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Ministry of Agriculture, Livestock and Fisheries

gODAN
Global Open Data
for Agriculture & Nutrition

Conference Bulletin

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KICC, Nairobi Kenya.
www.godan.info

MINISTERIAL CONFERENCE ON AGRICULTURE AND NUTRITION DATA & 4TH AGRITEC AFRICA INTERNATIONAL EXHIBITION.

The start of a long journey of shaping the future through data.

HE Uhuru Kenyatta: The President's message read by the Cabinet Secretary for Treasury, Henry K. Rotich.



TODAY'S AGENDA

1. Strengthening Agricultural Statistical and Data Systems in Kenya.
2. South-South Dialogue: How Data is Enabling Innovations in Agricultural Value-Chains.
3. Mutual Accountability for Consolidating Gains & Delivering Actions To Achieve CAADP Goals.
4. Ministerial Roundtable Meeting on Data for Agriculture and Nutrition in the Global South.
5. Improving Productivity Through Better Crop Nutrition Data.
6. Improving Coordination in Data for Agricultural Transformation.
7. De-risking Agriculture for Financial Services.
8. Creating an ICT for Agriculture Paradigm Shift Using Open Data.
9. Mobilizing Stakeholders to Improve the State of Nutrition Data in the Global South.
10. Investing in Agriculture Data for Growth and Development.
11. Capacity Building for Evidence Based Decision Making in the Global South.
12. High Level Closing Panel.
13. Vote of thanks and closing.

DAY I SUMMARY

- 1 Harnessing the potential of youth through Open Data for economic growth & prosperity.
- 2 Opening Ceremony.
- 3 Opportunities of data driven agricultural growth for prosperity.
- 4 Strengthening Resilience & Food Security for Agricultural Communities.



The Official Opening of the Ministerial Conference on Agriculture and Nutrition Data & 4th Agritec Africa International Exhibition.

Opening Remarks by H.E. The President of the Republic of Kenya His Excellency Hon. Uhuru Kenyatta, C.G.H. as read by the Cabinet Secretary for Treasury, Henry K. Rotich.

The Cabinet Secretary gave the president's apology and proceeded to read his speech.

The President noted that the hosting of the GODAN conference came at a time when Kenya was experiencing the effects of climate change, having just come out of a severe drought that had seen the country experience food scarcity. It is increasingly evident that more than ever, there is need to begin utilizing data for securing the development of agriculture, nutrition and food security.

Agriculture remains the backbone of most economies accounting for 63% of rural household income in Africa and 62% in South East Asia. The agricultural sector has potential to lift economies out of poverty, creating employment for youth across the agricultural value chain and ensuring health and nutrition security. Data is critical in ensuring informed decision making to achieve these goals.

The president noted that investment in technology and climate smart production remains a challenge in the Global South and urged all stakeholders to think creatively during the GODAN conference, to address this and other challenges.

He explained that Kenya joined the GODAN community in the run up to the adoption of the Sustainable Development Goals (SDGs). The country sees open data as critical for agricultural development and for

the attainment of its Vision 2030 to end poverty. GODAN would help Kenya to access data sets vital for the economic growth.

The GODAN community is growing rapidly with more than 530 partners including governments, NGOs, international organizations and private sector institutions, forming a cooperation that would greatly benefit the countries of the Global South. Kenya already has market information systems which inform farmers on real-time prices and insurance for livestock farmers based on location information. The country would however benefit tremendously from GODAN's capacity to ensure more benefits for farmers.

Countries in the Global South require timely and accurate data for decision making regarding development and to ensure competitiveness in agriculture, to secure food supply and harness the youth potential in the agricultural sector. Kenya, by hosting conference, is taking the lead as requested by GODAN in 2016 to ensure the use and accessibility of data pursuant to the common goals of food security and development.

The president wished to see the outcomes of the GODAN conference improving data provision, data quality and collection in all countries.

In declaring the conference open officially, the president noted the need to anchor the open data movement to the South-South cooperation in order to realize the full potential of innovation within countries. He wished to see the conference to support investment in data, and supporting the capacity of farmers to interpret data and ensure that governments make data accessible providing a clear means for youth to take up innovation. He also noted that the AGRITEC Africa exhibition demonstrated leading technologies for farms.

