

MARCH
2022
ISSUE

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A resource for Agribusiness

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Photo: Taco Tuinstra

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Editor's note and contacts

Hello

“The tobacco marketing season is upon us.”

We pray that farmers will get their sweat's worth.

Agric Minister Dr Anxious Masuka said government has its eyes on the role of tobacco in uplifting livelihoods in line with Vision 2030, he acknowledged that frustration has been reported with some contractors giving farmers inadequate input packs and very late yet they will eventually want the whole crop. This may lead to undesirable side-marketing.

Masuku also said reports of higher prices at contract sales compared to auction sales for similar grade and reports of collusion by merchants and manouevers by middlemen to re-handle tobacco bought cheaply from farmers should be a thing of the past.

Government reviewed the foreign currency retention for farmers to 75%, up from 60% last year and the funds being treated as free funds. With a more stable macro-economic environment this selling season, and no fixed exchange rate, growers should clearly get better value for their effort. Government now urges the merchants to do their part by paying fair prices for this tobacco.

We hope, like the Minister that the 2022 tobacco marketing season runs smoothly and will be of great benefit to the tobacco growers, tobacco merchants and Zimbabweans in general.

We have an exciting edition for you our beloved readers.

Enjoy reading and learning!

Conn

Editor



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IN THE NEWS

We put climate change fight on national agenda

By Michael Tome

Business Weekly, in partnership with the Institute of Chartered Account Zimbabwe (ICAZ) and Financial Markets Indaba, on Wednesday successfully hosted the Financing Climate Change Adaptation Investment Conference in Harare that sought to stimulate the national climate financing agenda by Government and the private sector players in Zimbabwe.

So highly subscribed was the conference that it attracted the country's private sector and Government officials, particularly the Environment, Climate, Tourism, and Hospitality Industry Ministry represented by Minister Mangaliso Ndlovu and his Deputy Minister Barbara Rwodzi.

Zimbabwe Energy Regulatory Authority (ZERA) was also part of the proceedings of the day. The symposium covered a number of topics that dealt with climate adaptation, particularly in the critical areas of energy, agriculture, infrastructure as well as the new area of interest, Environmental Social Governance (ESG).

Minister Ndlovu indicated that climate finance and large-scale investments in green energy were required to significantly reduce emissions and enhance the climate change mitigation agenda.

Addressing delegates, Minister Ndlovu said climate action was a national priority and vital for climate adaptation and the Government intended to proffer solutions through the enhancement of renewable energy efficiency, climate-smart agriculture for food security and sustainable agriculture.

He, however, said significant funding was needed to adjust and reduce the impact of the adverse effects of climate change.

The high cost of capital equipment to have decent hydro and solar power generation plants has remained a major barrier in the establishment and provision of renewable energy in the country.

The conference came a few months after the United Nations Framework on Climate Change's (UNFCCC) 26th Conference of Parties (COP 26) held in Glasgow Scotland in November last year.

Zimbabwe finds itself in a catch 22 as it is endowed with and largely reliant on thermal power (coal) which is a major contributor to greenhouse gases emissions, hence requires a multi-stakeholder approach to attain pro-green mechanisms.

During Cop 26 held last year, Zimbabwe is one of the countries that made pleas by highlighting that coal use was still unavoidable in the country given the limited and dwindling water for hydroelectricity generation and the current state of dependency on thermal power.

Critically, Zimbabwe has set its Nationally Determined Contribution (NDC) to reduce economy-wide greenhouse gas emissions per capita to 40 percent up from 33 percent in 2015.

Minister Ndlovu acknowledged that Zimbabwe still had a long to go way towards attaining optimum levels of climate change mainstreaming due to funding whose source was mainly by donors, thus calling on local entities to invest in climate adaptation initiatives.

IN THE NEWS

“Let me emphasise that it is not enough to solely rely on international climate finance, there is also a need to tap into national resources through innovative financial facilities and leverage the private sector to take the lead in addressing climate change.

“Therefore, let us take advantage of this conference to explore how we can mobilise domestic finance for climate change mitigation and adaptation,” said Minister Ndlovu.

He acknowledged that the country’s economy performs well when enough rains are realised hence the need to come up with measures that guarantee constantly good agriculture yields, further lauding the treasury for allocating funds towards climate adaptation.

“While our economy takes a knock during drought years, we need to appropriately recalibrate our sectorial policies to have a climate agenda. In 2021 our economy grew by more than 7 percent on the back of a good above normal rainfall season.

“It is therefore critical that we upscale investments in rainwater harvesting, supplementary irrigation adoption of drought-tolerant crop varieties, and adoption of viable business models to sustain agricultural production through value addition, market development and consolidation.

“We applaud the treasury for allocating an estimated \$54 billion towards climate change-related projects across all ministries in the 2022 budget pronouncement,” he added.

Institute of Chartered Accountants Zimbabwe president, Tumai Mafunga, emphasised the need for the private and public sector to jealously guard their positions against child labour, modern slavery, and promotion of climate change adaptation as well as gender mainstreaming. He said the indaba sought to enlighten companies on the immediacy to adhere to Environmental, Social, and Governance (ESG) practices which had the potential to attract international capital.

“ESG now has a direct impact on the current reporting requirements, both public and private sector entities are now required to issue out sustainability reports which largely evolve around ESG.

“International investors are increasingly tapping into entities with ESG strategies before investing, the financial sector can actively participate by shifting capital from high to low carbon activities this is the trend that Institutional investors around the world are pursuing and Zimbabwe should not be left behind,” said Mafunga while addressing the delegates at the event.

ESG analysis has become an increasingly important part of the investment process. Investors are incorporating ESG data into the investment process to gain a fuller understanding of the companies in which they invest.

Investors are increasingly applying these non-financial factors as part of their analysis process to identify material risks and growth opportunities.

ESG metrics are not commonly part of mandatory financial reporting, though companies are increasingly making disclosures in their annual report or in a standalone sustainability report.

IN THE NEWS

To help in financial resource mobilization, Minister Ndlovu indicated that his ministry has pushed for the accreditation of the Infrastructure Development Bank of Zimbabwe (IDBZ) and the Environmental Management Agency (EMA).

According to Minister Ndlovu, Government through his ministry was working on National Adaptation Plan (NAP) with help from the Green Climate Fund National Adaptation Planning Facility that thrives to reduce the country's vulnerability to climate hazards and as well increase Zimbabwe's resilience given the challenges that come with climate change.

The United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties 2021 deliberated on issues that intended to attain global net-zero emissions consensus by midcentury which entailed keeping temperature goal not exceeding 1, 5 degrees Celsius, a temperature range which is considered pre-industrial levels.

It also intended to mobilise a climate financing fund of up to US\$100 billion per year for access by developing country parties.

Numerous institutions, such as the Sustainability Accounting Standards Board (SASB), the Global Reporting Initiative (GRI), and the Task Force on Climate-related Financial Disclosures (TCFD) are working to form standards and define materiality to facilitate incorporation of these factors into the investment process.

The meeting was attended by a significant number of private sector players while thought-provoking conversations were initiated by renowned experts in the field of climate change adaptation who include Victor Utedzi, Owen Mavengere, Maxwell Chikumbutso, Tawanda Muzamwese, Rodney Ndamba, Dr Alfred Mthimkhulu, Welcome Mavingire, Rufaro Matsika and Lesley Ndlovu.

ARDA CEO Tinotenda Mhiko, UNDP Programmes specialist for Environment Climate and renewables Jeremiah Mushosho and Chairman for Green Buildings Council of Zimbabwe Mr Mike Juru also took turns to address the conference.

This article was first published in the Business Weekly

<https://www.businessweekly.co.zw/we-put-climate-change-fight-on-national-agenda/>



IN THE NEWS

Manufacturing sector capacity utilisation improves - Zimstat

Capacity utilisation in Zimbabwe's manufacturing sector for the last quarter of 2021 was at 66%, representing a one percentage point increase from the third quarter value of 65%, according to the 4th Quarter 2021 Business Tendency Survey produced by Zimstat.

Zimstat is responsible for providing official statistics to inform policy and decision making, targeting economic growth, development and increased enhanced welfare.

The Business Tendency Survey was undertaken with the objective of producing indicators for use in monitoring current business situation and short-term developments in the sector. Data was collected on opinions of senior managers of 146 high value manufacturing companies with respect to business conditions. The survey achieved a response rate of 63.8%.

The methodological guidelines used in undertaking the survey were obtained from the United Nations Handbook on Economic Tendency Surveys as well as the Organization for Economic Co-operation and Development Handbook on Business Tendency Surveys.

Zimstat Director General Taguma Mahonde said the three major constraints to production as cited by respondents, were shortage of raw materials – 52%, cash flow difficulties - 48 percent and uncertainty towards the economic environment - 48 percent. The same were also cited as major constraints in the third quarter.

"I would like to bring it to your attention that the Business Tendency Survey is among the undertakings that ZIMSTAT is reviving, having last conducted the exercise in 2015. Worth noting is that the survey was conducted in the manufacturing sector as a starting point. Government of Zimbabwe acknowledges the manufacturing sector as one of the key drivers of economic growth. Beginning 1st quarter 2022, the survey will be expanded to cover the mining, retail, wholesale, accommodation as well as finance sectors of the economy," said Mahonde.

Key indicators produced from the survey comprise Capacity Utilization, Purchasing Managers' Index (PMI), Manufacturing Confidence Index (MCI) and Balance of Opinion or Net Balance.

Purchasing Managers' Index (PMI) is a composite index, which summarizes economic activity in a given sector. The MCI is compiled using an average of the balances of questions relating to production expectations, total order books and stocks of finished goods. Balance of opinion is the difference between the proportion of positive responses and that of negative responses.

PMI stood at 50.7%, representing a ten-percentage point increase from 40.7% recorded in the third quarter. The index value signifies an expansion in the manufacturing sector during fourth quarter 2021, when compared to the third quarter.

The fourth quarter 2021 Manufacturing Confidence Indicator (MCI) was -0.3%, implying respondents had almost the same view towards the manufacturing sector business conditions as they had in the third quarter.

IN THE NEWS

Joint Ventures

– a platform to link diaspora liquidity with local assets

By Conrad Mwanawashe

Enhancing the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries, is one of the targets of the Sustainable Development Goal 17 of the United Nations.

SDG 17 is about strengthening the means of implementation and revitalizing the global partnership for sustainable development.

The UN believes that a **successful development agenda requires inclusive partnerships** — at the global, regional, national and local levels — built upon principles and values, and upon a shared vision and shared goals placing people and the planet at the centre.

Partnerships have become more important especially at a time when, due to the COVID-19 pandemic, the global economy has contracted sharply experiencing its worst recession since the Great Depression.

According to the UN, strong international cooperation is needed now more than ever to ensure that countries have the means to recover from the pandemic, build back better and achieve the Sustainable Development Goals. The **Federation of Young Farmers Clubs in Zimbabwe Trust (FYFCZ)** has adopted the importance of multi-stakeholder partnerships as a way of building capacity among young farmers. This is in line with government's position on joint ventures.

In pursuit of this, the Federation hosted the Inaugural Joint Venture and Investment Cocktail at the close of March which brought together investors and young farmers.

Addressing the function, Commissioner for the Zimbabwe Land Commissioner and former FYFCZ Chief Executive Phillip Sewera said joint ventures are the best avenue to "change the story".

"The policy position on joint ventures is a game changer. Let's change the story," said Sewera. DR John Basera, who is the Permanent Secretary for Lands, Agriculture, Fisheries, Water and Rural Development weighed in saying: "Joint Ventures are very critical and are a panacea to seeing real transformation in the agricultural sector. Land allocation and distribution is now a thing of the past, the new focus embraces two sets of three key elements; Production, Production and Production; Productivity, Productivity and Productivity. Colleagues, this can only be achieved if we are alive to the funding challenges experienced by our farmers."

"Experiences from Covid-19 pandemic that disrupted global logistics prompted government to be in-ward looking to ensure adequate supply of strategic food commodities. The geopolitical war between Russia and Ukraine has buttressed our resolve to attain self-sufficiency at any cost. This can be done; we did it in the past and surely, we can do it now and forever. All we must do is to make the most of what we have. Yes, land we have, is it all productive? That is a big bold no!!! Then we are enjoined put our heads together, scale up our current operations and size of investments to be made. I must say, the only direct route to this endeavour is via Joint Ventures and Contract Farming.

