



IMPROVING AGRICULTURAL PRODUCTIVITY THROUGH MECHANISATION AND THE USE OF FERTILISER



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As a leading Africa-wide think tank MINDS seeks to address this challenge by providing a platform for dialogue, information dissemination and networking underpinned by rigorous research on the different elements of 'Africanness', in order to shape policy and practice on governance, economic development and the evolution of African institutions for quality service delivery.



ABOUT MINDS

The Mandela Institute for Development Studies (MINDS) is an Africa-wide think tank that seeks to address the development challenges in Africa in a holistic and comprehensive manner. MINDS emerged out of the observation that development efforts in Africa have largely failed to meet expectations with respect to social, institutional and economic outcomes in comparison to other regions of the world.

The central hypothesis in setting up MINDS, is that effective and sustainable development can only be achieved if development policies and practices are founded on the cultural heritage, value and knowledge systems and institutions of the people who are the subjects or beneficiaries of the development interventions.



MINDS HIGH LEVEL DIALOGUE SERIES

MINDS' mission is to provide a forum for dialogue, information dissemination and networking, underpinned by rigorous research on the different elements of African heritage; in order to shape policy and practice on governance, economic development and the evolution of African institutions. Our vision is to see African societies attain democracy, economic prosperity, social inclusiveness as well as their rightful place in the global community on the basis of a keen self-awareness.

To this end, MINDS periodically hosts High Level Dialogues in an effort to foster better partnership between the private, public and civic sectors within and across African countries, to promote higher levels of regional integration through intra- Africa trade and investment.

The main objective of the MINDS High Level Dialogues is to engage multi-sectoral, multi-national stakeholders in exploring collaborative projects that can strengthen Africa's competitive position in the global economy.

MINDS CURRENTLY RUNS FOUR PROGRAMMES



African Heritage
Programme



Economic and
Regional Integration
Programme



Youth Programme
on Elections and
Governance and
Elections



Scholarship
Programme
for Leadership
Development

EXECUTIVE SUMMARY

The MINDS High-Level Dialogue Series is one of the principal activities within the Economic and Regional Integration Programme, which aims to bring key participants together to create a shared vision on the drivers of regional and economic integration and the possible solutions to the continent's development challenges. In early 2018 the Mandela Institute for Development Studies (MINDS) together with our co-hosts the Sir Ketumile Masire Foundation (SKMF), held a High-Level Dialogue (HLD) from 6-7 February in Gaborone, Botswana.

Recognising the importance of agriculture and its contribution to Africa's GDP and considering that employment in this sector accounts for two thirds of the economically active workforce in Africa, this year's HLD convened leading policy makers, practitioners, academics experts across the region to explore the impact of higher levels of mechanisation and the use of fertiliser on improving agricultural productivity under the theme, 'Improving agricultural productivity in Africa through mechanisation and the use of fertiliser'.

The MINDS Dialogue Series anchors the Economic and Regional Integration Programme and this year's dialogue sought to foster the necessary discourse on innovative approaches to advancing methods for agricultural yields in Africa. Additionally, the 2018 HLD aimed to look beneath the surface of known methods in increasing our continental yield and learn from the diversity of experience that participants brought to the event. The dialogue was attended by a wide range of practitioners in the agricultural sector: researchers, agro value-chain finance experts, policy influencers, smallholder farmers and specialists in incorporating improved agronomic approaches into their work and policies.

Using this collaborative approach to tackling issues impacting the economic integration of Africa, the HLD participants explored new perspectives and shared innovative projects being undertaken as possible solutions to strengthening Africa's competitive position in the global economy.



Participants were able to deeply interrogate the status quo of agricultural productivity and consider mechanisms and trusted practices that can be applied to address the continent's low productivity in agronomy. In particular the HLD focused on:

- ways in which to boost productivity through mechanisation and increased fertiliser usage
- how to create enabling policies needed for multi-national cooperation in agricultural value chains
- addressing the state of financing in African agricultural value chains, and
- the actions that can be taken by key constituencies, including governments, to ensure that African countries, collaboratively, have the capacity to meet their food requirements.

With over 40 delegates from 16 countries across Africa, the two-day event was structured around presentations, panel and plenary discussions to allow all participants to engage in practical discussions. Feedback from the dialogue was positive with a renewed optimism on how these approaches could be used to create the necessary improvements in agricultural output. Participants greatly enjoyed the opportunity to network with like-minded people from different African countries and to learn from one another, and the chance to explore ideas.



HIGH LEVEL DIALOGUE KEY OUTCOME

One of the key outcomes of the dialogue, was to establish focus groups, led by industry leaders, who will continue the conversation on drivers for the improvement of agricultural production in Africa and then offer recommendations which can be shared with policy makers across Africa to take into consideration and implement where possible.

DIALOGUE HIGHLIGHTS

WELCOME ADDRESS

Ms. Matshidiso Masire, the Chief Executive of the Sir Ketumile Masire Foundation and co-host for the HLD welcomed all present to her home country of Botswana. She shared that the partnership with MINDS made sense as both organisations were resolute in their common desire to create social cohesion and societies that value principles of economic and regional integration. Ms. Masire added that the dialogue came at an opportune time for the country, as the need for diversifying the economy from diamonds had become more urgent. She shared her optimism that platforms such as the HLD provides for a point of connection where organisations such as for the Sir Ketumile Masire Foundation (SKMF) are able to engage and partner with other African experts in highlighting the importance of Agriculture in job creation, food security and in accelerating ancillary economic activities within the continent.

Ms. Masire then shared more on the SKMF's activities that are aimed at promoting Peace and Good Governance, Children's Welfare and Innovation and Alternatives in Agriculture. SKMF co-ordinates youth leadership development activities at a national level to create an enabling environment for Botswana youth to meaningfully participate in the development of the country. It is unfortunate that very few young people see a future for themselves in agriculture, however the SKMF sees the youth as the future of food security. The Masire Foundation is keen to harness the voice and passion of youth in the agriculture sector going forward and is working with partners to find innovative ways to build on the foundations laid by Africa's forefathers.

We strongly believe that the Youth are our future. With most young people living in developing countries, where agriculture is likely to provide the main source of income, it is vital that young people are connected with the sector.



OPENING REMARKS

Dr. Nkosana Moyo, Founder of MINDS, opened the dialogue by providing the rationale behind the formation of MINDS and detailed MINDS programmatic areas. He noted that MINDS was borne out of the observation that development efforts in Africa have failed to meet expectations with respect to social, institutional and economic outcomes in comparison to other regions. The four programmes elaborated upon included the African Heritage Research Programme, Economic and Regional Integration Programme (previously called the High-Level Dialogue Programme), Youth Programme in Election and Governance, the Scholarship and Leadership Development Programme. Each programme was outlined, as follows:

AFRICAN HERITAGE RESEARCH PROGRAMME

This is the foundational research-based programme that aims to establish and interrogate 'Africanness'. Key elements investigated in this programme include: the common identities in Africa, distinguishing characteristic between cultures and regions, knowledge and value systems, customs and governance practices. It is believed that a better understanding of 'Africanness' will help shape the nature of development programmes in Africa leading to more sustainable development outcomes.

