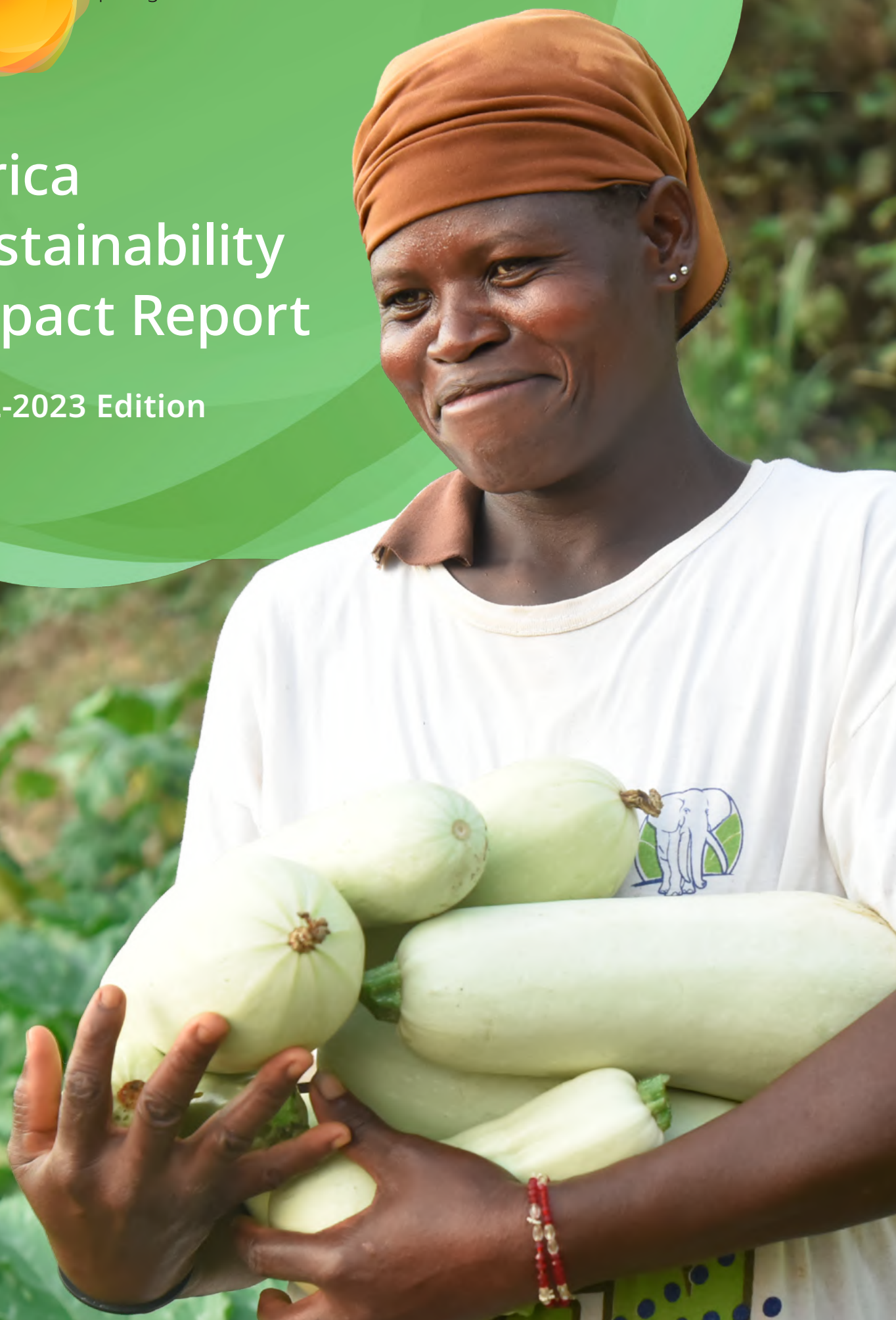


Africa Sustainability Impact Report

2022-2023 Edition



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Abbreviations

AGRA	Alliance for a Green Revolution in Africa
AGRF	Africa Green Revolution Forum
CARI	Central Agricultural Research Institute
CFI	Cocoa and Forest Initiative
CSIR-SARI	Council for Scientific and Industrial Research – Savanna Agricultural Research Institute
EASI	European African Seed Initiative
ECA	European Cocoa Association
ECOWAS	Economic Community of West African States
FAO	United Nations Food & Agriculture Organization
FAW	Fall Armyworm
GAP	Good Agricultural Practices
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit, German cooperation agency
GDP	Gross Domestic Product
IAM	Mozambique Nuts Institute
IFAD	International Fund for Agricultural Development
IIAM	Mozambique Institute of Agricultural Research
IITA	International Institute of Tropical Agriculture
ISRA	Senegalese Agricultural Research Institute
NGO	Non-Governmental Organization
NPP	Natural Plant Protection
OAF	One Acre Fund
OFI	Olam Food Ingredients
P4S	Partnerships for Sustainability
PPP	Public Private Partnerships
SODAGRI	The Senegal Agricultural and Industrial Development Company
UN SDGs	United Nations Sustainable Development Goals
WCF	World Cocoa Foundation

FOREWORDS

A Message from Jai Shroff,

Group CEO, UPL Ltd.



Over the past 12 months, I have been very fortunate to spend time on the ground with our teams across Africa. I have enjoyed developing new and existing friendships and relationships with some of the people whose vision and enthusiasm is not only driving the transition to sustainable agriculture in Africa but reshaping the role of agriculture as a tool to bring economic uplift, tackle climate change, and build resilience for farmers and food systems alike.

It is clear that the path to true resilience and true food security is not a solitary one. More than ever, improving the strength of global food systems will rely on openness, transparency, and renewed efforts to collaborate – especially between countries within the Global South. I am clear in my belief that no one has food security until everyone has food security, and we have a responsibility to share and scale the best practices, technologies, partnerships, and interventions with the farms and farmers who need them most.

I want to congratulate our teams across Africa for the completion of this second Africa Sustainability Impact Report, and for the many, many examples of positive interventions that UPL's teams across the continent have led in partnership with farmers, development institutions, food value chain players, financial institutions, research organizations,

and with charities and NGOs. Our decision to publish the first ever Africa Sustainability Impact Report last year built on a firm commitment within UPL to lead our industry in partnerships and collaboration. UPL was the first agri-inputs company to join the Cocoa and Forests Initiative, the first to join The Climate Pledge, and we remain the only member of the Water Resources Group in our industry.

The Africa Sustainability Impact Report is our contribution to celebrating partnerships and collaboration, to transparency and openness in the success of our interventions, to measuring and monitoring our impact, and to reaffirming our commitment to work as a solution provider to support the governments, private companies, development organizations, and NGOs with whom our work overlaps. This is because we are not just a believer

in the need for sustainable agricultural inputs, we believe in sustainable agricultural outcomes. It is our responsibility to work with farmers and the food system to effect positive, lasting change and I am so proud of the examples of outcomes that this report has collected.

It has been a privilege to share our Africa Sustainability Impact Report with Heads of State, business leaders, policymakers, researchers, and innovators over the past 12 months and as I look to the year ahead, I am confident that our new report will once again inspire new partnerships and collaborations. Congratulations again to our colleagues, and thank you to the incredible farmers whose work we continue to learn from every day.

A Message from Florent Clair,

Head of Partnerships for Sustainability, Africa & Middle East, UPL



Last year, the inaugural publication of our Africa Sustainability Impact Report marked a significant milestone for all of us at UPL. Outlining insights and successes seen across the number of programs and projects our teams are leading across the continent, along with stories of smallholder farmer resilience, dedication and innovation - our report marked an industry first and shared an optimistic outlook of the African agricultural landscape and its sustainability potential.

Africa's home to 60% of the world's available arable land, with the sector employing more than 60% of the continent's workforce and contributing to about 30% of GDP. The importance of the sector to local growth and development, as well as global food autonomy, cannot be overstated. Driving improvements and creating long-term prosperity requires a broad-based approach which builds on inputs, solutions and technology delivery to encompass training, support services, and market access. Our integrated offering for growers has been built with these needs in mind, expanded over our 35-year engagement with African farming communities, and adapted to better prepare farmers amongst the evolving challenges they face. This approach ensures that the smallest of farmers can access, embrace and effectively deploy transformative solutions – and realize benefits beyond yield and return on investment.

As the leading provider of natural solutions and seeds across the

continent, and with the most extensive distribution network, we are in a uniquely agile position to continually elevate our offering in line with consumer needs, market requirements, farmer pain points, and evolving climates. Many of our projects detailed in the following report were conceived around the emergence or escalation of pressing issues facing communities across the continent – such as Advanta's various programs which are increasing the nutritional value of crops grown and consumed; our Rice Race flagship initiative to drive food security and autonomy; and our carbon farming project in South Africa which is incentivizing and rewarding farmers for engaging in sustainable practices and sequestering carbon.

At UPL, we are constantly striving to reach more farmers at scale and deepen our impact – the success of which we see rooted in two pillars. Firstly, monitoring, evaluating, and being transparent about our progress is critical to assessing and improving our work, and we are

proud to be sharing the 2022-2023 edition of this unique report detailing results across our ASIR sustainability pillars: Stewardship and Training; Technology; Food Chain; Partnerships; and OpenHearts. Secondly, guided by our OpenAg purpose, we believe that we can unlock new opportunities and outcomes through meaningful collaboration. We can only harness the true potential of Africa's agriculture sector through concerted efforts and alignment with local government organizations, research, development institutions, financial and technical partners, food chain actors, change practitioners, and farmer organizations. This is why we launched Partnerships for Sustainability (P4S), and following the success of its operations in the W&CA region, we are pleased to have seen the initiative extend to encompass the whole of the continent as we engage with more stakeholders to sustainably transform Africa's food systems for generations to come.

About the Africa Sustainability Impact Report

Introducing the Africa Sustainability Impact Report - formerly known as the Africa Sustainability Report - the second edition of our flagship initiative which documents our work and commitment to driving a sustainability impact in Africa.

The Africa Sustainability Impact Report provides an overview of our approach to creating sustainable opportunities for farmers and food value chain stakeholders, as well as our progress towards improving the environmental and social performance of farming systems across the continent.

Our report covers the period from April 1, 2022 to March 30, 2023 (UPL23) and showcases our operations across the entire African continent. It includes contributions from UPL Seed company Advanta and our regional teams in North Africa, West & Central Africa, East Africa, and Southern Africa.

For this report, we have established five key pillars that we see as critical to the resilience, prosperity, and sustainability of Africa's agriculture sector. These pillars guide our actions and demonstrate the successes we have achieved in pursuing sustainable practices over the last year. They reflect our sustainability goals and the actionable areas in which we drive positive social and environmental progress through our business practices.

These pillars are: **Stewardship & Training, Technology, Food Chain, Partnerships, and Open Hearts.**

We are committed to providing comprehensive and transparent sustainability reporting that helps stakeholders understand our activities, impact, and the challenges and opportunities we face.

Our operations in Africa demonstrate the importance of providing farmers with an integrated and holistic support package which goes beyond

inputs to encompass training in stewardship and GAPs and access to finance solutions and markets.

At UPL we also believe farmers are our modern-day heroes – feeding our growing population, and nurturing our planet. We are committed to celebrating their stories of dedication, adaptability, and innovation, and are delighted to be taking you with us into their fields and forests to explore what sustainability looks like to smallholder farming communities across the continent.



About UPL



About UPL

#5

In the
Industry

10,000+

Employees
Globally

14,000+

Product
Registrations

138

Countries with
Sales Presence

UPL is a leading global provider of sustainable agricultural solutions and services. **We are active in more than 138 countries, supplying farming communities in 90% of the world's food baskets with high-performance seeds, natural solutions, crop protection products, on-farm equipment and services, and post-harvest solutions.**

We've cultivated a commitment to research, development and innovation to build a robust **portfolio of more than 14,000 registrations and 1,400 patents** that are actively helping farmers tackle their pain points, and grow healthy and nutritious crops.

Over the past 50 years of global expansion and growth from our roots in Mumbai, India, we've never lost our family-owned sensibilities and farmer-centric values. **We've developed close relationships with growers around the world, particularly in Africa, with smallholders representing over 95% of the end users we work with.**

In supplying these farmers with the tools and technologies they need, we're acutely aware of both the multitude of challenges they face, from climate change to access to finance and education, and the demands for lower environmental impacts of modern agriculture.



