs with partners such as Lakers-Pride Security Service and others.

# OUR BUSINESS MODEL



An aerial photograph of a rural village with a large solar power installation. The installation consists of three long rows of solar panels mounted on metal frames, covering a large area. Below the panels are several small buildings, some with red and blue doors. A dirt road runs through the village, and several houses with blue roofs are visible in the background. People are standing near the solar panels, and a white van is parked nearby.

 WePower

# CLEAN ENERGY

FOR PRODUCTIVE USE



# 1.17

(2019–2023)

# GWh

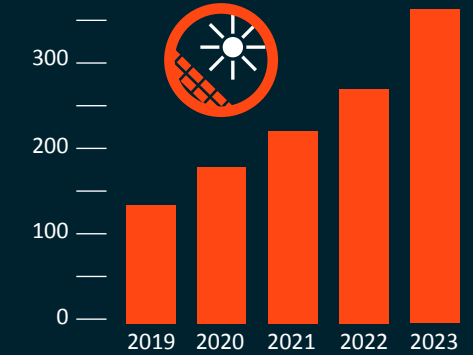
**W**eTu strives to contribute towards the universal clean and affordable energy access as laid out in SDG 7 and has increase efforts to help tackle challenges faced by communities in western Kenya and climate change more broadly by developing innovative clean energy products and services.

The company develops its own solar-powered Water-Energy-Hubs, which serve as a central component in fueling various interconnected business verticals. The hubs play a crucial role in supplying renewable energy to power diverse user cases that WeTu developed in a cross sectoral approach such as clean and safe drinking water, electric mobility in the rural set up, solar powered fishing lanterns, ice-flake production and cold rooms.





Solar Energy Production Per Year in MWh



The WePower project has experienced significant growth from 2019 to the end of 2023. Initially, in 2019, WeTu operated six solar-powered energy hubs in rural communities. However, by the close of 2023, this initiative had expanded remarkably, boasting a total of 14 energy hubs spread across 14 communities throughout the four counties in western Kenya's Lake Victoria region with a total installed capacity of 300 kWp.

The production of clean energy through solar has also increased significantly through the years totaling 362,662 kWh in 2023. In total WeTu were able to produce 1.17 Mio. kWh since inception.

We prioritize SDG 9, which is about building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation, by upgrading and retrofitting industries to make them more sustainable, resource-efficient and by adopting clean technologies.



SUSTAINABLE

**SOLAR  
POWERED**

FISHING





CO<sub>2</sub>  
**-2,240 tons**  
(2023)



In the WePower as a business vertical, Energy generated from the solar powered hubs supports the recharging of solar lanterns used by fishermen for efficient and sustainable fishing practices of silver fish commonly known as Omena. By end of 2023 WeTu had over 400 active fishermen for the solar fishing lanterns across the 4 counties in the Lake Victoria region in western Kenya.

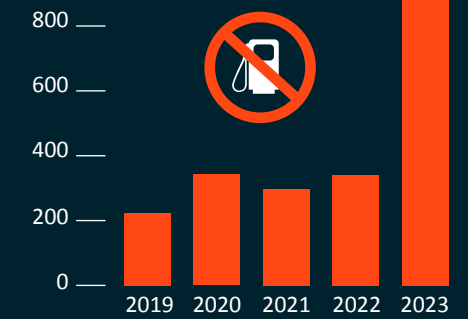
This innovation has not only enhanced the safety and productivity of nighttime fishing activities but also reduced dependence on harmful and expensive kerosene-based lighting, mitigating the impact of greenhouse gas emission as well as lead acid pollution. By embracing sustainable energy solutions, WePower for sustainable fishing has not only improved the livelihoods of fishermen but also contributed to the preservation of the region's delicate ecosystem.

Since 2019, there has been a significant decrease in the number of kerosene lanterns among fishermen, attributed to the widespread adoption of WeTu's solar lanterns.

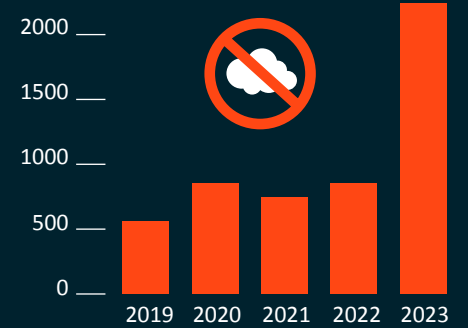
**This transition has resulted in substantial environmental benefits, notably reducing the combustion of kerosene and thereby lowering CO<sub>2</sub> emissions.**



Fuel Saved (Kerosene) in 1000 l



CO<sub>2</sub> saved in t



In 2023, the positive environmental impact of WeTu's solar lanterns was evident, as they contributed to a remarkable abatement of 2,240 tons of CO<sub>2</sub> emissions compared to 2019, where only 560 tons of CO<sub>2</sub> were avoided. This demonstrates a substantial improvement and underscores the effectiveness of WeTu's efforts in promoting sustainable practices and reducing environmental harm.