ECONOMIC AND REGIONAL INTEGRATION PROGRAMME

This programme is aimed at fostering relationship building between different sector leaders across the continent, to advance economic integration in Africa. It intends to build stronger in-country partnerships between private, public and civic sectors. The HLD is a regular event conducted as part of this programme which has been designed to provide a platform for dialogue between leaders in relevant sectors of the thematic areas to disseminate information on their fields, exchange best practices within their industries and engage in a debate on an agreed topic. The primary objective of the Economic and Regional Integration Programme is to nurture relationship building between sector leaders who are positioned to promote intra-Africa business transactions through trade and investment.

YOUTH PROGRAMME IN ELECTION AND GOVERNANCE

This programme is designed to strengthen the quality of youth engagement in electoral and political governance processes in Africa. Based on the premise that thirty five percent of Africa's population are people between the age of 15 and 35 years old, it has been found that African youth's participation in key political processes is either low or negative. Through this programme, African youth from across the continent are mobilised to understand the direct link between the leaders they help choose through the electoral processes and the future that they desire.

SCHOLARSHIP PROGRAMME

Through this programme, MINDS offers scholarships to Africans who wish to pursue post-graduate studies within Africa, outside of their own countries. Through tailored leadership development activities, the MINDS Scholarship Programme aims to nurture leaders who have a continental development mind set and promote leaders who will facilitate greater cohesion and cooperation between African countries.

INSIGHTS FROM MAIN SPEAKERS

The sharing of knowledge and exchange of best practices by the speakers and participants alike, created greater awareness of the importance communities and regions working collectively develop complementary practices that would go a long way to change the pervasive negative perceptions of Africa within the global context, as innovators in the agricultural sector.

Speakers included:

- **Advocate Vasu Gounden** – Founder and CEO at ACCORD
- **Ms. Michele Adelman** – Founder of GoFresh! Botswana and Accite Holdings
- **Dr. Cuthbert Kambanje** – Agronomist at FAO, United Nations
- **Mr. Ted Macharia** – Investment Associate at Dalberg Capital
- **Ms. Alison Root** – Policy and Expansion Director, One Acre Fund

The speakers helped facilitate lively audience discussions on the tools and strategies needed improve and enhance agricultural productivity on the continent. This included ideas on appropriate financing mechanisms and the policy enablement to create and develop sustainable agricultural value chains. Importantly, speakers provided empirical evidence and relevant statistics to back up their arguments and statements.

ADVOCATE VASU GOUNDEN

FOUNDER AND CEO AT ACCORD

THE IMPACT THAT AFRICA'S CONFLICT HAS HAD ON AGRICULTURAL DEVELOPMENT

Advocate Gounden opened the first session by providing the delegates with an analysis of Africa's conflict crisis over the past decade. With over twenty-three years' experience in contributing to peace, ACCORD (African Centre of the Constructive Resolution of Disputes) has played a central role in applying interventions that bring about conflict resolution dialogue and institutional development.

One of the key sectors which has been highlighted as being susceptible to disruption from conflict is agricultural development. More particularly, Advocate Gounden presented examples of Africa's potential in terms of human capital and natural resources which are encumbered from reaching full potential due to protracted conflict in resource rich areas across the continent. It was observed that a shift is taking place in Africa's socio-economic trajectory from the agricultural age to industrial age to our current information age. With this in mind, Advocate Gounden further expanded on demographic trends in Africa's socio-economic trajectory reflecting the huge gaps between the privileged and those on the periphery and citing a number of African countries.

An example was made with respect to the relationship between participation of the private sector, public sector and civil society sector in Africa relative to Europe where there is a greater degree of public sector participation in the latter case. It was noted that conflicts over scarce resources was a key driver of conflict often leading to economic stagnation (in the form of land, water, food, employment etc.), humanitarian crises, destruction of basic infrastructure and governance capacity amongst other consequences.

In closing, the delegates were asked about the aspiration of Africans for the agriculture sector.

Three suggestions were made: food security for all Africans, job creation through employment opportunities in value chains and feeding the rest of the world through food exports.

MS. MICHELE ADELMAN

FOUNDER OF GOFRESH! BOTSWANA AND ACCITE HOLDINGS

PIONEERING CHANGE USING TECHNOLOGY AND YOUTH LED AGRI-BUSINESS MODELS

In response to Advocate Gounden's question on the aspiration of Africans for the agriculture sector, Ms. Adelman continued to set the scene by sharing her perspective around the importance of employment, in particular, by pioneering change with technology and youth led agribusiness. Founded in 2012, Accite Holdings is an impact investment and project development firm which uses technology to catalyse the development of new businesses to drive economic diversification, focuses on the employment of youth and women as the next generation of African leaders and leverages sustainable practices to safeguard the environment.

According to Ms. Adelman, technology has played a crucial role in controlling the environment and agricultural yields are seen to increase when technology is applied as a form of mechanisation. Moreover, GoFresh! Botswana has been initiated to improve the quality of life for people and integrate best-in-class greenhouse and hydroponic technology with low maintenance costs. Technological advancements have not only been used for fertiliser and irrigation methods, but also to facilitate communication and for safe food management. Ms. Adelman described a model which utilised less water and fertiliser as more sustainable means of agricultural inputs to production processes at GoFresh! Botswana.

The benefits of this approach were cited as: yielding twenty-fold more land efficiency on average in comparison to the average national yield per hectare and utilising about two percent of the water and fertilisers compared to traditional irrigated farming. Furthermore, it was noted that GoFresh! Botswana has been growing rapidly using a distributed methodology which eliminates the cost and spoilage of transportation of perishable produce. Given this success, this operating model has been replicated across two distributed locations and there has been a stated ambition to expand this offering to five other locations within Botswana and regionally into Africa. GoFresh! Botswana has displayed substantial commitment in hiring and training local youth, empowering them to run all functions of the business i.e. in its operations, sales, finance and human resources.

Looking ahead, GoFresh! Botswana is keenly seeking to scale up GoFresh! while also investing in new technologies in animal feed and plant-based protein foods. All in all, this presentation delivered a convincing case study of an example of the transformative impact of youth in agriculture and presented a compelling argument for attracting young Africans to this sector.



