

THE SUGAR INDUSTRY INNOVATION SYMPOSIUM & EXPO

REPORT 2024

YOUTH EDITION



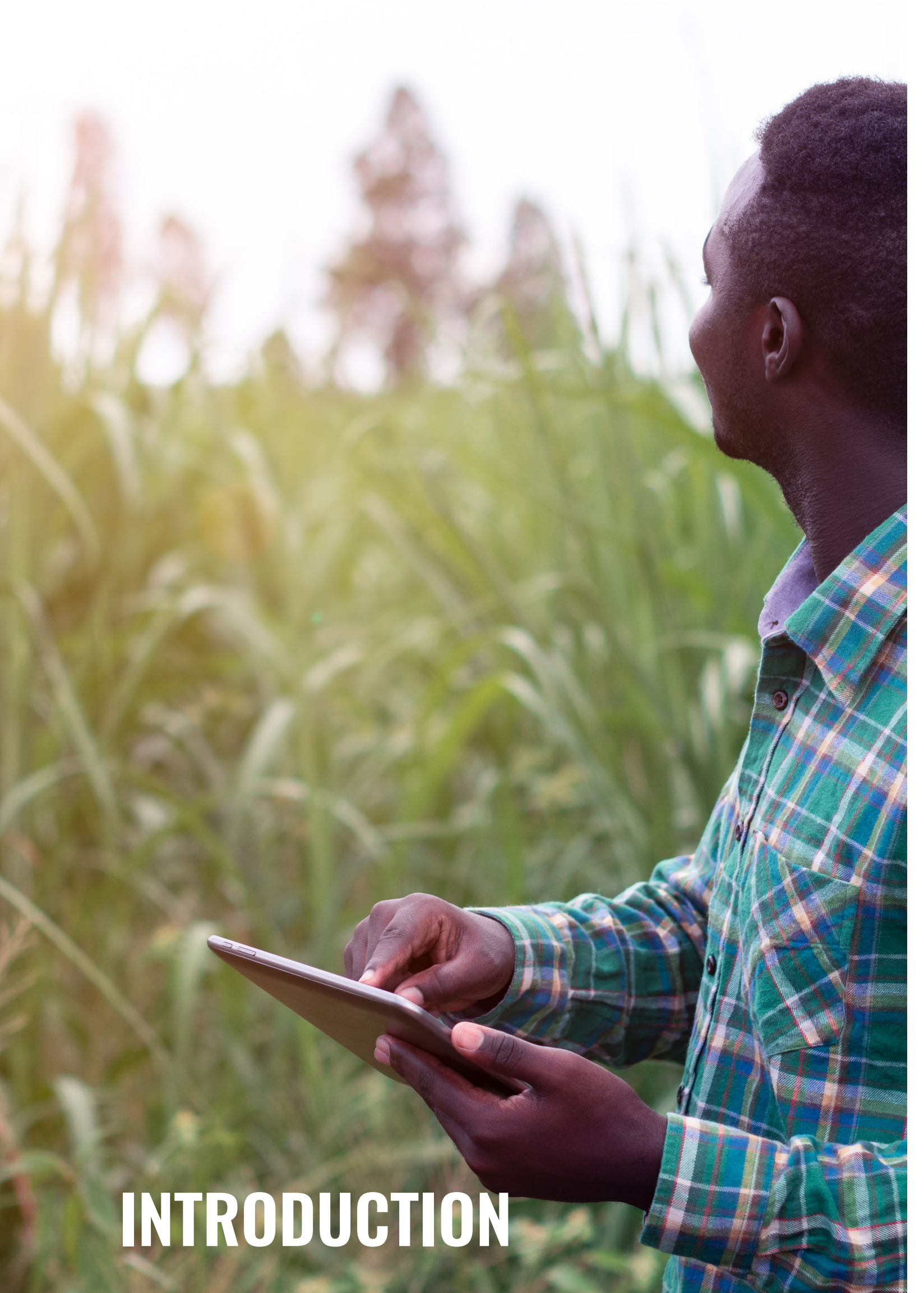
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INTRODUCTION

The Agricultural sector remains a fundamental pillar of Kenya's economy, contributing 21.8% to the country's GDP (KNBS 2024) and serving as a primary source of livelihoods for a significant portion of the population. However, despite its pivotal role, the sector continues to face systemic challenges that hinder its capacity to drive inclusive and sustainable development.

Among these challenges, the aging demographic of farming communities stands out as a pressing concern. Even though Kenya boasts a predominantly youthful population, this demographic has shown limited involvement or interest in agricultural activities, creating a critical gap in the sector's workforce.



This disengagement poses a serious threat to the future of the sector, as it undermines the infusion of new ideas, technological adoption and sustainable practices essential for agricultural transformation into a dynamic and resilient sector.

The Kenyan sugar industry, a vital sub-sector of agricultural sector, mirrors these trends. Youth participation across the sugar value chain remains notably low, exacerbating the challenges of sustainability and innovation in the industry. With the sector's reliance on aging practitioners, there is an urgent need to inspire and actively engage young people in sugarcane farming, processing and value addition to secure the industry's future.

Against this backdrop, the 3rd Annual Sugar Industry Innovation Symposium and Expo was convened under the theme **"Youth Opportunities in the Sugar Value Chain."** This theme underscored the strategic importance of leveraging the creativity, energy and technological acumen of Kenya's youth to revitalize the sugar industry. The event aimed to bridge the gap by offering a platform to showcase innovative solutions, foster knowledge exchange and explore diverse opportunities within the sugar value chain, ultimately driving youth engagement and securing the sector's sustainability.

EXECUTIVE SUMMARY

The Kenya Sugar Board convened and hosted the third Annual Sugar Industry Innovation Symposium and Expo, held from 3rd to 5th December 2024 at the Grand Royal Swiss Hotel in Kisumu. The event, themed “Youth Opportunities in the Sugar Value Chain,” brought together key stakeholders in the sugar industry, including policymakers, researchers, innovators, industry leaders and youth representatives. The symposium served as a platform for knowledge exchange, showcasing cutting-edge innovations, and fostering dialogue on strategies to enhance youth participation across all stages of the sugar value chain, from production and processing to value addition and marketing.

The three-day event featured a rich program that included keynote addresses by prominent industry leaders, panel discussions on emerging trends and technical presentations of innovative solutions. Workshops and interactive sessions provided participants with hands-on opportunities to explore advancements in agritech, digital platforms and value-added product development tailored to the sugar sector. A major highlight of the symposium was the innovation competition, which spotlighted transformative projects by young entrepreneurs, researchers and startups.