Reimagining Sustainability

Reimagining Sustainability is our global mission to harness the potential of agriculture as a force for good in global sustainability efforts. It is a genuine opportunity to secure positive real-world impacts for all. This mission recognizes that farming and farmers are essential components of our planet's ecosystems, communities, and food chains. And it recognizes that there is enormous potential within agriculture to positively impact all these areas – especially when farmers are empowered. Uniquely,

UPL's Reimagining Sustainability mission focuses on three core pillars to ensure that agriculture is sustainable for people and planet:

1. Food sustainability

Ensuring global food chain security and access to nutritious and secure food for all.

2. Economic and social sustainability

Supporting economic resilience, equal opportunities, and social empowerment for farming communities around the world.

3. Environmental sustainability

Helping foster a healthy planet and ensuring agriculture is a positive force in global decarbonization efforts.

Our Reimagining Sustainability mission is at the heart of every product we develop, every project we lead, and every partnership we forge. Because we know that through these products, projects, and partnerships, we're empowering growers to make farming practices and every single food product more sustainable.

OpenAg™

As wide as our global reach is and as deep as our product line runs, we know collaboration is essential to bringing about transformation on this scale. It's why we work hand-in-hand with farmers and it's also why we work side-by-side with a diverse group of partners from both within the agricultural industry and beyond. This is UPL's OpenAg purpose - a devotion to collaboration that opens doors to results no entity could achieve single-handed.

OpenAg is the first, truly collaborative, global commitment to working with the entire food system – from producers to consumers - to change the way the industry thinks, works and evolves to deliver positive change. It's always open to fresh ideas,

innovation, and new answers that make food more sustainable and offer innovative solutions to farmers.

By working hand-in-hand with those at the forefront of feeding our planet and nurturing our environment – farmers, and by committing ourselves to

Reimagining Sustainability across everything we do, we're seizing opportunities to drive win-win outcomes for all. The Africa Sustainability Impact Report showcases what that looks like in Africa - from the smallest most remote grower, to female farmers, and larger farmer cooperatives.



UPL at a Glance

UPL Highlights



UPL OpenAg™ Network



Professional Memberships



UPL's Work Across Africa



UPL's Work Across Africa



Years active on the African continent

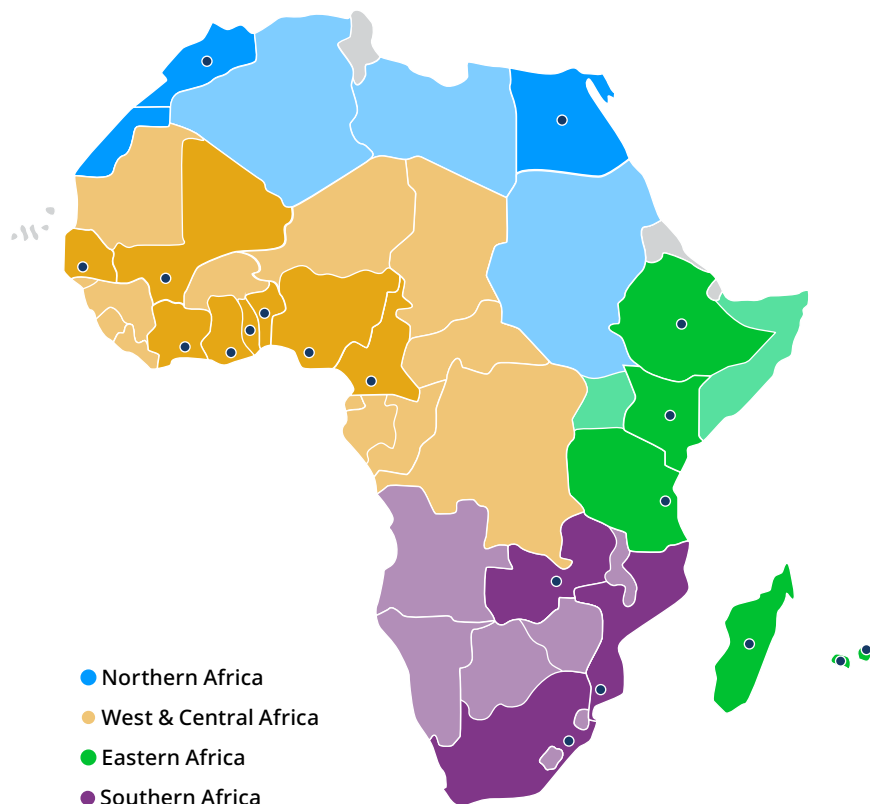


African countries with UPL offices



Employees in Africa

UPL is one of the leading advocates for practical and meaningful initiatives that advance sustainable agriculture across Africa. Our presence on the continent dates back over 35 years, and during this time we have expanded our reach and impact - establishing a distribution footprint across the whole of Africa and permanent offices in 15 countries to offer close and reliable support to farming communities and food systems.



● Northern Africa
● West & Central Africa
● Eastern Africa
● Southern Africa

● ● ● ● Sub-offices | ● ● ● ● Business presence

Our work across Africa is farmer-centered and partnerships driven.

Since the outset of our operations in Africa and the early days of our establishment in India, our approach has been guided by the evolving needs and specific pain points of the farmers. Working hand-in-hand with Africa's 33 million smallholder farmers, we have developed a comprehensive and fully integrated portfolio of solutions and services that are addressing long-standing threats, tackling new pests and climatic challenges, and supporting farmers to grow healthy crops without compromising environmental health. **Our 'integrated model' is our framework for sustainable and inclusive agricultural development across Africa.**

Through this we pair high quality seeds, crop protection products, biologicals, and equipment, with training, demonstration

UPL'S WORK ACROSS AFRICA

programs, and financial services to ensure that there is optimal expression of the natural farming systems potential.

Complementing our extensive footprint, we are supporters of ambitious coalitions as a vehicle for reaching more farming communities and enacting lasting impact. **Alongside being global partners of the Alliance for a Green Revolution in Africa (AGRA), CropLife, the Food and Land Use Coalition, the United Nations Global Compact, the World Business Council for**

Sustainable Development, and the Climate Pledge, we are also pleased to be the only agricultural inputs provider that is a signatory to the Cocoa & Forests Initiative (CFI), a member of the World Cocoa Foundation (WCF), and the European Cocoa Association (ECA). Through partnering with NGOs, governments, and civil society organizations we are working across the agri-value chain to create inclusive growth and empower Africa's farmers and food systems.

We are Reimagining Sustainability across the continent for real world impact - whether that's working with cocoa farmers to grow more on less land, fast-tracking rice self-sufficiency and tackling staple import-dependency, or even helping growers produce sweet sorghum as a tool for carbon sequestration and biofuel. These are changes that together hold the key for our net-zero, food-secure future.

Partnerships for Sustainability

Guided by our global OpenAg purpose, in 2019 our West & Central Africa team established the Partnerships for Sustainability (P4S) initiative – as a new implementation body for catalyzing sustainable and inclusive food systems transformation through engaging in meaningful partnerships.

Joining forces with development institutions, innovators, financiers, civil society

organizations, and government actors unlocks new opportunities not only for our work as an agri-execution partner, but for the wider sustainable development outcomes for Africa's growers, consumers and communities.

Following the success and impact of P4S regionally, in 2022 we extended the initiative to encompass the whole African continent - signaling

our belief in the effectiveness of Public-Private Partnerships (PPPs) as well as our commitment to working more collaboratively in our global shared interests for generations to come.



UPL'S WORK ACROSS AFRICA

North Africa



Staff



Products



Office



Countries

With the Mediterranean shore to the north and the sands of the Sahara desert to the south, the UPL North Africa team play a vital role in one of the most vibrant and unique climates and geographies in the world. Since 2010, UPL's operations in the region have focussed on Morocco, Algeria, Tunisia, and Libya, led by a permanent office in Casablanca.

The production of key crops including cereals, olives, corn and stone fruits, drive strong economic growth and position agriculture as

one of the most significant sectors in northern Africa.

The North Africa UPL team of nine is based out of Morocco, home to a significant agriculture market - in 2021 the sector contributed 12% of Morocco's GDP and employed 40% of the nation's workforce.

Over 40% of our work is geared towards supporting smallholder farmers. **Our offering includes 200 products spanning miticides for vegetables, insecticides for citrus, and biostimulants for**

tomatoes – helping farming communities protect their crops against emerging threats and meet their yield goals. Building on this portfolio, our efforts have been geared towards supporting adoption of technology, AI and digital tools to improve farming efficiency and sustainability.



UPL'S WORK ACROSS AFRICA

East Africa



Beginning trading in 2002, and establishing our first permanent subsidiary in Kenya shortly afterwards, UPL has been active in East Africa for over 20 years. During these years, our programs have multiplied and our impact has deepened, but we have always maintained our focus on supporting farmers to improve their livelihoods, grow healthy crops, and deliver more sustainable choices for our customers.

With 70 staff across 9 countries working in 6 offices, our focus crops include maize, teff, coffee, roses, potato, sorghum and beans. Since our establishment in East Africa, we have always had a laser farmer-focus, developing products and programs with the

smallholder farmer in mind. This purpose takes on new significance in East Africa which has one of the **highest proportions of smallholder farmers in the world at 80%.** As a result, our team is constantly working to develop and make accessible solutions that will address their largest challenges, helping increase their resilience and productivity.

The last year has been busy and fruitful in East Africa, with highlights including the introduction of our NPP business in EA-Floriculture, an increased focus on our soil health offering, the launch of a number of new natural solutions, as well as the advancement of our ProNutiva® offering across various crops. Our maize ProNutiva® program, initiated

this year, included **the launch of our Maize ProNutiva® Farmers Club** - an exclusive loyalty program providing farmers with product discounts, access to information, soil testing services and CropVision data so that they can grow sustainably and profitably.

We have been pleased to see farmers increasingly embrace new products and practices as part of their ambition to adapt to and tackle climate change – with natural solutions forming a greater portion of farmer's portfolio, and more growers, including women and youths, engaging in climate-smart activities and training programs.



UPL'S WORK ACROSS AFRICA

West & Central Africa

175

Staff

460

Products

7

Offices

23

Countries

Through our local subsidiaries, Callighana, MPC, Callivoire, UPL Togo, UPL Nigeria, Arysta Cameroon and SPIA, our regional partners and our dedicated 175 staff members, we are supporting farming communities in 23 countries across West & Central Africa. Our broad distribution

network has enabled us to foster close relationships with farming communities across the area since 1980, helping us quickly respond to their needs through bespoke interventions and solution-sets.

With a significant portion of farmers cultivating staple food crops including rice, maize and vegetables, as well as cash crops such as cotton and cocoa, we have built a comprehensive portfolio of hybrid seeds, natural solutions, and other climate-smart technologies that support healthy plants and resilient farmers. Examples from our product range include Zeba® which helps to combat water scarcity and can reduce nitrogen leaching in groundwater by 42%. Another is Fawligen®, a biological insecticide, which was specifically designed to tackle Fall Armyworm infestations and safeguard maize crop naturally. We have also focused on expanding the usage of Alfasafer®, an all-natural

product which drastically reduces aflatoxin in crops – with regional programs seeing results of 80% to 100% reduction. We are pleased to have seen in the past year increased farmer appetite for natural solutions and sustainable practices – particularly those cultivating crops for export.

To complement our product range, we support farmers with a holistic, integrated approach with services spanning access to training, markets, finance, post-harvest solutions and more – providing them certainty across the food value chain and driving sustainable outcomes.

Some of our most successful programs and interventions – including crop diversification, stewardship training, and natural solutions use – have originated in the cocoa and cotton sectors before being adapted to other crops. With Ghana, Côte d'Ivoire and Cameroon producing over 75% of global cocoa crop, a large portion of our work in the area is helping cocoa farmers improve their productivity and livelihoods through dedicated microfinance and training programs which promote diversification and sustainable agroforestry.



UPL'S WORK ACROSS AFRICA

Southern Africa



Comprising ten countries, the UPL Southern Africa team represent some of the most significant agricultural markets on the continent. As climate change presents new challenges and forecasts warn of more arid conditions, UPL's team is dedicated to supporting farmer resilience and sustainable productivity throughout the region. **The team is primarily based in South Africa with over 300 employees, as well as additional staff working from our 3 offices across Southern Africa. For example, AGRI-FOCUS, a UPL subsidiary, has 65 UPL employees who work tirelessly to promote UPL's offerings in Mozambique where 70% of the population are employed in the agricultural sector.**

Agriculture remains the primary source of income and employment for much of the rural population of Southern Africa. The region produces staple crops such as maize, soybeans, and citrus fruits, which millions around the world depend on.