DR. CUTHBERT KAMBANJE

AGRONOMIST AT FAO, UNITED NATIONS

THERE EXISTS A POSITIVE CORRELATION BETWEEN AGRICULTURAL VALUE-ADDITION AND EMPLOYMENT AS WELL AS HIGHER LABOUR PRODUCTIVITY POTENTIAL

Following the experiences shared from Botswana, Dr. Kambanje set out to unpack the importance of agriculture as a sector to invest in within the broader context of Africa. He provided reasons for the focus on agriculture citing: increased per capita income and urbanisation generating higher demand for food and high-value products, positive and direct impact on food security, positive correlation between agricultural value-addition and employment as well as higher labour productivity potential. Delegates were also presented with factors that have contributed to megatrends in this sector leading to changes in the agro-industry.

Examples of megatrends in Africa shared included:

- a rapid population growth between 2015 to 2050 (with fifty percent of the world's population growth by 2050 from Africa)
- growing number of young people (over 60% of Africa's population below twenty-five years of age) and rising per capita income.
- Additionally, there is an anticipated 20% increase in the rate of urbanisation by 2050.

These demographic changes are expected to be accompanied by an increase in the demand for processed foods where 40% of the diet is purchased (as opposed to being produced) and 54% percent of total food expenditure is on non-cereals (there is an increase in the demand for animal proteins, oil crops and sugar) due to lifestyle differences. Moreover, technological advances and climate change as well as the resultant land/resource degradation have been observed as leading causes to notable changes in the agro-industry. These changes were listed as: globalisation and trade liberalisation, institutional and governance changes (through contracts, standards and property rights) and technological revolutions through biotech and big data innovations.

With these megatrends in mind, Dr. Kambanje pointed that MSME's (micro, small and medium-term enterprises) in rural areas account for 90% of employment opportunities. It was found that MSME's serve as an important "missing middle" component to poverty reduction, employment generation and value addition, presenting a crucial role in opportunities for short food value chains.

On the other hand, in looking at the urban areas, Dr. Kambanje informed the audience that the urban population explosion has translated into a staggering 800% percent growth in food volumes flow from rural to urban areas over the past thirty years. Overall, in Sub Saharan Africa, it has been found that 90% percent of food produced by farmers is consumed in the region while only 10% is exported. In spite of these favourable numbers, he acknowledged that smallholder farmers are still lagging behind even with massive input distribution programmes in place by governments and a multitude of aid agencies bringing billions in the form of aid delivery to Africa. Participants were faced with the thought-provoking challenge to rethink how the sector engages with smallholder farmers in Africa. It was determined that inclusive, innovative, smallholder centred business models are drivers for development which pick up the rural poor and move them upwards in the transformation process.

Central to this presentation, was the importance of inclusive value chain development which was explored in detail, as well as the issues surrounding sustainable food value chain (SFVC) development. A food value chain was defined as consisting of all the stakeholders that participate in the coordinated production and value adding activities that are needed to make food products. In order for a food value chain to be sustainable, it is required to be: profitable throughout its process, beneficial for society and have a positive or neutral impact on the natural environment. Two key challenges for SFVC development that were highlighted included; the need to understand key leverage points that will maximise impact and how to combine the capacities of the public sector, private sector as well as civil society into an effective partnership. A number of principles were emphasised in terms of SFVC development which were all linked to measuring, understanding and improving the performance of value chains to realise their full potential.

Most notably, the role of policy makers in SFVC development was determined as easing the cost of doing business with smallholder farmers, recognising the role of small firms in rural development and job creation as well as the reduction of over-regulation and bureaucracy which discourages formalising small businesses. A few policy measures suggested were: smart subsidies, regulatory measures, access to markets measures, risk sharing facilities, rural economy diversification measures amongst others. It was concluded that governments can and should play a more significant role in improving the agribusiness environment by deploying a combination of these policy measures aimed at promoting SFVC development.

NOTE: A MORE COMPREHENSIVE LIST OF EXAMPLES OF POLICY MEASURES FOR THE PROMOTION OF SFVC'S CAN BE LOCATED IN THE FULL PRESENTATION WHICH CAN BE ACCESSED IN THE LINK PROVIDED IN THE APPENDICES.

MR. TED MACHARIA

INVESTMENT ASSOCIATE AT DALBERG CAPITAL

DESIGNING FINANCING FACILITIES TO SUPPORT AGRICULTURE

With an understanding of the key elements of the sustainable food value chain development from the previous presenter, Mr. Macharia introduced the delegates to the most recent work undertaken by Dalberg Capital in supporting the design of three input financing facilities across Africa. Dalberg Capital Partners is a buy-side advisory team offering investment advisory services and financial product structuring and asset management for investor deploying capital in frontier markets.

Three striking case studies were presented, namely: an input financing facility for soya farmers in Tanzania, an input and equipment financing facility for livestock herders in Ethiopia and an irrigation kit financing facility for pineapple farmers in Guinea. **It was understood that there are four main pathways which can be used to finance farmers which can be differentiated by the type and role of the intermediary between capital and the beneficiary. These are:**

- ☐ direct to farmer finance
- ☐ producer group finance
- ☐ value chain finance, and
- ☐ integrated supply chains.

In direct to farmer finance, farmers attain financing through an institution in the financial sector. In producer group finance, financial institutions provide finance to producer group organisations that serve their farmer members.

In value chain finance, the intermediary would be in the form of SMEs or value chain actors (such as agro-dealers, traders etc.) which finance farmers in turn. In integrated supply chains, multinational buyers finance farmers in vertically-integrated food and agriculture company supply chains.

THE FIRST CASE STUDY IN TANZANIA focused on identifying efficient models of engaging with farmers and mobilising farmer groups in the production of soya. The input financing facility applied in this study was modelled around the producer group finance pathway. The facility aimed to finance procurement of new seed varieties, top layer fertiliser, pesticides and inoculants for soya farmers in the Southern Highlands. Ten producer groups comprised of approximately twenty farmers who were voted in to join a production, marketing or finance and planning committee. Several market intermediaries would plug into the input financing facility such as trained service providers in financial training, trained community volunteers, off-takers and input suppliers.

THE KEY TAKEAWAYS

- ☐ There is a distinct role of development partners, technical assistance from service providers and NGOs in the promotion of sustainable value chain development.
- ☐ It is essential to support farmer groups and cooperatives in owning their success paths e.g. by providing legally binding agreements between off-takers and farmers in commercially viable food chains as well as setting legal frameworks for cooperatives support.

THE SECOND CASE STUDY IN ETHIOPIA provided an overview of the overall mechanism as well as funding and physical flows i.e. how payment is processed, and inputs distributed for livestock herders. Mr. Macharia highlighted that input financing mechanisms strengthen linkages across the value chain to improve profitability for all actors and create lasting impact. There were various perspectives offered on input financing for system wide impact. Depending on the relevant value chain actor (i.e. producers, traders and cooperatives, primary processing or secondary processing) there is a linked potential financing approach to be considered.