IN THE NEWS

“Some might have reservations through prior experiences with these noble initiatives. Let me hasten to say, Ministry and government have renewed vigour to pursue these initiatives as they are the only panacea to put more farmland to productive use,” said Dr Basera.

Private institutions and individuals with financial resources were previously shying away from committing to Joint Ventures with farmers on the basis of a belief that the investment will not be safe but government through the ministry took account of these concerns and redesigned the whole model so that it will be a win-win scenario.

“Joint Ventures enhance access to agricultural inputs for farm owners with poor resource endowments at the same time also ensuring open access to land for investment by investors without actually owning a piece of land,” said Dr Basera.

“A1 farms now cover approximately 4.2 million hectares including around 150,000 farms and A2 farms cover approximately 2.7 million hectares across 20,000 farm units. With Joint Ventures colleagues, I see over 170,000 households transitioning to becoming 170,000 business units operating on over 6.9 million hectares of land. Land is a finite resource, therefore, not every deserving applicant or citizen will get it, however, I wish to emphasize that one does not need to own land in-order to do business on land. It is in this regard that my Ministry is strongly encouraging Joint Ventures to open up more idle land into productive land.

“Government approved a Joint Venture Agreement Framework which allows investors to undertake farming operations with the consent of Government. An approved Joint Venture protects the investment especially for the ringfenced period. A joint venture database, for the purpose of match-making available underutilized and unproductive land units with potential Joint Ventures partners is being developed.”

General Manager - Vaya Digital Farmer, Felix Vengesai said at the meeting that joint ventures are one way of securitization of investment funds. **“The joint venture platform should be part of the agriculture ecosystem,”** said Vengesai.

Simbarashe Mhangu from CBZ Agro Yield said the platform could one of the ways to tap into the Zimbabwe diaspora economy.

“Did u know that Zimbabwe’s economy in the diaspora is bigger than Zimbabwe’s economy locally? The economy in the diaspora has liquidity because they have access to capital and financial instruments while in locally we have access to assets such as land. We need to find a way to match the liquidity in the diaspora economy with the assets in the local economy,” said Mhangu.

According to the new legislation, no beneficiary of the land reform program can allow or permit anyone to engage in a farming venture on the allocated land on crop sharing or profit-sharing basis without firstly a written agreement which is, secondly, approved by the Minister.

“Any arrangement that does not comply with the two provisions is illegal and unenforceable at law. Further any such arrangements would go against section 1(c)(i) of the conditions applying to the offer of land under the Land Reform Program which states that the beneficiary shall not ; “cede, assign or make over any right or obligation or sublet or part with possession or grant any form of right of occupation in respect of the farm or part thereof without prior written consent of the Minister”. Farmers, it is important to note that any breach of this provision will result in the cancellation of the offer letter. I am sure, we are now guided accordingly,” said Dr Basera.

IN THE NEWS

17 PARTNERSHIPS FOR THE GOALS



STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALIZE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT

NET ODA

REACHED A RECORD HIGH OF **\$161 BILLION** IN 2020

REPRESENTING **0.32%** OF DONORS' GNI

BUT STILL SHORT OF THE TARGET OF

0.7% OF GNI



DEFYING PREDICTIONS, REMITTANCE FLOWS

TO LOW- AND MIDDLE-INCOME COUNTRIES REACHED

\$540 BILLION IN 2020



ONLY **1.6% BELOW** 2019 LEVEL

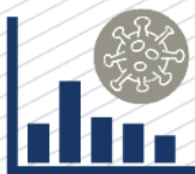
FOREIGN DIRECT INVESTMENT DROPPED BY UP TO 40%



NEARLY HALF OF THE GLOBAL POPULATION - **3.7 BILLION PEOPLE** - ARE STILL NOT ONLINE



DESPITE THE IMMENSE NEED FOR CONNECTIVITY DURING THE PANDEMIC



63% OF LOW-INCOME AND LOWER-MIDDLE-INCOME COUNTRIES ARE IN NEED OF ADDITIONAL FINANCING FOR DATA AND STATISTICS TO FACE THE CHALLENGES POSED BY THE PANDEMIC

IN THE NEWS

He said processing of applications will not exceed 72 hours to get a joint venture approved if all the requirements are in order:

The requirements include;

1. A signed agreement by the parties which has to be fair, practical and include provisions that allow for skill transfer at the close of joint venture. We expect the landholder to have gained valuable knowledge to start farming on their own.
2. A valid offer letter on land that is not subject to dispute or an intention right-size the farm. The lawyers will check with the province and district officers in this regard before approval.
3. The landholder has to be up to date with payments of their lease rental.

To date, 1640 joint ventures have been approved starting from 2020 when the policy was put in place and this translates to 150 000 hectares currently under joint ventures.

Progressive minds, voices are required in the Farms-Investment Matching process. The Federation of Young Farmers Club Zimbabwe (FYFCZ) can ably lead on this and provide relevant information, farm profiles; that enable quicker and guided Joint Venture endorsements. I urge the Federation to gather all related information on Joint Ventures processes and am looking forward to having a template of the Farms-Investment Matching documentation for further input from my Ministry. This requires the tenacity, courage, determination and foresight of all stakeholders in the agricultural value chains for us to deliver on this and have an everlasting celebration.

“The Farms Profiles initiative is a game changer and can potentially lead to prompt opening of investment floodgates for strategic Joint Ventures which advance agricultural production, knowledge and skills transfer, infrastructure development amongst other core benefits. Colleagues, let me also take this opportunity to strongly encourage farmers to provide information that investors can act upon,” he added.

Zimbabwe aims to transform agriculture to a US\$8.2 billion sector from US\$5.8 billion, contributing at least 20 per cent to the Gross Domestic Product by 2025. In 2021, the sector grew by 36.4% which led to a gross value close to US\$8 billion. The same year, Zimbabwe’s economy grew by 7.8% and this growth was largely driven by the growth in the agricultural sector.

“This confirms that transforming the sector for the better is doable. We are all expected to do more and we envisage 10% growth this year notwithstanding the challenges experienced by our farmers,” according to Dr Basera.

Zimbabwe has a total land area of 39.6 million hectares and out of this, 33.4 million hectares are available for human settlement while the rest is reserved for national parks, forests and urban settlements. Land that was compulsorily acquired for resettlement of people in Zimbabwe was acquired from 15.5 million hectares that was under commercial production by the Whites. The exercise opened opportunities for the indigenous Zimbabweans to have access to land and date a total of 12.6 million hectares have been used to resettle 149 743 A1 and 20 010 A2 farmers.



THE AGRONOMIST

Adopt double cropping concept - improve profits

Government is engaging tobacco farmers to also grow wheat in a bid to increase the hectareage under wheat and output while improving growers' bottom line.

"The transition to winter wheat by tobacco farmers is a welcome move and will go a long way in boosting supply of the cereal so that we have sufficient domestic stocks. Cabinet is pleased to report that the country has sufficient fertilizers for winter-wheat farming. Efforts are also being made to guarantee fertiliser supplies for the summer season," Lands, Agriculture, Fisheries, Water and Rural Development, Minister Dr Anxious Masuka said in a report to cabinet on the 2021/2022 Summer Agricultural Production Season and Preparedness for 2022 Winter Production.

Zimbabwe's national annual wheat/flour requirement is about 350 000 MT and over the years the country was producing less than a quarter of that yet wheat is the second most important cereal after maize in the food security basket in Zimbabwe.

"We have a Tobacco Working Group comprising all stakeholders which meets regularly to interrogate pertinent industry-wide issues. I hope I can appeal to this group and all farmers to assist government in its quest for wheat self-sufficiency by ensuring that the 20 000ha grown to irrigated tobacco can be put to wheat. This could generate 100 000MT of wheat, which is 26% of national requirement," said Dr Masuka.

A gentle production guide on wheat production by Seed Co, the leading certified seed company authorized to market seed varieties developed by itself, government and other associated seed breeders in over fifteen (15) African countries, shows that wheat is also a major viable component of double cropping set ups.

Seed Co has been encouraging farmers with irrigation to adopt the double cropping concept in order to improve their bottom and top line stories at farm level as well as to spread coverage of fixed costs per year.

"Growing wheat in winter also aid spread of cash flow on the farm. The basic farm business principle is that farmers should have at least 2 major crop harvests per year supported by other complimentary crop sales/ventures after every two months. We generally recommend diversity in terms of crops and other non-crop ventures on the farm. This generally ensures smooth running of farming concerns. The same machinery can be used to harvest both the winter and summer crops especially combine harvesters," according to Seed Co.

The company argues that wheat is one of the crop ventures with a very lucrative return on investment. **"The return per dollar invested for wheat is about \$2-\$3 under high productivity levels. After investing about \$2000.00/ha, a farmer can get a total income of about \$4000.00 (at 8 tonnes/ha and @\$500/tonne), giving a gross profit of about \$2000.00/ha. We can imagine a farmer doing 200ha getting between 8 and 11 tonnes/Ha,"** the company said.

Since the nation is in a drive for import substitution, producing wheat locally will result in forex savings which would otherwise be channelled to other more productive related priorities of the economy. One can imagine the savings if we can produce this sum requirement locally.

THE AGRONOMIST

Producing wheat locally will create employment directly at farm level (agriculture value chain) and indirectly (other value chains), upstream and downstream industries such as milling, baking and food outlets.

“Currently wheat contributes between 4-5% (a significant chunk) to the agriculture GDP. Producing this annual national requirement locally will surely double if not thrice its contribution to the agriculture GDP. Ultimately we can also expect an increase in agriculture GDP contribution to the national GDP from the current range of 20-30% upwards,” according to Seed Co.

Planning for wheat production

The standard cost structure for wheat at high management levels ranges between \$1700 and \$2100/ ha at full absorption (i.e. incorporating all variable costs). This cost outlay is huge on a per hectare basis and as such farmers should always aim to achieve higher yields in the upwards of 6 tonnes per Ha for them to realise a margin. Zimbabwe used to achieve some of the highest national average yields of wheat between 5-6t/ha in the past as compared to the current global average of 2.5 – 3t/ha. The genetics (varieties) are still there and if we get our management right we can achieve in excess of 10t/ha in the high potential areas. Let us tap into the genetic gains. Using the current GMB prices, the break-even yield (when the gross profit is zero) is 4 tonnes/ha. Some good farmers are getting above 8 tonnes per ha and even up to 11 tonnes/ha. We can imagine the returns in such cases. **It is imperative to adopt Good Agronomic Practices (GAPs) to improve productivity levels and in order to optimise our top-lines and bottom lines at farm level-the ultimate end game!**

On marketing of grain, Dr Masuka said that cumulative grain intake is 1 307 711 metric tonnes comprising 987 394 metric tonnes of maize, 208 509 metric tonnes of wheat, 99 695 metric tonnes of traditional grains and 12 113 metric tonnes of soya bean. Most of the grain delivered to the GMB was paid for.

“It is noted that due to the erratic rains some areas are experiencing food deficiency. Therefore, Government will increase welfare stocks allocation. Cabinet assures the nation that there is sufficient maize stocks to feed the nation and cater for those who are food insecure,” he added.



INDUSTRIAL HEMP IN ZIMBABWE



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1) Basics about Hemp

Industrial Hemp is mainly a fiber crop in the Cannabis family making it a cousin to the notorious Marijuana. It is also defined as any Cannabis with a concentration of below 0.3% of Delta 9 THC in Zimbabwe and other countries.

There are 4 crops from Industrial Hemp

- Flower crop
- Fiber crop
- Grain crop
- Dual crop (Fiber and grain)

-Scientific names I.H is commonly known as Cannabis - Sativa sativa

Marijuana are usually Cannabis Indica strains.

-The major difference between the 2 is the concentration of the psychoactive compound Delta 9 THC which is lower in I.H and higher in MJ



Differences	Hemp	Marijuana (Medicinal Cannabis)
Uses	FIBER, FOOD, MEDICINE, RECREATIONAL, MEDICINAL	
Regulator	AMA	MCAZ
Leaf pattern	Longer, narrower	broader
Cost of license	57000usd	\$400 - \$700
{THC}	Currently Below 0.3%	Currently Above 0.3%
Plant population	Dense and spaced	spaced
Capital	Lower	high

HEMP

The **MANY** USES of Hemp

Hemp is the strongest natural fibre in the world, known to have over 50,000 different uses!