These innovations demonstrated the potential to drive efficiency, sustainability and profitability in the sugar industry while addressing challenges such as low productivity, climate resilience and market access. The panel discussions, presentations and showcased innovations focused on the following key thematic areas:

1. Youth Involvement in Revolutionizing Sugarcane Production
2. Youth Advocacy for Policy Reforms in the Sugar Industry
3. Nurturing Financial Opportunities for Youth in Sugar Enterprises
4. Driving Agroecological, Climate-smart and Environmentally Sustainable Practices Through Youth-Led Initiatives
5. Facilitating Market Access for Youth-Led Initiatives
6. Harnessing Digital Solutions for Youth-Led Advancements
7. Empowering Youth in Innovative Sugar Processing
8. Fostering Market Diversification and Product Innovation through Youth-Led Initiatives

In addition to the technical sessions, the event also hosted an exhibition showcasing diverse products, services and technologies relevant to the sugar industry. Exhibitors included manufacturers of farm machinery, developers of digital tools, bioenergy companies, and producers of value-added sugar products. The expo attracted significant attention from local and international audiences, providing participants with valuable networking opportunities to forge partnerships and collaborations. By placing a spotlight on youth engagement, the symposium and expo underscored the critical role of the next generation in ensuring the long-term sustainability and competitiveness of Kenya's sugar industry.



KEYNOTE ADDRESS

DR. KIPRONOH RONO PAUL, CBS

PRINCIPAL SECRETARY, STATE DEPARTMENT FOR AGRICULTURE



"I thank you all for the rich and engaging discussions taking place at this symposium. The revitalization of Kenya's sugar industry depends heavily on the energy and creativity of our young people. Their involvement is not optional—it is essential.

I commend our industry pioneers, innovators, and stakeholders for the work they are doing. The sugar sector is not just about production; it is about food security, job creation, and rural development. It touches the very heart of our national growth.

We must embrace modern technologies. These tools are not luxuries—they are transformative. They will help us enhance efficiency, reduce waste, and boost our global competitiveness.

As government, we have made deliberate strides. We have reduced sugar prices, cleared long-standing arrears owed to farmers, and addressed salary delays that have plagued sugar factory workers. Most importantly, we now have the Sugar Act 2024—a milestone that establishes the Kenya Sugar Board and the Kenya Sugar Research and Training Institute, institutions that will anchor regulation, research, and sector-wide collaboration. Let us look beyond the short-term. We must focus on value addition in agriculture. That is how we raise incomes, build resilience, and transform agriculture into a true driver of wealth.

I see a future where Kenya is self-sufficient in sugar production. A future where we do not just meet domestic demand—we export high-quality sugar and value-added sugar products to regional and international markets.

To our youth, I say this: the future of this sector is in your hands. Embrace innovation. Lead boldly. And together, let us build a sugar industry that becomes a pillar of Kenya's economic transformation."

PLENARY HIGHLIGHTS

HON. ENG. NICOLAS GUMBO

BOARD CHAIRMAN, KENYA SUGAR BOARD

"Distinguished guests, colleagues, and partners in the sugar industry, I am deeply honored to address you today at the 3rd Annual Sugar Industry Innovation Symposium and Expo. I take this opportunity to express my sincere gratitude for the trust bestowed upon me by His Excellency the President in appointing me to serve as Chairman of the Kenya Sugar Board.

I also wish to extend heartfelt congratulations to our CEO, Mr. Jude Chesire, on his historic election as Vice Chairperson of the International Sugar Organization—a prestigious global position that Kenya, and indeed Africa, holds for the very first time. This is not only a personal achievement but a proud milestone for our country and continent.

The sugar industry holds a central place in our agricultural economy. It aligns strongly with the Bottom-Up Economic Transformation Agenda (BETA) of the Kenya Kwanza Administration. Agriculture and value addition are among the six key pillars of BETA, and within this, sugar is a powerful engine for rural development, job creation, and economic inclusion.

I applaud the Government's bold decision to transition sugar regulation from the Agriculture and Food Authority to the Kenya Sugar Board. This move strengthens stakeholder engagement, promotes transparency, and provides a more responsive and independent regulatory framework that is better aligned with industry needs.

As we now move toward the full implementation of the Sugar Act 2024, I call upon all



stakeholders—farmers, millers, researchers, innovators, and investors—to walk together in unity. Let us seize this opportunity to rebuild a vibrant, inclusive, and future-proof sugar sector. This industry supports millions of Kenyans and must be safeguarded and modernized to fulfill its full potential.

The timing of this symposium could not be more fitting. Kenya’s youth population is rising, and with it comes a wave of talent, creativity, and possibility. I urge our young people: agriculture is not the past—it is the future. Your innovation, your ideas, your energy are what will transform this sector. Use this platform to learn, network, and take bold steps toward leadership and enterprise in the sugar industry.

As we begin these three important days of engagement, I welcome all of you—partners, delegates, and exhibitors—to participate fully. Share your insights. Build partnerships. Drive change. With those words, I am pleased to officially declare the 3rd Annual Sugar Industry Innovation Symposium and Expo 2024 open.

Let the conversations begin, and let the transformation continue.”

JUDE CHESIRE

CHIEF EXECUTIVE OFFICER, KENYA SUGAR BOARD



“Ladies and gentlemen, it is my pleasure to welcome you all to the 3rd Annual Sugar Industry Innovation Symposium and Expo, here at the Grand Royal Swiss Hotel in Kisumu.

I am deeply grateful for the overwhelming response and continued support this symposium has received since its inception three years ago. What began as a bold idea has grown into a premier platform for innovation, collaboration, and knowledge exchange across the entire sugar value chain.

I wish to extend heartfelt appreciation to His Excellency the President and the Government of Kenya for their steadfast commitment to revitalizing the sugar subsector. The Government’s interventions—including the clearance of farmers’ arrears, settlement of workers’ salary backlogs, and support for strategic operations—are clear demonstrations of political will and

national focus on restoring the sector's sustainability and profitability.

I also commend all stakeholders for their invaluable support in the successful enactment of the Sugar Act 2024, which reestablishes the Kenya Sugar Board. This legislative milestone affirms the critical role our subsector plays—not only in agriculture—but in sustaining over 8 million livelihoods across 15 counties. It gives us a renewed institutional foundation to lead with purpose, transparency, and impact.

Looking ahead, our vision is not confined to national reform alone. As a Board, we are actively pursuing regional collaboration within the East African Community to drive sugar self-sufficiency and unlock the potential to export surplus sugar beyond our borders.

Let me emphasize: our future lies in the hands of our youth. Their ideas, their energy, and their technological curiosity will shape the next chapter of this industry. This symposium is their stage—an opportunity to lead, innovate, and build.

I am confident that the discussions, partnerships, and insights shared over the next three days will chart a bold course for Kenya's sugar sector. Once again, welcome to the symposium. Let us engage, innovate, and build a stronger future—together."