UPL Southern Africa boasts a product portfolio of approximately 746 products and three factories located in Canelands, Mooiplaats, and Derdepoort. Farmers across the region are very engaged in our activities and readily embrace our product offering including our NPP natural solutions range, to achieve improved soil health, reduced inputs use, and produce high-quality crops.

Our team has played a crucial role in driving the adoption of digital and precision technology for farmers to use accurate data to inform

decision-making when it comes to land management. In line with our commitment to ensure farmers have access to the training and technologies they need to thrive **we are proud to have launched projects and platforms in South Africa that are changing the game for sustainable productivity - such as our CarbonSmart program which is advancing carbon farming methods and rewards, as well as our CropVision platform which is enabling farmers to autonomously monitor their fields through satellite.**



UPL'S WORK ACROSS AFRICA

Advanta



Advanta Seeds is UPL's seed company that provides farmers with adapted innovations and new seed technologies to effectively tackle food insecurity and climate change. With its roots in India, Advanta has a long history developing seeds and technologies for the southern hemisphere and tropical regions which has seen the company establish an extensive portfolio.

Through its cutting-edge innovation, advanced R&D, and collaborations with international research organizations, Advanta Seeds is able to bring the best technologies to local growers.

Through breeding, testing and growing seeds in the same conditions as the farmers do, Advanta lives and experiences the challenges the farmers face every day and is able to provide them with a bespoke package tailored to local needs.

Advanta's portfolio is diversified with a strong balance of field crops and vegetables. Across east and southern Africa, Advanta offers its customers 85 different products across 44 crops, suitable for a range of different growing conditions and tailored to the needs of today's African growers.

95% of Advanta's direct customers are smallholder farmers working on less than 2 hectares. Advanta's unique and trusted reputation within these farming communities allows the company to closely connect with growers and understand their challenges first-hand. Such challenges include extreme and arid weather conditions, which have led Advanta to develop and distribute seeds for climate smart crops like sorghum that are drought resistant and can thrive even in difficult growing conditions.

Advanta's innovation pipeline is driven by a dedication to protecting farmers and helping millions of families access nutritionally dense crops that can improve public health outcomes.

One of their most beneficial crops is red okra, which holds enhanced nutritional value and helps combat

malnutrition in impoverished and rural communities across Africa and the world. Advanta's hybrid seeds make the crop richer in antioxidants, calcium, iron and zinc whilst giving growers a 25% higher return on investment to farmers compared to traditional green okra.

Advanta Seeds was ranked the number 5 global seed company in the Access to Seeds Index in 2019, and the number 2 in the South and South-East Index in 2021. Advanta also secured No. 4 in Africa Access to Seeds Index 2021, for contributing to UN SDGs and food security by World Benchmarking Alliances.

Advanta operates under premium brands of Advanta, Alta and Pacific Seeds, and in Africa, maintains 4 product sites including in Kenya, Tanzania, Zambia and South Africa.



UPL'S WORK ACROSS AFRICA

Events

This year the UPL Africa team has been travelling across the continent, from Windhoek to Sharm El-Sheikh to strengthen relationships with African agri-players, engage in new partnerships, and spread the word about our Reimagining Sustainability mission.

The 2022-2023 calendar was marked by a series of notable occasions, including the return of the first fully in-person AGRF since the onset of the Covid-19 pandemic, as well as the UNCCD COP27, the first UN Climate COP hosted in an African state.

Our teams have proudly hosted and participated in events in order to showcase our latest solutions and innovations, catalyze new connections and collaborations, and participate in meaningful dialogue around leading an African food systems transformation. Highlights from this year's events include:

AGRF TV, sponsorship of the Africa Food Prize Ceremony, as well as 20+ productive bilateral meetings with partners.

In addition, we built on our commitment to leverage agriculture as a climate-positive force through the hosting of a dedicated Gigaton Carbon Goal side event emphasizing the potential for carbon farming in Africa and the importance of rewarding farmers for sustainable practices.

Our event hosted speakers Agnes Kalibata, President of AGRA, Didier Drogba, former Ivory Coast

national football team captain, and Mauricio Macri, former President of Argentina and current Chairman of the FIFA Foundation, and welcomed 100+ delegates representing finance, policy, sustainability and civil society.

We are proud to be long-standing partners of the AGRF and are excited to expand our network and strengthen awareness of our sustainability offering at the upcoming AGRF 2023, scheduled to take place in Dar es Salaam, Tanzania.

Continental events

AGRF

Held under the theme 'Grow, Nourish, Reward – Bold Actions for Resilient Food Systems' the 2022 AGRF was an exceptional event, attended by a large delegation of 10 UPL and Advanta delegates, including UPL Group CEO, Jai Shroff, as well as UPL and Advanta AME Region Heads Marcel Dreyer and Ndavi Muia. Highlights from the week-long event included Jai Shroff participating in the opening plenary panel, UPL representatives joining panels to discuss accelerating climate action through food systems, appearances on the



UPL'S WORK ACROSS AFRICA

COP27

Held for the first time in Africa, the UN Climate Change COP27 provided a unique opportunity for UPL to engage with a range of government, non-governmental, and private entities about our legacy work across the continent and our unique smallholder farmer offering. As part of the event, Jai Shroff spoke at the opening of the first ever Food Systems pavilion, and at the World Health Organization pavilion – discussing issues around climate-resilient agriculture and food security. In addition, Jai met with a number of global leaders including Mike Bloomberg, former Mayor of New York and founder of Bloomberg, one of the largest financial services firms in the world.

UNCCD COP15

The 15th edition of the Conference of the Parties (COP15) of the United Nations Convention on Combating Desertification (UNCCD) took place in Abidjan between 9-20 May 2022. Restoring 1 billion hectares of degraded land until 2030 and preparing

populations, their houses and fields against climate-change related catastrophes were part of the top priorities on the agenda, with President Ouattara of Côte d'Ivoire announcing the launch of the "Abidjan Legacy", a \$1.5 billion program aimed at integrating soil health management and restoring degraded forest ecosystems into the country's future development strategies.

Florent Clair, Head of Partnerships for Sustainability (P4S) for Africa & Middle East, was invited to speak in the Plenary Session on "Future proofing value chains" alongside representatives from the FAO, the Directorate-General for Environment for the European Commission, and IFAD, as well as in the Green Business Forum. He highlighted the role UPL's solutions like NPP and ProNutiva® as well as initiatives like the Rice Race and the Gigaton Carbon Goal can play in supporting improved resilience of global food production systems capacities.

Regional Events

Dakar 2 Summit

Florent Clair, also participated in the Dakar 2 Summit hosted by the President of Senegal and the African Development Bank Group. **Florent spoke on the "Scaling Technologies for African Agricultural Transformation" panel alongside H.E. Papa Sagna Mbaye, Minister of Fisheries and Maritime Economy for the Republic of Senegal, Maria Helena Semedo, Deputy Director General for the UN FAO and Claudia Sadoff, CEO of CGIAR, during which he emphasized the importance of working with R&D and development partners to ensure smallholder farmers can access uplifting sustainable technologies.**

Florent also actively participated in the dedicated country focus meetings of Rwanda and Tanzania and met with high-level political and institutional partners, reaffirming UPL's commitment to collaboration as a pathway to greater sustainable impact.



UPL'S WORK ACROSS AFRICA

Cocoa Events

With two-thirds of the world's cocoa production coming from West Africa, the crop serves as an important source of GDP, economic growth, and job creation. At UPL, we're playing a key role to ensure that cocoa farmers make the best out of their farms and are supported to grow sustainably.

Florent Clair and Hubert Ehouman, Cocoa Lead for West & Central Africa, headed to Brussels to attend the 2022 WCF Partnership meeting, to engage with other cocoa community members and understand more about the emerging trends in the industry. Hubert attended panels that highlighted the importance of providing the right tools and support services to foster farmer resilience and income diversification.

In addition, Hubert and Jean-Claude Nguessan, West & Central Africa R&D Head, went to Montpellier to attend the second edition of the ISCR. The

ISCR is the leading symposium for cocoa research organized by CIRAD, uniting 500 delegates from 51 countries that together represent 92% of the world's cocoa exports and 80% of the world's cocoa imports. The three-day event provided a perfect opportunity for our colleagues to present our latest natural solution innovations and identify new partnership opportunities for UPL across West & Central Africa.

AgriTech West Africa 2022

UPL & Advanta were proud to be associate sponsors for the AgriTech West Africa 2022 conference in Accra, Ghana - a flagship technology event welcoming over 6,000 delegates. Bernard Okutu, Country Manager of Callighana, UPL's subsidiary in Ghana, spoke about how UPL has made a commitment to leverage innovation and technology to transform West Africa's agricultural sector to reduce inequalities and improve access to good food and good health.

Nampo

Returning after a two-year hiatus due to the Covid-19 pandemic, UPL South Africa participated in the 2022 Nampo Harvest Day Exhibition from 16-20 May. UPL's theme this year was "Creating prosperity for the farmer", and alongside a large stand, the team built a Silwet-L77 display unit to illustrate the effectiveness of our best-in-class adjuvant solution.

NPP workshop in Southern Africa with Kevin Ashford

On the 2nd of August 2022, the UPL and NPP teams in Southern Africa held a one day bio-excellence event in Pretoria, South Africa. Welcoming 80 guests, the event focused on soil health and the importance of protecting biodiversity for crops. Kevin Ashford, Global technical lead in Plant and Soil Health, led the workshop, sharing a presentation and demonstration on the importance of soil biology microbe diversity, and the uplifting impact soil health technologies can have in terms of farmer prosperity, crop resilience, and environmental protection.



Product Portfolio Highlights

At UPL, our product portfolio caters to the evolving needs of farmers across the crop lifecycle while enhancing yield and ensuring practices remain sustainable. Our portfolio comprises Seeds, Biostimulant, and Biocontrol solutions which offers a comprehensive package for farmers across the continent.



SEEDS

Product name	Technical specifications	Observed results for effective application
SWARNA2 F1 Rice	135 days hybrid rice with excellent tolerance to climate hazards and diseases. Good quality grains, high milling recovery, sweet fragrant aroma.	10 to 12 tonnes/ha
PAC501 F1 Sorghum	95 days pearly white hybrid sorghum. Early maturity, suitable for brewing. Sturdy and drought tolerant. Suitable for both irrigated and rain fed systems.	4 to 4.5 tonnes/ha
KABAMANOJ F1 Maize	Short cycle hybrid maize with excellent tolerance to tropical climate, rich in protein, ideal for food and poultry farming.	10 tonnes/ha
RAJA F1 Tomato	65 days tomato variety with good tolerance to bacterial wilt, very firm fruits with bright red colour and square shape.	50 to 55 tonnes/ha



BIOSTIMULANTS

NPP by UPL

Product name	Technical specifications	Observed results
BM START®	Ecocert certified seaweed-based fruit development stimulant, designed to improve yield and harvest quality while protecting the environment. Natural physiology activator of fruit set and growth for fruit tree crops, grapes, berries, and fruiting vegetables.	Increased yield and quality improvement. Nutrient assimilation increases between 60% and 120%.
SOYFIXFLO INOCULANT	Highly effective Rhizobia Bacteria consortium stimulating nodulation and fixation of air nitrogen into the soil to make it available for soybean crops.	40-150 kg of N brought/ha. +35% yield increase and reduction of fertilizer use
BANZAI BONUS®	The improved single-bottle formulation of the original Banzai cocoa biostimulant. Designed for cocoa flowering and fruit setting, actively promotes the production and retention of pods.	Up to 40% cocoa yield increase at farmer level

UPL'S WORK ACROSS AFRICA



BIOCONTROL

NPP
by UPL

Product name	Technical specifications	Observed results
VACCIPLANT®	Ecocert certified seaweed-based bio-fungicide, natural plant defense enhancer. Stimulates the crops' natural defense mechanisms to boost disease resistance, plant health and yields. Perfect fit for integrated-pest management.	Broad spectrum of pathogen control, preventive action. No residue.
FAWLIGEN®	OMRI certified nature-based solution to control fall armyworm (FAW) at scale. Liquid non-toxic formulation, highly specific to the FAW, it preserves 100% of the auxiliary fauna.	Excellent control of FAW at larvae stage



SOIL HEALTH TECHNOLOGIES

NPP
by UPL

Product name	Technical specifications	Observed results
ZEBA®/REON®	Patented granular 100% biodegradable soil conditioner technology, increasing the efficiency of water and nutrient use. Adapted to all sorts of crops and soils.	Up to 25% water and nutrient savings



Our Sustainability Pillars



OUR SUSTAINABILITY PILLARS

Introduction to our African Pillars

As in the first edition of the Africa Sustainability Impact Report, we focus and examine our work across five key pillars

We continue to view these five pillars as the best description of our impact in developing the African agricultural sector's resilience, prosperity and sustainability to deliver thriving livelihoods, a healthy planet,

and food security for all. **They expand on the three core pillars at the heart of UPL's wider Reimagining Sustainability mission.** Individually, these pillars allow us to focus our programs, projects, and initiatives to achieve

maximum real-world impact. **Together, they are empowering a positive transformation for farmers, communities, food chains, and ecosystems across Africa.**



STEWARDSHIP & TRAINING

Supporting farmers to engage in GAPs, better steward their environment, and use agricultural tools and technologies safely.