TEXTILES

- Clothing
- Diapers
- Handbags
- Denim
- Shoes
- Fine fabrics

PAPER

- Printing
- Newsprint
- Cardboard
- Packaging

INDUSTRIAL PRODUCTS

- Oil paints
- Varnishes
- Printing inks
- Fuel
- Solvents
- Coatings

FOODS

- Hemp Seed Hearts
- Hemp Seed Oil
- Hemp Protein Powder
- EFA Food Supplements

BODY CARE

- Soaps
- Shampoos
- Lotions
- Balms
- Cosmetics

Stalk

BUILDING MATERIALS

- Fibreboard
- Insulation
- Acrylics
- Fibreglass substitute

Leaves

- Very absorbant and good for animal bedding
- Mulch and compost

Roots

- Organic compost and nutrients
- Remedy for conditions such as arthritis or joint pain, fibromyalgia, and eczema.

THE BENEFITS OF CULTIVATING HEMP

Hemp can yield 3-8 dry tons of fibre per acre. That's four times what an average forest can yield. Hemp cultivation requires no chemicals, pesticides or herbicides.

HEMP

2. Regulations and legislation

In 2018 the government legalized Cannabis for Medicinal and Scientific purposes promulgated through SI62 of 2018 this is a capital intensive, complex, and exclusive sector of the industry. Due to its sensitivity there will be very limited participation of the small scale farmer.

In 2019 government passed SI208 persons who may lawfully possess Industrial Hemp which defined Industrial Hemp as any Cannabis and its derivatives of less 0.3% THC concentration.

In 2020 Ministry of Agriculture passed SI 218 production of Industrial Hemp under the AMA Act Today a farmer can apply for the permits below:

- Merchant permit \$500usd
- Cultivators permit \$200usd
- Research and Seed breeders permit \$200usd

An inspection fee of \$200usd is applicable to all permits

To date AMA has licensed more than 25 hemp players.

Growing Hemp or any Cannabis without a license, permit or any authorization is still a punishable criminal offense in Zimbabwe.

3) Profitability of growing industrial Hemp to the Farmer

This crop still has some fundamental challenges that are not unique to a new crop.

The enabling environment has been created by government however the pandemic hit in the same year legislation had been completed. This terribly affected the takeoff of Hemp.

All things being equal this is what a farmer may expect however the markets for Zimbabwean producers are still limited, unstable and infant. To date Zimbabwe has successfully exported to Switzerland. The gains below are estimates and also depend on good agricultural practices.

Fiber and grain crops cost 25% less to produce per hectare and may yield the same profits or more in comparison to Tobacco.

Farmers producing the high value crop may be subjected to comply with CGAP and for those who intend to semi process for export EU-GMP may apply.

Hemp has vast opportunities in Value addition, processing and manufacturing opportunities.

In 2021, the Zimbabwe Industrial Hemp Trust in partnership with a local paper expert developed more 10 samples of Hemp paper that could be commercialized on a large scale for the local market.

Other value chains include livestock feed, bioplastics, construction material, textiles and food products.



ZIDA

ZIMBABWE
INVESTMENT &
DEVELOPMENT
AGENCY

Unearthing **Potential** !

Medicinal

Cannabis

Investments

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Harare, Zimbabwe

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+263 86 880 02639-42

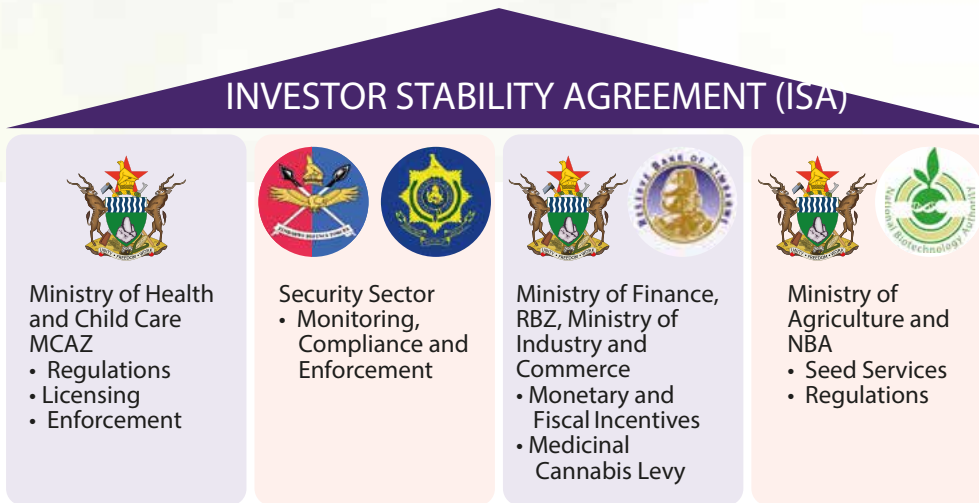
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Purpose

ZIDA facilitates investments into medicinal cannabis cultivation, processing and value addition. The investments are regarded as special investments into Zimbabwe. The government of Zimbabwe offers monetary and fiscal incentives to ensure that the sector is competitive regionally and globally. To this end, Zimbabwe has a framework called Investment Stability Agreement (ISA), which ensures clear guarantees to facilitate investments into this sector

Investment Stability Agreement (ISA)



Unearthing Potential

- "One-Stop Shop" approach to investor promotion, licensing and protection.
- Investment promotion to both local and foreign investors.
- Drive links and synergies to North American market, especially listed Canadian players, critical in building USD\$ export earnings.

"One-Stop Shop" Approach



Cannabis Investor

Local or foreign investors

Green Fund

- Raise Industry awareness similar to Canada model
- Promote smaller out-growers
- R&D and Localisation

CIAZ

Industry body

Stakeholders

- Private sector existing and prospective investors,
- Cannabis Industry Association of Zimbabwe
- Zimbabwe Industrial Hemp Trust
- Government Ministries and Departments,
- Research Institutes,
- General public
- Local and Foreign Investors

Core Functions

- Projects analysis for licencing
- Provision of guidelines and information on investing in the country to stakeholders
- Projects monitoring and assessment
- Value Chain development

Statutory Powers

Statutory Instrument 62/2018: Dangerous Drugs (Production of Medicinal Cannabis for Medicinal and Scientific use) Regulations of 2018

Frequently Asked Questions

Q. What are the requirements to obtaining a Medicinal Cannabis regulatory Licence

A. ZIDA works closely with the Ministry of Health and Child Care and the Medicines Control Authority of Zimbabwe (MCAZ) to facilitate applications for medicinal Cannabis regulatory licence.

- According to SI62/2018, the statutory fees are: Application Fees of \$11,450 USD and licence fees of \$45,800 USD.
- Certified copies of company registration documents
- Certified copies Identity documents of directors
- Profiles of directors
- Police Clearance from country of original residence
- Detailed Business plan with 5-year financial projections
- Proof of Finance to fund the investment project in form of Bank statement, invoices or bills of entry for equipment
- If there is capital equipment there is need for: Proforma invoices, Bill of lading and or Bill of entry It allows an investor access to our One Stop Investment Services Centre for facilitation in securing post investment licensing permits/ approvals such residence and work permits, mining permits, power generation permits, tourism permits, importation of equipment or any other requirements, accessing investment incentives where applicable among others. Any other facilitation services the investor may require are also provided
- It enables an investor to raise capital needed for the (continued) implementation of the investment activity in the source country
- Enables an investor to repatriate dividends and or initial capital investment
- Enables the Agency to keep track of the investor's activity in the country and performance, hence acts as a monitoring tool
- Proof of Land (Lease Agreement/ Title Deeds)
- Site Plan of the land
- Completed DDPC1 Application Form

Q. What are the key considerations for a successful Investment License application

A. A critical success factor in any Investment Licence is the demonstration by the investor of capacity to fund the intended investment project

- A complete application meeting all the requirements as provided by the Agency
- Demonstration of strategic fit of the investment into the country's economy and a clear investment plan
- Employment creation, skills and knowledge transfer
- Value addition of local raw materials
- Potential for import substitution
- Potential for export
- Potential to create backward and forward linkages
- Innovation and creativity

Q. Who is allowed to own Medicinal Cannabis Investments?

A. Zimbabwe allows for 100% ownership of medicinal cannabis investments, allows for farming on private land and have put in an added layer of protection called the Investment Stability Agreement

Q. What is the Investment Stability Agreement and what does it entail?

A. To protect investors against changes in law and guard against expropriation of investments

- To offer monetary and fiscal incentives
- To guarantee property rights
- To create the Green Industry Fund and collection of Medicinal Cannabis Levy

Q. How is the sector managed against illicit activities?

A. ZIDA, MCAZ and security services carries out periodic visits to all medicinal cannabis investments. Investors are expected to install Smart technology so that the Minister of Health and Child Care has access to farms in real time. MCAZ liaises with the International Narcotics Body to manage Zimbabwe's quota of exports. The Ministry of Lands, Agriculture, Fisheries and Rural Resettlement manages the importation of seeds and capital equipment



DISADVANTAGES OF SIDE MARKETING:

- Kills the industry
- The farmer is offered low prices
- Late payments to farmers with no arbitration
- Cancellation of contractor's license for involvement in side marketing
- Loss of personal property to debt collectors
- Risk of arrest
- Risk of suspension of grower number or blacklisting
- Reputation risk to contracting company involved in side marketing



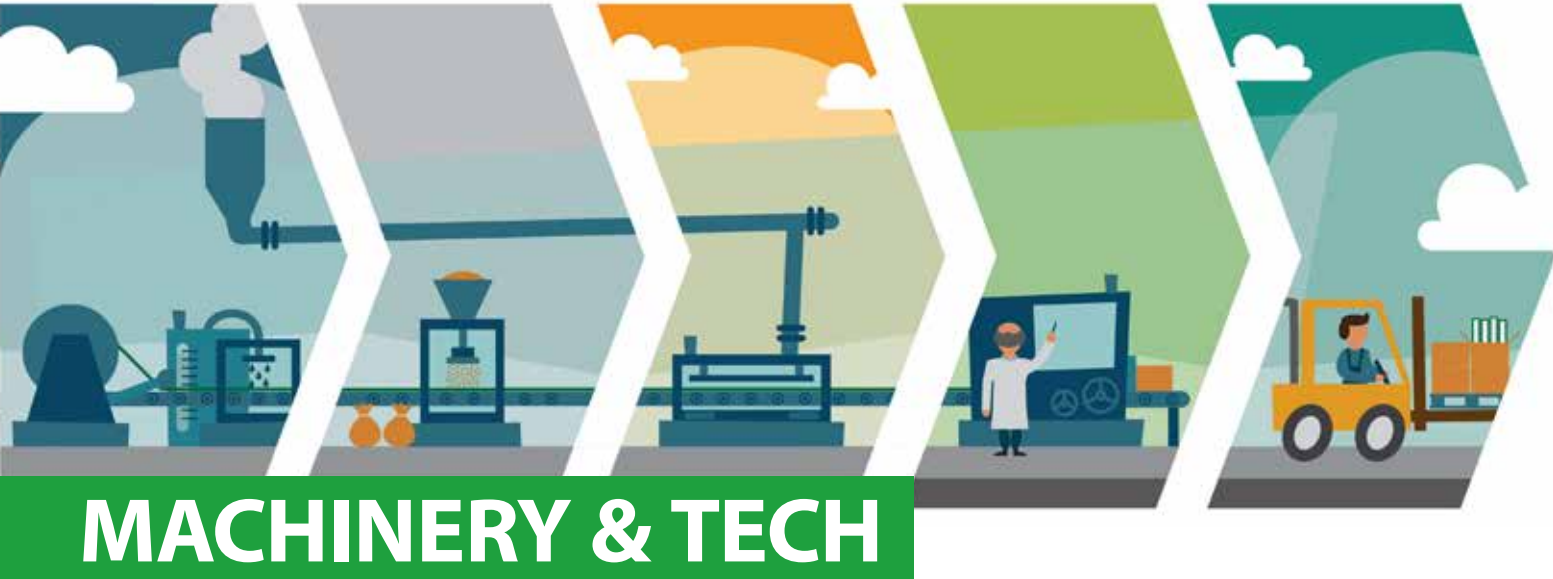
Report side marketing to TIMB:

Inspectorate Department
429 Gleneagles Road,
Southerton, Harare
0782 958 597
email-info@timb.co.zw

REGIONAL OFFICES:

Mashonaland West 0773 702 679
Mashonaland Central 0715 898 211
Mashonaland East 0772 635 966
Manicaland 0773 034 285

STOP side marketing and make tobacco farming business sustainable in Zimbabwe.