HON. SAMUEL ONG'OW

BOARD DIRECTOR, AGRICULTURE & FOOD AUTHORITY

"This annual event is more than a gathering—it is a crucial platform for collaboration, innovation, and redefining the trajectory of the sugar industry. We stand at a defining moment that demands strategic planning and a cohesive approach to meet the expectations of the many stakeholders who advocated for the reestablishment of the Kenya Sugar Board.

I believe that by confronting and resolving the persistent challenges that have held the sector back, we can overcome



historical setbacks and usher in a new era of profitability, sustainability, and growth.

I urge all stakeholders—public and private—to rally behind the new leadership and support the revitalization agenda. The transformation of the sugar industry will only succeed through unity, bold innovation, and decisive action.

As a Board, we are fully committed to ensuring a smooth transition under the new legal and institutional framework. We are working to implement practical strategies that will unlock the full potential of this vital sector.

With collective effort and shared purpose, I am confident that the sugar industry will not only recover its former strength but also emerge as a model of resilience and agricultural progress in Kenya.”

PROF. KENNETH BENGESI

DIRECTOR GENERAL, SUGAR BOARD OF TANZANIA



African sugar industry on the global stage.

“I am truly honored to join you at this important gathering, and I extend my sincere thanks for the warm invitation to attend the 3rd Annual Sugar Industry Innovation Symposium and Expo.

I commend the focus on innovation that defines this event. I also take this opportunity to congratulate Mr. Jude Chesire on his appointment as CEO of the Kenya Sugar Board and, notably, as Vice Chairman of the International Sugar Organization—a position that not only elevates Kenya, but also gives voice to the East

One of the key challenges we face across the region is the aging of our agricultural workforce. We must invest in attracting and empowering youth—especially in the sugar sector—through innovation and opportunity. Their involvement is critical to achieving long-term sustainability and meeting the rising demand for both sugar and food.

I have come from Tanzania not just to speak, but to listen, learn, and share. Kenya has made commendable strides in driving innovation, and we in Tanzania are keen to collaborate,

exchange ideas, and find ways to enhance regional sugar production capacity. Our shared goal is to meet local demand, create surplus, and explore export potential across neighboring markets.

As East African nations, we are stronger when we work together. Let us pool our resources, share our knowledge, and move forward in unity to build a resilient, productive, and competitive sugar sector that serves our people and economies.”



THEMATIC AREAS

YOUTH INVOLVEMENT IN REVOLUTIONIZING SUGARCANE PRODUCTION

SPEAKER: PROF. FRANCIS ANG'AWA

PANELISTS: FRED OKETCH JONAM, CHRISTOPHER KOGA,
EDWIN SHIKANDA



"Kenyan youth make up roughly 22% of our population, yet they remain underrepresented in agriculture. This is both a challenge and an untapped opportunity. If we are serious about transforming the agricultural sector—particularly sugarcane production—we must intentionally position our youth at the center of that transformation.

Youth are naturally adaptable, tech-savvy, and innovative. These are the very qualities needed to drive modern sugarcane farming practices.

To harness this potential, we must equip young people with entrepreneurial and leadership skills, foster creativity, and create enabling environments that support their meaningful participation across the value chain.

We need targeted strategies. This means:

- Tailored training programs that develop technical and agribusiness skills.
- Policy reforms that recognize youth as a strategic demographic in agriculture.
- Initiatives that give them voice, tools, and access—from inputs to markets.

I commend the government for several initiatives already making a difference:

- **The Uwezo Fund and Youth Development Fund** are critical in providing access to affordable credit for youth-led enterprises—especially for those locked out of traditional financing.
- **Nationwide internet connectivity** is opening up new digital job opportunities in agriculture—enabling youth to participate in precision farming, e-commerce, and digital

extension services.

- **Skills development programs**, particularly those linked to the sugar value chain, are giving young people the tools they need to succeed in production, processing, and value addition.

Youth are not a side note—they are a national asset and a transformative force for our sugar industry. But we must go beyond rhetoric. Let us all—government, private sector, academia, and civil society—integrate youth-centered strategies into our policies and programs.

The future of sugarcane production in Kenya depends on how well we empower and engage our young people. The time to act is now.”



A thought-provoking panel discussion featuring **Fred Oketch Jonam, Christopher Koga, and Edwin Shikanda** provided valuable insights into the challenges and opportunities within Kenya’s agricultural sector, with a specific focus on youth engagement. The panelists collectively emphasized that agriculture remains a cornerstone of the Kenyan economy, yet it continues to face neglect in terms of strategic prioritization and resource allocation. They noted a concerning trend of declining enrollment in agriculture-related courses at institutions of higher learning, attributing this to a lack of appeal and limited emphasis on practical, hands-on training. The panelists called for a comprehensive review of the curriculum in higher education to make agriculture more attractive and relevant, integrating experiential learning that prepares students for real-world agricultural challenges.

The discussion also highlighted systemic barriers to youth involvement in agriculture, particularly policies related to financing and land access. The panelists pointed out that many policies fail to address the unique needs of young people, who often face difficulties in securing affordable credit and accessing land for farming. They proposed that idle or underutilized land, such as parcels managed by the Agricultural Development Corporation (ADC), should be leased to youth groups. This would not only enhance productivity but also provide young people with the opportunity to actively participate in agriculture and generate income.

Moreover, the panelists emphasized the critical importance of knowledge transfer and mentorship in securing the future of agriculture. They expressed concern over the lack of intergenerational mentorship, with older farmers retiring without adequately equipping the younger generation with essential skills and knowledge. To bridge this gap, they advocated for consistent youth engagement in policies, decision-making processes, and sectoral

governance. This inclusion, they argued, would empower young people to take ownership of agricultural development, enhance their advocacy efforts, and ensure that their voices are heard in shaping the future of the sector. By fostering youth participation and creating an enabling environment, the panel concluded, Kenya could unlock the full potential of its agricultural sector and secure its long-term sustainability.

NURTURING FINANCIAL OPPORTUNITIES FOR YOUTH IN SUGAR ENTERPRISES

NANCY CHERUIYOT, C.E.O., COMMODITIES FUND



“Youth hold tremendous potential to revolutionize the sugar industry through innovation and enterprise—but one of the greatest barriers they face is access to affordable and flexible financing. Traditional credit models often require land as collateral, yet in Kenya, land is mostly held under family ownership. Title deeds are rarely in the hands of young people, and this makes access to credit extremely difficult.

We must rethink how we finance youth in agriculture. I urge financial institutions to

consider innovative models such as:

- Contract farming-based lending, where future crop proceeds are securitized,
- Warehouse receipt systems, where stored produce becomes usable collateral,
- And land lease agreements, which offer viable instruments for unlocking credit.