TECHNOLOGY

Advancing farmer-centred technological development - including seeds, natural solutions and digital applications - and getting them into the hands of farmers who need them the most.



FOOD CHAIN

Harnessing Africa's agri-potential and autonomy through strengthening the capabilities of local food value chains and reducing reliance on imported produce.



PARTNERSHIPS

Fostering meaningful partnerships with agri-players, development-finance institutions, civil society organizations, governments and beyond to combine ideas, capabilities, and resources and catalyze inclusive change.



OPENHEARTS

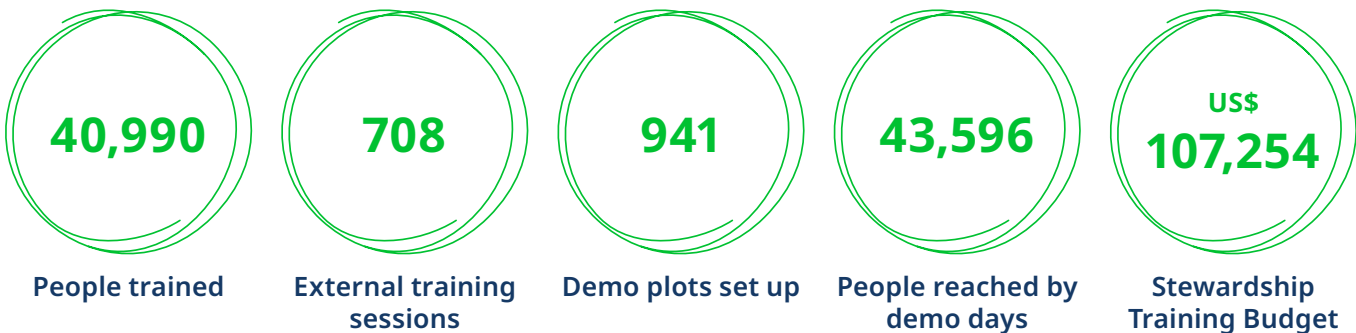
UPL's commitment to extending our impact beyond business practice and working to generate economic opportunity and social inclusion for all through addressing some of the biggest challenges communities face - spanning education, healthcare and sanitation.



Stewardship & Training



Stewardship & Training



VISION

Building a sustainable agricultural ecosystem and climate-positive food chains is essential to the future of our sector, and the future of our planet. In agriculture, stewardship and training are critical tenets for advancing food systems in a way that uplifts farming communities, safeguards ecology and biodiversity, and preserves planet health.

At UPL we believe agriculture is the most efficient and scalable solution for fighting climate change, and are committed to empowering farmers with access to knowledge, products and the latest technologies so that they can be the champions of our new food-secure, net-zero future. **As a global leader in sustainable solutions, we recognize our privileged position and**

responsibility to support the drive towards an agricultural system which enshrines regenerative practices, sustainable solutions, and farmer-stewardship. Reflecting this commitment, our stewardship training budget for 2022 was US\$107,254 – driving projects and programs which promote sustainable productivity, environmental protection, and GAPs.





MISSION

For over 35 years we have been supporting smallholder farmers with not only the products and inputs they need to grow productively, but also the skills and knowledge to use these solutions effectively and safely. Through demonstration days, hands-on training programs, and virtual tools, we have facilitated on-field local capacity building and seen

compelling results - with farmers not only seeing short term benefits in terms of improved efficiency, safety and yield, but also long-term advantages, with regenerative practices leading to improved soil health and farmer resilience.

Our 'farmer-centric model' alongside years of on-the-ground experience has given us

extensive insight into Africa's agricultural system and specific farmer pain points - which has helped us cultivate and roll-out tailored stewardship and training programs to help modernize and elevate the practices of rural and remote smallholder farming communities.



IMPACT

Improving the technicity of farmers and field practitioners is at the heart of our mission to open opportunities of improved crop quality, enhanced added value and access to better markets for rural communities.

Across our global reach, we have a number of 'Apply Well' stewardship programs, known locally as 'Appliqué Bem', 'Applique Bien', 'N'Guso Papa' and Galela Kakuhle' which cover training on safe handling of agricultural inputs, the importance of personal protective equipment (PPE), and environmental safety. These programs are led by our local teams in local languages, predominately in-person, with remote sessions offered to further enhance accessibility. **Over the last year, we trained 40,990 people in GAPs through 708 external training sessions. These sessions provide an opportunity for farmers to understand and embrace the most effective agricultural techniques that can improve the efficiency of**

farms, boost yields, and protect soil health.

Our Advanta team has also been leading training in fodder establishment and conservation in dairy cooperatives, reaching over 5,658 farmers with training in best agronomic practices to improve crop resilience to climate change and drought.

This past year, we've also helped more farmers adapt to the increasing availability of biological solutions, launching efficacious products in new markets and showing growers the benefits of expanding or shifting their product portfolio to include naturally-derived inputs through

the ProNutiva® program. Over the course of the year, we set up 941 demo plots to demonstrate to farmers the uplifting impact our solutions and product packages such as, ProNutiva®, has on crops.

In a bid to drive new sustainability outcomes across the entire agricultural value chain, we're also proud to have incorporated effective waste management through Callivoire's new incinerator which has the potential to treat 170 tons of waste per year. This will serve as a great extension of our stewardship programs to offer end-to-end solution for the products end users.





Driving Dairy Production

Advanta's Training in Fodder, Kenya

In line with our OpenAg purpose, Advanta partnered with the Kenya Nourishing Prosperity Alliance (KNPA) to improve training in fodder establishment and conservation in dairy cooperatives. Kicking off in 2021, this project aims to boost dairy production in Kenya through improved animal nutrition- focussing on training smallholder farmers across a range of agronomic practices including new forage technology, post-harvest storage, cost-effective animal feeding, and best forage feeding.

We have exceeded our 2022 target of training 5,000 farmers in improved forage practices, reaching 5,658 farmers by June 2022. Overall, the initiative has

trained 43 dairy cooperatives, 17 extension staff through 14 big demonstration plots and 61 small demonstration plots.

The program has seen positive results, with farmers reporting a considerable rise in milk yield. Fresh forages improved milk yields from 7 to 12 liters, and 13.2 liters with silage feeding. Moreover, 87% of farmers who used improved forage practices also saw a 65% decrease in feeding costs. The improved forage crops are also more resistant to climate change and drought, ensuring farmers have a stable feed source for their livestock. Many dairy farmers claimed that they can only sustain their livelihoods because of the training they

received on the fodder they grow, thanks to the Advanta and KNPA training program.

Advanta and KNPA plan to continue the program and aim to reach more dairy farmers, targeting over 6,000 farmers by March 2024 as we continue our mission to provide farmers the products, skills and knowledge they need to enhance their livelihoods and advance food security outcomes.





Southern Africa's Stewardship Program Stories

Galela Kakuhle, Aplique Bem

Across our global reach, we are pioneering a number of bespoke, locally adapted, stewardship programs, with the overall ambition of empowering farmers to protect the environment, as well as themselves, through safe handling of inputs. **Our stewardship program in South Africa, known locally as Galela Kakuhle, has had a significant impact on the local community, supporting sustainable agro-practices as well as gender empowerment, with women making up more than 70% of the farmers trained.**

Smallholder farmers in the region face many challenges, including a lack of access to information and expertise on pest and disease control. In an effort to address this, UPL has partnered with Umtiza Farmers' Cooperative to launch the Agriculture Farmer Advisory Service to scale the Galela Kakuhle stewardship program. Through this program, UPL and Umtiza Farmers' Cooperative will appoint, train and support Regional Farmer Advisors (RFA) to educate farmers on how to identify pests and diseases, providing advice on the most effective solutions to protect their crops.

In addition, we are setting up small demonstration plots to showcase the benefits of different crop solutions to farmers. We have committed to offering seeds, fertilizers, and pest control products at no additional cost

to support these demonstration plots, which will be located near an Umtiza branch providing easy access to our solutions.

In Mozambique we are also offering in-depth training on application safety for both the farmer and the environment. For us, training is part of the after-sales service given to all our clients, and is offered in all 6 of our branches across the country through the 'Aplique Bem' program. The objective of this program is to train farmers and their workers to follow safety measures in the use of crop protection and in the last year, we have trained 601 people – 369 extension technicians from the Ministry of Agriculture, 297 farmers and 90 mechanics.

Overall, farmers have responded positively to the program – evidenced by the requests for more training days. The success of the program is evidenced by the

improvement in environmental awareness, particularly with more farmers wearing PPE and the rotation of crop protection products. Looking ahead, we plan on scaling the Aplique Bem programs to reach more smallholder farmers to increase their environmental awareness and promote GAPs in Mozambique.

Our stewardship programs serve as an example of UPL's unwavering commitment to sustainability in Africa. In line with our OpenAg purpose, we're proud to present this service alongside our partners in the region. **By providing support and information to smallholder farmers, UPL is not only safeguarding livelihoods and incomes, but also contributing to the development of sustainable agriculture across the continent.**





Making the Sector's Footprint Greener Côte d'Ivoire New Incinerator

Many African countries have set ambitious targets in order to deal with waste management and its subsequent economic, social and environmental issues. The Agenda 2063: The Africa We Want, enacted by the African Union, urges cities of the region to achieve 50% of recycling among the waste they generate by 2023.

Located in Yopougon, North of - Abidjan in Côte d'Ivoire, a new Callivoire incinerator has been designed and adapted by UPL to manage agricultural input and other waste management across West Africa. When fully functional, the facility will be able to incinerate more than 170,000 tons of waste

per year – helping us meet our positive environmental objectives.

This project will positively impact farmers, cooperatives, industrial plantations, cotton companies, wholesalers, and agrochemical retailers. Additionally, this project will help fulfil UPL's aim of a sustainable agricultural future with an estimated 500,000 tons of chemical-related waste not going into the environment in its first 5 years of operation.

Alongside our efforts to support regenerative practices and decarbonization efforts, we are constantly striving to further minimize the environmental

impacts of the agriculture industry, and we are pleased to be expanding our capabilities for safe waste management in Africa.

This is just one of the many ways in which we are Reimagining Sustainability to realize agriculture as a global force for good across agriculture communities, the food chain, and environmental management by putting sustainability at the heart of everything we do.





Curbing Cotton Pests Control of Jassidia in Cotton Production, West & Central Africa

Jassids are sucking pests occurring throughout the crop growing period which settle under cotton leaves and feeds on plant tissue, imparting a toxin which stunts the plants growth and reproductive capacity, proving destructive – for instance in the 2022 cropping season, cotton producers of Côte d'Ivoire, Mali, Burkina Faso and Senegal lost between 30-50% of their harvests. To combat this, and protect farmers in Mali against this invasive pest, UPL has launched a new program aimed at delivering effective solutions to farmers while promoting responsible and sustainable practices.

UPL joined forces with ISK, a Japanese manufacturer, to distribute a new technology called ULALA. ULALA is a Flonicamid-based technology that specifically targets sucking pests and does not harm the rest of auxiliary fauna – and was specifically developed by ISK to control jassids at scale in West Africa. We partnered with INERA (Malian National Environment and Agriculture

Research Institute), PR-PICA (West African cotton research and value chain platform), and CMDT (Mali national cotton company), to test and confirm the efficacy of ULALA. Based on successful results, UPL has rolled out a specific stewardship program with instructors trained to recognize and manage cotton jassids, and will host demonstration days to showcase the effectiveness of ULALA.

By providing farmers with this new product, UPL hopes to protect cotton farmers yields and incomes. To monitor the effectiveness of the solution, UPL will install 30 ULALA ambassadors to work closely with companies and farmers, collecting data on ULALA and its impact on yield and income. Additionally, we launched a radio and poster campaign in all the cotton regions in Mali to promote ULALA and highlight the importance of responsible use of crop protection products. Our approach to managing the jassid pest is a comprehensive offering that addresses farmer needs,

while promoting responsible and sustainable practices.