On the most part, it was revealed that due to limited access to formal credit, farmers tend to rely on their personal savings to deal with financial shocks, such as increases in food items, increases in the prices of production inputs, droughts or other external factors etc. It was reported that only seven percent of farmers reported access to formal credit. Dalberg Capital explored a two-pronged approach to address such financing challenges. One entailed a blended input financing model with direct lending and insurance cover as tools used in emergency or shock events ensuring inputs are used appropriately. The other method involved a comprehensive working capital which served to smoothen cash cycles and input finance model for traders to boost their productivity.

THE KEY TAKEAWAYS

- ☐ Financing of farmers must fundamentally be considered in holistic manner. This includes other actors in the value chain. Additionally, input financing needs to be a priority for all value chain actors.

THE THIRD CASE STUDY IN GUINEA assessed managing risk in input financing facilities with long payment periods. It was determined that increasing access to irrigation during dry seasons had a high impact on the quantity and quality of pineapples produced by Guinean farmers. In other words, by ensuring adequate watering of the pineapple farms over an eighteen-month production period to maturity, there was an estimated increase in farm yield from thirty to fifty tons per hectare as well as an increase in the area of arable land per farmer and a resultant increase in the quality of production to export standards. Dalberg Capital designed an equipment financing facility in which loan repayments were aligned to the crop calendar. This type of facility was structured through a framework agreement between the financial institution, federation of farmers and equipment vendor outlining the lending process and specific guidelines for performing credit analysis. Farmers or cooperatives in need of equipment would channel their requirements through the federation who would formally file an application with the financial institution. Once approved, the federation provided 10% of the loan amount upfront and the remainder was covered by the financial institution who in turn pays the vendor for the cost of the equipment to be lent to the federation. After harvest and trade, the Federation paid back the loan in the eighteenth and thirty sixth months. It was understood that in the event of non-payment, the Federation had the option to repossess equipment from farmers who were in default or distributed them to new farmers to recover their loan.

THE KEY TAKEAWAYS

- Risk sharing mechanisms are effective and should be applied in the equipment leasing process. Furthermore, there is a clear role for government in improving the risk profiles of innovative financing pilots. In terms of policy and practice the main takeaways were; the consideration of contract farming for cash flow predictions to act as a form of collateral; the relevance of input financing facilities to structure loan repayments for farmers to gain market access; and the critical role of government to guarantee credit for farmers by covering default appropriately if necessary.

MS. ALISON ROOT

POLICY AND EXPANSION DIRECTOR, ONE ACRE FUND

THE SMALLHOLDER FARMER IS OF UTMOST IMPORTANCE FOR SUSTAINABLE VALUE CHAIN DEVELOPMENT

Considering the insights gained from all presentations delivered to this point, it became apparent that the smallholder farmer is of utmost importance for sustainable value chain development. One Acre Fund is a social business exclusively serving smallholder farmers to improve productivity and their service bundle offering includes: financing, distribution, training and market facilitation. Ms. Root explained that One Acre Fund serves 70% of Africa's poor dependent on one-acre farms. With a footprint in six African countries with their operations at scale and conducting pilot programmes in three more countries, One Acre Fund is well positioned to serve over one million farmers by 2020.

With a keen focus on smallholder farmers, Ms. Root shared three important lessons learnt from the last decade whilst serving these value chain actors. First and foremost, it was reported that smallholder farmers are fully capable of repaying loans, registering repayment rates of 99%. Furthermore, smallholder farmers can realise significant yield gains with simple interventions. Finally, it was identified that the key to client and company sustainability is by bundling products and services.

A CASE STUDY IN KENYA was presented on the shift to a mobile money infrastructure named the m-Pesa platform, as an enabling policy for the private sector's ability to serve smallholder farmers. This platform resulted in eighty percent reduction in One Acre Fund's cost of service and a one hundred percent satisfaction rate from the smallholder customer in their shift. Another case study was shown linked to crop insurance which provided greater incentives for insurance companies to participate in the process, using data and government relationships to customise the service offering. The key enabling policy in this instance was the partnership with public sector through the government of Kenya. While it is clear-cut that smallholder farmers play a distinctive role in agricultural value chains, it is equally imperative that all stakeholders (including government, private sector and NGOs) have a role to play in creating and leveraging enabling policies.

In closing, three pillars were presented by Ms. Root which expand on the necessary role of each stakeholder presented here. **The first pillar** is centred on transparency, predictability of policies and regulations. Governments are mandated to set a clear and transparent regulatory framework, as well as smart interventions and financing schemes. This leads to certainty and less speculation which results in long term investments in African markets to build up value chains and supply networks. The consequence of this chain is growing demand for inputs and information to access market opportunities. **The second pillar** and policy enabler involves reducing costs leading to increased availability, appropriateness and affordability for intermediaries such as agro dealers and farmers. **The third pillar** is set on stimulating demand which calls for a surge in extension services, data access as well as research and development.

EXPERIENCES FROM PANELLISTS

To further explore the central theme four panel discussions were held that centred around specific sub themes. Panellists freely shared their experiences based on their practices.

PANEL DISCUSSION ONE

AFRICA-LED APPROACHES TO SUSTAINABLE AGRICULTURAL PRODUCTIVITY

PANELLISTS:

- Dr. Amos Ngongi Namanga – Chairman, African Fertiliser and Agribusiness Partnership
- Ms. Maria Namburete – Chairwoman of the African Women in Agribusiness (Mozambique chapter)
- Mr. James Banda – Deputy Director, Land Resources Conservation Department, Ministry of Agriculture in Malawi
- Mr. Michael Iyambo – Chairman, Namibian Agronomic Board

MODERATOR:

- Dr. Jacobus Van Vuuren, Director, Fertiliser Association of South Africa

In order to achieve sustainable productive outcomes in the agriculture sector for Africa, this panel put forward that Africans need market systems that can provide an incentive to produce beyond domestic consumption.

Low productivity was attributed to degraded soils with 75% of Africa's land being degraded. It was explained that farmers have poor access to productivity enhancing technologies such as seeds, fertiliser, agro-chemicals, irrigation and mechanisation. It was reported that Africa's yield gap for crops is enormous, standing at over seventy percent for maize and 60% for roots as well as tubers. It was further suggested that Africans need to fully interrogate the value chain processes which factor in agro dealers living in rural areas and their method of acquiring farm inputs. Agro dealership was considered to be a viable model that can work for those that are willing to take the risk. To achieve agribusiness expansion, the discourse on the seasonal demand for farming inputs coupled with the high cost of credit must be continued to obtain profitable outcomes for food value chains.