We also need financial products tailored specifically for youth in the sugar value chain—products that offer low-interest rates, flexible repayment terms, and microfinance solutions that lower the barrier to entry. But access to capital alone is not enough. Capacity-building is essential. Financial literacy, business management, and enterprise development programs must be embedded in our approach to empowering young agri-entrepreneurs.

Let’s also harness digital platforms—mobile banking, e-wallets, and fintech solutions—to expand financial access in rural areas and streamline transactions for youth-led sugar enterprises. Technology must be part of the financial inclusion strategy.

Equally important is the role of public-private partnerships and supportive policy reforms. These can enable guarantee schemes, de-risk lending to youth, and encourage more inclusive investment across the value chain.

If we are serious about transforming this industry, we must prioritize youth and back them with the financial tools they need. Unlocking financial access for young people is not just a nice-to-have—it is a strategic imperative for the future of Kenya’s sugar industry and broader economic development.”

YOUTH ADVOCACY FOR POLICY REFORMS IN THE SUGAR INDUSTRY

SHARON CHEROBON

“Youth in Kenya possess immense energy, creativity, and resilience. These are not just admirable qualities—they are powerful drivers of change. If we are to transform the sugar industry, we must empower young people with the skills, resources, and platforms to take the lead in driving reform—from modernizing farm practices to promoting sustainable, climate-smart production methods.



Our sugar industry is at a crossroads. It faces persistent challenges that threaten its very viability. Smallholder farmers, who supply over 94% of the raw material to factories, remain marginalized—excluded from meaningful participation in policy and business decisions. Policy gaps—such as weak farmer support structures, inadequate trade protections, and lack of strategic investment—have left the sector vulnerable to shocks and stagnation.

This is more than a sugar industry problem—it’s a national problem. These systemic issues affect food security, rural livelihoods, and economic stability. And they require deliberate, inclusive, and well-informed policy reforms to address.

To be effective reform advocates, youth must be strategically empowered. That means building partnerships with cooperatives, policymakers, industry leaders, and farmers themselves. Young people must actively engage in policy dialogues, public consultations, and media campaigns—not just to be heard, but to influence decisions.

Digital tools give us an edge. We must leverage technology to raise awareness, mobilize support, and present data-driven policy proposals. Youth-led advocacy must be bold, organized, and evidence-based.

If we are serious about change, then youth involvement in policy reform must be a national priority. When young people are given the tools and trust to lead, we will not only fix what is broken—we will build a resilient, inclusive, and future-ready sugar industry that benefits everyone along the value chain.”

DRIVING AGROECOLOGICAL, CLIMATE-SMART AND ENVIRONMENTALLY SUSTAINABLE PRACTICES THROUGH YOUTH-LED INITIATIVES

PANELISTS: DR. MARTIN OULU, FLORA AJWERA, FAHEEM BUX, KIBOS FERTILIZERS LTD. JOSHUA AGWA, VERMITEK LTD



A panel discussion led by Dr. Martin Oulu, Agroecology Adviser at GIZ, explored the thematic area “Driving Agroecological, Climate-Smart, and Environmentally Sustainable Practices through Youth-Led Initiatives.” The discussion underscored the critical role of agroecology in revitalizing sugarcane production, with a specific focus on sustainable practices that integrate soil health, climate resilience and environmental conservation. Soil health was highlighted as a fundamental principle of

agroecology, particularly in sugarcane-growing zones in western and Nyanza regions, where soil degradation has led to declining productivity. Farmers were encouraged to adopt soil testing to identify and implement corrective measures tailored to specific needs.

The panel shared insights on GLZ's ongoing community engagement projects promoting soil rehabilitation and protection. Through community training programs, farmers have been introduced to integrated soil fertility and pest management practices. These initiatives emphasize the use of biofertilizers, biopesticides and innovative soil regeneration technologies such as vermicompost and biochar. Both technologies were lauded for their affordability, accessibility and effectiveness, particularly for small-scale farmers. Kibos Sugar and Allied Industries Ltd was recognized as a model for agroecology in the sugar sector, practicing a circular economy by converting sugar processing wastes into organic fertilizer blends. These fertilizers are supplied to farmers, helping to rehabilitate degraded soils and restore productivity.

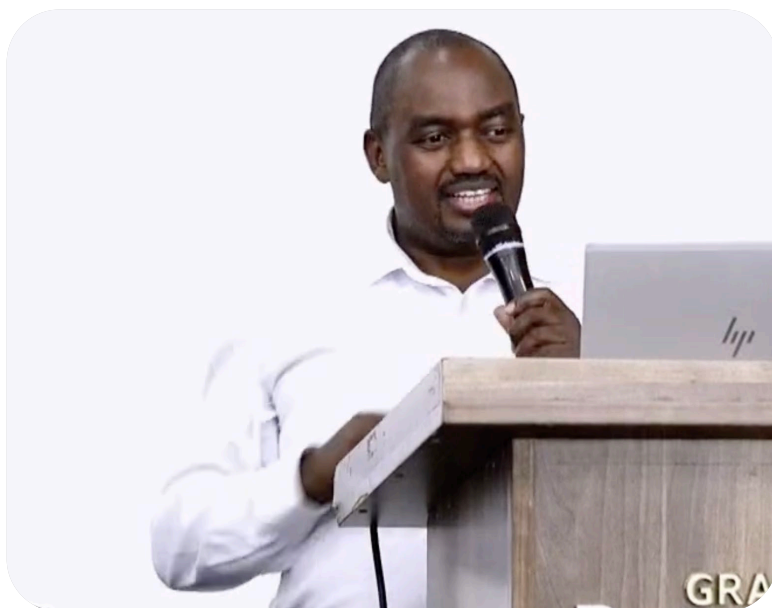
Advocacy for policy reforms to integrate agroecological practices into national programs was emphasized, particularly the inclusion of organic fertilizers in the government's subsidy programs. Establishing favorable policies would incentivize sustainable farming practices and further engage youth in agroecological initiatives. By equipping young people with technical knowledge, resources, and support, they can lead the transition to climate-smart, environmentally sustainable sugarcane production, ultimately ensuring resilience and productivity within the sector.



FACILITATING MARKET ACCESS FOR YOUTH-LED INITIATIVES

SPEAKER: ASHINGTON NGIGI

PANELISTS: SOPHIE ODUPOY, BONIFACE K. MUASA



“Each year, between 500,000 and 800,000 Kenyan youth enter the job market. Many of them do so without sufficient access to land, capital, or tailored entrepreneurial support. Despite this, young people bring immense potential, innovation, and resilience—qualities that can breathe new life into the sugar sector.

But we must face reality: youth continue to be excluded from value chains due to structural barriers like land ownership, skill mismatches, and weak market linkages. If we want to

unlock youth-led growth, we must look beyond traditional cane farming and into emerging enterprises that young innovators are already pursuing.