MACHINERY & TECH

Agriculture Analytics Market Is Expected To Reach USD 2.05 Billion Registering A CAGR Of 12.3%. By Forecast 2027 Agriculture Analytics Market Was Valued At USD 1.02 Billion In 2021 And Is Expected To Reach USD 2.05 Billion By 2027, Registering A CAGR Of 12.3% Percent During Forecast Period.

Stellar Market Research published a report on Agriculture Analytics Market: Perspective on Upcoming Impacts and Forecast Analysis (2022-2027) by Type, Application, Fuel, and Technology and Region.

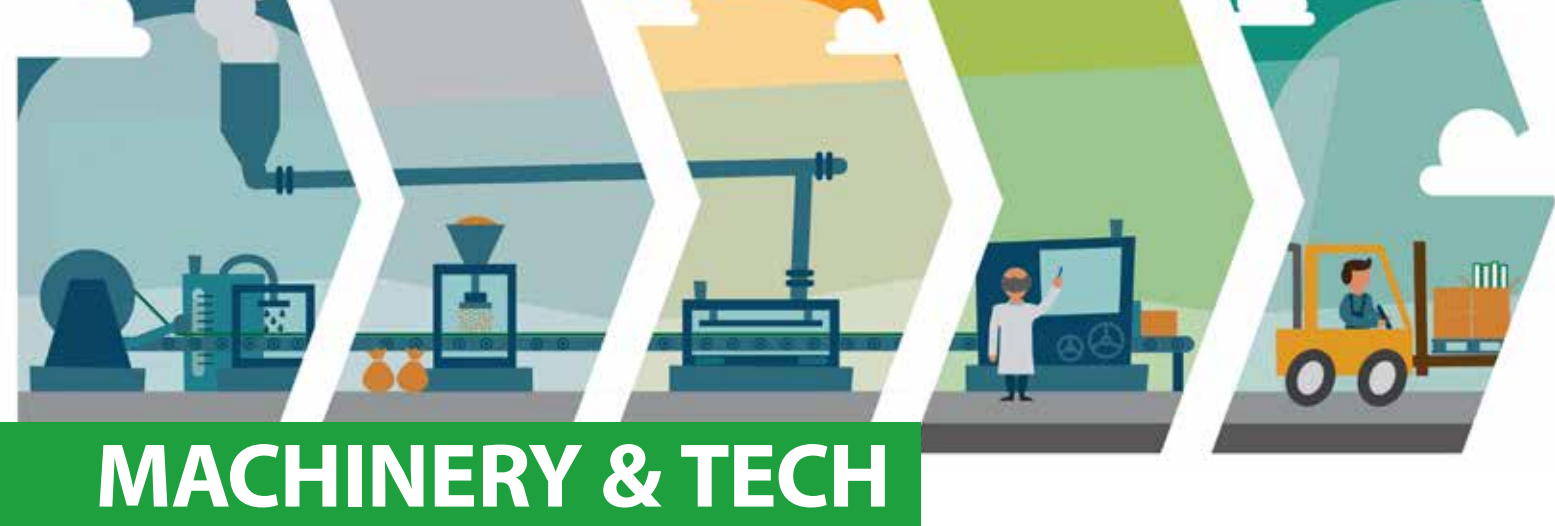
According to the report, the Agriculture Analytics market revenue is expected to grow at 12.3% percent through 2022 to 2027, reaching USD 2.05 billion. The report focuses on providing a comprehensive evaluation of the Agriculture Analytics Market, the leading developments, and the economic market structure by assessing leading companies, market competitors, and nations in the region. Industry structure, share price, market expansion, sales, capacity utilization, and profits are all included in the Agriculture Analytics Market.

The Agriculture Analytics Market industry research quantitative and qualitative information is suggested to aid in determining whichever market segments or areas are projected to increase at a higher rate. The research includes a market environment of key industry companies and their recent developments in the Agriculture Analytics Market, as well as Porter's Five Force Model, which helps market business techniques expand, and a PESTEL Analysis, which helps firm strategies to develop.

Agriculture analytics is the use of reducing technology in intensive agriculture, such as Big Data, IoT, and other predictive analyses. Increased government activities for adopting new farming techniques are the key development factor for the agriculture analytics industry. The amount of information in the agriculture sector is increasing exponentially. Agriculture analytics is also growing due to the rising deployment of IoT devices that gather information from linked farming machinery such as smart tractors and drones. Plant genetics, livestock breeding, enhance soil, and speedier technological development in big data and other companies can utilize are all areas where crop farmers and agricultural companies are seeing the possibility for achievements.

Agriculture Analytics Market Dynamics:

Urban agriculture has been a recent theme around the world, with individuals cultivating food in communal plots or green spaces. While the possibility to give local produce products to urban people should not be ignored, there are other advantages to urban farming that go beyond simply feeding locals. In terms of lowering drainage from heavy rains and enhancing the quality of the air, there is a favourable climatic benefit. The effort required to establish and preserve these plots also contributes to the society's social associations which are fuelling the agriculture analytics forward.



MACHINERY & TECH

As a result of technical advancements, agricultural equipment has grown in size, velocity, and effectiveness, leading to more efficient cultivation of more land. Seeds, water, and inorganic fertilizers have all been enhanced, allowing farmers to increase their crops. This engagement in a variety of technologies is quite costly. Aside from that, caused to a lack of practical understanding, farmers are still unable to manage machines properly. The maintenance costs are extremely high. Machines that are used excessively have the potential to pollute. Because most farmers are functionally illiterate, they are still unable to operate new machines, which is a big impediment to the market's expansion.

Impact of COVID-19 on Agriculture Analytics Market:

Many countries are experiencing interruptions in their agro-based supply systems as COVID-19 cases rise around the globe. Africa is among the most susceptible countries, according to an FAO analysis. Even for meeting domestic needs, the entire of Africa is reliant on food imports. Cereals, grains, legumes, fruits, veggies, and even meats are among the items imported. National trade restrictions among countries could have a significant impact on countries that rely largely on agricultural goods, such as Africa. Global supply, imports, and warehousing are usually the three sources of supply for the food business.

Agriculture Analytics Market Regional Insights:

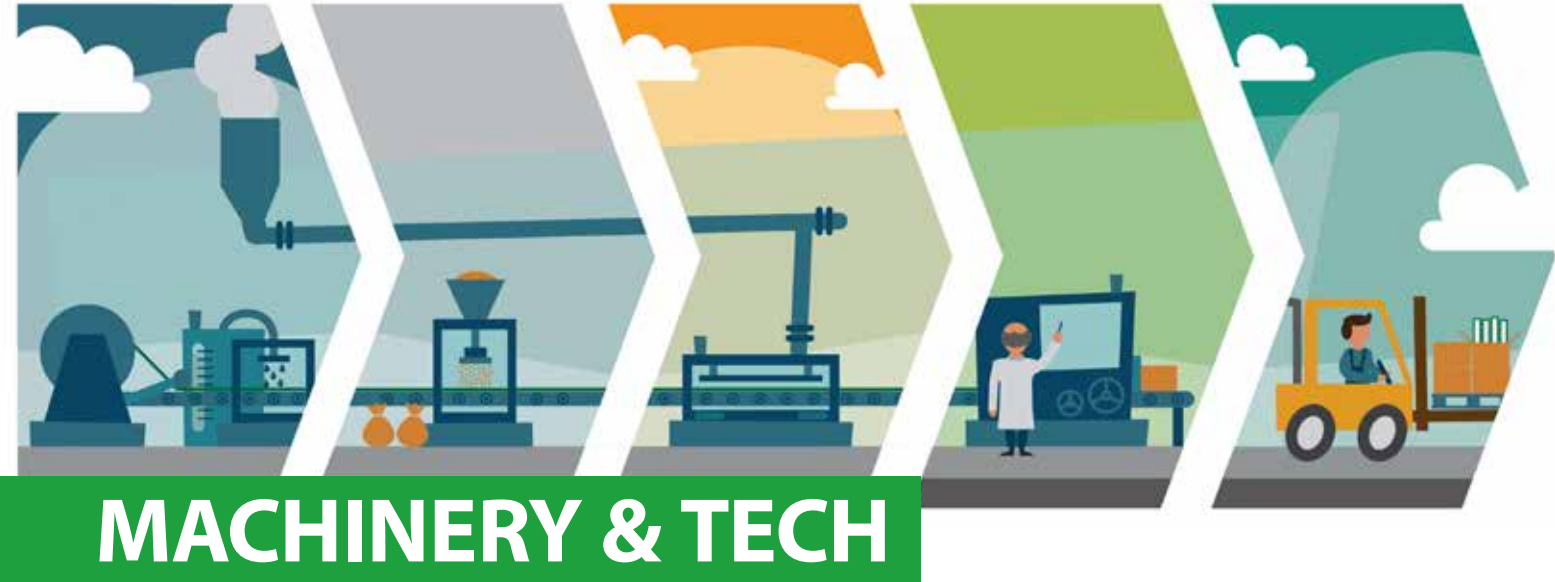
The Agriculture Analytics market in the North American region is expected to improve at the fastest rate. The considerable concentration of technology vendors and expanding government actions towards precision agriculture are the key driving forces for the expansion of the North American geographical segment. To compete effectively in the regional and global environment, these companies focus on partnerships, mergers & acquisitions, and creative solution portfolios.

However, Because of the increased advancements in digital agricultural methods and the installation of virtualized solutions among producers in the region, APAC is likely to create attractive prospects for agriculture analytics vendors. Conversely, in other locations, a lack of information consistency could hamper the development of agriculture analytics solutions.

About Stellar Market Research:

Stellar Market Research (SMR) is a market research and consulting organisation based in the United States. It provides syndication and specialized research papers, as well as consultancy services for corporate development. SMR business intelligence and industry research reports provide clients with in-depth analysis and relevant market data that is specifically produced and accessible to help them make better strategic decisions. These comprehensive reports, which are developed using a proprietary research process, are accessible for crucial fields such as pharmaceuticals, materials science, technology, renewable energy, biotechnology, and Food & Beverages.

Source - Newsmantraa



MACHINERY & TECH

An inventor who brought relief to West Africa's kitchens turns to agriculture. Image credit: bird story agency

Togolese inventor builds \$12,000 mini tractors for the West African market

First, he received awards for inventing the “Foufoumix”, which brings relief from hours spent pounding fofou. Then, Minsob Logou invented a mini-tractor, tailor-made for local conditions. Now, he wants to sell it across the region.

This article was contributed to TechCabal by Blame Ekoue of bird story agency.

Seeing imported agricultural machinery – often paid for by government or donors – lying discarded due to the unavailability of local servicing or parts was enough for Minsob Logou to invest his time, money, and energy into a local solution for farmers. The result: **the Logoutrac mini-tractor**. It’s a step out of the kitchen and into the field for this award-winning Togolese inventor.

Better known in Togo and the region as the “**father of Foufoumix**” Logou requires little introduction to those who keep an eye on the world of African invention. As early as 2002, Logou was honoured for his work by the World Intellectual Property Organisation and in 2014, he placed second at the African Innovation Awards. His desire to invent is deep-seated.

“The story started from a passion that I had from an early age for all things related to technology. Since the benches of the school, I had this thing in me for all that is technological. I have to try to see how they were designed, how we arrive at what we design can respond to a given functionality. This is what gave me all this knowledge today, which far exceeds what I learned on the benches,” Logou explained.

Born into a large family, his position as an engineer at Togo Telecom, though coveted, was not enough to stop the inventor from resigning to devote himself to finding solutions full time. His first big win came with an invention that allows cooks at home and in restaurants to replace hours of strenuous work – the Foufoumix. The industrial-looking kitchen unit has been a hit in West Africa to such an extent that knock-offs are now produced in China. Logou tries to provide local solutions to local problems.