Two neighbouring countries were provided as **examples** to illustrate a few challenges experienced which may hinder sustainable agricultural productivity. The first example given was of **Mozambique** in which there are high inefficiencies within the supply chain and distribution network due to high transport costs, fertiliser costs and other basic inputs. The second example was of **Malawi** where local farmers own fragmented land holdings and this fragmentation acts as a limiting factor in the economic use of inputs to boost farm productivity. In both instances, it was held that policies and programmes need to be put in place to protect smallholder farmers who are confronted by these challenges. Affordability of inputs and regulation issues were mentioned as leading obstacles to achieving sustainable productivity. On the other hand, there appeared to be progress in Ethiopia where a national soil map has been generated for soil

analysis that can be conducted to update fertiliser recommendations. This led to the establishment of six blending plants to produce appropriate fertilisers for the different soils and regions. In addition, a major liming programme is being undertaken to improve productivity of acid soils.

To date, Africans have responded in various forms to the challenge of low productivity. The Comprehensive Africa Agriculture Development Programme (CAADP) was set up in 2003 by the African Summit to target ten percent of national budgets to the agriculture sector. Since then, in 2006, the **Abuja Summit** has taken place which saw the setup of the **African Fertiliser Financing Mechanism (AFFM)** intended to take actions to increase fertiliser usage from 8kg/ha to 50 kg/ha. Africa has increased its fertiliser usage by fifty percent from 8 kg/ha to 12 kg/ha over the past decade and can increase by another 100% over the next ten years with the right policy measures in place.

The **Alliance for a Green Revolution in Africa (AGRA)** was set up as an Africa based and African run organisation to catalyse an African Green Revolution. AGRA has reaped positive results from its initiatives through; training soil scientists to sustain a green revolution, supporting disease resistant and drought tolerant crop varieties, supporting private seed companies connecting them to smallholder farmers and setting up a system for agro-dealers to improve their access to markets. The **African Fertiliser and Agribusiness Partnership (AFAP)** was created in 2011 by AGRA to focus on improving the functioning of the fertiliser value chain (from production to smallholder farmers' fields). The **Malabo Summit** held in 2014 reiterated such targets while placing additional emphasis on productivity, mechanisation and mobilising youth. Moreover, the **African Development Bank** has refocused on the agriculture sector with two major programmes: **Technologies for Africa's Agriculture Transformation (TAAT)** and **ENABLE Youths**; both coordinated by IITA. These interventions are intended to engage youth agri-preneurs offering hands-on skills development in agricultural enterprises, the establishment of incubation platforms to commercialise agricultural productivity enhancing and value addition technologies.



It was clear that Africa is facing serious challenges in its efforts to improve agricultural productivity, but the challenges can be overcome.

PANEL DISCUSSION TWO

THE STATE OF FINANCING AND OPPORTUNITIES TO IMPROVE AGRICULTURAL PRODUCTIVITY BY INCREASING INVESTMENTS IN VALUE CHAINS

PANELLISTS:

- Mr. Trevor Manuel – Chairman, Old Mutual and MINDS Advisory Board Member
- Mr. Lloyd Guzha-Chanetsa – Agri-Finance International Consultant, IFC
- Mr. Dalitso Makoka – Country Manager, ICCO Corporation
- Mr. Joris Jacobs – Financial Manager, VB Agri

MODERATOR:

- Ms Agnes Apea – Chairwoman, Local Government Finance Commission

This panel discussion unpacked financing tools and risk management mechanisms in the context of agricultural value chains in Africa. It was understood that smallholder farmers pose a high-risk profile and their financing need is also extremely high relative to aggregated production groups.

Financial flows within the value chain for production, working capital or leasing through the input supply, farmers, traders and logistics, processing and retailing stages were considered. It was found that farmers carry the highest risk as actors within the value chain and there is a limited flow of funds through the agro value chain.

Reasons cited for this limitation were: lack of collateral, lack of management skills, lack of market linkages, lack of integration in the chain and lack of formal relationships. It was also stated that most of the financial institutions are financing the secondary stages of the crop and livestock value chains, namely trading, logistics, processing and distribution/retail. Likewise, financial institutions limited value chain finance skills and risk management products makes it imperative for these institutions to focus on the secondary stages of the value chain.

With an increased focus on skills development for the farmers and a functional market in place, the proposition of financing from institutions becomes an easier approach. What's more, it was debated that eliminating risk from value chains becomes straightforward as long as there are contracts in place. It was stated that **women are mostly marginalised when it comes to both farming and financing where collateral requirements are involved**. Often the main hindrance in this regard is linked to lack of clarity of ownership of the land resources in question. It was agreed that governments are more willing to provide insurance for crop failure, in cases where the value chain is performing well and there are contracts in place from a regulation perspective which serve to mitigate their risk exposure. On the contrary, it was argued that financial institutions are less inclined to use contracts and collateral to finance small scale farmers because of cash flow restrictions and insufficient governance in value chain financing procedures. That being said, if there is sufficient evidence presented that farmers have a track record of consistent yield, then it should be simpler to re-finance them based on their financial performance. An example was given of legume farmers in Kinshasa where local associations combined their efforts to help smallholder farmers in legume production obtain financing and boost their yield. In these instances, these associations had acted as intermediaries on behalf of the farmers based on their outputs, thereby reducing the risk for the lenders due to the collaboration of other key stakeholders to support farmers.



It was reported that commercial agriculture is thriving due to access to capital and it was emphasised that Africans need to rethink agriculture as a profitable investment.

PANEL DISCUSSION THREE

ENABLING POLICIES TO IMPROVE AGRICULTURAL PRODUCTIVITY THROUGH VALUE CHAINS

PANELLISTS:

- **Dr. Wael Soliman** – Principal Rural Infrastructure Engineer, AfDB
- **Ms. Lily Musaya** – Country Manager, African Women in Agribusiness (Malawi chapter)
- **Ms. Elly Mwale** – CEO, Future Seeds

MODERATOR:

- **Mr. Trevor Manuel** – Chairman, Old Mutual and MINDS Advisory Board Member

This panel discussion commenced with views on the findings shared by Ms. Root on the presentation delivered by One Acre Fund. An important point that was emphasised was the role of smallholder farmers as being key change agents and there is a need to build support structures around them in order to be encouraged to become business oriented.

During the discussion it was highlighted that research institutions are crucial in guiding practitioners on the actual demand in the food market. It was noted that there are inadequate Pan-African research organisations that investigate how to support smallholder farmers. An example was given of Zambia which has a huge variety of seeds yet only a few varieties are available on the market. There is little information dissemination on the seed market needs to match supply to demand throughout the entire value chain. It was also shared that despite a variety of sufficient seeds on the supply side, there are environment factors which prohibit their optimal use. All in all, it was agreed that seed companies need national and regional support to address their limitations. Furthermore, the organisation of African research in agriculture becomes essential and there ought to be more collaborative research between public researchers and private sector researchers. More emphasis should be placed on the role of intermediaries like One Acre Fund to support farmers with input mobilisation.