Across the country, we are seeing exciting youth-driven ventures in:

- Bioethanol production
- Waste-to-energy solutions
- Sugar beet farming
- Animal feed and cane juice processing
- Organic fertilizer and mushroom cultivation

These are the future of diversification, and they need enabling environments to thrive. Market access is not simply about finding a place to sell—it’s about having the knowledge, the systems, and the confidence to grow sustainably.

Let’s be clear: a marketplace is not a market. Having products is not enough if there are no buyers, no fair pricing systems, or no cash flow strategy to sustain operations. Youth-led enterprises need support with:

- Shelf-life management for perishable goods

- Pricing transparency between brokers and end-consumers
- Cash flow alignment with stock
- Regulatory clarity and licensing support
- Access to technical and business know-how

Young people are willing to take risks. They are already proving their value. What we owe them is a clear pathway to grow, compete, and access real markets—not just physical spaces to sell, but ecosystems that support enterprise success.

Now is the time to design policies and programs that treat youth not as beneficiaries—but as builders of the new sugar economy.”



HARNESSING DIGITAL SOLUTIONS FOR YOUTH-LED ADVANCEMENTS

SPEAKER: ALICE COULSON

PANELIST: LILIAN KIRWA



Digital technology plays a key transformative role in empowering young people to drive innovation and growth within the sugar industry and agriculture more broadly.

The digital platforms hold immense potential to address critical gaps in information access, market linkages, and resource management for youth engaged in the sugar value chain. Technologies such as mobile applications, AI-powered analytics, and online platforms were identified as vital tools for enhancing productivity and

efficiency. iShamba's digital platform was noted as an example of a successful tool providing real-time weather updates, agronomic advice, and market price information, enabling farmers to make informed decisions and improve profitability.

The panelists emphasized the need to integrate digital solutions into all stages of the sugar value chain. Precision farming technologies were cited as crucial for optimizing input usage, while blockchain systems were recommended for enhancing transactional transparency. Mobile banking platforms were acknowledged as essential for improving financial inclusion among young entrepreneurs. Additionally, the use of digital content, such as video tutorials and interactive applications, was recognized for its role in building skills and knowledge, making agriculture more accessible and appealing to a tech-savvy youth demographic.

The session concluded with a call for increased investment in digital infrastructure, including affordable internet access and digital literacy programs, to ensure youth in rural areas can fully benefit from these technologies. The importance of partnerships between tech developers, agricultural stakeholders, and government agencies was also emphasized as critical to scaling these solutions and integrating them into Kenya's sugar value chain. The speakers affirmed that leveraging digital tools could empower youth, foster innovation, and achieve sustainable growth within the sugar industry.



EMPOWERING YOUTH IN INNOVATIVE SUGAR PROCESSING

G.S.N MURTY, GENERAL MANAGER, KIBOS AND ALLIED SUGAR INDUSTRIES

"In Kenya today, we import 100% of our industrial sugar, despite having some production facilities in place. This is a missed opportunity. If we can scale up production of refined industrial sugar locally, we will conserve foreign exchange and potentially become exporters ourselves.

Right now, most of the brown sugar produced in Kenya is for direct consumption and offers limited export potential. If we want to compete



globally, we must equip our processing plants with the flexibility to produce a diverse range of sugar products—MWS (Muscovado Sugar), VVHP (Very Very High Polarization) raw sugar, and refined white sugar—all from the same facility.

But we must think even bigger. Sugar mills in Kenya can evolve into multi-product bio-refining hubs. The by-products we generate—like bagasse—hold immense potential. We can convert them into:

- Lactic acid,
- 2G ethanol,
- Furfural,
- And from there, create bioplastics, cutlery, paper, apparel fabrics, and surfactants.

This kind of diversification is not just about boosting GDP. It's about creating jobs, especially for youth. Young people can play a central role in driving innovation, managing new technologies, and building sustainable sugar-based industries.

We must invest in building the next generation of skilled professionals in sugar processing and bio-product innovation. This is where the future lies—a smart, diversified, and youth-driven sugar industry that does more than produce sugar—it powers sustainable growth.”

FOSTERING MARKET DIVERSIFICATION AND PRODUCT INNOVATION THROUGH YOUTH-LED INITIATIVES

LYTHA MAYANJA



“Agriculture is the backbone of Kenya’s economy, yet many youth remain disconnected from it—despite facing high unemployment. We must change this. Youth have the energy, creativity, and adaptability to lead the next wave of innovation in agro-food systems, including the sugar industry.

We need to actively promote agri-preneurship and build youth-led organizations that can drive change. But to do so, we must tackle the barriers—limited access to resources, skills gaps, and insufficient

support for youth enterprises.

The sugar industry is ripe for innovation and diversification. Youth can tap into product development opportunities such as:

- Specialty sugars that meet niche market demands,
- Bioethanol and other clean energy alternatives,
- Eco-friendly packaging and non-edible innovations like bioplastics and organic fertilizers made from processing waste.

Consumer trends are shifting. There is growing demand for sustainable, health-conscious products. If youth are equipped with the right tools and know-how—especially around emerging technologies, certification, and market standards—they can create competitive, export-ready products.

To make this vision a reality, I propose the following priorities:

- Mentorship and capacity building,
- Strategic partnerships across the value chain,
- Youth-focused policies,
- And affordable access to finance.

When we empower young people with relevant skills, resources, and support systems, we don't just give them jobs—we give them a platform to redefine the future of agriculture. A youth-led, innovation-driven sugar sector can become a model of resilience and economic inclusion for the entire country."



SPECIAL PRESENTATIONS

SINGLE EYE-BUD CHIP TECHNOLOGY

EDWIN SHIKANDA, BREEDING SPECIALIST, KENYA SUGAR RESEARCH AND TRAINING INSTITUTE



Sugarcane farming faces inherent challenges, including high cultivation costs and low yields, which render it economically unviable for many farmers. A significant contributor to these challenges is the cost of seed cane, accounting for approximately 35–47% of total production costs. Additionally, low productivity is often attributed to the use of inferior seed varieties. Single Eye Bud Technology has emerged as a promising

solution to these issues. This innovative technique involves excising sugarcane buds, nurturing them in a growth medium, and transplanting the resulting seedlings. The technique not only minimizes the amount of seed cane required but also incorporates advanced agronomic practices to optimize productivity. These practices include raising high-quality seedlings, adopting efficient planting methods, and optimizing water and nutrient management.

Research conducted by KESRETI demonstrates the potential of this technology to revolutionize sugarcane farming. Findings indicate that it can reduce production costs by 60–70% and boost yields by 18–20%. These benefits underscore its viability as a sustainable and cost-effective approach to sugarcane farming. Farmers are strongly encouraged to embrace and adopt this innovative technology to enhance sugarcane production, improve productivity, and ensure economic sustainability in their farming operations.