The jassid-control project is a great example of the uplifting impact UPL can have in record time when combining its R&D expertise, supply chain and technical field team efforts.

We are pleased to share that as a result of the program's success, jassids are now fully under control across cotton-production in the region. Thanks to UPL, the next season is looking very promising for both producers and cotton companies!



The benefits of biostimulants

Farmer training in biostimulants, North Africa

In North Africa, UPL has undertaken a training program to introduce farmers to biostimulant usage best practices, ensuring farmers can benefit from these new inputs. The team at UPL carried out field visits to explain the benefits of using natural solutions on crops visiting

seven farms in the Agadir region of southern Morocco.

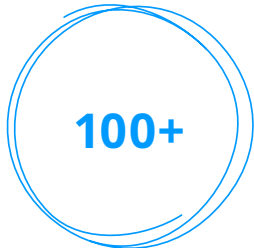
The purpose of the training program was to help farmers better understand the role of biostimulants and position them well in the crop cycle. UPL, and its partner/subsidiary Calimorac,

delivered the training to tomato, strawberry, raspberry and blueberry farmers. Overall, seven lead farmers from the North African region benefited from the training program.

Technology



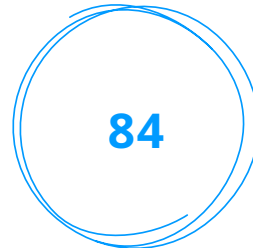
Technology



Seed varieties commercialized in 2022-23



Seed screening/benchmark trials



R&D natural solutions trials done



Natural solutions sales in 2022-23



VISION

Between now and 2050, Africa's population is expected to almost double, and reach 2.5 billion. This sharp increase places a big responsibility on the shoulders of farming communities, who must meet the challenge of scaling up their productivity to ensure food security for all while safeguarding their environment.

The increasingly sophisticated and accessible array of agricultural innovations holds the potential to

reshape the future of food security and stability across Africa.

Innovations such as improved seed varieties, artificial intelligence based crop monitoring systems, natural solutions and precision agricultural technologies, are paving the way forward for more efficient, resilient, and productive farming with added sustainability benefits.

However, the legacy of the digital revolution sweeping across the continent will be determined not by the technologies themselves, but how they are used. Ensuring technologies are developed around, or adapted to local cropping conditions is essential, as is empowering growers with the training and support to use these tools effectively to maximize benefits.





MISSION

Since the earliest days of our heritage, throughout our growth and expansion, and across our current programs and initiatives, we have always been guided by the needs and desires of farmers. This customer-centric approach, paired with our Southern hemisphere identity, extensive global reach and close farmer access has seen us live and feel both large and smallholder farmer challenges, inspiring and informing our technological development and distribution.

At UPL, we are committed to supporting Africa's farmers access our full portfolio of products and services, with a particular focus on the 33 million smallholder

farmers who represent 80% of all farms on the continent. **With access to effective tools and technologies, farmers will expand their productivity, uplift their livelihoods and income, and help meet local and global food security aspirations.** And in increasing productivity, and helping farmers grow more on less land, modern technology has the power to minimize land-use while preserving biodiversity. **In line with our Reimagining Sustainability mission which believes that agriculture can be a force for good in global sustainability efforts, we are also supporting farmers to leverage technology**

that delivers climate-positive agricultural outcomes. New seeds, natural solutions and soil health technologies are helping optimizing yield potential, providing natural protection against pest and diseases and restoring soil life and natural fertility.

Taken together, there is a compelling case for prioritizing access to agri-tech across the continent. To support the development of the best-in-class technologies, in 2022 we performed 84 natural solutions trials to ensure that farmers and our customers are getting the most effective solutions that work best for their individual needs.



IMPACT

At UPL, we believe that innovation catalyzes change. This has been evidenced through a number of our programs led throughout 2022, including in Tanzania, where sunflower farmers use new hybrid seeds to produce higher yields and attain better financial returns, in South Africa, where we have scaled our CropVision program to help farmers autonomously monitor their fields through satellite technology, and across the continent, where we have launched a number of new natural solutions to level-up sustainable productivity.

Drawing on our expertise as the #1 provider of natural solutions on the continent and our ProNutiva® program, we have

taken several biological solutions with proven impact to new communities – such as Zeba®, Turbocrop®, Fawligen® and BM-Start® – leading workshops and training sessions to ensure farmers can apply these products effectively and safely.

2022 has also seen our Gigaton Carbon Goal, a series of global initiatives to reduce atmospheric carbon by 1 gigaton (1 billion metric tonnes) by 2040, travel to Africa – with a dedicated cocktail event in Kigali during AGRF Summit and the launch of our CarbonSmart Program in South Africa. Currently in the pilot phase, the program is advancing regenerative practices and scaling carbon offset projects,

supporting farmers along the way with technical assistance and ultimately financial rewards.

Over the past year, we're proud to have held 795 seed screening and benchmarking trials and commercialized over 100 different seed varieties.





Stronger Sunflowers

Advanta's Hybrid Sunflower Seeds, Tanzania

As part of our efforts to improve technology access across the African agricultural sector, Advanta launched the hybridization in Sunflower Market project in Tanzania. Initiated in 2020, and scaled up in 2022, the project aims to improve the resilience, productivity and livelihoods of farmers who rely on sunflowers as their main oil seed crop. While certified open pollinated cultivars are grown by only a small percentage of farmers in the country, the majority still rely on farm-saved seeds due to a lack of understanding of high-yielding hybrids and an absence of fertilizers.

To address this issue and introduce farming communities to new Advanta's new technologies, we provided 660 Village-based Agricultural Advisors (VBAs) in 23 districts with nearly 20,000 packets of hybrid sunflower seeds which produce higher yields and better prices on oil content. Advisors held regular field visits and educated farmers on utilizing Advanta hybrid seed production technology through a series of field days held in various regions. The training included information on topics such as agronomy, plant protection, and the cost-benefit analysis of cultivating and profiting from hybrid sunflowers. **In line with our OpenAg purpose, Advanta has worked alongside several NGOs including FIPS, Farm Africa, and CARE International, to set**

up additional demonstrations – reaching 19 districts with 980 VBAs. Additionally, Advanta has directly connected with 267 farmers' organizations, comprising a total of 13,064 farmers, to provide them with information on hybrid seed availability and purchase options.

The farmers who adopted the hybrids saw a significant increase in yield and profitability, with yields more than twice that of open pollinated varieties and a greater oil content. Many farmers reported an improvement in their social status and an ability to provide a better life for their children through better education. Advanta's efforts to promote the use of hybrid seeds, sell them at fair prices, and connect with farmers through B2B meetings has resulted in a significant increase in the number of local stockists who sell hybrid seeds, giving farmers improved access to profitability.

The acceptance of hybrid sunflower seeds in Tanzania has been a gradual process, but with the help of stakeholders like AMDT and seed companies we expect that in the future, Tanzanian farmers will increasingly rely on hybrid seeds, increasing the amount of edible oil produced, reducing their dependence on foreign currency, and enhancing their productivity and profitability.

Today in Tanzania, Advanta's hybrids represent more than 60% of the sunflower hybrid seeds market with over 100 metric tonnes of hybrid seeds.

Advanta plans to continue this program and to increase new technologies, such as high oleic and clear field hybrids, which can further advance the sunflower market.





Driving Agri-innovation and Insights CropVision, South Africa

This year, UPL South Africa was proud to launch its innovative digital platform, CropVision. Initiated in 2016, and developed into a state-of-the-art crop monitoring system, **CropVision harnesses cutting-edge satellite data technology to help farmers to continuously monitor their fields, tracking performance and field variances to make data-driven decisions, maximize yields and ensure crop health.** To strengthen this digital offering, UPL has partnered with Swift GeoSpatial as well as ESRI South Africa to support satellite imagery data processing and analytics.

Since our launch in February, UPL South Africa has had several training sessions on the unique

functionalities of the online platform to familiarize users and help them get the most out of the platform. **Since the initial launch 63 distributors, representatives and farmers have actively joined the platform, continuously monitoring more than 14,300 hectares on 393 fields.** These training events will continue throughout the year to help encourage greater engagement with the platform.

CropVision also includes a maize yield prediction algorithm that is highly accurate in estimating the final yield at a very early stage in the crop's development, assisting farmers to timeously reduce field variance, adjust crop production programs

and implement improved grain marketing strategies - enhancing overall farmer economics and sustainability outcomes.

New technologies are opening up novel pathways for precision agriculture – and CropVision's offering is empowering farmers and distributors with vital insights so they can quickly adapt to emerging challenges and opportunities, safeguard their crops, and improve their livelihoods. In addition to bringing more farmers onto our platform, in the future we plan on expanding CropVision to new crops, with additional farmer-oriented services and take this digital asset to more farming communities across the continent.





Climate-positive Practices

UPL CarbonSmart Program, South Africa

We are undeniably optimistic about the possibilities for climate-positive agriculture and believe that farming is one of the most underappreciated resources in our arsenal to advance global decarbonization efforts and adapt to the impacts of climate change.

Farmers around the world continue to meet a growing demand for food despite numerous challenges such as market instability, rising cost pressures, extreme weather events, and the emergence of pests and diseases, while at the same time trying to reduce the negative environmental impacts of farming and promote a healthy planet and healthy food for all.

Working amongst these pressures, and on tight financial margins, Africa's farmers must be incentivized and supported to transition to more sustainable and regenerative agricultural practices that promote carbon sequestration, soil health, biodiversity, and overall environmental health.

Guided by this belief and as part of the UPL Gigaton Carbon Goal – a series of global initiatives to reduce atmospheric carbon dioxide by 1 gigaton (or 1 billion tonnes) by 2040 – we are launching the UPL CarbonSmart Program in South Africa. Currently, in its pilot phase, the program aims to scale agricultural carbon offset projects in the country, and reward farmers for adopting regenerative

agricultural land management practices through the emission of carbon credits.

Working with our implementation partner, Orizon Agriculture, we have set a target to enrol 10,000 hectares of row crops for the pilot phase by end of 2023. To achieve this, we are currently undertaking farmer enquiries, assessing eligibility requirements, collecting data, and establishing contacts as we onboard growers. Throughout the program, we will be organizing training sessions on carbon farming and providing tailored technical assistance to support farmers in their transition towards regenerative agriculture. In addition, we will be developing an assessment of each farmer's sustainability baseline, including soil sampling and on-farm greenhouse gas emissions, supporting them to achieve better outcomes and certified carbon credits, thus enabling additional sources of revenue.

These farmers will receive the majority share of the revenue generated by the sale of carbon credits obtained through either soil sequestration of carbon, the reduction of on-farm greenhouse gas emissions, or both.

As we refine our offering and deepen our impact over the coming years, we plan on extending the UPL CarbonSmart program to include additional crops such as permanent crops and pastures, designing programs specifically catered to smallholder farmers, and scaling the project into new markets across Africa.

Our Gigaton Carbon Goal is making strong progress across different regions around the world – including Argentina, Brazil, Europe and India – and we look forward to making carbon markets more accessible to farming communities across Africa as we advance sustainable agricultural practices and drive shared growth for farmers, food systems, and the planet.





Spreading Sustainable Solutions Helping Africa's Farmers Embrace Natural Solutions

The advancement of natural solutions is progressively shaping our sustainable food future, providing growers around the world nature-based alternatives and compliments to the traditional crop protection products that are providing new ways of optimizing crop yields whilst safeguarding our planet. **Alongside NPP, our dedicated natural solutions business unit, we are on a mission to utilize micro-power to create a macro impact, developing and distributing a new generation of natural solutions, tailored to modern smallholder farmer needs and cropping conditions.**

W&CA

In 2022, we launched a range of natural solutions across Côte d'Ivoire, Mali, Cameroon, and Ghana, including Zeba®, Vacciplant® and Fawligen®. These solutions have been embraced by growers who have been able to grow healthier crops, protect auxiliary fauna, maintain and often rebuild soil health and leave less residues. To support the product launches during 2022 we hosted over 30 demonstration plots to show the efficacy of natural solutions, and ran 10 community training programs and 4 workshops to educate and train industrial plantations and small producers in best application and usage.

East Africa: Stimuroot®

StimuRoot® is a proprietary UPL program that supports the improved growth of tree and crop roots. Using a mixture of Zeba® (Reon), Panoramix-GR®, Pilatus® and another 2 natural solutions, StimuRoot supports root growth and strength, and has been shown to increase vegetative fruiting and flowering. The program is targeting the avocado, coffee, mangoes and citrus crops that are all major export crops in Kenya.