TWO EXAMPLES OF PROJECT INTERVENTIONS AIMED AT INFLUENCING POLICY TO IMPROVE AGRICULTURAL PRODUCTIVITY

The **African Food Basket** initiative which was launched in 2015 by the Graça Machel Trust, as one of the pilot programmes of the African Women in Agribusiness Network (AWAB). The aim of this network is to propel women's agricultural activities beyond subsistence farming and into viable agribusinesses. This programme seeks to be a policy enabler by offering an innovative, sustainable and home-grown solution to resolve a number of agribusiness challenges, particularly in quality seed production. Through **pilots in Malawi and Zambia**, the programme has been rolled out in three phases; the pre-production to provide inputs for the development of sustainable seed, the production phase which focuses on mechanisation and post-production that addresses access to markets. This intervention has set a target to produce over ten thousand metrics of legume seeds, identify fifty thousand grain producers in five countries, develop fifty women-owned and sustainable seed companies and train five thousand and fifty women in agribusiness ventures, thereby geared to make a considerable impact in tackling food security needs in the SADC region.

The second example of an initiative designed to influence both policy and practice is the **AfDB's Enable Youth Programme**, which aims to promote intensive agriculture by developing investment areas that can mobilise all development stakeholders through increased private investment in agriculture. The programme will support the modernisation of farming practices and the emergence of businesses in the agricultural sector which still employs eighty percent of Madagascar's working population. This initiative by AfDB serves to contribute to the growing evidence of bankable agricultural projects for young people. In doing so, Enable Youth will also help to increase the incomes of the target population by supporting rural businesses and helping to boost farm yields in Madagascar.

PANEL DISCUSSION FOUR

ACTIONS THAT CAN BE TAKEN BY KEY CONSTITUENCIES TO ENSURE THAT AFRICAN COUNTRIES HAVE THE CAPACITY TO MEET THEIR FOOD REQUIREMENTS

PANELLISTS:

- **Dr. Tobias Takavarasha** – CEO, FANRPAN
- **Mr. Ben Leyka** – Executive Director, African Agri Council
- **Dr. David Chikoye** – Director for the Regional Hub for Southern Africa, IITA

MODERATOR:


- **Prof Stella Williams** – Founder, NiWARD

In this panel discussion, it was agreed that the HLD was a timely event as African policy-makers are now eager to engage in dialogue at all levels to address Africa's food crisis, providing Africans with a refreshing space to listen, to learn and to embrace the vision of “an Africa free of hunger and poverty”.

It was pointed out that Africans must develop and implement policies that learn from global experiences but that are suited to each unique environment. It was acknowledged that productive ties are growing among African civil society organisations and policy research institutes. Additionally, it was observed that Africa needs to promote the use of innovative technology as part of the fourth revolution, by embracing big data platforms to improve farm productivity and create market linkages. With this in mind, the panellists felt that the time has come for these national and regional think tanks and policy networks to provide governments and regional economic communities (RECs) with policy options that are home-grown, equitable and participatory. The importance of investing in agricultural research and development, engaging the private sector, and creating favourable trade and investment climates was emphasised. An example from Nigeria was offered which showcased the influence of a research institute called NiWARD which has been effective in developing sustainable agricultural training programmes. The power of collaboration and regional networks was further exemplified by two organisations work, namely: FANRPAN

and the African Agri Council. Both organisations are dedicated to connecting the agro community in Africa and providing knowledge sharing access to the latest research, development and tech innovation to stimulate growth.

Going forward, it was recommended that greater efforts need to be directed towards strengthening the link between food security and national security, the importance of integrating nutrition and agriculture, and nurturing enabling environments to foster economic growth. It was reported that Africa's farmers can potentially grow enough food to feed the continent and avert future food crises if countries remove cross-border restrictions on the food trade within the region. It was maintained that Africa's future growth must come from improved infrastructure and market access, regional integration, capacity building and investment in research and technology adoption.



The challenge however lies in crafting appropriate policies and governance systems that will drive and sustain Africa's agenda calling for innovative policy processes and replicable models of good governance.

Therefore, for Africa to create a conducive policy environment there is need to know the key actors, the overall strategic direction, and the key roles and responsibilities for each of the key actors. It was concluded that continuous efforts and engagement with different stakeholders through agricultural value chains and along the full policy cycle, will be required to ensure that the process advances to enhanced productivity and becoming a self-sufficient continent.



PERSPECTIVES SHARED AT THE DIALOGUE

KEY MESSAGES FROM THE PLENARY

In addition to the presentations delivered and the panel discussions held, there was a few opportunities for members from the plenary to engage further and give their perspectives shaped by their diverse practices within the agriculture sector.

PLENARY DISCUSSION ONE

Mr. Ali Mufuruki (CEO, Infotech Investment Group and MINDS Trustee) moderated and challenged the forum with the following key question:

If we imagined the future of African agriculture in twenty to thirty years' time, what would it look like?

In response to this question, below is a summary of key points from this plenary discussion:

- Institutional coordination at national and regional levels, with a multi-stakeholder approach for full participation of private sector, public sector and the civil society sector
- Empowered women and youth making significant contributions, on the assumption of extensive training and ample research institutes which promote these key stakeholders.
- Clearer legal frameworks for stronger regulation and allocations of national budgets to the agriculture sector of all African countries
- Better community resilience with more drought tolerance crops in production, better controls for climate change and risk reduction strategies for continued working capital.
- Diversity of more appropriate economic and political systems besides capitalism or socialism that are more suited and tailored to the African context
- Stronger support structures in farming in terms of research, technology, and employment to address sustainability and climate change in the process
- Evidence-based outlook on agriculture as a business with the ability to improve skills, productivity and increased access to finance.

PLENARY DISCUSSION TWO

The second plenary discussion was moderated by Ms. Sara Menker (CEO, GRO Intelligence and MINDS Trustee). In this discussion, Ms. Menker sought to fully explore the delegates perspectives on what the objective ought to be for Africa.

Key issues shared:

- In terms of setting objectives, the elites tend to make decisions on behalf of smallholder farmers, which does not always reflect the realities of the smallholder farmers
- Another concern raised in setting objectives is that the strategic thinking to hold key public-sector players accountable is often overlooked. Creating synergies and ecosystems is essential for Africans living on the continent
- With good policies in place, the challenge of socialising production means is presented at the implementation stage despite a full awareness of objectives
- Leadership is essential for Africa to be a self-sustaining and self-reliant continent when it comes to agricultural production as a catalyst for economic growth. Poor leadership is a key limiting factor to unleashing the true potential of the continent.