CIRCULAR ECONOMY IN THE SUGAR INDUSTRY

JOYCE OPONDO, CHATTHE GROUP

"At Chatthe Group, we believe that the future of sugar processing lies in circularity, sustainability, and innovation. Our model is built on a simple yet powerful idea: what used to be waste can become a resource.

From our base in Kisumu County, we have developed an integrated system that repurposes by-products of sugar production—such as bagasse, molasses, and boiler ash—into thriving downstream industries.



- Through Kibos Distillers, we convert molasses into bioethanol, supporting Kenya's transition to clean, renewable energy.
- At Kibos Paper and Packaging, we use bagasse to produce eco-friendly paper products.
- And through Kibos Fertilizers, we process ash and organic waste into environmentally safe fertilizers that restore soil health.

These initiatives are not just good for the environment—they make business sense. Cogeneration of power and bioethanol production help us reduce our carbon footprint, lower operational costs, and contribute to Kenya's green energy goals in line with COP26 resolutions.

We've also invested in state-of-the-art technology to optimize efficiency, minimize emissions, and improve the overall sustainability of our operations. Every part of the value chain is designed to maximize resource utilization and minimize waste.

But this isn't just about us. Other sugar factories in Kenya can replicate this model. Circular economy practices can help address long-standing challenges such as:

- Waste management inefficiencies,
- Environmental degradation,
- High production costs,
- And underutilization of by-products.

By transforming waste into high-value products, the sugar industry can position itself as a leader in climate-smart innovation and green economic growth.

In closing, I invite all players in the sector to think beyond traditional production. The circular economy is not just a sustainability trend—it's a strategic path to resilience, profitability, and global competitiveness. Let's embrace it and redefine what's possible in Kenya's sugar industry."

INCUBATES PRESENTATIONS

1. VICTOR MASINDE

FOUNDER, GROWGEN | WINNER, 2023 SUGAR INDUSTRY INNOVATION AWARD

REVOLUTIONIZING FARMER FINANCING THROUGH GROWGEN



"I am honored to be here as a past winner of this symposium's innovation award, and I'm excited to share the journey of Growgen—a platform designed to address one of the biggest bottlenecks for sugarcane farmers: financing.

For many farmers, high land preparation costs, limited access to credit, and difficulties acquiring quality inputs like fertilizer and seed remain daily struggles. On the

other side, financial institutions hesitate to lend because they lack accurate tools to assess farming risk—especially with unpredictable weather and volatile markets.

Growgen bridges this gap. It is an affordable, data-driven credit scoring system tailored

specifically for farmers. After a full year of incubation, prototyping, and working directly with farmers in the field, we've refined the platform to meet their real-world needs.

At its core, Growgen is a mobile-based, end-to-end solution connecting farmers, lenders, and mills. It offers:

- Fast loan approvals with affordable interest rates,
- Repayment schedules aligned to harvest cycles,
- Direct delivery of inputs like seeds and fertilizer,
- Access to lease-financed equipment, and
- On-platform agronomic training and farming insights.



Lenders benefit too. Growgen reduces paperwork, enhances risk profiling, and offers real-time portfolio monitoring with early warning systems. For mills, this means a more reliable supply of quality cane, as farmers are better equipped and supported.

This is more than a loan system—it's a productivity ecosystem. It's built to boost yields, reduce risk, and build trust across the value chain.

My goal with Growgen is to transform farmer financing into a sustainable, data-informed, and farmer-first process—ensuring that financing is no longer the barrier, but the bridge to growth in Kenya's sugar industry."

2. STANLEY OMULA NDEZWA

FINAL-YEAR STUDENT, COMPUTER & ELECTRONICS ENGINEERING | 1ST RUNNERS-UP, 2023 SUGAR INNOVATION SYMPOSIUM

SUGARWAN: BRINGING IOT TO SUGARCANE LOGISTICS



“Over the past year, I’ve continued to refine and expand my innovation, SugarWAN—a data-driven system designed to tackle the persistent inefficiencies in sugarcane transportation and delivery accountability.

Farmers often face frustrating issues: no way to verify accurate cane weight, delays in transportation, and a lack of transparency in the delivery process. These problems directly affect their earnings

and trust in the system.

SugarWAN addresses this head-on using IoT technology. The system provides:

- Live tracking of sugarcane deliveries,
- Weight monitoring from the point of harvest to the mill,
- And digital farm records accessible to farmers, transporters, and millers.

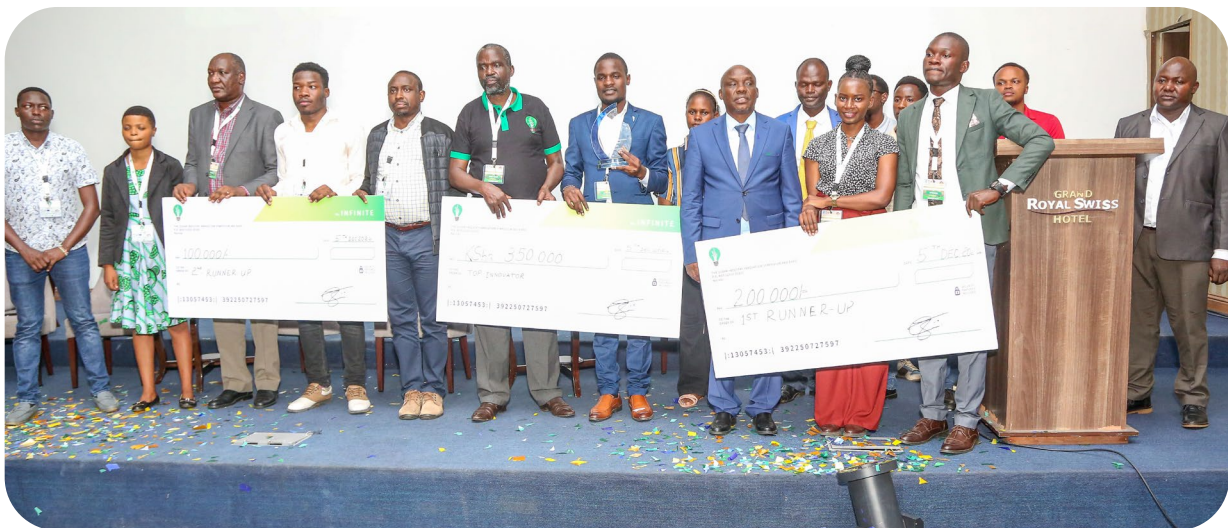
Farmers can register their farms, define delivery zones, and access real-time data that improves their decision-making. With features like automated delivery tickets and centralized monitoring dashboards, SugarWAN not only enhances transparency—it reduces losses, increases efficiency, and builds trust across the value chain.