During this year's launch, 12 different demonstration sites were set up to evidence the effectiveness of the StimuRoot program, and we expect during the 1st quarter of 2023, to lead a further 18 to support customer uptake. Following trials, we plan on bringing on board a further 30 farms to join the StimuRoot program throughout 2023.

Southern Africa

On the 2nd of August 2022, a group comprising of 80 key clients and staff took part in an interactive natural solutions workshop. Kevin Ashford, Global Technical Development lead – Plant & Soil Health, joined several speakers to show customers how our leading natural solutions portfolio can help farmer's productivity and sustainability aspirations.

As part of the workshop, participants were shown around the UPL Derdepoort facility, and introduced to significant plant assets, such as the laboratory and manufacturing facility.

North Africa

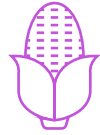
The expansion of UPL's natural solutions offering continued in North Africa, where 3 GoActiv® natural solutions in partnership with CPCM, our distributor, were launched. To support the rollout, the North Africa team organized a training day for the technical and commercial team of CPCM in Agadir, Southern Morocco. The GoActiv® natural solutions range will support crop stimulation, nutrition use efficiency, and secure and increase fruit set, whilst also improving harvest quality.



Food Chain



Food Chain



165,753

Hectares covered
with ProNutiva®
programs (packs)

1,371

Farmers reached by
Pronutiva® programs

107,140

Farmers reached
through integrated
projects



VISION

No one has food security until everyone has food security. In the last year, droughts have devastated plains in Somalia, Ethiopia and Kenya; storms have ravaged Malawi, Mozambique and Madagascar, and floods have submerged fields across West & Central Africa. In addition to these local climatic challenges, Africa continues to feel the brunt of the Russia-Ukraine conflict as well as the aftermath

of the COVID-19 pandemic, which starkly revealed the fragility of food chains. While over the years African food production has grown, it has not been equal to the growth in demand, and this imbalance has been supplemented by imports. Between 2020-2022 staple food prices in sub-Saharan Africa increased by an average of 23.9%, exposing the problems of this reliance.

The current lack of resilience and inability to tackle shortages and fluctuating prices, underscores the need for coordinated and collaborative efforts to build a continental food value chain that is more autonomous, self-sufficient, prosperous, and inclusive.





MISSION

Africa succeeds when it's more than 33 million smallholder farmers thrive. Through our OpenAg mission, we have made it a guiding principle to work hand-in-hand with all the actors of local value chains, and are pleased to have established as a trusted technical partner to the

public sector and agricultural community throughout our time operating on the continent. In

this capacity, we have developed an integrated approach, connecting farmers with the input suppliers, service providers and offtake markets so that they can all jointly thrive.

Our ProNutiva® program, which combines conventional crop protection with natural solutions, is changing the game for farmer's sustainable productivity potential and that of wider local value chains.



IMPACT

We've reached over 1,371 farmers across 165,753 hectares with our ProNutiva® programs, supporting them with tailored crop input packages to produce higher yields whilst leaving fewer residues, improving crop quality, marketability, grower economics and adaptation to changing climate conditions. A series of

recent trials of ProNutiva® applied on maize crop demonstrated a 30% average yield increase on maize in Kenya and 40% yield increase on cocoa in Ghana and Côte d'Ivoire.

We have routinely been the first – and often the only – agricultural inputs provider to join some of the most significant food chain partnerships across the African continent, including the European Cocoa Association and the Cocoa and Forests Initiative - ensuring we have a seat at the table of some of the most significant conversations and collaborations that are driving positive food chain changes.

At a local level, our regional teams have been working closely with farmers to improve the production of staple crops such as maize,

sorghum, potatoes, and rice.

For instance, Advanta's partnership with East African Breweries in Kenya is strengthening local supply chains, providing 20,000 farmers with a regular and guaranteed income through selling their sorghum to a local brewery. We have also been building on our commitment to establish a thriving, self-sufficient rice sector through our Rice Race initiative.

And alongside The World Bank, we are working to support the Guinea Integrated Agricultural Development Project (PDAIG)

that is increasing agricultural productivity and market access for agricultural small and medium enterprises (SMEs). Our work with PDAIG is helping change the lives of rural families, providing increased incomes, and more produce for the local poultry feed industry. Over the last year, we helped secure maize yield increases by over 200%.

Taken together, our ambitions for strong African food chains is each year strengthened by the progress we are seeing across our programs and projects.





Prosperity for People and the Planet Our ProNutiva® Approach

ProNutiva® combines traditional crop protection products and our natural solutions in adaptable packages tailored by our on-the-ground representatives to each farmer's crop, environmental, and market demands. By synergizing traditional and natural inputs, ProNutiva® is the most sustainable approach for maximizing crop yield and promoting environmental health – it provides a comprehensive support to crops, enabling them to reach their full potential with nutrient use efficiency alongside innovative protection against threats ranging from pests and diseases to water stress and poor soil.

Spotlight – Maize Program, Kenya

In Kenya, agriculture is a central industry providing 25% of GDP and 65% of export earnings. The country's primary crop is maize, which is vital to both food chain and economic security. As food, nearly every household in the country consumes maize daily, it is an important ingredient for flour mills and breweries, and also re-enters

the farming food chain as chicken feed. Meanwhile, it is a primary source of income for Kenya's farmers who produce around 42.1 million bags annually from 2.1 million Ha, nearly 30% of total harvested farmland in the country.

Nevertheless, challenges to yields are keenly felt by both growers and consumers. In recent years, erratic rainfall, high levels of pests, weeks rising input prices, and declining soil quality have all threatened production, either singly or in concert.

UPL is working to address these issues directly. In November 2022, we launched our Kenya maize ProNutiva® program following the successful completion of demonstration trials.

To validate the performance of our maize ProNutiva® program of inputs with Kenyan farmers, we conducted a series of trials in Kitale and Eldoret, agricultural towns in the Northern Rift Valley of Western Kenya, with 200 large scale farmers attending. **These demonstrated a 30% average yield increase against standard maize. For the**

farmers enrolled in the trials, this resulted in around 180kg more bags per acre harvested and increased revenues of up to 38,000 Kenyan Shillings (around US\$ 300.00).

Following these trials, we trained a further 1,100 Kenyan farmers through four field days on best pre- and post-harvest practices with the ProNutiva® program. This ensured growers had the knowledge and skills to gain the most benefits from the packages. Farmers who have adopted the ProNutiva® packages reported increased yields, greater crop resilience to heat and dry conditions, and stronger roots.

As an added service offering, we have also offered farmers who sign up to the ProNutiva® program access to UPL's Maize ProNutiva® Farmers Club. This new platform offers benefits such as access to application information, soil testing services, CropVision® data on projected crop harvests, and discounted prices on key UPL inputs including Fawligen®, Aflasafe®, Panoramix GR®, Reon®, and Sigma Combi®.





Spotlight - Potato Program, Kenya

Potatoes are Kenya's second most important food crop after maize. To meet rising domestic demand, the government has set itself the ambitious target of increasing production to 2.5 million tons per year. Although a highly productive, versatile and resilient crop, average yields could be quadrupled with the application of recommended agronomic practices.

With this in mind and to support the government's goals, alongside the National Potato Council of Kenya (NCPK), UPL has launched a potato ProNutiva® program in the North

Rift Valley's potato growing regions. As part of the program, UPL held meetings with farmers, alongside expositions and conferences. As the program expands into other regions, we will also conduct further commercial trials, field days and open days to support farmers in adopting ProNutiva® for their crops.

Spotlight - Tomato and Strawberry Trials, Morocco

Tomatoes and strawberries are important crops in North Africa, particularly Morocco, with both high domestic consumption and high export volumes to Europe and Asia.

However, crop yields have suffered in recent years due to constraints including water supplies and other climatic challenges.

To support farmer productivity, UPL has been leading two ProNutiva® trials – one for tomatoes and one for strawberries focused on increasing yields and reducing input residues in the environment. These trials are being conducted alongside Calimaro, our regional distributor, and will last for one year.





Integrating Family Agriculture in Value Chains

Supporting Mozambique's National Program Sustenta

Mozambique's agriculture sector is a source of income for over 70% of the population. With its significant uncultivated arable land and favourable agro-ecological conditions, the country hosts enormous agricultural potential – the success of which is key to Mozambique's socio-economic development and food security.

Sustenta is a national four-year program in Mozambique, initiated in 2021 to improve the quality of life of rural families by transitioning subsistence farming into sustainable and productive value chains through targeted agri-interventions. The Sustenta program encompasses 700,000 small and emerging commercial farmers, representing 125,000 rural families along with 200 commercial farmers and 50 small agribusiness enterprises. UPL is proud to be a technical partner on this project, supporting access to inputs and

services to improve the commercial opportunities of rural families.

Our dedicated teams have been leading training sessions with so far a total of 369 rural extension technicians on best practices on the best use of crop inputs, facilitating knowledge transfer and capacity building on sustainable GAPs, with the technicians themselves then training over 200 small scale farmers each. This gives us

approximately 73,800 small scale farmers who benefit from our trainings through the Sustenta program. We also distribute learning materials to guide the technicians during the knowledge transfer process.

The Sustenta program has been a triumphant success across the country, enabling improved access to agricultural inputs and basic land preparation machinery,

which has led to an increase in productivity of 100-300%. In addition to the yield increase seen across a number of staple crops, such as rice, maize, beans and peanuts, as well as some important cash crops including soybeans, sunflowers, sesame and sorghum, farmer's technical knowledge and environmental awareness has improved significantly. The farmers themselves have then taken it upon themselves to share their learnings with their communities.

We look forward to continuing to grow our interventions as part of Sustenta through 2023 and into 2024, supporting the uptake of sustainable practices, generating healthier yields, enabling farmers to enhance their incomes and livelihoods, and fostering job creation.





Partnerships for Impact

Advanta's partnership with African food chains

One of Advanta's core missions is engaging in public-private-partnerships (PPP) to champion the expansion of government supported projects to reach more farmers with a strengthened offering and enhance the reliability and capacity of African food chains.

Vegetables, South Africa

Working alongside the Limpopo Department of Agriculture and Rural Development in South Africa, Advanta is working to address the largest challenges that farmers face with growing a range of vegetables. As part of the project, we supported the trials of okra, watermelon, baby corn, hot and sweet peppers, and tomatoes with farming groups across the Limpopo Province.

While there is significant interest by farmers in a wide range of vegetables, growers are cautious

and lack the confidence to expand and grow without professional support. The collaborative program is working to ensure that growers can not only try new techniques, but also grow new crops to diversify their incomes and enhance their diets, and we are pleased to share that over 100 farmers have already been directly impacted by the collaboration.

Sorghum, Kenya

Over the last five years, Advanta has also been working with East African Breweries to expand the production of sorghum - a key component for its iconic Tusker beer, which itself is a household name across much of Kenya and the wider East Africa region.

As part of Advanta's unique partnership with the East African Breweries, over 20,000 smallholder farmers have been

engaged, enabling them to receive regular and guaranteed income through selling their sorghum to the local brewery.

With forces of climate change continuing to challenge farmer resilience and productivity, there is an urgent need to help the millions of smallholder farmers convert to climate-smart crops that are able to thrive in higher temperatures and extended periods of aridity.

Harnessing its R&D capabilities and commitment to catalyzing impactful innovations, Advanta has been working to perfect its hybrid climate-smart sorghum seeds to better equip farmers against the challenges they face. Sorghum is the grain of 21st century Africa – uniquely adapted to Africa's climate, both being drought resistant and able to withstand periods of water-logging.





Flourishing Flowers Post-Harvest Flower Fumigation, Kenya

The flower industry in Kenya holds immense significance, not only for the nation's economy but also for the livelihoods of its people. The diversity of Kenya's flora has made it a global leader in exporting flowers, captivating markets worldwide. By nurturing this sector, Kenya has provided employment for thousands of farmers, supporting their families and uplifting local communities, at a time when unemployment in Africa is steadily rising. It is estimated that across the country, over half a million people depend on the floriculture industry, impacting over 2 million livelihoods.

By 2019, Kenya had become the largest exporter of cut roses to Australia, exporting over 16 metric tonnes. However, that year, Australia introduced regulation forcing flower exporters to apply for permits, threatening to lock

out Kenyan growers. Yet flowers that had undergone post-harvest fumigation could avoid this cumbersome requirement. This provided an opportunity for UPL to harness its agility and offer its experience in post-harvest flower fumigation services to Kenya and ensure flower exporters could maintain trade into Australia.