Ojectives suggested from the plenary:

- To develop agriculture on the continent to maximise and realise its full potential
- To be most productive in the world which means being the most competitive
- Given its resource base, Africa ought to raise the standards and feed the world
- To promote wealth creation and to end hunger
- To position agriculture as a business enterprise for Africans
- To be self-sufficient with wealthy knowledgeable farmers
- To boost nutrition and income generation
- To make optimal use of all the talents that form part of Africa's pool of endowments.

WRAP-UP SESSION

All delegates were asked to provide one aspiration they had for Africa in the context of the agricultural sector. Most delegates agreed that:

- There is a dire need for more strategic partnerships between private sector and smallholder farmers.
- Increased cooperation and coordination among farmers is critical, with one delegate proposing that African institutions need to set up a body that focuses on managing these partnerships to better harness ongoing activities.

Africans ought to treat farming as a business and not just for basic subsistence thus emphasising the need to professionalise the work of farmers. Examples such as the African Food Basket programme as a policy enabler should tap into partnerships at country level, for more region-wide impact.

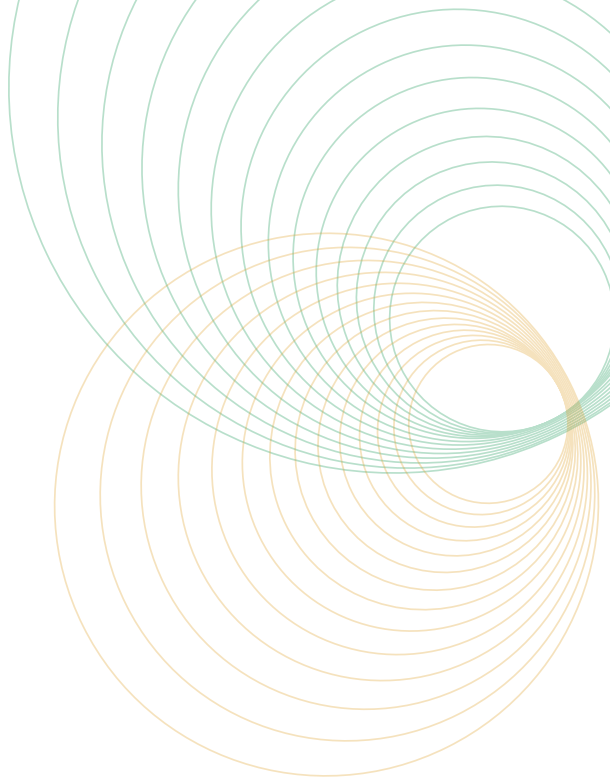
- There should be free flow of information in the agricultural sector. Information must be offered as a type of public good, aiding farmers with ease and equipping them with the necessary knowledge base for decision making.

- Africans ought to establish appropriate communication channels with farmers and provide more information about products on the market. African institutions ought to create accessible and reliable data sources for free information on the agricultural sector as well as market access. With information readily available, strategies ought to be put in place to aggregate small holder farmers mitigating the risk attached to them in their capacity within the value chain.

- The issue of leadership was also raised as critical. It was stressed that there needs to be a higher consciousness by Africans about putting in place capable and effective leadership. It is imperative to have functional governments in place to facilitate greater coordination of efforts as African countries and break down silos in thinking about nationalist output potential. It was maintained that policy makers should be engaged to instil more confidence in the viability of agriculture. In terms of policy formulation, products which accommodate women, need to be developed to increase farm productivity. Furthermore, governments must take charge of financing opportunities for young people and advocate for and provide for training the youth in agricultural business.



All points considered, it was agreed that it was imperative for Africans to keep the dialogue going about the role of the agricultural sector on the continent in the context of regional economic integration.



MOVING FORWARD FROM THE DIALOGUE

KEY RECOMMENDATIONS

This section highlights the four main recommendations for improving agricultural productivity in Africa, applying a consolidated view from all sessions of the HLD, as follows:

FOR BETTER INFORMATION DISSEMINATION

expand the use of web-based tools to create an Africa-wide online directory of stakeholders that form part of the food value chain and develop an e-knowledge centre of ongoing activities in African agriculture. There needs to be a clear assignment of responsibility to manage these knowledge centres to ensure they remain updated and relevant for the entire scope of the continent.

FOR ENGAGED CITIZENRY AND REGIONAL INTEGRATION

form a network of engaged citizens in agriculture within their respective countries and empower network leaders to explore the key challenges in agriculture faced within the continent, formulating policy interventions that will help Africans to move beyond current silo thinking.

FOR TRANSFORMATION OF YOUTH IN AGRICULTURE

private sector ought to create more institutionalised training programmes for young people on the continent such as the Enable Youth program offered by AfDB where young people can learn about Agri-preneurship and how to mobilise inputs at low cost for value chain development. These programmes can be offered through online modules accessible through a central location.

FOR DIGITAL TRANSFORMATIONS IN SMALLHOLDER FARMERS ACCESS

leverage the power of mobile agriculture by building a platform that is inspired by the m-Pesa mobile-phone based microfinancing service presented by Ms Alison Root, which would be designed for smallholder farmers to guide them on their journeys from tilling to harvesting, with access to the necessary support structures connected to this platform. This will widen their access to resources, markets and networks for efficiency gains.

CONCLUDING REMARKS

Mrs. Graça Machel delivered a lively and thought provoking closing address which adeptly reflected on the experiences and perspectives shared by delegates at the HLD. Mrs. Machel impressed the importance of continuing the dialogue and leaving the event as a network that is capable of attaining what we want for our continent, with reference to the agriculture sector. She challenged delegates to think about creating conditions that will make agriculture attractive to young people. All in the room were left inspired and motivated to go back to their businesses and sectors and work on the recommendations that had been shared and find ways in which these could be operationalised in the public sphere but also ensuring that these also considered the agricultural productivity gains needed in the greater context of regional economic integration. **Mrs. Machel urged all delegates to scrutinise farming through the lens of the different categories discussed in this report and command more innovative approaches towards agriculture, to encourage young people to get involved in this primary sector.**

Lastly, Mrs Machel warmly thanked all the delegates who were fully engaged and contributed in a meaningful way based on their own experiences as well as those who had worked hard to put the event and programme together over the months.

NEXT STEPS

Following the HLD held in Gaborone, MINDS approached a few of the key participants to delegates to nominate themselves as cluster coordinators, based on their particular area of operation. The purpose of this clustering process is to build further on the success stories shared at the dialogue, creating more forums for the necessary dialogues for each thematic focus area and equip delegates further with the necessary tools needed for transformation in the African agriculture sector. This process is intended to be a stepping stone to the greater task in presenting consolidated facts to policy-makers and leaders across the continent. Through this organisation of discussion groups, it is hoped that the collaborative efforts from MINDS and its partner organisations can fortify the ideas generated at the HLD into practical solutions for policy reforms towards increased agricultural productivity on a regional scale.