A photograph of Mr. Willy Bett, a man in a dark suit and blue tie, speaking into a microphone. He is looking slightly to the left of the camera. The background is dark and out of focus.

Mr. Willy Bett, EGH,
Cabinet Secretary,
Ministry of Agriculture,
Livestock, Fisheries.

Gives his opening
remarks.

Kenya takes pride in championing open data for agriculture and nutrition in the Global South and in its commitment to strengthening international cooperation. Sustainable agriculture can only be achieved with a broad alliance of people, governments, civil society and the private sector, working together to build a world that is food secure, without hunger and malnutrition.

The GODAN Network is a true reflection of South-South Cooperation and North-South collaboration as a means for building capacity, technology transfer and knowledge sharing and collectively addressing critical data-gaps in food security and nutrition.

The Cabinet Secretary reiterated the role of data for information and action in fulfilling his ministry's mission to improve livelihoods by ensuring food and nutrition security and in achieving the SDGs.

Speaking on unlocking the benefits of the current economic growth in the global south to benefit youth, Mr. Bett noted that African agriculture was unique in absorbing at least 70% of young people in its labour market. By 2025, an additional 330 million young people will be entering the labour market by 2025. The continent's ability to ensure that young people were continually meaningfully engaged in agricultural value chains depend on how data for decision making and forecasting is

harnessed. He observed that innovations in agribusiness and agri-preneurship by the youth were largely self-driven and required Government and Private Sector support for scale up. He hoped that deliberations would address challenges of financial support and uptake of innovations faced by young people.

Agricultural growth and comprehensive food and nutrition security cannot be attained without increasing the resilience of vulnerable livelihoods to disasters and crises, which will be best managed through data. If the data revolution is to leave no one behind, data needs to be open, accessible and usable to players across the agricultural value chains: including farmers, processors, traders and consumers. Its availability must therefore be coupled by data literacy programmes.

“Creating a culture of usage of data for evidence-based decisions and empowering the people, especially on matters of food and nutrition, is no longer an issue of political-will but a rational developmental choice” .



Sangita Dubey, Senior Statistician, Food and Agriculture Organization of the UN (FAO)

FAO recognizes the importance of data for policymaking and decision making such that Article 1 of the FAO constitution stipulates its mandate to collect inform and disseminate information on agriculture. It is the leader in collecting and disseminating data on agriculture and has provided free access since 1961, with 3 million hits annually, always striving to improve data accessibility. Data will be necessary to ensure poverty is alleviated. In order for data to be useful for agriculture and nutrition, there's need to consider its use, access & awareness, and collaboration.

FAO, as well as other global institutions are continually faced with the challenge of making the choice between investing in feeding people or collecting data, which pegs to the question of investment in data. "Can we can convince governments to invest sufficiently in data?" Better

investment in data leads to better policies which are based on evidence and keeps costs low in the long run. The example of using data to inform the policy decision to invest 1 million dollars altering in Consumer Price Index (CPI) was highlighted, which while costly led to in the long run to 100 million dollars of savings, due to more cost effective government spending that results from this change, such as through the implementation of benefits, pensions spending etc.

FAO is also the Custodian of SDG indicators on Agriculture and Nutrition and has developed international methodologies and platforms for data collection and dissemination. In the context of leaving no one behind, data at sub-national levels is urgently needed. Users need to be able to compare between countries and data needs to ensure learning.

The US National Space Agency (NASA) is a good example of how new unprecedented partners can be harnessed through open data. It is only 3 years within NASA's opening up of its repository of astronomical data that a researcher in the UK managed to solve a problem they had struggled with for at least 30 years. GODAN provides a framework within which to make data open and important success stories in agriculture and nutrition data. Land data registries and real time pricing information given to local smallholder farmers is one of the key successful methodologies of open data in agriculture. Collection and dissemination of data regarding weather indices to can also help farmers avoid planting their crops in the wrong climactic conditions.

This year, the FAO embarked on making improvements on open data policies, working with UN member countries, taking into account privacy policies and the ownership of data. In May this year, it published its projects expenditures to the world through an international transparency initiative, making it possible for countries and organizations to see what projects are going on in different countries and where gaps in investment exist.



“Open data provides opportunities to build solutions for communities.”