MACHINERY & TECH

“The basis of my research to be able to create a product is the observation of my community. When I see that they are in need of something, I can create machinery to make it easier for them to obtain a result in order to improve performance and make their lives better,” he said.

That was the thinking behind his latest invention, launched recently at his small factory located on the outskirts of the Togolese capital, Lomé. Logou describes his mini-tractor – which sports the **“Logoutrac”** brand – as a ‘made-in-Togo mini-tractor, a versatile, powerful, and resilient machine’.

The prototype for the tractor, which retails for the local equivalent of \$12,000, was built using salvaged parts, with the idea that doing so would help buyers easily access spare parts. But due to high initial demand, the young Togolese engineer quickly took the next step.

“I can’t stay in recovery or recycling anymore and I am now manufacturing some of the spare parts of this machinery myself,” he explained.

Logou said that the initial idea for the mini-tractor came from his frustration at seeing the vast amounts of money that are used to purchase foreign agricultural machinery, only for it to be abandoned because spare parts are too difficult to too expensive to purchase locally.

“The solutions that we import from elsewhere, most of the time, fail to meet our needs. So we end up with problems in agricultural mechanisation. Big tractors don’t last long in the field before they break down. And when they stall, first, the expertise to detect the breakdown is a problem and the same spare part must be ordered from the parent company, which is quite complicated,” he lamented.

Selling at 7 million FCFA (the equivalent of around \$12,000), the mini-tractors are built for a regional market as well as a local one. That is why Logou is looking carefully at the implementation of the African Continental Free Trade Agreement (AfCFTA) to which Togo is a signatory – and which should help him sell his inventions across Africa. Currently, there are trade barriers in place which prevent significant exports.

“People are showing interest but so far, there has been no international export. We should do it but the problem is free trade between African countries,” fumed Logou.

Currently, Logoutrac equipment is sold by agricultural groups and the Togolese Ministry of Agriculture. A lower-cost option is already in the works.

“Since the cost is not within the reach of all farmers, we are working on a tiller for those who cannot afford it,” Logou explained.

Logou’s other pet project is finding solutions to a far wider problem: counterfeiting. While counterfeiting is estimated at 10% worldwide, it reaches 30 to 80% of products sold in Africa, depending on the sector. He has good reason to want to bring an end to counterfeits, especially of his Fofoumix product.

“There are Chinese choppers that our compatriots import to sell and announce that it is fofoumix, but the latter is a registered trademark which has a patent... Having had trials in this direction, the conclusion that I have drawn is that our justices in West Africa are not strong enough in the field of intellectual property. There is still a lot to be done,” he says, adding that he has brought counterfeiters to justice but nothing has come out of it.

To deal with this problem, he prefers to focus instead on the quality of his products.

“The struggle is to have quality products,” he said.

Source - techcabal.com



AGRICULTURAL INSURANCE

More farmers buying insurance against drought

ANKARA

More and more farmers that are concerned about the adverse effects of climate change are buying insurance policies to protect them against potential financial losses due to drought.

In the first three months of 2022, a record number of growers applied for this particular insurance.

In the whole of 2021, premium generation in the agricultural insurance segment amounted to a total of 4.7 billion Turkish Liras (around \$320 million), said Serpil Günel, general manager of the agricultural insurance pool (TARSİM).

“However, only in the first three months into 2022, premium generation stood at 3 billion liras, with most of them from the drought insurance. Demand for the drought insurance skyrocketed 300 percent,” she said.

Premium generation in the drought insurance segment was 600 million liras in 2021, but the figure rose to 250 million liras in the first quarter of 2022, according to Günel.

She noted that Turkey suffered from several natural disasters last year and that drought hit the country’s Central Anatolian and southeastern parts hard.

“There has been a very strong demand for drought insurance from farmers in the provinces of Sivas, Yozgat, Şanlıurfa, Diyarbakır and Mardin. People can buy drought insurance in any region where dry farming is practiced.”

Farmers are taking out this insurance as they anticipate drought, she explained.

According to an annual report released by the Turkish State Meteorological Service, the volume of precipitation across Turkey between Oct. 1, 2020, and Sept. 30, 2021, was the least in the last two decades.

The precipitation decreased by 16 percent compared to rainfalls that occurred a year ago and some 19 percent down from the average of several years, the report said.

A severe drought is not expected this year but the precipitation in April and May is crucial for farmers, Günel said.

She noted that some 21 percent of the registered farmers have taken out government-supported agriculture insurance, but this figure must be higher.

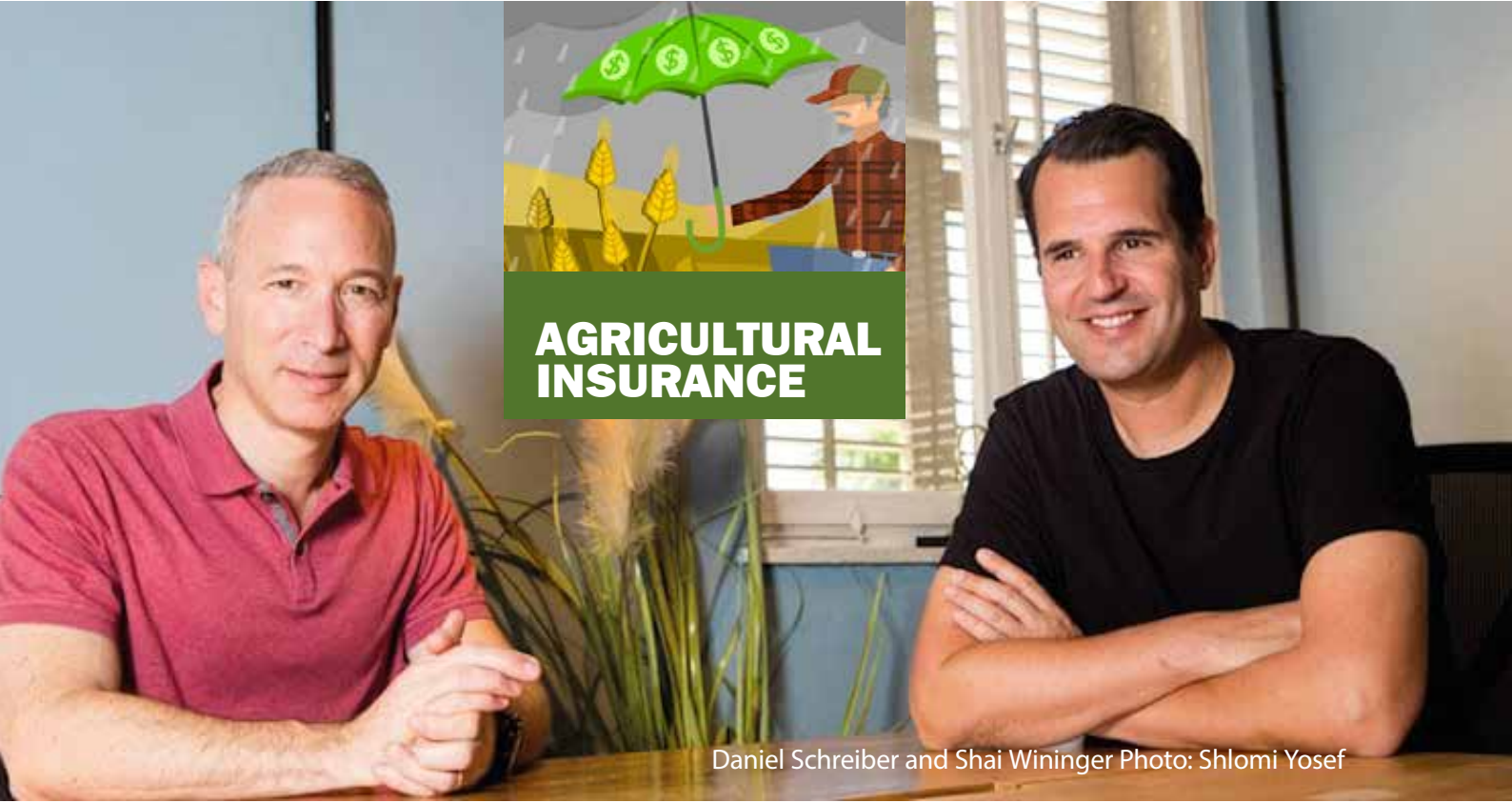
“We aim to cover at least 35 percent of the farmers.”

The main purpose of agriculture insurance is to ease the financial burden of the government in the event of natural disasters which is why more farmers should be included in the system, Günel furthered.

“To make this possible, we are holding talks with the Agriculture and Forestry Ministry. We are working to make agriculture insurance mandatory,” she said.

Günel also said that in the first three months of 2020, 63 million liras under the crop insurance and another 105 million liras under the cattle insurance were paid in damages. **“The payments made under the cattle insurance grew by 55 percent compared to the previous year. Moreover, the payments made under the greenhouse insurance amounted to 136 million liras. The main reason for damages occurred at greenhouses was frost and hail, followed by flooding and storms.”**

Source - hurrydailynews.com



Daniel Schreiber and Shai Winger Photo: Shlomi Yosef

Lemonade to offer climate insurance for African farmers

By Shiri Habib-Valdhorn

Israeli digital insurance company Lemonade (NYSE: LMND) will offer farmers in emerging markets climate insurance at cost price through The Lemonade Foundation, a nonprofit founded by Lemonade to effect exponential social and environmental impact through technology.

The Lemonade Foundation also announced today the formation of the Lemonade Crypto Climate Coalition. The coalition is being constituted as a Decentralized Autonomous Organization (DAO), dedicated to building and distributing at-cost, instantaneous, parametric weather insurance to subsistence farmers and livestock keepers in emerging markets. Alongside the Lemonade Foundation, founding coalition members include Avalanche, Chainlink, DAOstack, Etherisc, Hannover Re, Pula, and Tomorrow.io.

Lemonade said that the climate insurance will be architected as a stablecoin-denominated, decentralized application (dApp) on Avalanche, an eco-friendly proof-of-stake blockchain. Farmers will be able to make and receive payments with ease from their phone using global stablecoins or local currencies, much as they do for banking and payments today. An initial rollout in Africa is expected within the year.

The Lemonade Foundation will provide the initial capital to fund the DAO's smart contracts, and in time all crypto investors will be able to fund the DAO's liquidity pool. The DAO will also issue a governance token to reward participation by the broader community.

"Africa has an estimated 300 million smallholder farmers. The majority face real climate risks to their livelihoods, as traditional, indemnity-based insurance is often unaffordable or unavailable to them," said Rose Goslinga, co-founder of Pula, a Kenya-based insurtech that specializes in digital and agricultural insurance to de-risk millions of smallholder farmers across Africa. **"This is where the power of the Lemonade Crypto Climate Coalition comes in: An on-chain solution that can be immediately impactful at scale will allow farmers to finally get financially protected against the increasingly frequent risks such as drought."**

Lemonade was founded in 2015 by co-CEOs Shai Winger and Daniel Schreiber. The company operates in the US offering home insurance, pet insurance and life insurance. Lemonade recently entered the car insurance market and acquired digital car insurance company Metromile in a share deal for \$500 million.

The company held its IPO on the NYSE in June 2020 at \$29 per share, and is currently trading at \$26.85, giving a market cap of \$1.65 billion.

Published by Globes, Israel business news - en.globes.co.il



CLIMATE CHANGE

‘Devise innovative financial facilities for climate change mitigation, adaptation’

Zimbabwe should recalibrate sectoral policies to have a climate agenda and upscale investments in rainwater harvesting, supplementary irrigation, adoption of drought tolerant crop varieties in order to reverse a potential climate crisis which is further threatening already strained water supplies, food and nutrition security.

Government has also acquired five radars to improve on early warning systems, weather and climate monitoring and weather-related information for decision making by policy makers, farmers, industry and other stakeholders building towards data driven climate resilience.

The country’s socio-economic development is very much dependent on rainfall and over the last 10 years, has had 4-5 seasons of drought at a time when economic performance is strongly positively co-related with rainfall.