 WeMobility

# ELECTRIC MOBILITY

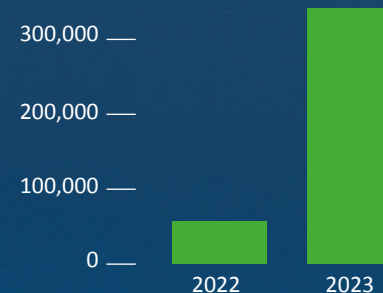




**W**eTu's e-mobility initiative introduces clean last-mile transportation option in the rural set up of the Lake Victoria region in Western Kenya. Through electric vehicles powered by renewable energy sources WeTu has enhanced accessibility to essential services, markets, and healthcare facilities. This not only bolstered local economies but also curbed pollution, fostering environmental sustainability.

WeMobility, initiated by WeTu in 2019 with the introduction of pilot fleets on the road, has experienced substantial growth and evolution. The insights gained from these pilot projects were instrumental in refining and ensuring the sustainability of the initiative for WeTu as well as for its partners in the sector.

*Total KM Covered Per Year*



# 340900

km with EVs (2023)

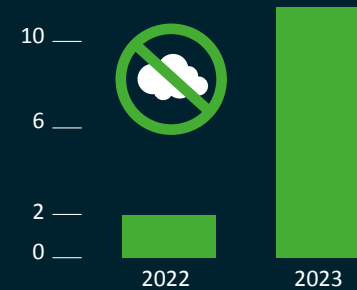




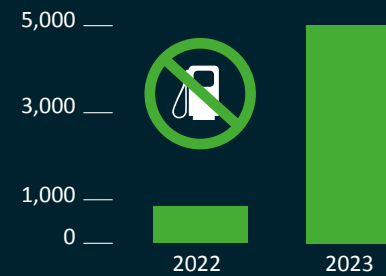
By end 2023, WeTu proudly reports significant achievements, covering an impressive total of 398,100 kilometers, 22 electric motorcycles on road, employing 22 riders since the project's inception.

Also, by 2023, WeTu had 2 energy hubs equipped with EV battery charging facilities serving as battery swapping stations, that is; Homabay Hub in Homabay county and Katito Hub in Kisumu County.

CO<sub>2</sub> saved in t



Fuel Saved (Petrol) in l



**Victor Odhiambo**

Homabay Town Boda Boda Rider.


"I am from Homabay County, I have used WeTu bikes for 6 months. From my experience electric bikes are better than fuel bikes. They protect the environment from gas emission. It also protects the environment from noise pollution.


With WeTu, to use the bikes is cheap compared to fuel bikes. I advise the youth to embrace electric bikes. I am also happy the president recently endorsed the use of electric motorcycles in Kenya...."

A man in a brown and teal patterned shirt is filling a large white plastic water container from a public tap. The tap is mounted on a white wall. Another similar container is visible in the foreground. The background shows a clear blue sky and a building.

 WeWater

# SAFE DRINKING WATER

 We Water

Supplied by  WeTu

6

CLEAN WATER  
AND SANITATION

7

AFFORDABLE AND  
CLEAN ENERGY

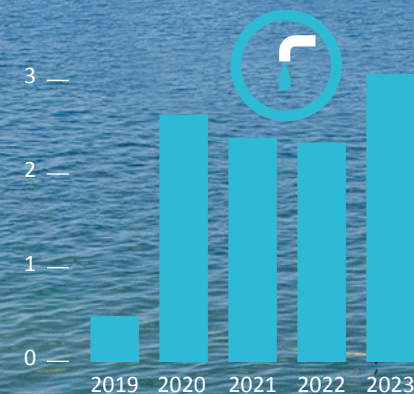
**W**eTu's WeWater initiative provides a reliable and affordable solution to the critical issue of clean and safe drinking water. By leveraging advanced water purification technologies, WeWater ensures that communities have access to high-quality drinking water, reducing waterborne diseases and improving overall health. WeTu's commitment to affordability empowers even the most economically vulnerable individuals to access clean water, catalyzing positive health outcomes and economic growth.

# 3.8

## mio litres

safe drinking water (2023)

*Litres of water dispensed (in Mio. litres)*



20



**Elizabeth Atieno Ajwang'**

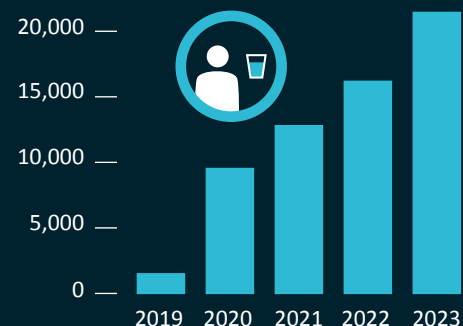
Chief Agoro West Location (Katito), as well as WeWater Customer in Katito Community.