Dr. Agnes M. Kalibata, President at Alliance for a Green Revolution in Africa (AGRA)



Dr. Kalibata commended Kenya for its leadership, remarking that the Kenyan president had, in 2016, called for measures across the continent to set up an agricultural scorecard to measure progress in the agricultural sector while making a \$2.5 million commitment to investment in promoting youth agriculture initiatives.

The Kenyan government also had the largest infrastructure in information and technology (IT) of any country on the continent. In the recent state of the internet report, Kenya emerged 14 out of 130 countries in terms of connectivity and has better connectivity than Ireland and the United States of America.

She also noted that Kenyan youth are taking advantage of diverse IT systems to create solutions and ideas for problems that can be scaled up to the benefit of a range of stakeholders, especially in the agriculture supply chain. She also touched upon how AGRA is encouraging all stakeholders in both the public and private space, to work with institutions, farmers and the civil society to make data available and ensure its use.

She also explained that the innovation and investment in solutions should be focused on data dissemination and not in just securing data, as this is the only way to drive innovation and solve problems. She explained how AGRA is working with institutions in Kenya using data and creating systems to make inputs and technology available for farmers, explaining the example of increasing the availability of technology such as tractors available to farmers by employing a model similar to the model of taxi hailing service Uber to ensure the availability of tractors to farmers.



André Laperrière, Executive Director of GODAN

GODAN is a partnership of more than 500 partners worldwide, united by a belief in working together for the wellbeing of all. In the quest for innovation and progress, there is need to collectively figure out solutions to climate change, an exploding demographic, resource and water scarcity. **“We need to feed a populations of 3 billion more people in the next generation”**. Data provides opportunities amidst these challenges.

Three technological revolutions have taken place

1. The Internet – made it possible to connect the whole world
2. Smart phones – brought the internet closer to the user
3. Open Data – emanating from and enabling the use of 1 and 2.

Although 5 quintillion worth of data is generated every day, there is a shortage of ways to interpret and utilize this data to address challenges in agriculture.



Sanyal Desai, CEO Radeecal Communications The Agritec Exhibition

Radeecal Communications from Gujarat, India have been partnering with the Kenyan Ministry of Agriculture, Livestock and Fisheries in Kenya since 2014 to help deliver the Agritec Africa exhibition which helps showcase advanced agricultural technology to a range of stakeholders in the agricultural sector.

The Agritec Africa exhibition has experienced a fantastic growth every year, attracting 950 exhibitors from 21 countries this year and bringing together the best technology and knowledge in the agricultural sector. In addition, for the first time, the expo is showcasing a segment on livestock and poultry.

Although the exhibition has received a positive response from stakeholders and the Kenya government, there is still room for improvement in the quest to build the best agricultural expo in the world addressing the needs of both small and large-scale farmers.

“Can we together generate the high level political support that is required for the accessibility and availability of in the Global South?” André Laperrière



Annie Nyaga, Executive Director 4H-Kenya Foundation.

The 4-H Kenya Executive director commended the Cabinet Secretary and GODAN secretariat for the inclusion of the youth in the conceptualisation, organisation and in speaking in all the panels at the GODAN conference.

4-H Kenya is exposing young children between the ages of 6 and 16 to the workings of agricultural economies, so that they are better prepared to engage in high value commodity value chains. The 4-H programme gives young people a healthy overview of the agricultural sector and and the opportunities it presents for career options and entrepreneurship.

Young people are considered too risky for credit and that contributes to additional challenges in accessing important factors of production such as capital and land. Their energy and tendency for innovation which is critical for agricultural transformation has therefore not been fully taken advantage of.

4-H Kenya, on behalf of the youth, has three main asks from this conference:

1. **That governments of the South support the creation and propagation of agricultural clubs** to expose children and youth to the transformative potential of agriculture.
2. **That both the public and private sectors creates opportunities for uptake of innovations by the youth.** This would involve exploring innovative financing for technology and innovation in and creating an enabling policy environment for the uptake of these innovations.
3. **Increase investments in Science, Technology, Engineering, Mathematics and Design education,** especially for young women and girls to catalyse the inclusive growth of the agricultural sector.