But SugarWAN is more than a tech platform. It’s a digital revolution that bridges the gap between traditional farming practices and modern innovation. We are not just solving logistical issues—we’re introducing a culture of accountability and digital empowerment.

As a student and innovator, I invite all stakeholders—farmers, millers, cooperatives, and policymakers—to support this vision. Let’s work together to digitally transform Kenya’s sugar industry using practical, IoT-driven solutions that improve transparency, sustainability, and ultimately, farmer livelihoods.”

THE 2024 AWARD-WINNING INNOVATIONS

Following a meticulous review by the technical committee, 12 exceptional concepts were shortlisted for the presentation and competition stage. These innovations, which stood out for their originality, practicality and potential for transformative impact, captured the essence of the symposium's vision for fostering industry growth through innovation.



Among these, the top three winning presentations emerged as trailblazers, setting a benchmark for excellence in addressing key industry challenges and introducing scalable, forward-thinking solutions. These winning innovations exemplify the transformative potential of creativity and collaboration in driving the future of the sugar industry. The highlights of the top three innovations are summarized below:

GEORGE OGALO

WINNER | CASH PRIZE: KSH. 350,000

UTILIZING SUGAR INDUSTRY LEACHATE AS A NUTRIENT SOURCE FOR SUSTAINABLE COMPOST



"I see leachate not as waste, but as a valuable resource. My innovation focuses on using this by-product from the sugar industry—often considered an environmental nuisance—as a nutrient base for sustainable compost.

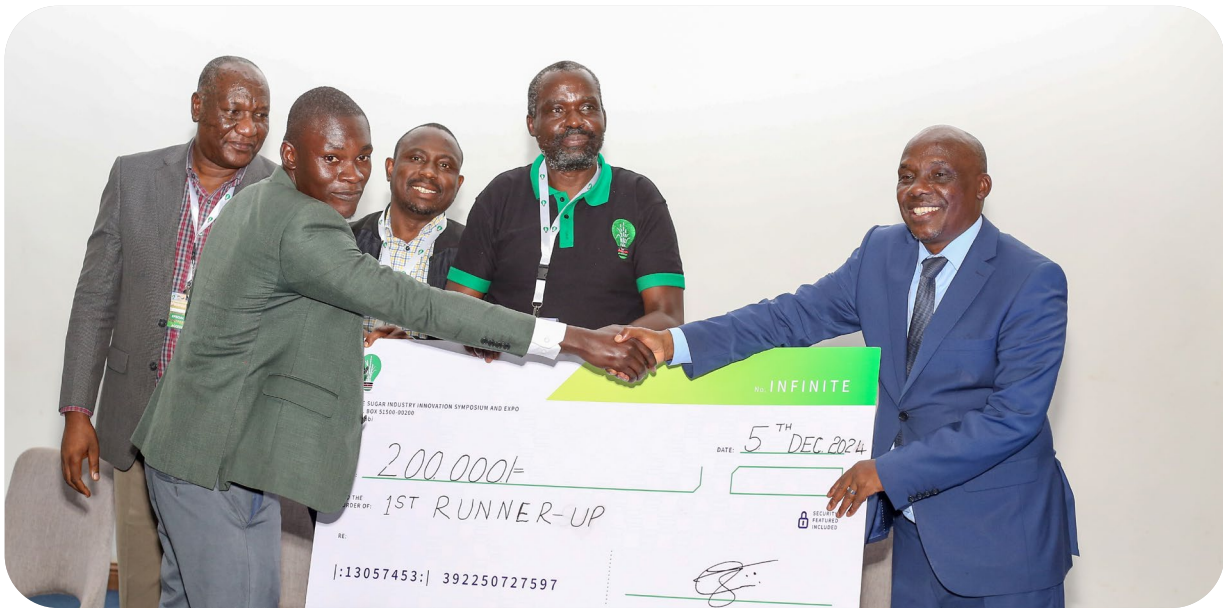
By combining leachate with bagasse, soil, and earthworms through vermicomposting, we're creating compost that meets both environmental and agricultural standards. This approach supports soil fertility, increases crop yields, and offers a cleaner, greener method of waste management.

What drives me is the opportunity to bridge industrial waste and sustainable agriculture. We're promoting circular economy practices in the sugar industry—turning pollution into productivity, and proving that sustainability and innovation can go hand in hand, especially for the future of sugarcane farming in Kenya."

JAVAN JOSHUA AYIEKO

FIRST RUNNER-UP | CASH PRIZE: KSH. 200,000

DESIGN OF A TRACTOR-DRAWN SUGARCANE PLANTER INTEGRATING A FERTILIZER APPLICATION MECHANISM



My goal is to modernize sugarcane farming by addressing real challenges—labour shortages, inconsistent planting, and high production costs. This mechanized planter, drawn by a tractor and equipped with a fertilizer application system, is designed to reduce input costs, improve efficiency, and promote sustainability.

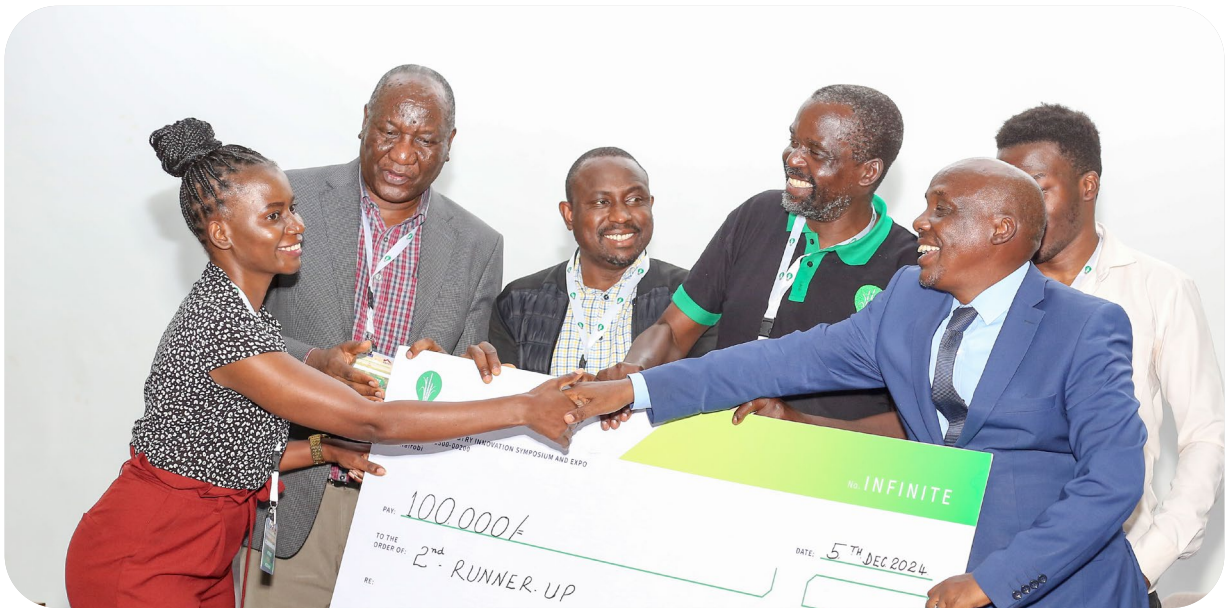
This innovation isn't just about machinery—it's about empowering farmers. By optimizing planting precision and integrating nutrient delivery, we not only boost yields but also support environmental stewardship through better resource use.