In April 2022, UPL introduced Post Harvest Fumigation in Kenya using Periphos 77.5GR for the post-harvest management of Mites, Thrips and False Codling Moth (FCM) in roses, becoming the first company to provide post-harvest fumigation services in the East African region. Post-harvest flower fumigants offered a rapid means of disinfesting cut flowers that met export requirements for Australia and EU markets.

In order to advance the sustainability of the flower market, it is crucial to support measures that preserve and grow this sector, securing a prosperous future for Kenya, its hardworking farmers, and their millions of dependents. In line with UPL's Reimagining Sustainability pillar of supporting economic resilience for farmers, flower fumigation has protected a significant number of jobs by enabling growers to continue exporting to vital markets.

Looking ahead, UPL intends to hold Post Harvest Fumigation trials for summer flowers in additional regions, such as Naivasha, and onboard new customers onto the program by showcasing the efficacy of our approach and the export capabilities it unlocks.



Partnerships



Partnerships



Existing formal
partnerships



Farmers reached
through partnerships



VISION

Overcoming the challenges facing farmers today – which span climate change, declining soil health, insufficient access to quality inputs and education - requires an approach that brings together the expertise, experience, skillsets, and capacities of different stakeholders – both within the agricultural industry and beyond. At UPL, we firmly believe that collaboration

and partnerships are the key to establishing comprehensive, robust and resilient solutions with transformative results at scale. This is what our OpenAg approach is about. Through engaging in OpenAg collaborations we aim to align industry efforts and combine resources to impact more farmers lives, foster more development opportunities, and achieve higher food security for all.

Since 2019, our P4S (Partnerships 4 Sustainability) initiative has been pursuing and securing synergistic partnerships across Africa and with international bodies and stakeholders, spanning research, development, policy, finance, technology and more.

By working with partners that share our sustainability and farmer-focused values, we can achieve more results with real transformative, long-lasting impacts for African agricultural systems and farmer communities that no single entity could achieve working alone. In doing so, we can provide holistic solutions that address the many challenges production systems are facing, meet the specific needs of the farmers and those of their markets, and make the entire Africa agricultural systems more productive, efficient and sustainable.





MISSION

P4S is guided by a two-fold mission in Africa: positively impacting the lives of farmers; and Catalyzing the widespread introduction of sustainable agricultural technologies and practices. Alongside metrics of farmers reached and benefitted, we also measure these impacts in line with the UN SDGs, in particular goals 1, 2, 4, 5, 6, 8, 12, 13, 15, 17. These ensure that our local sustainability agenda contributes to and reinforces wider international sustainability efforts.

UPL offers one of the largest distribution networks and

portfolios of integrated agricultural solutions on the African continent, including cutting-edge technologies like natural solutions, hybrid seeds, and soil health stimulants that have the potential to literally change the face of food production and farmer livelihood.

But we are also conscious that technologies alone are not enough if we wish to totally transform food systems for good. We believe its mission-critical to involve local research, patient demonstration, training, access to tailored input finance, increased local added

value, and forward-thinking food chains.

Through fostering collaborations at scale, we can propel our activities, develop and distribute more solutions, and expand our shared offering to meet the ever-evolving needs of farmers. Working with our 85 partners across the continent, we are driving deeper impact, engaging in new cutting-edge research and development, expanding our programs, and impacting more farmers at scale.



IMPACT

Our flagship Rice Race project continued to flourish this year – bringing together the resources, skill sets and networks of governments, development organizations, and food chain partners to launch more demo plots, increase access to our seed varieties, and support greater capacity building, as our mission to build resilient and prosperous rice value chains in ECOWAS region gains momentum.

2022 also saw us meet and exceed all of our defined targets for advancing sustainable cocoa production as part of the Cocoa and Forests Initiative - a public-private partnership to which we are the only agri-inputs signatory. In collaboration with three leading cocoa exporters Cargill, ofi (Olam Food Ingredients) and Barry

Callebaut, since 2019 we have trained 11,416 cocoa farmers to grow high yielding vegetable varieties – and in so doing, variegate their income sources, improve their food security and upgrade their skills.

Over the past year, Advanta has continued to engage in meaningful collaborations, working with local

governments, NGOs, and other private sector companies across Zambia, Kenya, Botswana, and Uganda to directly benefit farmers and rural communities. These have included collaborations to support education, improve crop yields, raise awareness around good nutrition, and increase farmer incomes.





Meeting Nutritional needs Advanta's Nutritionally Enhanced Seeds with HarvestPlus

Vitamin A deficiency is a pervasive and devastating global health issue that disproportionately affects vulnerable preschool-age children - with 33% affected by this deficiency. Vitamin A deficiency can cause vision loss and blindness, and complications with skin, heart, lungs, tissues and immune systems. In Africa, the situation is particularly grave, with an estimated 44% of preschool children at risk of this deficiency, and in Zambia, 54% of children between six months and five years, and an estimated 14% of pregnant women, are vitamin A-deficient.

With a steadfast commitment to tackling this crisis, **Advanta has partnered with HarvestPlus, a division of OneCGIAR, to increase the production and consumption of biofortified staple crops which offer increased nutritional value and improved Vitamin A status.** Through our biofortified seeds and programs, we not only promote greater nutritional uptake in communities but also bolster their resilience through the production of climate-smart crops that are better equipped to withstand the effects of global warming climate.

In Zambia and Angola, we provide seeds for orange maize fortified with Vitamin A (GV673A) – offering growers a route to resilience and improved livelihoods, whilst also supporting well-being of their communities. In addition to the provision of seeds, we have been

educating rural communities on the benefits of biofortified maize on health, and teaching growers the best agronomy practices through various demonstrations and meetings.

During the 2021-2022 season, we reached over 271,000 households through our partnership with HarvestPlus. This was realized through a partnership with the Ministry of Agriculture's extension agents, where more than 500 demonstration sites were set up across the country to host farmer meetings, field days and agriculture shows.

This was coupled with the distribution of 100,000 (1 ton), Vitamin A orange maize GV 673A seed micro packs for household sampling in different districts.

In addition, in collaboration with HarvestPlus and the Ministries of Agriculture & Research, we distributed GV673A seed and

fertilizer and Mbereshi Bean seeds, which provide high iron intake, to 21 marginalized districts targeting over 35,000 households.

We led demonstration programs and training sessions with farmer institutes, reaching over 40,000 growers and empowering them with the knowledge and resources they need to grow nutrient-dense crops that can improve the health of their families and communities.

Together with HarvestPlus, we are committed to working with growers to transform the socio-economic and development outcomes for their communities through the production of biofortified, climate-smart crops. We believe that this project can serve as a model for expanding access to essential vitamins and nutrients for millions of people in Africa and beyond, whilst also increasing farmer resilience against the adverse impacts of climate change.





Sufficiency & Surplus: Advancing Rice Cultivation

The Rice Race, West & Central Africa

Rice is a key source of income for over 35 million African smallholders, yet despite being grown in 40 of the continent's 54 countries, local demand continues to outweigh production with around 14-15 million tonnes of the crop imported each year at a cost of more than US\$ 6 billion. With a significant portion of land suitable for rice production across Africa currently uncultivated, and an ever-growing range of improved seeds, inputs, and innovations available, there is a real opportunity to revitalize rice production entirely.

In 2021 we teamed up with AGRA to launch the 'Rice Race'. A collaborative and multilateral initiative, working to strengthen rice value chains and take the continent beyond self-sufficiency to surplus.

Through the Rice Race, we are on a mission to double local yields across 9 countries (Côte d'Ivoire, Ghana, Mali, Sierra Leone, Senegal, Nigeria, Benin, Guinea, Cameroon and Burkina Faso) by 2025 – and in so doing improve the region's food autonomy, enhance the competitiveness and appeal of local Western African rice as compared to imported varieties, and uplift grower economics.

Since the Rice Race began, we are pleased to have trained over 2,500 farmers on GAPs and set up 65 demonstration plots to showcase the efficacy of our offering – whilst also engaging with 14 large rice entities and 11 local rice champions.

This year, we have seen promising results with farmers using SWARNA2 hybrid seed experiencing an average **16% yield increase compared to other hybrid seeds, and a +43% yield increase compared to open pollinated (OP) varieties.** In addition to yield improvements, farmers have also experienced **improved resilience to biotic and abiotic stresses, high grain quality and adaptability to parboiling.** To help make these hybrid seed technologies accessible to more farming communities, and to advance our efforts to empower the local rice industry, we are delighted to have signed a technology-transfer agreement with a local seed grower partner in Burkina Faso for the production of SWARNA2 hybrid seeds.

As we endeavour to strengthen the resilience and prosperity of the entire rice value chain, **we are pleased to have developed partnerships with development**

institutions AfDB and GIZ, research and value chain institutes including CARI, CSIR-SARI, ISRA and SODAGRI, as well as initiated engagements with a number of government Ministries. In our role as members of the R&D Technical Committee, we have also been active participants in the ECOWAS Rice Observatory platform.

We look forward to continuing this promising trajectory and to entering new markets in the coming years as we ultimately target pan-African expansion, engaging in new partnerships, and opening our flagship UPL Rice Centre of Excellence in Côte d'Ivoire. We are on track for the Centre to be fully operational in the next year – and will be harnessing this innovative hub to train a targeted 15,000 agricultural professionals per year on GAPs, lead seed research and production, and run trials on veggies, field crops and tree crops.





Diversification for resilience & reward Crop Income Diversification, West & Central Africa

Crop diversification offers novel ways for farmers to increase and variegate their income sources, spread their production risks, whilst also delivering environmental benefits such as enhancing biodiversity and improving soil health. **Since 2019, the UPL West & Central Africa team has been leading crop diversification projects in the cocoa producing areas of Ghana and Côte d'Ivoire – with the aim of improving farmer livelihoods by providing high yielding vegetables varieties that meet the nutritional needs of their families and deliver a good financial return.**

As part of the program, we set-up and invited farmers to see demonstration plots, and provided training to ensure they were equipped to perform the best

agricultural practices. Guided by our OpenAg approach, we have partnered with OLAM, Barry Callebaut and Cargill (the 3 major cocoa exporters in W&CA) to deliver the training programs to more farming communities. Testament to the success of these collaborations, as we move into 2023, we are currently at the 3rd scale up with Nyonkopa involving 1,823 new farmers in 78 new communities and 2nd scale up with Cargill involving 2,543 new farmers in 80 new communities.

In 2019, the cocoa diversification project trained 388 farmers – and in just three years, this has risen to 11,416 farmers. With the introduction of improved vegetable varieties we have seen farmers, communities and the wider industry realize shared benefits. The use of

improved hybrids offering greater disease, pest & heat tolerance in crops provide farmers with the opportunity to increase their yield, produce and incomes year-round. Likewise, these varieties also minimize post-harvest losses from handling and transportation, reducing food wastage.

So far, farmers have responded extremely positively to the crop diversification program. Those who have taken part in the project have made additional income during the light cocoa season, whilst improving their knowledge on vegetables technical itinerary, ensuring farmers can grow crops across all seasons. Looking ahead, we intend to expand into additional areas across West and Central Africa to enhance the livelihoods of growers and make every cocoa bean more sustainable.





Driving agri-research and innovation Partnership with Morocco's National School of Agriculture

For five years, UPL has been working with Morocco's National School of Agriculture's research and innovation cluster. Through this OpenAg collaboration, we're working to strengthen and promote applied research that can contribute to agricultural development across a range of different regions while also organizing scientific and cultural activities for students.

The key mission of the project is to create an alliance for sustainable agriculture and food security

within the school's research and innovation cluster. By jointly publishing scientific work and exchanging information with other research institutes, alongside organizing scientific events and awareness raising days, we are facilitating the transfer of innovation and technology from lab to field. This is further supported by a program delivering continuous training and technical assistance to farmers, agricultural advisers, and development agents.

Across these activations and projects, we work closely with the school and the students we support to optimize the training they receive around final projects, seminar delivery, and internships. In keeping with our commitment to Reimagining Sustainability for farmers, food systems and future generations, we're empowering the agricultural community to drive transformative innovations.



OpenHearts



OpenHearts



US\$
114,050

Total CSR Project Budget
in 2022-23

320,050

Beneficiaries
reached

72

Mandays invested/UPL
staff involved



VISION

OpenHearts is our commitment to going beyond our expected business practices to elevate the livelihoods, development prospects, and socio-economic opportunities of the communities in which we operate.

Agriculture holds an important place within societies across Africa, and the industry's performance and prosperity directly impacts the well-being and welfare of African communities.