Session I: Harnessing the Potential of Youth for Economic Growth and Prosperity



Panelists:
Emmanuel Etim
Neema Ward
Mary Kavar

Moderator: Grace
Musyoka

A keynote presentation by Emmanuel Etim, the Executive Secretary, Pan African Center for Social Development and Accountability (PACSDA), gave a discourse around the 2015 UN Commission for Africa and recommendations based on the current situation and the state of affairs in Africa when it comes to Open Data to be responsive to the market as a public good and a product.

A profile on the Global 4-H movement, by Neema Ward, the Programs Director of 4-H Kenya outline a working model that can be used to drive the agriculture revolution by designing programmatic approach to open data can be used to harness more young people to into modern agribusiness.

Dr Mary Kavar the Director for ILO Country Office for Tanzania, Burundi, Kenya, Uganda and Rwanda outlined the underlying issues that Governments need to address as they transition into open data. The role of Governments is to promote and improve working conditions in agriculture sector to make it attractive to young people. Also, governments, by working (in partnership with development partners) to focus on having a common vision, they can, therefore develop consistent and systematic policies to measure impact and drive change in the sector.

Open Discussions.

What is the ability of the Government to provide data without bias and the role of the private sector to bridge this gap?

It was noted that Africa is lagging behind on use and provision of open data due to politics of governance, national security issues that hinder open data. Non state actors, however, are doing much better at collecting data in terms of quality relevance and usability particularly in private sector. Therefore, the Government might need to just regulate industry better and allow private sector to thrive on this aspect.

Are we at that place where we can also transition from not just to open data but also so that we have more sharing of information and not just data?

- 4H was able to demonstrated how partnering with different organizations to create data, information and then sharing it has worked in Kenya and other countries.
- PACSDA made a showcase on how access to information is being used to provide relevant intelligence advisory and tools for young people on doing business in Africa.
- There is need to have data harmonization and integration of Data across the continent and even at country level by coordinating efforts through a harmonized regime of data collection, access to information, and ensure private sector

implementation and provision. The SDGs provide the bigger picture and also have measurable indicators that each country needs to report on by 2030. But there is still the question on how can we ensure people use the data properly and therefore there is the need to ensure capacity building to ensure it is used effectively.

**Data interpretation and use is always a problem- need to engrain democracy
Are the young people ready to uptake data and use it? How far are we in terms of skills? What should be done in terms in training?**

1. Young people are able to use data- problem is coordination between those who collect data and those who use it. One big challenge is that once data is generated it ends up in publications.
2. There is a disconnect from the data we have in research and the people who use it for development and therefore there is need to coordinate the data we have, and those who use it.
3. There are a lot of platforms to disseminate data where actors have also given it a local perspective.
4. There is, therefore, need to develop more applications to ensure other people in the value chain can access the information.



What are some recommendation you'd like to present to the conference?

1. We need to move beyond publication to sharing of information and recommend the government and development partners to factor in a component of funding to make research adaptable at a programme level.
2. There is need to create right incentive to ensure young people take charge in business ideas and try to get hold of data.
3. We recommend for the players to improve access to data and information by making data is both a public good and a product.

Young people need data across the agriculture value chain.

We reiterate to have discourse on the following recommendations from the Addis 2015 recommendations:

4. Data is focused too much on helping security and not business.
5. It is a right to have access to data.
6. We need sustained investment in all areas to use data in order to fill the existing gaps.
7. Data needs to be accessible in all countries.
8. Build capacity of the youth to develop, access data.
9. Make Governments champions of open data.

Session 3: Opportunities for Data Driven Agricultural Growth for Prosperity.



In this Panel:

Mr. Dibyakanta Nayak, Reliance Foundation – India.

Mr. Willy Bett, Cabinet Secretary, Ministry of Agriculture, Livestock and Fisheries - Kenya

Hon. George Boahen Oduro, Deputy Minister of Food and Agriculture - Ghana

Hon. Vincent Bamulangaki Ssempijja, Minister of Agriculture, Animal Industry and Fisheries – Uganda

Sangita Dubey, Senior Statistician - FAO

Practical challenges facing the sector, such climate change and infrastructure cannot be adequately addressed if decisions are not based on accurate data.