Beyond improving production, this planter creates new pathways for youth engagement, enterprise, and job creation in mechanized farming. It's a tool for transforming sugarcane cultivation into a more efficient, profitable, and future-ready practice."

VERONICA ALOO

SECOND RUNNERS-UP | CASH PRIZE: KSH. 100,000

MIWA CREDIT: A SOLUTION FOR ACCESSIBLE CREDIT AND GROWTH FOR SUGARCANE FARMERS



“With Miwa Credit, we’re building more than just a mobile lending app—we’re building financial inclusion for sugarcane farmers. We understand that access to timely, flexible financing is critical, especially in a crop with long maturity cycles like sugarcane.

Through partnerships with out-grower institutions, we connect farmers to tailored microloans with repayment models that align with their cash flow. We integrate financial literacy training to equip farmers with the knowledge they need to manage and grow their enterprises.

What sets Miwa Credit apart is our use of AI-driven credit scoring. Our algorithm builds fair and accessible credit profiles for farmers using real-time data—not rigid collateral models.

This innovation gives farmers the confidence to invest in their farms, improve productivity, and pursue long-term growth. We’re proud to contribute to a more sustainable, tech-enabled, and inclusive sugar economy in Kenya.”

EXHIBITION SEGMENT

The exhibition segment of the 3rd Annual Sugar Industry Innovation Symposium and Expo provided a dynamic, inclusive platform for businesses to showcase their products and services to a large, diverse audience. Unlike typical industry-specific expos, this year's exhibition was deliberately broad and accessible, offering opportunities to all types of enterprises—not just those directly linked to sugar or agriculture.

From insurance providers, agrochemical companies, and ICT service firms to retailers of general merchandise, exhibitors came to leverage the symposium's wide visibility and high participant traffic. The approach aligned with the broader goal of economic stimulation through enterprise exposure, supporting business growth and networking across sectors.



Participation was made both attractive and equitable through a flat subsidized fee of Ksh. 14,999, covering all three days of exhibition. The Kenya Sugar Board ensured quality booths, reliable security, and logistical support, providing a professional and welcoming environment for exhibitors and visitors alike.

Over the course of the event, exhibitors had access to more than 2,700 participants, including farmers, professionals, policymakers, youth groups, corporate delegates, and the general public. This footfall offered high engagement opportunities, business leads, and direct brand exposure.

The 2024 Expo reaffirmed the value of multi-sectoral participation in agriculture-linked forums, demonstrating that platforms like the Sugar Industry Symposium can serve as valuable market access points for a broad spectrum of businesses.

The exhibitors that featured in the 2024 symposium included:

- | | |
|--|--|
| 1. Joopers Busy Limited | 15. Kipchimchim Group of Companies |
| 2. K-Plus fertilizers | 16. Soya Ideas Centre |
| 3. Droplex Industrial | 17. Integral Media Ltd |
| 4. SVL Organic Fertilizers | 18. Agriscope Africa Ltd (East Africa Seeds) |
| 5. Commodities Fund, Kenya | 19. Moonlight Limited |
| 6. MIXA Foods Company | 20. Plant Village |
| 7. National Social Security Fund (NSSF) | 21. Export Trading Group |
| 8. Yara East Africa | 22. Greenlife Crop Protection |
| 9. The Mecca Store | 23. Lachlan Kenya LTD. |
| 10. Kibos Paper and Packaging LTD. | 24. West Valley Sugar Company |
| 11. Farm Engineering Industries Limited (FEIL) | 25. Numerical Machining Complex |
| 12. Homa Lime Company LTD. | 26. Tea Board of Kenya |
| 13. Koko Networks | 27. ICEA Lion Group |
| 14. Kwoflow EPZ Limited | 28. Betterline Water Limited |



THE SYMPOSIUM 2024 RESOLUTIONS

1. Empowering youth engagement across the sugar value chain

Recognizing the critical role of youth in ensuring the sustainability and future growth of the sugar industry, stakeholders resolved to establish targeted programs that attract and empower young people in the sugar value chain. The symposium resolved to prioritize youth engagement by fostering entrepreneurial opportunities and equipping young people with the necessary skills to actively participate in sugarcane production, processing, and value addition. Strategic initiatives, including training programs, mentorship opportunities, and accessible financial resources, were identified as critical in ensuring youth become key players in the industry's transformation.

2. Advancing agroecological and climate-smart practices

Promoting agroecological and climate-smart farming practices emerged as a key resolution. This includes integrating soil health initiatives, such as soil testing, the use of biofertilizers, and adopting sustainable technologies like vermicompost and biochar, to rehabilitate degraded soils in sugarcane-growing regions. Advocacy for policy reforms to include organic fertilizers in government subsidy programs was also emphasized to enhance environmental sustainability.





3. Strengthening policy and governance frameworks

The symposium underscored the need for comprehensive policy reforms to address systemic challenges in the sugar sector, including farmer marginalization, limited trade regulation, and inadequate investment. Stakeholder engagement in policy formulation, particularly involving youth, was recommended to ensure inclusive and impactful governance that supports long-term industry growth.

4. Expanding financial opportunities for youth in sugar enterprises

Developing innovative financing models tailored to the unique needs of youth was identified as a critical resolution. Recommendations included adopting contract farming lending models, warehouse receipt systems, and land lease agreements, along with establishing partnerships to provide low-interest loans, financial literacy training, and digital financial tools to enhance accessibility and affordability.

5. Promoting innovation and value addition in the sugar industry

The symposium resolved to support innovation and value addition as cornerstones for increasing profitability and market diversification. Emphasis was placed on expanding the production of value-added products, such as bioethanol, organic fertilizers, and eco-friendly packaging, while leveraging digital tools and emerging technologies to drive competitiveness and efficiency.

6. Encouraging collaborative efforts among stakeholders

Recognizing the complexity of challenges facing the sugar industry, the symposium called for stronger collaboration among stakeholders, including policymakers, government agencies, private sector players, research institutions and farmers. Partnerships were deemed essential to sharing knowledge, scaling impactful solutions, and fostering a unified approach to addressing sectoral challenges and ensuring sustainability.





STAY IN THE REVOLUTION...



SEE YOU AT SIIS & EXPO 2025!



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