“While, our economy takes a knock during droughts years, we need to appropriately recalibrate our sectoral policies to have a climate agenda. In government and through treasury we are in agreement. What we require is to go beyond our national policy ambitions to meet our socio-economic aspirations,” Environment, Climate, Tourism and Hospitality Industry Minister Nqobizitha Mangaliso Ndhlovu has said.

Ndhlovu was addressing the Financing Climate Change Adaptation Investment Conference hosted by Financial Markets Indaba in partnership with Business Weekly early March.

The change in climate will further threaten already strained water supplies, food and nutrition security, health, hydro-electric power generation, human settlements, infrastructure, and biodiversity amongst



CLIMATE CHANGE

other key areas of human development thereby impeding the country's social and economic development aspirations. Loss and damage to infrastructure, in the past, today and in the future is real but hard to contemplate.

“In 2021 our economy grew by 7 percent on the back of a good above normal rainfall season. It is therefore critical that we upscale investments in rainwater harvesting, supplementary irrigation adoption of drought tolerant crop varieties and adoption of viable business models to sustain agricultural production through value addition, market development and consolidation,” said Ndhlovu.

Climate finance is needed for mitigation activities, as large-scale investments are required to significantly reduce emissions. Climate finance is equally important for adaptation, as significant financial resources are needed to adapt to the adverse effects and reduce the impacts of a changing climate. To develop in a low carbon and climate resilient pathway, Zimbabwe received support from various climate finance mechanisms among them, the Green Climate Fund (GCF), Global Environment Facility (GEF) and Adaptation Fund.

Through the United Nations Framework Convention on Climate Change (UNFCCC), Parties meet at the Conference of Parties (COP) to discuss and deliberate on the implementation of Climate Conventions and Agreements. Last year, the 26th Conference of Parties (COP 26) to the United Nations Framework Convention on Climate Change (UNFCCC) was held in Glasgow, United Kingdom where issues of climate finance were discussed and emphasis was on the need for developed country Parties to support climate action in developing country Parties.

The main issues that arose include:

- To secure a global net zero emissions consensus by mid-century and keep temperature goal of not exceeding 1.5 degrees Celsius above pre-industrial levels within reach;
- To upscale momentum for adaptation in order to protect communities and natural habitats, specifically by protecting and restoring ecosystems and building defenses, early warning systems and resilient agriculture and infrastructure to avoid loss of homes, livelihoods, and even lives;
- To work together to deliver on these goals by finalizing the Paris Rulebook and accelerating climate action;
- Mobilize at least \$100bn (£74bn) in climate finance per year for access by developing country Parties.

The Paris Agreement (2015) states that increased financial resources should aim to achieve a balance between adaptation and mitigation. After two weeks of intensive negotiations, the 26th Conference of Parties (COP26) adopted a text which made an unprecedented reference to the role of fossil fuels in the climate crisis.



Zimbabwe highlighted the high levels of vulnerability as a country due to the impacts of climate change and the need for greater commitment and urgency towards climate change adaptation and mitigation.

In that regard, Ndhlovu highlighted that while government was pursuing multi-lateral climate financing, it was critical for the country to mobilize domestic financial resources at scale, both public and private resources, to leverage international financial resources.

“Let me emphasize that it is not enough to solely rely on international climate finance, there is also a need to tap into national resources through innovative financial facilities and leverage the private sector to take the lead in addressing climate change. Therefore, let us take advantage of this conference to explore how we can mobilize domestic finance for climate change mitigation and adaptation,” he added.

“To assist in financial resource mobilization, my Ministry nominated and supported the successful accreditation of two institutions namely the Infrastructure Development Bank of Zimbabwe (IDBZ) and the Environmental Management Agency (EMA) to the Green Climate Fund and the Adaptation Fund respectively. All these processes demonstrate the country’s preparedness to access and manage climate finance.”



AGRICULTURE ECONOMICS



Farmers should invest in farm management systems

Accurate and easy to use Farm Management Information Systems (FMIS) are of fundamental importance for a successful operational farm management. Unfortunately, most farmers do not use FMISs, despite the increasing professionalism in the agricultural sector and the increasing usage of IT technologies.

An agricultural information system can be defined as a system, in which agricultural information is generated, transformed, transferred, consolidated, received and fed back in such a manner that these processes function synergistically to underpin knowledge utilization by agricultural producers. Accordingly, an agricultural information system consists of components (subsystems), information related processes (generation, transformation, storage, retrieval, integration, diffusion and utilization), system mechanisms (interfaces and networks) and system operations (control and management).

Agricultural information is considered as an essential input to agricultural education, research and development and extension activities. Different kinds of information are required by different kinds of users for different purposes. The potential users of agricultural information include government decision-makers, policy-makers, planners, researchers, teachers and students, program managers, field workers and farmers.

Agrisol is a Farm Management Information System proudly designed and developed in Zimbabwe. It aims at addressing the challenges that are being faced by the Farmers in Zimbabwe. The reality is by 2060 food production will need to double in order to satisfy global food consumption demands. What this entails is that there is a need for a serious paradigm shift from the way farmers are conducting business. Traditionally in Zimbabwe many farmers operate farm businesses from a family set which to some extent reduces efficiency.

Agrisol Farm Management Information System has the following modules: **Budgeting, Farm Activities, Employee Management, Inventory Management, Harvest and Sales Management, Variance Analysis, and Reports Generations**

Different divisions at the farm are classified as cost centres and any activities done is recorded against that cost centre on a daily basis. Such that at the end the day or at any particular point in time we can ascertain amount of investment (in terms of labour and inputs) that would have been committed to that cost centre.

AGRICULTURE ECONOMICS



The AFMIS has two user access level - for the supervisor and for Management or directorate. Supervisor or field officer can only input data/information only while management can also do the same and they have full rights system which includes Create User, create cost centres, create operations, Reset password for other user, among other rights.

For a Farmer Using Agrisol Farm Management Information many unlimited benefits will be derived which include:

Electronic record keeping: It is easier to keep your records updated electronically. Updated records mean better control of operations. Monitoring all activities and costs is possible with only one click. Through record keeping of all tasks it gets easier to issue direct costing, which leads to new optimization opportunities. Additionally, electronic data can easily be transferred to other systems as well as electronic support may be implemented while recording data.

Optimization through comprehension and comparison: With your records, new opportunities for analyses are developed. Through calculating certain data (gross margin, operational steps per cost centre, etc.) weak spots will be easily found and addressed or eliminated.

Inventory management: You will be provided with an overview of your stock and sales and purchases can be done on time.

Better Planning and Tracking: Agrisol Farm Management Information System provides a holistic view on a single platform that enables a farmer to plan more efficiently, track activities in real-time and make the best decisions. Because to ensure a farm operation reaches its true potential, an analytical system which collects, analyses and enables informed decision making, needs to be in place.

Variance analysis: Agrisol Farm Management Information System has a module for variance analysis. At the end of a growing period such analysis is crucial in ascertaining deviation from the planned and it helps in making sound informed decision

Reports generation various reports are produced as per cost centre which includes report on cost, activities done, harvest stocked, sales made as well as labour

Agrisol Farm Management Information System will help farmers engage in strategic, tactical and operational planning. It also works towards a much higher degree in organization, assessment and optimization of performed work on the fields. The farmer becomes equipped with a tool which puts all of his field work and paperwork under unified control simpler than ever.



Source - <http://sanganaafrica.co.zw/agrisol.php>

AGRICULTURE ECONOMICS

CCMT has been conducting local interventions to transform land and displacement conflicts between local authorities and communities in the Midlands Province with the goal of facilitating mutually acceptable win-win solutions. The interventions have since transformed into evidence-based advocacy process aimed at influencing policy and legislative change on Development Induced Displacements (DID).

The organisation held a series of multi-stakeholder policy dialogues with a view to generate discussions and build consensus around the key issues.

The key issues which were up for consideration include:

Free, prior, and informed consent (FPIC) – Concept emphasizes meaningful participation as opposed to mere involvement.

- ii The current situation is that there is often no meaningful participation of communities in the planning and implementation of development projects and the terms of relocation or compensation. Development projects come as a surprise for most communities resulting in the rejection of the projects and conflict with the people bringing the development project. In instances where they are consulted, it is usually just a formality.

Relocation and compensation of communities to pave way for development projects should be covered by the principle of Free (absence of intimidation and manipulation) prior (consent is sought in advance of the development project) and informed consent (providing the affected communities with all the necessary information, it also means more than just consultation and implies agreement and active participation).

Fair and comprehensive compensation

- i The current situation is that communities are not receiving adequate and fair compensation, and that potential negative effects of projects for local communities are not adequately mitigated e.g., small-scale farmers on communal land and beneficiaries of the land reform are vulnerable to displacement without adequate. Also, SI 53/2014 on A1 settlement permits prescribes compensation for improvements and standing crops, but no replacement or compensation for the land itself.
- ii The problem is further compounded by the fact that, in many cases various authorities at different levels seem to employ an ad-hoc approach and procedures. There seems to be no harmonized approach clear minimum requirements across all categories of land in terms of how to deal with development-induced displacements and compensation and resettlement procedures and requirements. These issues have resulted in tensions between the affected communities and the those bringing the development project.
- iii Compensation should be guided by the principle of equivalence: affected people should be neither enriched nor impoverished due the process.

AGRICULTURE ECONOMICS

Pathways for sustaining the existence of indigenous food systems

By Charles Dhewa

While global food systems comprise plants, animals and sea food, African indigenous food systems have a bigger component of naturalness associated with specific areas or micro climates. For instance, small grains like finger millet have a greater characteristic of being natural grasses and are often dominant in dry regions. The same applies to some indigenous vegetables and fruits that are part of certain communities, mountains and rivers including wetlands. These foods are now considered indigenous foods in communities where they have been dominant for centuries.

Co-existence and infiltration

Due to colonialism and other historical events, indigenous foods no longer exist in isolation but co-exist with imported foods that have been infiltrating African communities for decades. For instance, broiler chickens have been infiltrating rural communities at the expense of indigenous chickens. The more indigenous chickens are fed processed feed like chicken mash or layers' mash, the more they lose their indigenous identity. On the other hand, most of the imported foods have their origin within science and laboratories where their seeds are propagated. There is no reason why African researchers should not use science to deepen their understanding and characterization of indigenous food systems. Such effort can reveal where African indigenous foods are coming from and where they are going.

Key elements for sustaining African indigenous foods

Managing natural resources – This is the first key element in sustaining the existence of indigenous food systems. Indigenous foods do well in the natural environment with little or no industrial inputs added to their existence. Such indigenous foods include: Nyevehe, Muboora, Impwa, Manhanga, Mbambaira, small grains, indigenous goats, chickens and cattle. Much of their co-existence with the natural environment enable them to reproduce using available natural resources.

Any depletion of the natural environment due to industrial development imposes an opportunity cost for indigenous food systems. For instance, in many African countries construction and mining industries are undermining indigenous fruits. Before developing residential areas, it is critical for policy makers to take stock of existing natural forests and trees. It is unfortunate that after destroying natural forests to build urban houses, most Africans grow foreign trees and non-food plants like exotic flowers instead of trying to replant natural trees that existed before.



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Developing markets for indigenous foods – This is a second key sustainability factor. Once a product has a market, potential for re-investment and expanding production increases. In recent decades, some Zimbabwean rural communities have seen indigenous fruits like baobab fruit and Nyii from their areas becoming a source of income and livelihood. Such trends have incentivized these communities to protect indigenous forests and trees. By creating space for indigenous food, African mass markets have also increased the value of indigenous food systems, leading to some people replacing exotic fruit trees with indigenous fruit trees in their gardens and orchards.

However, a major knowledge gap relates to valuation of indigenous fruits in the market so that they get authentic value. For instance, why should a 20-litre tin of baobab fruit be sold for USD3-4, the same price for a bucket of mangoes although baobab is said to be more nutritious? How do academics cost a product that is growing naturally? Indigenous food systems depend on natural resources like nutrients and soils which are also being depleted. How can these be restored?

Governance - Another key sustainability element is the governance system. In pre-colonial Africa, a time-honored role for traditional leadership was preserving natural food systems in the natural environment like forests, rivers, wetlands and mountains. Traditional leaders appreciated the value of natural resources in building community resilience including the survival of wild animals which are not able to produce their own food. For instance, they discouraged over-harvesting of wild fruits and grasses so that wild animals would also have something to survive on. Unfortunately, over the years, African traditional leaders have lost control over natural resources and habitats to imported governance systems that have taken over the role of licensing land for mining and construction of residential areas without recognizing the importance of indigenous food systems.