The clusters with the following cluster leaders have been organised as follows:

CLUSTER THEMATIC FOCUS AREA	CLUSTER LEADER / ORGANISATION
Improving access to, and maximising the use of agricultural inputs	Dr. Amos Ngongi Namanga (AFAP)
Food security and the role of smallholder farmers	Ms. Alison Root (One Acre Fund)
Agribusiness, Agri-preneurship and financing agricultural value chains	Mr. Lloyd Guzha-Chanetsa (IFC)
Research and policy-making to support agribusiness and achieve food security as well as leveraging multinational, multi-sectoral partnerships to improve agricultural productivity in Africa	Dr. Tobias Takavarasha (FANRPAN)
Transformation through youth in agriculture	Mr. Ozi Honwana (MBIO)

Following the above categorisation, it is intended that follow-up meetings will be held to share the work plans put together by each cluster leader and their team. Ultimately, through this network of highly engaged citizens from across the region, it is envisioned that this collective action will enhance social accountability to contribute economically to the continent and boost effectiveness in public service delivery, in the agriculture sector.



APPENDICES

PROGRAMME LINK

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TITLE / NAME	DESIGNATION	DEPARTMENT/DIVISION
Mrs. Agnes Apea Atim	Chairwoman	Uganda Local Government Finance Commission
Ms. Alison Colleen Root	Policy and Expansion Director	One Acre Fund
Dr. Amos Namanga Ngongi	Chairman	African Fertiliser and Agribusiness Partnerships (AFAP)
Mr. Ben Leyka	Executive Director	African Agri Council
Mr. Boitshoko Molefhi	Business Development Strategist	Seeds of Gratitude Foundation
Dr. Cuthbert Kambanje	Agronomist and Programme Officer for Food Security	FAO, United Nations
Dr. David Chikoye	Director	Institute for Tropical Agriculture
Mr. Dalitso Makoka	Country Manager	ICCO Corporation
Ms. Elly Mwale	CEO	Future Seeds
Mr. Esaiah Tjelele	Program Officer for Crops	SADC Secretariat
Advocate Gounden Vasu	Founder and CEO	ACCORD
Mr. Heinrich Gerwel	Professor	Stellenbosch University
Dr. Inacio Maposse	Associate Professor	Universidade Eduardo Mondlane
Dr. Jacobus Arrie Van Vuuren	Director	Fertiliser Association of Southern Africa
Mr. James Banda	Deputy Director	Land Conservation Dept, Ministry of Agriculture

TITLE / NAME	DESIGNATION	DEPARTMENT/DIVISION
Mr. Joris Jacobs	Financial Manager	VB Agri
Dr. Judith Lungu	Deputy Vice Chancellor	Mulungushi University
Mrs. Leah Kasera	Head of Regional Operations and Partnerships, East and Southern Africa	GROW Africa
Ms. Lilly Musaya	Country Manager (Lilly Musaya)	African Women in Agribusiness
Ms. Lindelwa Skenjana	Marketing and Stakeholder Relations Manager	Old Mutual
Mr. Lloyd Guzha-Chanetsa	Agri Value Chain International Consultant	International Finance Corporation (IFC)
Ms. Mandisa Mathobela	Head of Stakeholder Relations Management	Old Mutual
Ms. Matshidiso Masire	Executive Director	Sir Ketumile Masire Foundation (SKMF)
Ms. Maria Clotilde Namburete	Chairwoman (Mozambique chapter)	African Women in Agribusiness
Ms. Michelle Adelman	Founder and CEO Board Member	Accite Holdings Ltd. and SKMF Board
Mr. Michael Iyambo	Chairman	Namibian Agronomic Board and Agribank of Namibia
Mr. Michael Paxton	Founder	Agrichem Pty Ltd
Mr. Onasis Tharcisse Guedegbe	Senior Policy Researcher	OCP Policy Centre
Mr. Ozi Honwana	Co-owner	H & I Investimentos
Mr. Patrick Kubyana	Smallholder / emerging farmers market development manager	John Deere
Mr. Ramazani Hubert Ali	Former Permanent Secretary	Ministry of Agriculture
Mr. Rodgers Kirwa	Founder and CEO	iAgribiz Africa
Prof. Stella Annie Williams	Founder	Nigerian Woman in Agricultural Research for Development (NiWARD)
Mr. Ted Macharia	Investment Associate	Dalberg
Dr. Tobias Takavarasha	CEO	Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN)
Dr. Wael Soliman	Principal Rural Infrastructure Engineer	African Development Bank

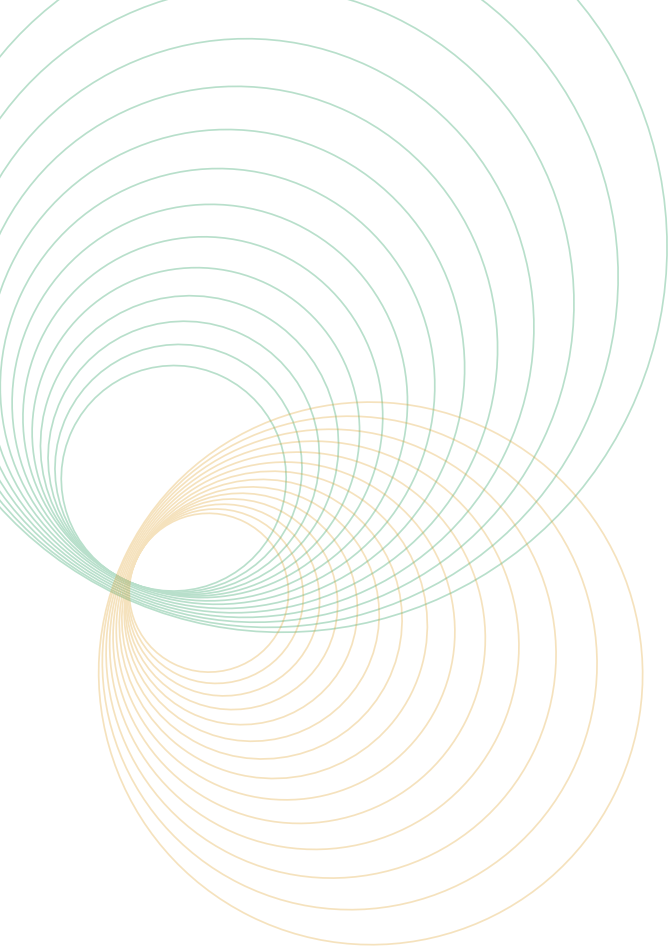
RESOURCES LINK

<http://sirketumilemasirefoundation.org>

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