*"First and foremost, I want to express my gratitude to the WeTu organization for having done the water project in my location where Katito market is. Since they started this project, my people are getting clean and safe water which they never used to get. We had boreholes and water pan water that mostly were not clean, but right now, we are getting clean and safe water for drinking. The introduction of water ATMs has also made it easy to access water at any time even at night, unlike other sources where people used to buy water that has time limit.*

*These days my residents are enjoying clean and safe water which they can collect any time. It has also helped us limit water borne diseases especially this diarrhea.*

*We can get clean and safe water without running to the shop to buy chemicals to treat water...."*

*People are served with safe drinking water*



The volume of water distributed to households has experienced notable changes over the years. In 2019, it amounted to 0.47 Mio. liters, increasing sharply to 2.63 Mio. liters in 2020. However, the effects of Covid-19 led to a decline in water purchases from our ATMs, dropping to 2.33 Mio. liters 2022. Through additional ATM distribution systems and sensitization programmes in the communities partnering with the County Public Health and Community Health Volunteers in 2023, there was a rebound, with water supply rising to 3.06 Mio. liters.

Since its inception in 2019, the WeWater Project has steadily progressed to develop Water-Energy Hubs in eleven rural communities supplying water through 27 water ATMs. This expansion has significantly increased its daily reach to about 21,440 people by the end of 2023. By the end of 2023, the initiative had extended its operations to four counties in western Kenya: Migori, Homabay, Kisumu, and Siaya County.

**WeTu aims to ensure a consistent water supply through our Water ATMs, targeting an annual distribution of approximately 5 Mio. liters.**



# COOLING PROJECTS



# 331t (2023) of ice

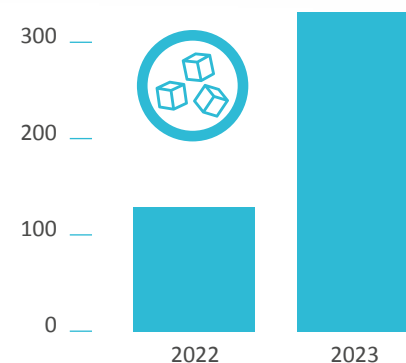
**W**eTu's activity in providing ice-flakes plays a pivotal role in reducing post-harvest losses by providing sustainable solutions for the cold chain to fishermen, horticulture traders and farmers.

By ensuring proper storage and preservation of perishable goods, the ice-flakes project, focused on production of a high quality product has helped fishing community in Mbita where the machine is located

to maximize their economic potential and reduce food wastage.

This business vertical has not only enhanced food security but also empowered local entrepreneurs in the cold value chain. The business model combines all other verticals as the ice-flakes are produced using safe drinking water and solar energy and delivered to the beaches and customers through electric mobility vehicles. Ice production business vertical was

*WeTu Ice production in tons*



launched in February 2022 with one ice production plant in Mbita, Homabay County. It has since gained a steady growth from 68 customers to 367 customers by end of 2023.

By end of 2023, WeTu served a total 367 customers and sold 4,433 sacks of ice translating to 461 tons of ice which helped in preservation of fish minimizing post-harvest losses amongst the fishermen in homabay county.

A man in a grey work jacket with yellow reflective stripes and gloves is working on electronic components on a workbench. The background shows a workshop with various electronic equipment and tools.

 WeCollect

# CIRCULAR ECONOMY E-WASTE PROJECT



# 10000<sup>(2023)</sup> kg

of collected e-waste

Under the circular economy activities WeTu developed “WeCollect” a project related to electronic waste collection and repair, reusing and recycling and received an e-waste operation license from the National Environment Management Authority (NEMA) of Kenya in 2023 for a pre-processing plant in Homa Bay. This marked a milestone for the WeCollect project, which initiated a pilot e-waste collection in Homabay Town and Mbita.

WeTu successfully collected 10 tons of e-waste, currently undergoing preprocessing. Through this project, WeTu ensures responsible reuse or disposal of obsolete products mitigating the environmental hazards associated with e-waste.

Additionally, through the project, WeTu wanted to improve awareness among the local community and increase responsible handling of e-waste and therefore has partnered with NEMA and the Public Health Office of Homa Bay County to conduct training and sensitization workshops for relevant stakeholders.

“At the onset, it, like was stepping into uncharted territory as there was no serious implementation of e-waste legal framework at both national and county governments in Kenya, added to this, was the ignorance among the locals on health and environmental risks of e-waste”, says Lavender Achieng, WeTu e-Waste Coordinator.

# FUNDING PARTNERS

**SIEMENS** | Stiftung



**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH



# BUSINESS AND PROJECT PARTNERS



**UN HABITAT**  
FOR A BETTER URBAN FUTURE

**Fraunhofer**  
IESE



**intellecap**  
AAVISHKAAR GROUP



**UN environment programme**  
copenhagen climate centre  
supported by **UNOPS**

**cewas**



J  
O  
M



**energy saving trust**





# WeTu

Better solutions. Better lives.

## Imprint/Contact

### Liabile for the content

WE!Hub Victoria Ltd.  
Tilman Straub  
P.O. BOX 7335 - 40100,  
Kisumu, Kenya  
[www.wetu.co.ke](http://www.wetu.co.ke)  
[info@wetu.co.ke](mailto:info@wetu.co.ke)

### Design

Christoph Thanhäuser  
[www.thanhaeuser.com](http://www.thanhaeuser.com)

### Pictures

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