- In Kenya, for example, the recent losses experienced by farmers could have been avoided if data had been available to farmers presenting them with projections to enable them to plant other crops or to plant the same crops at different times.
- In Uganda where there is heavy reliance on census data and sample surveys, available data is inconclusive and unable to inform farmers or ensure their profitability.

Mapping of farmers

In order to support small-scale farmers, the governments of Ghana (with support from AGRA), Kenya and Uganda are rolling out farmer registration schemes while collecting information about their crops, soil types, acreage, forest cover e.t.c. in order to be able to plan adequately. In Kenya, satellite data has been used over the last three years in implementing the livestock farmers' insurance program. The data from mapping helps the government to justifiably defend its subsidies to vulnerable farmers.

Asymmetric information.

Any kind of open data initiative has to have the ultimate decision maker (farmer) in mind to make sure that they are empowered to make the best decisions. Farmers in Colombia, for example, are able to calculate their expected income from data on the average price of their produce in the market.

This is made possible by understanding what decisions a farmer has to make and providing quality information that they need in a timely manner. In Kenya, technological innovations have empowered farmers with market information, shielding them from

exploitation from middlemen.

Content aggregation: Open data alone cannot solve all the problems

In India, working with partners to create, process and disseminate information in a form useable to rural farmers; simplifying data and then sending information to the right people using the right media (even through voice messages followed by surveys farmers to determine what kind of data they deem useful has ensured that farmers benefit from open data.

Regional and Global Cooperation

Open data is a powerful information tool to the Global community and has the potential to create a level playing field. There is great need to share data amongst African governments and globally. Shared information could predict problems in advance, allowing stakeholders to make appropriate decisions to secure profitability. There's need for a shared platform nationally, regionally and globally in order to harmonize the standard of living globally – ensuring that no one is left behind.



Session 4: Strengthening Resilience and Food Security for Agricultural Communities: Food Security for an additional 3 billion by 2030

In this Panel:

Dr. David Bergvinson, Director General, ICRISAT

Dr. Mamadou Biteye OBE, Managing Director, Africa Regional Office, Rockefeller Foundation

Roselynn Kihumba, Head of Partner Relations, HelpAge International

Professor Japheth Micheni Ntiba, Principal Secretary, Fisheries & Blue Economy, Ministry of Agriculture, Livestock and Fisheries – Kenya

Dr. Elizabeth Kimani, Research Scientist, Africa Population and Health Centre

Risk management and building resilience for the most vulnerable communities: in arid and semi-arid lands (ASAL), older persons and urban poor.

In pursuit of inclusive growth, all people have the right to nutritious food and better livelihoods. Modernizing food systems regardless of climate change is the key to building the resilience of farmers and communities in ASAL areas (mostly affected by climate change) and ensuring the food and nutrition security of older women, 49% of whom directly depend on agriculture. 85% of Kenya's urban poor are net food insecure. Investment in infrastructure would address the bottlenecks of access and affordability.

RF defines resilience as “building the capacity of individuals, communities and systems to adapt to stress and shocks and to transform when circumstances require it”. The Africa Risk Capacity and ARFOR are examples of data sharing initiative platforms in Africa supported by RF.

In Risk management, insurance companies require capacity-building to ensure that they understand livestock farmers and act at the right time in compensating their losses. More needs to be done to expand the social protection of older persons. While there is continued emphasis on the youth, the older demographic (50 and above) should not be left behind as they have skills and knowledge that can be used to build resilience and improve food production. There is also need to further develop age specific data in the agricultural sector to ensure that they are adequately planned for.

Open data protocol

ICRASAT has developed a framework together with the Government of India centered on open data, cloud computing of open data and IT to integrate different layers of data for different categories of users to ensure sustainable agricultural growth in India.