Linking indigenous food systems with indigenous knowledge systems – This is another avenue for sustaining indigenous food systems. It is important for African academics, researchers and policy makers to know how much knowledge communities have about their indigenous food systems. Much of the food science taught in African formal education systems is about imported food systems. Nothing is taught about the nutritious benefits of indigenous food and fruits like Masawu, Mazhanje and others from diverse micro climates. How much are African governments investing in natural science behind indigenous foods that now anchor resilience? By now it should be clear which indigenous foods do well during droughts in particular areas.

Some of the indigenous food systems have traditionally been used to forecast the forthcoming season. Unfortunately, such indigenous knowledge systems are largely not documented to ascertain accuracy against modern science like the Meteorological Service Department. Building and packaging indigenous knowledge systems will enable passing on of the knowledge to future generations, the same way curricula is used to embed modern knowledge in the future generation.

Recognizing indigenous food systems as part of identity – Instead of being famous for a few colonial value chains such as cocoa, cotton, sugar cane and tobacco, African countries should strive to build their originality and identity around their indigenous food systems. Why should Ivory Coast be known only for cocoa and Zimbabwe be famous only for tobacco when the countries have more than 100

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indigenous foods? It is known that much of the industrial development started with food which inspired manufacturing of products and related equipment as well as science around seed, genetics and appropriate water provisioning like irrigation.

African research institutions and universities should reflect on and examine the relevance of indigenous science in protecting, promoting and sustaining indigenous food systems including African identity. There is a lot of undocumented indigenous knowledge systems that were used by African ancestors to preserve food and seed but such knowledge is being lost to imported knowledge.

Need for political will

Political will to sustain indigenous food systems can only be demonstrated when African countries set up government departments responsible for indigenous foods. Among other mandates, such departments should be responsible for preserving indigenous foods to enhance availability throughout the year and securing the monetary value of indigenous foods, most of which are seasonal. Preservation will regulate supplies and ensure indigenous foods are released to the market at a price worth the nutrition and other benefits associated with indigenous foods.

Without a dedicated government department, it is impossible for African countries to develop pathways for sustaining indigenous food systems and unpack the entire benefits of consuming indigenous foods. Currently, most of the indigenous foods are only visible at exhibitions like agricultural shows and trade fairs but there is no full-scale commercial imperative that would ensure they are available as nutritious food baskets for consumption at household and institutions like hospitals, boarding schools, colleges and canteens of government departments. Building nutritious and healthy food baskets together with recipes and appropriate ingredients is a key part of knowledge and market development. It can turn indigenous foods into products that can be always available on the market irrespective of production season.

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How can agriculture help people in fragile and conflict-affected situations?

(This Q&A is excerpted and adapted from an episode of the Table for 10 Billion podcast)

Food is often scarce in countries afflicted by conflict. But solutions require more than feeding people for today. To truly help those caught in these often terrifying situations it's important to look at how they will be able to eat tomorrow too – that means agriculture. Holger Kray, World Bank Program Manager for Agriculture and Food in Africa East and South, explains the role of agriculture in these difficult settings.

Q. From your experience, what is the relationship between conflict and hunger?

A. There's a commonality between all the fragile and conflict affected states. Their per capita income is usually persistently low, so people cannot afford to buy high quality foods and a diversified diet. And those who produce food cannot afford to buy the most critical inputs, such as seeds, fertilizers and good animal feed. Because of that, extreme poverty is increasing. This is almost like a vicious cycle.

There are also disruptions to food systems. For instance, products are being produced but they don't reach the consumer due to shortages in energy or logistics.

In addition, in fragile and conflict-affected countries, the public sector may not be as efficient in rolling out policies and making decisions about the stewardship of natural resources.

Q. What are the impacts of climate change in these situations?

A. Climate is the greatest threat to food security that we've seen. And it's probably one of the greatest challenges that the World Bank is facing in its assistance to countries.

Twenty years ago, a food security crisis resulting from severe weather in Africa would occur about once every 12 years. It now occurs every two and a half years. It's much too frequent for any country, region or farm to recover from the impact of these shocks.

In countries such as Malawi or Madagascar, you now see it every two to three years. These are countries that only have one rainy season per year. They can only produce maize once a year. If that rain season fails to come, there's no food production. If a rainstorm comes right when the corn starts to grow, it washes away the crops, then the crops are gone for the year.

Q. How has COVID-19 impacted these situations?

A. Because of COVID-19 lockdown measures, per capita income GDP declined even further. Poverty rates in fragile countries have increased, and food insecurity worsened. Food price inflation these days is much higher in fragile and conflict affected countries. Food price inflation this year in Africa is about 12% on average, year over year. It's 30-40% in conflict affected countries.

Q. But it's not only about COVID. No, or even getting emergency aid to people. Agriculture itself is key. So how does it work in such dangerous situations?

A. Agriculture provides food, jobs and income. Agriculture also creates inclusion. It is usually the sector in which women, not only find dignity, but really have a voice in which they take important decisions. It is often underestimated how important the agriculture and food sector is for inclusion of the marginalized populations.

Agriculture is also about landscape and resilience. If you have nude landscapes without any vegetation or that are no longer cultivated, these landscapes are quite often much more prone to catastrophic weather events. The presence of trees, grass and pasture hold the soil much better, add to water retention capacity and bind carbon in the soil.

Summing up, agriculture plays a very central role. It's not the solution to every challenge that countries face in fragile and conflict-affected situations, but it is much more than just a sector that only produces food.



Q. So how does the World Bank work to promote agriculture in these situations?

A. The World Bank's main mission is to focus on long-term development, helping countries to build systems, infrastructure, and capacity to avoid fragile and conflict situations or to recover after such catastrophic impacts. We are not a rapid response agency, but we do have rapid response activities, such as food aid or feed aid.

Livelihood kits is one example. After crops have been washed away, we quickly help supply farmers with seed and fertilizer to produce food for the next season. This is what we typically do when we work with governments after natural disasters.

Something relatively new in our “**response portfolio**” is the Early Response Financing which we can deploy at the early onset of a potential food crisis, to avoid catastrophic impacts on the population later on.

South Sudan is a concrete example. It's one of the world's most hunger effected countries and still in a civil war. We've recently deployed two projects acting in parallel. One is an emergency locust response project. As part of that project, we work with communities through the government to improve local surveillance and control, help restore livelihoods, and help the country to build systems so that in the future it is better prepared for locust outbreaks. All these actions are focused on emergency response.

In parallel, we have deployed a resilient agricultural livelihoods project. This project helps South Sudan to develop better agriculture productivity in parts of the country with high fertile potential that are currently not conflict-affected so that that nation can feed itself much better in future.

Q. Have you seen agriculture projects that have made a difference and supported a return to normalcy in fragile and conflict settings?

A. Agriculture is a part of a response strategy. It might be one of the most important one, but it is not the only one. It's always a combination of a range of efforts which include agriculture and food, but should also focus on job creation, livelihood restoration, trade, economic growth, macroeconomic stability -- all the things that need to be present for development to take place.

An example is Northern Uganda at the border of South Sudan. Two decades ago, the fights in the region dominated international news. If you go to Northern Uganda now, what you'd see unfolding is an agricultural revolution. There is a really vibrant private sector that works with farmers and provides technical assistance, telling farmers how to better use inputs, how to grow a better crop, then collecting it and marketing it. To a certain degree, Northern Uganda has become a critical supplier for food security efforts managed by the World Food Program in neighboring South Sudan.

Q. With all of this, what role does the private sector play?

A. Agriculture is inherently a private sector activity because all the farmers, whether male or female, small or large, are entrepreneurs. The state's only role in guiding agriculture is to devise a policy framework that delivers incentives and a regulatory environment for farmers as private actors to develop and produce and prosper.

Private corporations, traders and downstream businesses have a critical role to play. They are the ones who supply seeds, fertilizers, insurance, banking, machinery, maintenance services among other things. In fragile and conflict settings, the private sector often functions in the gray economy, the undocumented economy, but it's very active.

The private sector also has a role in mobilizing financing for development by investing in these countries. International and bilateral organizations, as well as foundations, cannot meet the agriculture development needs of entire continents on their own.

This is why the World Bank Group does not only focus on the public sector side. The International Finance Corporation (IFC) specializes in private sector development, helping enterprises to grow and make a greater contribution to development.

Meanwhile, our Multilateral Investment Guarantee Agency (MIGA) helps cross-border investors and lenders to deal with non-commercial and political risks, breach of contract, currency inconvertibility. If you were an international investor thinking about investing in a fragile country, MIGA could ensure part of your risk. This type of insurance is an important ingredient to attract international private sector funds.

Source - World Bank



Livestock & Aquaculture

Pastures and livestock management (Part 2)

By Michael Tonderai Ngwarayi

Sustainable livestock enterprising is made possible through pasture management. This is especially important as the livestock sector continues to experience extraordinarily high costs, emanating from high fuel prices, high commercial feeds costs and the poor rainy season. The development of a pasture requires making a conscious decision just like in any business. The provision of good pasture for our livestock is essentially a practice that promotes sustainable farm development and management. Good pasture planning, establishment and management entails, provision of forage for the livestock, absorb rainfall or runoff, filter runoff and ultimately reduce erosion, and protecting water bodies.

The pasture management plan entails, inventory analysis, creating sacrifice areas, implementing pasture harvesting and grazing rotation, mowing and harrowing and proper fertilisation. These steps are applicable to already existing established pasture, natural veld and new pasture establishing projects. These measures can also be used in communal pastures as a way to improve the quality of livestock and the pasture products and maintain a balance in the ecosystem thus sustainable environmental management.

Inventory analysis

Inventory analysis is a fact finding exercise that gives us an overview of what is available on the farm, the condition and identify shortfalls. This process takes into account identifying plants (grass and legumes) species, enclosures (fence), gates/ entry points and water sources. This is important as some plants are poisonous to our livestock and some are palatable and preferred more than others. This can be done for the whole farm or the sacrifice area for pastures, it also helps us identify weed species as a basis for future farm operations and weed control methods on the farm.

Conducting inventory analysis helps to examine fence conditions and the need for more fencing and improve livestock distribution and control grazing. Inventory analysis involves determining soil type and fertility. Hence the need to conduct soil sampling and soil testing an essential activity in any crop production enterprise. There is also need to identify water bodies and preserve them and improve water availability for the livestock. These are the foundations for establishing quality pastures.

Sacrifice areas, are spaces set aside to graze/harvest using cut and carry system for animals while the other pasture areas are allowed to regrow, establish and regenerate. This is to allow initial establishment, refurbishment and management of pastures to realise their full potential of the pasture species. Allowing the pasture plants to develop fully also gives us bases to estimate yield capacity of the plants and moreover establish the herd size and carrying capacity of the area sacrifices under pasture. This will optimise return on investment in the livestock sector.

However if livestock were allowed to graze freely, they would graze only the highest quality, most palatable plants in the pasture. In order to ensure that plant biodiversity is maintained it is important to adopt grazing or pasture utilisation strategies.



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Pasture utilization is based on the following principles:

- Proper timing of harvesting or grazing, corresponding to plant physiological stage.
- Proper intensity or harvestable vegetative matter
- Residual plant height for regrowth
- Duration of rest, rejuvenation and successive grazing

However in rotation, duration of rest and regrowth is recommended to be based on regrowth size of the pasture rather than number of days.

It is very important to make sure when we graze or cut we have to maintain a pasture height that is even and able to regrow rather than deteriorate and die. There is need to mow and harrow which has significant benefits in the long run. Mowing evens out the plant height which promotes even regrowth when the pasture recovers. Mowing also encourages plants to produce more leaves and few stems, thus producing more palatable, thicker and much harder stands. Mowing also helps to control weed species, thus prevent them from seeding. Harrowing (dragging) helps to breakdown manure which accumulates as animal graze and evenly distributes nutrients in the pasture land. Harrows with tines can be used to tear up soil so as to facilitate over sowing of the pasture of desirable species.