Operating in remote and often underserved areas across the continent, we are acutely aware that we have a responsibility to give back to the communities surrounding and supporting farmers and their fields. In rural regions, issues of accessibility extend well beyond the agriculture sector. Essential services such as healthcare, education, and clean water are

often scarce or non-existent, leading to poor health outcomes and low literacy levels. **That is why we are not only working to Reimagine Sustainability for Africa's farmers and food systems, but also for the societies they call home, ensuring that our agricultural programs are complemented by a number of meaningful community projects with real world impacts.**





MISSION

We believe that it's important to recognize that food systems aren't linear, but integrated and circular in nature. By helping bridge critical gaps across the healthcare, education and finance space, farmers and their communities can enhance their livelihoods and well-being, in turn improving their

growing capabilities and overall productivity, which then leads to income generation, food security, and improved health outcomes.

Throughout our history working across the continent, we have consistently invested in local projects spanning education, healthcare and gender equality.

With the support of our staff who contributed 72 man-days in 2022, we have established a trusted role supporting growers, their families and communities.



IMPACT

To realize these ambitions, over the past year we have continued to work alongside The Heart Fund to provide healthcare screenings as part of 'The Mobile Heart' campaign in Côte d'Ivoire. The project has travelled across the country to raise awareness of cardiovascular risks, conducting heart checks, sharing advice on the risks of cardiovascular disease, and building capacities of local doctors and community health workers. **As part of our commitment to the region, we are proud to closely support The Heart Fund on its mission to provide cardiovascular healthcare for 1 billion people by 2030.**

In addition, we are actively working to eradicate malnutrition to prevent disease and ensure farmers have access to healthy foods. Advanta has engaged with communities in Kenya to improve the livelihoods of rural communities by enabling African indigenous vegetables (AIVs) species to be grown, which are rich in micronutrients and proven to enhance the health and well-being of farmers. **Advanta and its partners have already onboarded 18,000 smallholder farmers throughout Kenya, with plans to expand into East Africa and reach 1 million farmers to increase the nutrition and livelihoods of farmers across Africa.**

On another note, our work to empower women and youths has continued to flourish, opening up pathways to employment, education, and healthcare. During the annual 'Pink October' month, our teams led advocacy efforts, raising awareness for the fight against breast and bladder cancer, with solidarity marches and workshops in countries like Cameroon, Mali, and Côte d'Ivoire.

Taken together, we are very proud to share that our community engagement projects have supported 320,050 people across the continent this year.





Growing more Nutritious Food for all Advanta Vegetable Commercialization & Nutrition Program, East Africa

Malnutrition remains a key cause of death and disease across Africa – disproportionately affecting vulnerable and socially disadvantaged groups including women and young children. According to the University of the Witwatersrand in South Africa, advancing access to nutritious foods is crucial for Africa's socio-economic prosperity and an effective way of driving human capital development, with every US\$1 invested in nutrition seeing a US\$18 return on investment in health, education and productivity outcome.

Advanta's African Indigenous Vegetable Commercialization program has been running in Kenya since 2022 in a bid to promote nutrition as a route to health, economic empowerment, and improved livelihoods amongst rural communities. AIVs are vegetable species consumed in specific locations in Kenya, and further afield in Africa as part of traditional diets in specific communities. AIV's are rich in micronutrients and are proven to combat numerous health conditions. Smallholders usually grow AIVs

for home consumption, trading any remaining minimal quantities in local informal markets, yet the demand for these species has dramatically increased from urban communities who seek healthier dietary options necessitating larger scale production.

Alongside our partners at the National Museum of Kenya, we identified and onboarded 18,000 smallholder farmers in 20 counties in Kenya for training and support to grow AIVs in the season ended December 2022 and this project will run until 2025. We are further partnering with Ripple Effect to expand the program into Uganda and Rwanda. A pilot project on trialling and training has been launched

in Western Kenya starting with Kakamega County and will gradually be rolled out to the other countries and neighboring countries. Participants will learn the value chain of AIV for commercialization from seed quality and best agronomic practices through to post-harvest handling and value addition, as well as nutrition value and policy legislation implemented by the government.

We aim to expand further into the East Africa region including Uganda, Tanzania, and Rwanda, impacting at least 1 million smallholder farmers, and delivering improved nutrition and healthcare outcomes, enhanced livelihoods, and female and youth empowerment.





Advancing Access to Healthcare Partnership with The Heart Fund, Côte d'Ivoire

Whether we're talking about food security or universal healthcare - the biggest issues facing populations in Africa, and across the world, boil down to accessibility. In Côte d'Ivoire, one public cardiology institute serves the entire country – and access to treatment and support is even further compromised in rural communities where cardiovascular diseases are 2.5 times less likely to be diagnosed or treated than in urban environments. With 15% of Ivorians dying of heart-related illnesses, there is an urgent need to improve access to cardiovascular healthcare services.

Over the past three years, UPL has been supporting The Heart Fund technically and financially (~US\$10,000 per year) to provide healthcare screenings as part of 'The Mobile Heart' campaign.

Running between 2020-2025, the project is travelling across Côte d'Ivoire raising awareness of cardiovascular risks, conducting heart checks and nutrition awareness campaigns, sharing advice on the risks of cardiovascular disease, and building capacities of local doctors and community health workers.

Building on the impact seen through our partnership over the last few years our impact has included the establishment of mobile cardiac clinics with trained cardiologists, cardiology and imaging consultations, and training healthcare providers.

In 2022, we provided 1,811 free heart screenings in hard-to-reach areas, with 3% of those screened referred for follow-up care and 8.6% receiving drug prescriptions. We also raised awareness of cardiovascular risks amongst 92,000 residents, and provided 927 nutrition consultations. And in order to build local capacity and ensure access to advice and

treatment is strengthened, we trained community health workers in best practices.

Farming communities in Côte d'Ivoire are the backbone of the country accounting for 22% of GDP but are put at risk by limited healthcare availability. We are proud of the outcomes our partnership has achieved and look forward to deepening our impact as we work to support The Heart Fund's ambition to provide cardiovascular health for one billion people by 2030 as part of their One Billion Hearts Platform.





Raising awareness together

Pink October, West & Central Africa

In October 2022, the West and Central Africa region saw an outpouring of support and awareness for the fight against breast and uterine cancer during the month of 'Pink October'. **The UPL Women's Network played a crucial role in these efforts, with numerous events and activities taking place throughout the month in countries like Cameroon, Mali, and Côte d'Ivoire.**

One of the standout events was the solidarity march in Douala, Cameroon, which was organized by the general hospital and saw a strong turnout of women and men coming together to advocate for the issue and show their support. In addition, UPL's Malian subsidiary

M.P.C. distributed handmade pink ribbons to raise awareness and spark conversation about the cause.

UPL employees also visited a center for disadvantaged girls in Bamako as part of their efforts to raise awareness and educate the community. Conferences and screenings were held in our branches in Mali and Côte d'Ivoire to further educate and inform the public.

To bring comfort and support to patients, UPL employees organized art workshops in Cameroon and Côte d'Ivoire. These workshops produced heart shaped cushions which were then gifted to patients at the University Hospital of Douala and Abidjan.

The month was rounded off with a regional competition to elect "the Rural Woman UPL 2022" on the International Day of Rural Women. This event emphasized the challenges faced by women in rural areas and the importance of supporting them.

Pink October was a month full of activities and events that showcased UPL's unwavering commitment to the fight against breast and uterine cancer. Every step taken, from marches and ribbons to workshops and gifts, was a demonstration of our enduring dedication to raising awareness and showing support for those affected.



A Message from Marcel Dreyer,

Regional Head, Africa & Middle East, UPL



As this report has shown, UPL is unwavering in its commitment to boosting resilience within rural communities, driving the transition towards a sustainable agricultural system to uplift farmers, empower communities, nurture and protect our planet, and foster food security for all.

Across the different flagship projects detailed in this report, whether it is launching a new state-of-the-art crop monitoring system in South Africa, advancing access to essential healthcare in W&CA, increasing farmer adoption of natural solutions and regenerative practices, or even distributing climate-smart seeds, we are driving real-world impacts with transformative results for all. UPL is paving the way for a more sustainable and resilient future, supporting Africa's food autonomy, while ensuring farmers and communities can thrive for generations to come.

The Africa Sustainability Impact Report is not only an occasion to showcase the pivotal role UPL plays on the continent, but more importantly, to shine a spotlight on the incredible work being led by Africa's farming communities who every day astound us with their resilience, hard work and ingenuity.

These farmers are the future of food security for all, they are the drivers of local development, and they are custodians of our environment – and they inspire us every day to reach further.

Thanks very much to the dedication of our teams on the ground for their hard work and continued commitment to working hand-in-hand with farming communities and food systems at large to overcome challenges and seize opportunities every day. With every year that passes, I'm pleased to see our relationships across the agri-value chain continue to strengthen and our impact continue to expand.

Thank you for your interest in the work we are leading at UPL - we take great pride in what we have achieved, but we are incredibly excited about the opportunities that lie ahead of us. We invite you to join us on our journey to Reimagine Sustainability.

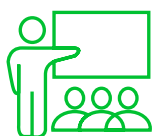


A close-up photograph of a vibrant yellow flower, possibly a lily, with several long, pointed petals. The petals are covered in small water droplets, giving them a glossy appearance. The background is filled with lush green leaves, some of which are slightly out of focus. In the upper left corner, the text "Key Performance Indicators" and "Full Data Set" is written in a clean, white, sans-serif font. Two thin, white, curved lines are drawn over the image, one starting from the top left and curving towards the center, and another starting from the top right and curving towards the center, framing the text.

Key Performance Indicators

Full Data Set

Stewardship & Training



	Unit	TOTAL	WA	EA	SA	NA	Advanta AME
Nb of people trained	#	42,223	21,130	2,600	3,350	60	15,083
- on Stewardship	#	11,549	9,825	250	1,474		
- on GAP	#	30,674	11,305	2,350	1,876	60	15,083
Nb of external training sessions	#	1,010	491	330	142	2	45
Nb internal training sessions	#	44	26	8	5	1	4
Nb demo plots set up	#	941	151	40	58	2	690
Nb demo days performed	#	651	82	312	36		221
Nb people reached by demo days	#	43,596	5,062	19,864	1,560	10	17,100
Stewardship training budget	\$	107,254	72,566	5,000	29,688		
Nb Stewardship training sessions performed	#	260	235	1	24		
Nb mandays invested in Stewardship	#	1,380	690		690		
Demo plot + Workshops budget	\$	329,858	112,974	39,000	155,555	100	22,229



Technology



	Unit	TOTAL	WA	EA	SA	NA	Advanta AME
Nb of seed varieties commercialized in 22/23	#	100+	67		2		87
Nb of seed screening trials	#	795	469				326
Nb R&D Natural solutions trials done	#	84	20	19	45		
% Natural solutions sales in 22/23	%	6.32%	4.37%	6.71%	7.08%	22%	



Food Chain



	Unit	TOTAL	WA	EA	SA	NA	Advanta AME
Nb Ha covered w/ Pronutiva program (packs)	#	165,753	3,563	180	162,000	10	
Nb of farmers reached through Pronutiva programs	#	1,371	148	818	405		
Nb of farmers reached through integrated projects	#	107,140	106,322	818			
Project specific Yield increase	%	Region Specific		30% maize	Row crops Return On Investment 1:5.2 Fruit & Vegetables Return On Investment 1:11.6"	+9% tomato	

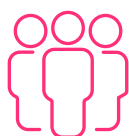


Partnerships



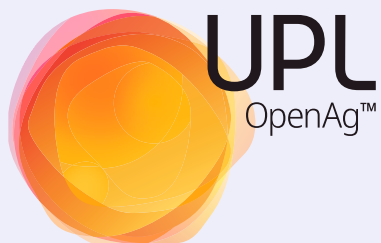
	Unit	TOTAL	WA	EA	SA	NA	Advanta AME
Nb of existing formal partnerships (list)	#	85	33	9	9	10	31
New partnerships formalized during 22/23	#	27	8	1			16
Nb farmers reached through partnerships	#	180,000	106,322	920			72,758
Impacts measured		Region Specific				+9% tomato	
Sales achieved through partnership projects	\$	6,789,178		5,000			5,015,156





	Unit	TOTAL	WA	EA	SA	NA	Advanta AME
COVID Support budget 22/23	\$						
Total CSR Project Budget invested in 22/23	\$	114,050	109,800		4,250		
Nb beneficiaries reached	#		320,000		50		
Impacts measured							
Number of mandays invested/ UPL Staff involved	#	72	50		22		





Explore UPL's Global Sustainability mission at
www.upl-ltd.com/sustainability

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