Open data protocols need to be structured around value chains, looking at consumers as drivers of value chains. 10 principles applied in data use for sustainable development are divided into three broad areas:

- Inclusion
- Design (robust, secure and sustainable)
- Governance (do not betray trust of those providing data)

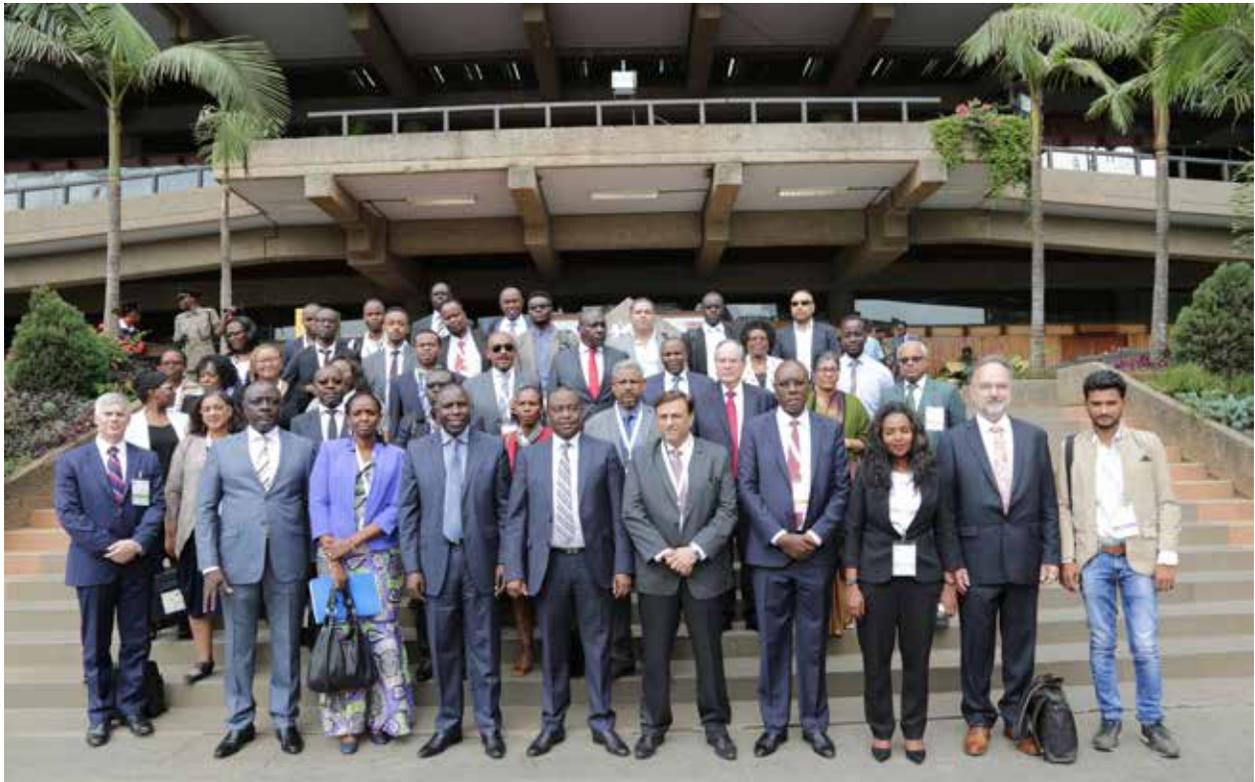
A lot of investment is required in building the capacities government institutions to have protocols for gathering data, analyzing and simplifying it so everyone can understand it, and being share it in the correct format(s).

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 5. Sylvia Gatu Special Advisor- Minister of Agriculture of Rwanda-
 6. Dr Mary Kwar- ILO Country Office for Tanzania, Burundi, Kenya, Uganda, Rwanda
 7. Mr Willy Bett- Cabinet Secretary, Ministry of Agriculture Livestock and Fisheries, Republic of Kenya
 8. Hon. George Boahen Oduro, Deputy Minister of Food and Agriculture, Government of Ghana.
 9. Vincent Ssempijja- Minister of Agriculture Animal Industry & Fisheries, Government of Uganda
 10. Dr Mamadou Biteye OBE- Managing Director, Africa Regional Office, Rockefeller Foundation.
 11. Professor Japeth Micheni Ntiba- Principal Secretary, Fisheries & Blue Economy, Ministry of Agriculture, Livestock and Fisheries, Government of Kenya
 12. Dr Andrew K. Tuimur- Principal Secretary, Livestock- Ministry of Agriculture, Livestock and Fisheries, Republic of Kenya
 13. Phyllis Wakiaga- CEO Kenya Association of Manufacturers
 14. Hon. Marie Jalloh, Deputy Minister for Agriculture, Government of Sierra Leone
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