Like any plant, pastures require nutrients to grow. Following recommendations from the soil test will ensure provision of plant nutrients as required by the plants in our pastures. Fertilise application needs to follow the recommendations so as to avoid over application which may lead to pollution of water bodies through transportation by runoff. It is also important to apply fertiliser in the right rate and right time. Normally liming can be a great alternative as it unlocks the nutrients in the soil for use by the pasture plants. More over the integration of grass and legume pasture plants helps to maintain a balance in the ecosystem. Healthy, properly managed pastures produce better quality and greater quantities of forage for your animals and lengthen the grazing season, producing healthier animals and reducing costs.

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Ostrich farming

How this amazing business makes millions for a Malian entrepreneur

Did you know that ostrich farming in Africa is a huge business opportunity? You're about to learn some incredible stuff about this business.

- Although many people do not know this, ostriches produce more meat than cattle and contain the least fat, calories and cholesterol of all meats (beef, chicken, pork, lamb and turkey).
- Because it is not as common as other meats, ostrich meat fetches a very high and handsome price.

Mamadou Coulibaly is an ostrich farmer with a flock of 3,000 birds in his native Mali. His income from this business in 2011 was \$1.4 million and continues to grow in leaps.

In a world that is more than likely to switch to low-calorie and healthier meats in the near future, Mr. Coulibaly is positioning himself to cash in on the huge opportunity.

An Ostrich Farmer with a humble beginning...

Mamadou started his ostrich farm in 2008 with about 100 birds. Today, his farm, which sits in the village of Banguineda, located South of Bamako (the Malian capital) has grown to 3,000 birds by 2014.

This man has a big vision for a big bird that brings in big profits!

Apart from a few farms in South Africa, North America, Europe and Asia, ostriches are probably the least farmed birds in the world. This is quite shocking given the amazing features of the ostrich that make it such a lucrative business venture.

So, when Mamadou decided to start his ostrich farming project, he sought the help of a Korean company with specialist experience in raising and managing ostriches on a commercial scale. Mamadou, who also owns a crocodile farm, houses his ostrich eggs in a high-tech incubator which is a major part of his strategy to expand the size of his flock to **100,000 ostriches** in the long term, making it the world's largest ostrich farm!



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To give you an idea of the profitability of this venture, an ostrich egg can fetch up to \$500, a breeding ostrich can sell for up to US\$5,000 and those with feathers which are highly prized in fashion and décor circles can be sold for up to US\$3,000.

Why should you consider ostrich farming in Africa? How can you make money from it?

Ostriches allow the farmer to make higher and quicker returns on investment. In recent years, a number of European and American beef producers have converted to ostrich farming because of its amazing profitability.

Some serious comparison here would be great.

On one hand, a typical cow produces one calf every year. This calf will be ready for market in two years and produce about 250kg of beef at slaughter.

On the other hand, an ostrich produces up to 40 eggs every year and these chicks usually reach market size in about 14 months yielding meat that weighs up to 1,800 kilograms!

In addition to meat, an ostrich (including its mature offspring) can produce up to 50 square metres of leather and 36 kilograms of feather... in just one year!

If properly managed, a single female ostrich can produce up to 72,000 kilograms of meat, 2,000 square metres of leather and 2,000 kilograms of feathers during her economic (productive) lifetime.

Compared to other traditional farm animals (cattle, goats, pigs, fish, chicken and turkey), ostriches are quite easy to raise and most ostrich farm projects turn out to be very successful.

The most important period in the life of every ostrich is the first 3 to 5 months of its life when a good and balanced diet containing the sufficient quantities of important nutrients are required.

Comparing ostrich versus other meats (per 100 grams serving)

Type of Meat	Protein (%)	Fat (Grams)	Calories (KCal)	Iron (mg)	Cholesterol (mg)
Ostrich	26.9	3.0	142	3.2	81
Beef*	28.1	10.5	209	3.0	83
Veal*	33.9	9.4	225	1.2	124
Pork*	29.3	15.2	256	1.1	91
Chicken	28.9	7.4	190	1.2	89
Turkey	29.36	5.0	170	1.8	76
Lamb*	30.4	9.4	215	1.2	95

Source: USDA Agricultural handbook #8 and Hill Nutrition Associates of Florida for all except Ostrich.

Ostrich: Texas A&M University System meat studies 1993 (cholesterol determined in four major muscles) and 1996 (weighted average of measurements on ten major muscles).

*Figures are cooked portions with knife-separable fat removed.



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The market for ostrich products

One of the reasons why ostrich farming is so profitable is the number of valuables an ostrich has to offer; and very little ever goes to waste.

Ostrich eggs, meat, hide (leather) and feather are very highly priced and command high prices on the local and international markets.

(1) Meat

- As we mentioned earlier, ostrich meat is by far the healthiest alternative to all traditional meats.
- It has lower fat, calories and cholesterol than beef, chicken, turkey, pork and fish!
- In contrast to chicken and turkey (which are classified as 'white meat'), ostrich meat is a "red meat" similar in colour and taste to beef.
- A huge portion of all the meat from an ostrich comes from the leg, thigh, and back. Because ostrich meat is very lean, they are fast becoming a favourite with people who want to live healthy but still love red meat.
- Ostriches give these people the best of both worlds!

According to the Maasai Ostrich Farm in Kenya,

'a well-fed eight to ten month-old juvenile ostrich produces 45-50 kg of meat on-the-bone and sells for US\$12 per kg. Steak fetches around US\$24/kg, and US\$28 for fillet.'

(2) Leather

Compared to cattle (which yields less than 3 square metres of leather a year, an average ostrich (offspring included) will average about 50 square metres of leather. That is more than ten times the return in a single year!

Ostrich skin (hide), with its characteristic and distinctive 'goose bump' look is a very high-quality, thick, soft and extremely durable leather product that fetches one of the highest prices in fashion shops and boutiques.

A lot of fashion enthusiasts consider ostrich leather to be very luxurious and equal to (if not better than) snake or crocodile leather.

Ostrich leather is currently used by many major fashion houses including Hermès, Prada, Gucci, and Louis Vuitton. The leather is used for a wide variety of products including jackets, bags, shoes, purses, caps, wallets and belts.

(3) Feathers

The best feathers come from ostriches bred in the dry and semi-dry regions of the world such as Africa and the Middle East. As a result, the quality of feathers produced from ostriches raised in Europe and North America differs in many respects from those produced in Africa.

Ostrich feathers are used to make feather dusters for cleaning fine machinery and equipment as well as for decorations, furniture stuffing and in the fashion industry. They also have a wide application in creative arts and has proved to be a very versatile and popular material.





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(4) Eggs and Livestock

As expected, the ostrich lays the largest egg by any bird in the world!

An ostrich egg is roughly the size of a football and can weigh almost 2 kilograms (approx. 1 pound). A mature female ostrich can lay up to 40 of these eggs in a single year!

As the size of the international market for ostrich grows, the demand for live exports is also on the rise, with markets as far afield as France, Holland, Pakistan, United Arab Emirates (UAE), South Africa and China.

Considering ostrich farming in Africa? Here are a couple of things you should know:

We have looked at the economic and business potential of ostrich farming, it is now time to look at some of the things you need to successfully start your own ostrich farm.

This is by no means a full business plan. You should see this as a checklist that helps you organize your thoughts while you are considering this business opportunity.

(a) Registration

It is always good to make sure that you are licensed to operate an ostrich farm in your area. Registration used to be overlooked before the bird flu epidemic. Nowadays, operators of bird farms (poultry) are required to be registered and licensed with the relevant government agency.

You should double check and make sure you do not run afoul of any laws or regulations.

(b) Breeding

It is usually advised to start with a breed stock of 1 male and 2 – 4 females. Depending on your location, a mature breeder (male or female) could cost from as low as \$800 up to \$5,000.

Ostriches are very fertile and can lay up to 40 eggs throughout the year. However, a female ostrich stops laying eggs if she has to incubate them. For all-year round production, eggs must be moved to a machine incubator on the facility. In many areas, ostrich chicks may suffer high mortality.

(c) Space, equipment and facilities

Well, if we have not told you yet, you should know that ostriches can grow to be 9 feet tall and can reach speeds of 70 miles per hour. Yes, these guys can run!

They need a lot of space and the geography does not matter. Ostriches thrive very well in all climates including deserts, grassland, forest regions and swamps. But dry climates and grasslands/semi-arid areas are most favourable to ostrich production.

You may be unable to successfully breed these guys in small and confined spaces. They typically need a lot of space to thrive. A family of four birds would need up to ½ an acre of space for optimal results.

Ostriches also drink a lot of water so a nearby and steady source of clean water would be a great idea.

(d) Feeding

Ostriches are very adaptable birds and can survive on quite a wide variety of foods. Ostriches in the wild feed on insects, rodents (rats and mice) and even grass! But if you are raising them for profit, it makes a whole lot of sense to provide good quality, balanced and nutritious poultry diets so they can grow well and fetch a handsome market price!



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Ostrich farming has been aptly called a **'business of the future.'**

From the current market economics, the benefits from this venture clearly trumps other traditional livestock (including cattle, chicken, pigs and turkey).

Although the start-up costs are higher than other types of livestock, its pay-out can be huge.

If you have any experience in this area or know a little more about it, we are sure a lot of people reading this would love to learn from you. Please leave a comment in the section below or share this opportunity with a friend using the Facebook, Twitter and Google+ buttons below.

To your success!

Source - <https://www.smallstarter.com/get-inspired/ostrich-farming-in-africa/>



Nutritional diseases



Diabetes - A pandemic waiting to happen?

By Angeline Zengeya

"In 2019, diabetes was the 9th leading cause of death with an estimated 1.5 million deaths directly caused by diabetes." WHO.

Diabetes mellitus is a chronic metabolic condition that arises when the pancreas produces insufficient insulin or when the body's insulin is ineffectively used, however, the specific faults that cause these problems are complex and poorly understood. When food is digested and enters your bloodstream, insulin moves glucose (also called sugar) out of the blood and into cells, where it's broken down to produce energy. If you have diabetes, your body is unable to break down glucose into energy. This can cause kidney failure, heart attack, stroke, blindness, lower limb amputation and nerve damage over time. In severe cases, untreated diabetes can lead to death.

Diabetes manifests itself in a variety of ways that can be divided into categories. Type 1 diabetes, type 2 diabetes and gestational diabetes. The main point of difference between the type 1 and type 2 is that type 1 diabetes is a genetic disorder and type 2 is mostly a lifestyle disorder.

An autoimmune reaction that inhibits your body from generating insulin is thought to be the cause of Type 1 (insulin deficiency) diabetes. It affects approximately 5-10% of diabetic patients and symptoms can appear quickly. Children, teens, and young adults are the most common victims.

Type 2 diabetes is largely a product of lifestyle which induces insulin resistance or ineffective utilisation of insulin in the body. It affects roughly 90 per cent to 95 per cent of diabetics and is commonly identified in adults (but more and more in children, teens, and young adults) after a long period of development. If you're at risk, it is important to get your blood sugar checked because you may not notice any signs. Although genetics can also be a cause, relevant lifestyle changes can keep diabetes in check and postpone its resurgence.

Gestational diabetes develops in pregnant women, but however, goes away after parturition. Women with gestational diabetes are at an increased risk of complications during pregnancy and at delivery. According to some experts, these women and their children are also likely to develop type 2 diabetes later in life.

The signs and symptoms of diabetes differ depending on how high your blood sugar is. Increased thirst, frequent urination, extreme hunger, unexplained weight loss, ketones in the urine, fatigue, irritability, blurred vision, slow-healing sores, and frequent infections are common symptoms.

Finally, there is no cure yet for diabetes, but may be managed and its repercussions avoided or delayed by following a well-planned diet, getting enough exercise, taking medication, and getting regular screenings and treatment for problems. Getting diabetes self-management education and support, and keeping health care appointments can also reduce the impact of diabetes on your life. Many people lack basic knowledge and information about the condition and how to manage it; many are even living with diabetes without realizing it. Bold measures such as adequate sensitisation and promoting participation in early diagnostic testing are critical in putting an end to a disease that is on the verge of becoming a pandemic.

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Published by:

Maricho Media – on behalf of Five Talents (Pvt) Ltd

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Harare, Zimbabwe
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